

Allergic Reactions to Base-Metal Dental Alloys: A Cross-Sectional Study Among Dental Interns

Aloui A^{1,2}, Gannoun N^{1,2}, Kacem I^{1,2}, Ghenim A^{1,2}, Gnaba I³, Chatti S^{1,2}

1. Service de Médecine du travail du CHU Farhat Hached de Sousse -Tunisie
2. Faculté de Médecine de Sousse 4002 Sousse -Tunisie
3. Service de Médecine dentaire du CHU Farhat Hached de Sousse -Tunisie

Introduction: Base-metal dental alloys are established causes of both sensitization and allergic contact dermatitis. Given their routine manipulation during preclinical and clinical training dental students represent a population with recurrent and early occupational exposure to these allergenic materials.

Objectives: To determine the prevalence of allergic contact dermatitis among dental students and to assess its association with exposure to base-metal alloys.

Methods: This analytical cross-sectional epidemiological study was conducted among dental students at the Faculty of Dental Medicine of Monastir between February 2023 and June 2023. Data were collected using a self-administered questionnaire.

Results: A total of 96 interns participated. The mean age was 25.9 years with a female predominance (68.8%). The median number of weekly practical training hours was 26. The most commonly manipulated base-metal alloy was chromium (66.7%) followed by nickel (65.6%) and cobalt (52.1%). Allergic contact dermatitis was diagnosed in 15.5% of the interns with the hands being the most affected site (12.5%). Only exposure to nickel was significantly associated with allergic contact dermatitis ($p = 0.049$).

Conclusion: Base-metal dental alloys remain an important source of sensitization. Strengthening preventive measures is necessary to minimize allergic risks among dental trainees

Audit of Hand Hygiene Practices at Taher Sfar University Hospital, Mahdia, April 2025

Meherzi M, Mlouki I, Ajmi blout A, Gongi Y, Rakez K, EL Mhamdi S

Department Of Preventive And Community Medicine,university Hospital Tahar Sfar Mahdia, Tunisia

Introduction: Hand hygiene (HH) is a fundamental element of infection prevention and control. Nevertheless compliance remains subpar in many low- and middle-income settings contributing to a rise in healthcare-associated infections. Regular audits are important for identifying gaps and strengthening HH programs.

Aim: This study Aimed to evaluate hand hygiene practices at Taher Sfar University Hospital Mahdia in 2025.

Methods: A descriptive cross-sectional audit was carried out at Taher Sfar University Hospital Mahdia in April 2025 where healthcare personnel were observed during routine patient care across morning afternoon and night shifts to assess hand hygiene compliance and appropriateness.

The audit methodology was based on the French national protocol for hand hygiene assessment which served as the

reference framework for data collection and evaluation.

Results: HH compliance among 151 healthcare workers was 47.5% higher after patient contact (60.5%) than before (36.9%). The highest compliance rate was found in medical services (40.5%). Nurses and technicians were more compliant than physicians (40.2% vs 18.4% $p=0.016$). Adherence to HH prerequisites was 71.5% while partial non-compliance mainly involved wearing jewelry or watches (26.3%) and non-compliant nails (12%). Overall the appropriateness of hand hygiene actions was 34.1% with the highest adherence seen in intensive care services. Technique adherence was high across all

Methods: handwashing (86.1%) alcohol-based hand rub (90.6%) and surgical handwashing (80%).

Conclusions: HH compliance remains inadequate particularly before patient contact and among physicians. Enhanced training better monitoring and targeted corrective measures are necessary to improve HH practices and reduce infection risks in the hospital.

Integration of simulation in ENT: perspectives and recommendations

Ammar MA, Ben Hamadou H, Mezri S, Ben Akacha A, Mnasria S, Akkari K

ENT Department Of Military Hospital Of Tunis

Introduction: Simulation in healthcare is gradually being integrated into medical training to improve students' skills. In ENT otoscopy is a technical procedure that requires specific training.

Aim : Explores the prospects for integrating simulation into ENT teaching.

Methods: An analysis of teaching practices in ENT was carried out supplemented by a review of the literature on the impact of simulation in otoscopy.

Results: Simulation improves students' confidence (80% of respondents) and reduces stress during their first contact with a patient. Recent studies show that simulation-based learning increases diagnostic accuracy in otoscopy. However simulation alone cannot completely replace clinical experience.

Conclusion: The integration of simulation in ENT must be optimised through the use of high-fidelity simulators and complementarity with clinical placements. A structured educational framework is necessary to maximise its effectiveness.

Sexuality, Body Image, and Couple Dynamics After Mastectomy for Breast Cancer: A Mixed-Methods Study Among 50 Tunisian Couples

Hammami M A, Grami N, Debbiche A, Nait M K, Azzaz S, Atef Y

Université Tunis Manar, Faculté de Médecine de Tunis, Centre de Maternité et de Néonatalogie, Service A, Tunis, Tunisie.

Introduction: Mastectomy a radical treatment for breast cancer profoundly impacts feminine identity and intimate life.

Few studies in Tunisia have explored its consequences from the couple's perspective.

Aims: This research evaluates the effects of mastectomy on sexuality body image and relationship dynamics.

Methods: A mixed-Methods cross-sectional study included 50 mastectomized women and their partners.

Women completed validated questionnaires (FSFI for sexual function BIS for body image). Separate in-depth interviews were then conducted with 15 couples to explore their relational experiences.

Results: Quantitatively 68% of women presented sexual dysfunction (FSFI < 26.55) and 74% reported severe body image disturbance. Qualitative interviews identified three couple profiles: a) "Supportive couples" for whom the illness strengthened emotional bonds (30%) b) "Avoidant couples" in which sexuality became a taboo topic (50%) c) "Crisis couples" where the partner reported difficulty coping with physical changes (20%) Breast reconstruction—rarely offered—was perceived as a potential pathway toward "normalization."

Conclusion: Mastectomy profoundly affects the sexuality and self-esteem of Tunisian women with varying impacts on couple dynamics. A comprehensive rehabilitative approach including sexological support and systematic discussion of breast reconstruction is essential to support patients and their partners.

Infection prevention and control assessment in a tertiary hospital. Tunis, 2025

Doghri S¹, Letaief H², Zribi M³

1. National Institute of Health, Tunisia
2. National Observatory of New and Emerging Diseases
3. Microbiology Department, University Hospital Center La Rabta and Faculty of Medicine, University Tunis El Manar, Tunis, Tunisia

Background: Healthcare-associated infections (HAIs) remain a major global health challenge linked to excess morbidity mortality and healthcare costs. Effective infection prevention and control (IPC) can prevent up to 70% of HAIs yet implementation remains uneven in many low-resource settings including Tunisia.

Aim: Assess the status of IPC at La Rabta University Hospital using the World Health Organization (WHO) Infection Prevention and Control Assessment Framework (IPCAF).

Methods: A descriptive cross-sectional survey was conducted in August 2025 at La Rabta University Hospital. The standardized WHO IPCAF questionnaire covering eight IPC core components (CCs) was completed by the hospital's IPC focal person. Scores were calculated and categorized as Inadequate Basic Intermediate or Advanced.

Results: The overall IPCAF score was 590/800 corresponding to an Intermediate IPC level. Scores varied across components: IPC Guidelines (CC2) and HAI Surveillance (CC4) scored highest (90 each) while Workload Staffing and Bed Occupancy (CC7) scored lowest (35). IPC Program (CC1 87.5) and IPC Education and Training (CC3 80) were at the Advanced level whereas Multimodal Strategies (CC5 70) Monitoring/Audit and Feedback (CC6 72.5) and Built Environment Materials and Equipment (CC8 65) were Intermediate.

Conclusion: La Rabta Hospital shows a solid foundation in IPC governance guidelines and training but faces important gaps in staffing infrastructure and implementation of multimodal strategies. Immediate priorities include workforce planning expansion of surveillance to device- and surgery-related infections strengthening audit and feedback and upgrading infrastructure and waste management. Dedicated resources and regular reassessment will be essential to achieve advanced

IPC capacity and enhance patient safety.

ChatGPT in Action: A New Era for Diabetic Retinopathy

Dlensi A, Ben Aoun S, Harrath M, Sioud S, Mahmoudi M, Zbiba W

Ophthalmology Department, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia

Introduction: Patients with diabetic retinopathy have relied on healthcare providers for information about their condition. With the emergence of artificial intelligence (AI) new tools now enable accessible patient-friendly education. This study evaluates the effectiveness of an Arabic simplified digital education module generated by ChatGPT in improving awareness and understanding of diabetic retinopathy.

Methods: Thirty diabetic patients at risk for retinopathy were enrolled from a medical center. Each participant attended an educational session based on Arabic content produced and simplified by ChatGPT. The session Aimed to assess the clarity relevance and comprehensibility of the provided material. Following the session participants rated these aspects on a 1-10 scale and provided qualitative feedback on their experience. Additional evaluation criteria included accessibility overall satisfaction and perceived usefulness of the method. The goal was to determine whether ChatGPT could deliver accurate understandable and patient-oriented education while remaining simple and inclusive.

Results: All participants rated the clarity and relevance of the information 10/10 indicating full satisfaction and good comprehension. None expressed confusion and all reported greater confidence in managing their eye health after the session. However a three participants (10%) with prior knowledge of diabetic retinopathy felt the information was too basic suggesting the need for more advanced explanations for experienced patients.

Conclusion: ChatGPT proved to be an effective and accessible educational tool for diabetic retinopathy awareness. While it promotes understanding and engagement complementing it with tailored human guidance remains essential to address individual educational needs.

Two Minds, One Vision: ChatGPT and Gemini in Ophthalmology

Dlensi A, Ben Aoun S, Jmal I, Sioud S, Soudani S, Zbiba W

Ophthalmology Department, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia

Introduction : Artificial intelligence (AI) is reshaping modern medicine particularly ophthalmology where it supports clinicians in complex tasks such as clinical interpretation device management and diagnostic reasoning. This study compares two leading AI language models OpenAI's ChatGPT and Google's Gemini based on their performance in three key domains: comprehension of clinical examination principles recognition of ophthalmic instruments and technologies and interpretation of complex clinical cases. Both models were evaluated under identical conditions using the same set of questions and scenarios to ensure an unbiased comparison.

Methods: The evaluation assessed each model's ability to explain clinical examination steps highlight subtle diagnostic clues and address common misconceptions. Next both AIs were tested on their capacity to identify and describe ophthalmic devices and technologies used in routine practice. Finally each model was challenged with two advanced clinical cases to measure diagnostic accuracy and the relevance of proposed

management plans.

Results: Overall both ChatGPT and Gemini demonstrated comparable performance in clinical understanding and problem-solving. However notable differences emerged in source reliability. Gemini consistently referenced authoritative organizations such as the American Academy of Ophthalmology ESCRS EGS and Kanski while ChatGPT provided general references some of which lacked relevance or credibility.

Conclusion : ChatGPT and Gemini showed similar interpretive and diagnostic capabilities in ophthalmology. Nevertheless Gemini's stronger citation quality suggests higher reliability for medical reference purposes. These findings indicate that both models can serve complementary roles and further research is warranted to assess their use in real clinical settings.

When Algorithms Meet the Eye: The Artificial Intelligence Revolution

Aryj Dleni A, Safa Ben Aoun, Hajer Loukil, Sabri Sioud, Khalil Miraoui, Walid Zbiba

Ophthalmology Department, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia

Introduction: Artificial intelligence (AI) has increasingly entered professional settings with applications gaining traction among healthcare providers. This study investigates how young Tunisian ophthalmologists utilize ChatGPT focusing on its role in scientific writing understanding medical terminology and supporting research activities. Despite AI's growing presence concerns remain regarding its accuracy particularly in specialized medical domains. The objective was to explore usage frequency key applications and perceptions of ChatGPT's usefulness and reliability among this population.

Methods: A survey of 32 young Tunisian ophthalmologists was conducted using 16 multiple-choice questions. Participants reported the frequency and type of ChatGPT use along with their views on its accuracy and utility in scientific and clinical tasks. Responses were analyzed to identify trends with Results expressed as proportions of participants selecting each option. Areas of interest included AI reliability contribution to scientific writing and its potential to substitute specialized resources.

Results: Two-thirds of respondents (67.5 %) used ChatGPT at least a few times per month with one-third using it daily. Primary applications were scientific writing (76%) email drafting (56%) and presentations (35.2%). Translation tasks were also common (62.3%). Only 18.2% considered ChatGPT reliable for medical purposes and most participants (84.6%) did not view it as a replacement for databases like PubMed. While 57% found it useful for improving writing clarity most did not trust it for verifying references or statistics (80.7%). Participants valued its time-saving potential (93.2%).

Conclusion: ChatGPT serves as a practical tool for young ophthalmologists mainly aiding writing translation and time management.

Leading Causes of Cancer Deaths among Women in Tunisia, 2021. Data from the Cause of Death Information System

Doghri S¹, Zribi M^{1,2,3}, Maalej I¹, Gharbi R¹, Aounallah-Skhiri H^{1,2,3}

1. National Institute of Health, Tunisia

2. Faculty of Medicine of Tunis, University of Tunis El Manar, Tunisia

3. Nutrition Surveillance and Epidemiology in Tunisia Research Laboratory (SURVEN), Tunis, Tunisia

Background: Cancer remains a major public health concern and a leading cause of death among women worldwide. Understanding site-specific cancer mortality patterns is essential for guiding prevention early detection and treatment strategies tailored to national health priorities.

Aim: To describe the leading causes of cancer deaths among women in Tunisia in 2021.

Methods: Data were obtained from the Cause of Death Information System (CDIS) encompassing all medical death certificates (MDCs) recorded by the National Institute of Health (NIH) for female deaths occurring in 2021. Causes of death were coded according to the International Classification of Diseases 10th Revision (ICD-10). The IRIS software was used to determine the underlying cause of death.

Results: In 2021 the CDIS recorded 29 998 female deaths nationwide. Breast cancer was the leading cause of cancer-related death accounting for 2.6% of all female deaths followed by colorectal cancer (1.3%) and cancers of the trachea bronchus and lung (1.1%). Hepatic pancreatic and gastric cancers contributed to 0.8% 0.7% and 0.7% of female deaths respectively. Endometrial cancer accounted for 0.6% while lymphomas and multiple myeloma together represented an additional 0.6% of female deaths.

Conclusion: Breast and colorectal cancers remain the predominant causes of cancer mortality among Tunisian women highlighting the need to strengthen national screening programs and promote early diagnosis. Enhanced CDIS coverage and improved death certification are crucial for more accurate monitoring of trends.

Epidemiological and clinical aspects of uveal metastases

Marzouk G, Kmiha R, Bel Hadj Khelifa M, Rouatbi A, Bouguila H, Chebbi A

Institut Hédi Raies d'ophtalmologie , Service C

Introduction: Uveal metastases are rare and difficult to diagnose. Their management requires a multidisciplinary approach and their prognosis is usually guarded.

Aim: To evaluate epidemiological and clinical aspects of uveal metastases

Methods: We conducted a retrospective study involving 34 patients (46 eyes) with uveal metastases at a referral centre for ocular oncology Department C in the Hedi Raies Institute of Ophthalmology in Tunis from January 2009 to January 2020. We assessed the clinical data at the time of diagnosis.

Results: The mean age of our patients was 52 years with a sex ratio of 0.77. Sixty-three percent of patients were known to have a malignant tumor. The time to onset of the uveal metastasis ranged from 6 months to 6 years with an average of 23 months. Forty-one percent of patients already had one or more other metastatic sites diagnosed. The uveal involvement included choroid in 81% of cases iris in 13% and ciliary body in 6%. The most common primary sites were the breast (38%) and lung (28%). The choroidal metastases were typically yellow in color (96%) and located in the posterior pole (53%). Iris and ciliary body metastases presented as a yellow solitary mass. The average survival time was 8 months for patients with metastases of the posterior uvea and 5 months for those with metastases of the anterior uvea.

Conclusion: Uveal metastases are rare and have a guarded prognosis. Understanding their epidemiological and clinical aspects ensures adequate management.

Epidemiological and clinical aspects of malignant uveal melanoma

Kmiha R, Marzouk G, Bel Hadj Khelifa M, Bouguila H, Chebbi A

Service C de l'Institut Hedi Raies d'Ophthalmologie de Tunis

Introduction: Malignant uveal melanoma is a rare cancer although it's the most common primary intraocular tumor in adults. It is a serious condition that threatens the patient's functional and life prognosis. We lack information about its epidemiological aspects in Tunisia.

Aim: To evaluate the epidemiological and clinical aspects of malignant uveal melanoma in a Tunisian population

Methods: We conducted a retrospective study involving 84 cases of uveal melanoma followed in a referral centre for ocular oncology department C of the Hedi Raies Institute of Ophthalmology in Tunis between January 1997 and December 2020.

Results: Median age of diagnosis in our patients was 58.5 years and the sex ratio was 1.3. Tumor location was ciliary in 3.8% peripheral choroidal in 35% macular in 21.2% equatorial in 17.5% peripapillary in 10% and anterior in 6.3%. The median largest diameter was 16.95 mm and the median thickness was 9.38 mm. The anatomo-clinical features were variable predominantly showing a dome-shaped appearance in 47.5% of cases and a mushroom-shaped ("collar-button") appearance in 28.3% of cases. One patient had metastases at the time of melanoma diagnosis and 37.5% of patients subsequently developed metastases mainly hepatic.

Conclusion: Malignant melanoma of the uvea is a serious condition that threatens both the visual and life prognosis of the patient. Overall survival depends on the occurrence of metastases. Understanding the epidemiological aspects of this disease in our population ensures a better management.

Epidemiological aspects of primary malignant tumors of the eyelids

Bel Hadj Khelifa M, Kmiha R, Marzouk G, Rouatbi A, Bouguila H, Chebbi A

Service C de l'Institut Hedi Raies d'Ophthalmologie de Tunis

Introduction: Primary malignant tumors of the eyelids constitute a significant proportion of eyelid tumors. Their management requires a multidisciplinary approach that has benefited from advancements in diagnostic and therapeutic techniques.

Aim: To evaluate the epidemiological aspects of primary malignant tumors of the eyelids in a Tunisian population.

Methods: We conducted a retrospective study of 286 cases of primary eyelid malignant tumors managed at a referral centre for ocular oncology Department C of the Hedi Raies Institute of Ophthalmology in Tunis between January 2010 and December 2024.

Results: The mean age of our patients was 66 ± 13.4 years with a sex ratio of 1.1. The average tumor size was 12.4 mm. The tumors were located on the lower eyelid in 54.6% of cases. Locoregional extension was observed in 13.7% of patients. Histopathological examination revealed basal cell carcinoma in 75.7% squamous cell carcinoma in 15.8% sebaceous gland carcinoma in 6% malignant melanoma in 1.4% and Merkel cell carcinoma in 1.1% of cases.

Conclusion: Management of primary malignant tumors of the eyelids requires a multidisciplinary approach. Understanding its epidemiological and clinical aspects ensures a better management and prognosis.

Ophthalmology Abstracts: ChatGPT vs. Human Review

Sioud S, Ben Aoun S, Mahmoudi M, Dleni A, Anouar Safi M, Zbiba W

Hôpital Mohamed Taher Maamouri, Nabeul, Service d'ophtalmologie

Introduction: Artificial intelligence (AI) particularly ChatGPT is increasingly being used for editing and proofreading scientific texts.

Aim: This study Aimed to compare the speed and accuracy of ChatGPT with those of a human expert in correcting scientific abstracts in ophthalmology.

Methods: Eight unedited scientific poster abstracts written by ophthalmology residents were randomly selected. Each abstract was corrected independently by ChatGPT and by a senior ophthalmologist. Corrections were evaluated based on several criteria: processing time quality of rephrasing ability to identify grammatical spelling and conjugation errors as well as the level of interactivity during the correction process.

Results: ChatGPT demonstrated a markedly faster editing time averaging five minutes per abstract compared with approximately one hour for the human expert. It also provided smoother and more polished rewordings. However the AI missed several grammatical spelling and conjugation errors that were correctly identified by the human reviewer and occasionally modified sentences that were already correct. Furthermore the absence of interactive feedback and contextual reasoning limited ChatGPT's ability to adapt its corrections to the specific scientific and editorial nuances of each text.

Conclusion: Although ChatGPT is an efficient tool for improving the fluency and readability of scientific abstracts its limited contextual understanding and occasional oversight of linguistic errors reduce its overall reliability compared to human proofreading. A combined approach integrating AI assistance with expert human review appears to be the most effective strategy for ensuring accurate contextually appropriate and scientifically sound writing.

Assessment of rabies post-exposure management at the local hospital of nadhour-zaghouan between january 1 and october 31, 2024.

Mrad S¹, Khemaissia F², Letaief H³, Ouerfelli N¹, Omri L¹, Ben Alaya N³

1. Direction Régionale de la Santé, Ministère de la Santé, Zaghouan, Tunisie
2. Direction Régionale de la Santé, Ministère de la Santé, Jendouba, Tunisie
3. L'Observatoire National des Maladies Nouvelles et Emergentes , Tunis, Tunisie

Introduction: In Tunisia Rabies is endemic and a national anti-rabies program started in 1982 in order to control the disease. However there is a resurgence of Human cases since 2011.

Aim: The main objective of this study was to assess the post-exposure Rabies management at the local hospital of Nadhour-Zaghouan compared to the recommendations of the PNLAR.

Methods: This is a descriptive study of professional practices based on data from the anti-rabies registry of the emergency department. It includes all victims of animal aggression and seeking the emergency department from January 1 to October 31-2024. Prophylactic schemes were compared to those recommended by the PNLAR.

Results: A total of 325 victims of animal aggression were recorded. Most of the victims were from rural areas n=76 (85%) and Dogs were the main aggressor animals n= 224 (69.67%). Regarding prophylaxis 37.85% of patients received serum therapy and the most prescribed scheme was A2 (45.53%).

The evaluation of the compliance of prescriptions with PNLAR recommendations showed that prescribed schemes were non-compliant with under-prescription for A1 and B1 schemes (91.9% and 72.7%) and over-prescription for A2 and B2 schemes (172.9% and 146.8%). Missing data regarding the animal's status or the location of the injuries limited the classification of 39 schemes.

Conclusions: Animal rabies continues to be a public health problem. It is crucial to optimize care management training on national recommendations strengthen geographical accessibility to treatment continue vaccination campaigns and improve data quality for more effective management.

Smoking cessation success After a Smoking Cessation Program: a Tunisian experience

Jrad K¹, Ayedi Y^{1,2}, Bziouech O¹, Skhiri A^{3,4}, Fakhfekh R^{1,2}, Harizi C^{1,2}

1. Service d'épidémiologie et de statistiques, Hôpital Abderrahmane Mami, Ariana, Tunisie
2. Université de Tunis El Manar, Faculté de Médecine de Tunis, Tunisie
3. Service de médecine préventive, CHU Farhat Hached, LR 19 SP 03, Sousse, Tunisie
4. Université de Sousse, Faculté de Médecine de Sousse, Sousse, Tunisie

Introduction: Quitting smoking is a tough journey and unfortunately relapses are very common especially in the first few months. The Aim of our study was to evaluate how long patients could successfully stay smoke-free following our smoking cessation program.

Methods: We conducted a retrospective study including all patients who attended our smoking cessation clinic at Abderrahmane Mami University Hospital between January and October 2024. Patients were contacted by phone a year after their last visit to the clinic. For this specific analysis we focused on those who had attended at least three clinic appointments. The "quit survival" data were analyzed using the Kaplan–Meier method in SPSS.

Results: We reached 50 of the 86 patients who attended at least three clinic appointments. The remaining patients did not respond to three call attempts made at different times for a 58.1 % response rate. The mean age of this population was 48.6 ± 13.9 years (range: 18–74) and the sex ratio (M/F) was 1.78. On average patients remained smoke-free for 483.4±55 5 days. (95% CI: 374.7–592.1) The median "quit time" was 240 days and the quit rate was 56% at the 6-month mark (180 days) and 46% at the 12-month mark (365 days).

Conclusion : This study demonstrates that highly compliant patients achieve substantial periods of abstinence. However the sharp decline in success between 6 and 12 months underscore that the first year is a critical period of vulnerability for relapse.

Transcultural validation of the Tunisian Version of Children Revised Impact of Event Scale (CRIES-13) in a Clinical Sample of Children and Adolescents

Baccar M, Bourgou S, Charfi F

Department of Child and Adolescent Psychiatry, Mongi Slim Hospital, La Marsa, Tunisia

Introduction: Post-traumatic stress disorder (PTSD) is a common consequence of traumatic events in children and adolescents, requiring reliable screening tools adapted to each cultural context.

Aim: Validate the Children's Revised Impact of Event Scale-13 (CRIES-13) into Tunisian Arabic dialect among a population of

children and adolescents.

Methods: A cross-sectional study was conducted in the child psychiatry department of Mongi Slim Hospital (February 2024–February 2025) among 300 children and adolescents aged 8–18 years. Validity was examined through content, construct, and reliability analyses, using the Tunisian version of the CAPS-CA-5 as an external validator.

Results: The CRIES-13 was first translated and back-translated into Tunisian Arabic. The translated version was well accepted and showed excellent internal consistency (Cronbach's $\alpha = 0.841$). Subscales demonstrated satisfactory reliability: intrusion ($\alpha = 0.739$), hyperarousal ($\alpha = 0.726$), and avoidance ($\alpha = 0.680$). All items were significantly correlated with the total score ($p < 10^{-3}$). A strong correlation was found between the CRIES-13 and CAPS-CA-5 ($r = 0.897$; $p < 10^{-3}$), supporting convergent validity. Confirmatory factor analysis indicated an acceptable model fit (GFI = 0.918; AGFI = 0.880; CFI = 0.897; TLI = 0.871; RMSEA = 0.077; SRMR = 0.092)

Conclusion: The psychometric properties of the Tunisian version of the CRIES-13 questionnaire are satisfactory. The CRIES questionnaire can be used to screen for post-traumatic stress symptoms among Tunisian children and adolescents.

When Meckel's Diverticulum Hides Behind Its Complications: The Role of Imaging in Children

Ben Ammar S, Hidouri S, Elmansouri Y, Sahli S

Department of Pediatric Surgery, Zaghouan Hospital

Introduction: Meckel's diverticulum (MD) is an omphalo-mesenteric duct malformation that is most often revealed by its complications.

Aim: We Aimed to evaluate the diagnostic value of imaging in identifying complicated MD in children.

Methods: This was a descriptive retrospective study conducted from January 1989 to December 2019 in the pediatric surgery department A of the Children's Hospital of Tunis. Children operated for complicated Meckel's diverticulum were included. Clinical presentation, imaging findings, and surgical data were reviewed.

Results: Among 83 pediatric patients (68 boys and 15 girls; median age: 2 years and 7 months), intestinal obstruction was the most frequent manifestation. Abdominal ultrasound was performed in 52 patients and helped determine the type of complication, although Meckel's diverticulum was suspected in only 3% of cases. Barium enema was carried out in 18% of cases with secondary intussusception, without identifying the underlying etiology. A CT scan, performed in two patients with an abdominal mass, correctly established the diagnosis in both. Technetium-99m scintigraphy was conducted in 15 patients (18%) and showed abnormal tracer uptake in 11 cases, while 4 (27%) were normal, including one patient with gastric heterotopia.

Conclusion: These findings highlight the diagnostic challenge of complicated MD, as imaging often reveals complications rather than the diverticulum itself.

Management of the placenta accreta spectrum: experience from the G26 Department, Charles Nicolle Hospital

Bouguerra S, Ben Saidane S, Sabkha N H, Ben Chaalia C, Yahyaoui R, Bouguerra B

Service de Gynécologie-obstétrique B Hôpital Charles Nicolle

Introduction: Placenta accreta spectrum (PAS) including accreta increta and percreta is a major cause of obstetric hemorrhage and maternal morbidity. Its incidence is rising alongside cesarean section rates.

Objective: To present the experience of the G26 Department at Charles Nicolle Hospital in managing PAS and to analyze maternal outcomes.

Methods: A retrospective descriptive study was conducted at the G26 Department between January 2021 and September 2025 including 37 women managed for PAS confirmed intraoperatively or histologically. Data collected included obstetric history antenatal diagnosis management strategy and maternal complications.

Results: Mean patient age was 34.5 years. 91% had at least one previous cesarean section and 78% had associated placenta previa. Antenatal diagnosis was established in 92% of cases via ultrasound and/or MRI. Cesarean-hysterectomy was performed in 35 patients (94.6%) while conservative management was attempted in 2 patients (5.4%). Major complications included massive hemorrhage (72%) transfusion ≥ 4 units (61%) and bladder injury in 2 patients (5.4%). No maternal deaths were recorded.

Conclusion: Management of PAS remains a major obstetric challenge. Early antenatal diagnosis and multidisciplinary planning are essential to optimize maternal outcomes. The experience of the G26 Department highlights the importance of standardized protocols in reference maternity centers.

PRIOR AGREEMENT OF PET-CT SCAN IN ONCOLOGY BY CNAM

Elj A, Gattoussi M, Taktak I

CNAM

Introduction: PET-CT scan plays a crucial role in revealing the presence the activity and the spread of cancerous cells. It allows to detect possible metastases missed by other imaging

Methods.

Objective: Evaluation of indications and benefits of PET-CT scan in oncology.

Methods: We conducted a retrospective descriptive study on agreed prior-agreement-request files of PET-CT scan submitted between 01/11/2021 (starting supporting by CNAM) and 31/12/2022.

Results: 202 patients followed for oncological pathology received at least one agreement of PET-CT scan. The average age of patients is 61 years with sex-ratio 0.5. Cancers are mainly: lung cancer (28%) breast cancer (16%) colorectal cancer (15%). The indications are essentially: operability assessment for curative treatment (32%) suspicion of recurrence (25%) equivocal lesion whose nature may change the therapeutic course of action (23%) research of primitive cancer (11%). 17 patients had provided the Results of the completed PET-CT scan. It allowed to confirm the malignancy of an equivocal lesion which could change the therapeutic course of action in 6 patients to find the primary cancer in 4 patients to eliminate a residual disease suspected in 2 patients and to diagnose other lesions not detected by other means of imaging in one patient. Furthermore the PET-CT scan had found the same result as standard imaging in 3 patients and it was inconclusive in one patient.

Conclusion: PET-CT scan is an important tool for medical imaging. However it will not supplant traditional imaging techniques but rather integrate into multidisciplinary care allowing to refine the patient's therapy management.

Breastfeeding Support and Early Postpartum Challenges: A Qualitative Study of Tunisian Mothers

Grami N, Debbiche A, Hammami M A, Boumaiza A, Nalouti K, Atef Y

Centre de maternité et de néonatalogie de Tunis ; Service " A "

Background: Breastfeeding is a central component of infant nutrition and maternal health and is strongly recommended by the World Health Organization. In Tunisia exclusive breastfeeding remains below national targets and many mothers discontinue early due to insufficient guidance. Understanding maternal perceptions of breastfeeding support in the immediate postpartum period is essential to strengthen counselling practices in maternity settings.

Aim : To explore mothers' experiences and perceptions of breastfeeding support during the early postpartum period in a Tunisian maternity hospital.

Methods : A qualitative study was conducted in the postpartum unit of a Tunisian maternity hospital. A total of 142 mothers who intended to breastfeed participated in individual semi-structured interviews before discharge. Interviews covered breastfeeding initiation encountered difficulties quality of professional support and unmet expectations.

Results : Breastfeeding experiences were diverse yet several consistent themes emerged. The perception of insufficient milk supply nipple pain and infant latching difficulties were the most frequently reported challenges. These issues often undermined maternal confidence and contributed to early discouragement. Mothers expressed a strong need for clearer explanations step-by-step demonstrations and consistent emotional reassurance from healthcare staff. Many felt that counselling focused mainly on benefits with limited discussion of realistic challenges. Most mothers wanted early follow-up after birth from a trained breastfeeding specialist and valued having peer-support options.

Conclusion: Although mothers appreciated the breastfeeding support provided they highlighted the need for longer more individualized counselling sessions and early structured follow-up. Strengthening professional training and integrating lactation specialists within Tunisian maternity units could improve breastfeeding experiences and outcomes

Prevalence and characteristics of metabolic syndrome in patients with systemic sarcoidosis

Boukhzar R, Daoud F, Arbaoui I, Rachdi I, Boussema F, Somai M

Department of internal medicine, Habib Thameur hospital, Tunis, Tunisia

Introduction: Metabolic syndrome (MetS) is a cluster of cardiometabolic abnormalities including abdominal obesity dyslipidemia hypertension and impaired glucose regulation. In systemic sarcoidosis (SS) chronic inflammation and frequent corticosteroid exposure may contribute to metabolic derangements. However data on the prevalence of MetS in this population remain limited.

Objective: To assess the prevalence of metabolic syndrome in patients with systemic sarcoidosis and to analyze its clinical and metabolic characteristics.

Methods: A cross-sectional study was conducted including patients followed for histologically confirmed SS. MetS was defined according to the International Diabetes Federation (IDF) criteria. Clinical and metabolic parameters were analyzed and comparisons were performed between patients with and without MetS.

Results: The study included 39 patients with SS of whom the

cohort was predominantly female (94.8%) with a mean age of 60 ± 10 years. Pre-existing comorbidities included type 2 diabetes (33%) hypertension (26%) and dyslipidemia (33%). Systemic corticosteroids had been prescribed in 77% of patients. Metabolic syndrome was present in 48.7% of cases. Android fat distribution was observed in 92.3% of patients. The most frequent metabolic abnormalities were low HDL cholesterol (53.8%) impaired glucose regulation (51.3%) elevated or treated blood pressure (38.5%) and hypertriglyceridemia (25.6%). Patients with MetS were significantly older than those without MetS (59.5 ± 8.4 vs. 53.3 ± 10.1 years $p = 0.046$).

Conclusion: Metabolic syndrome is common in systemic sarcoidosis and is significantly associated with older age highlighting the need for systematic screening and management of cardiometabolic risk factors.

Impact of low-fidelity simulation in otoscopy on medical students' learning

Ammar MA, Ben Hamadou H, Mezri S, Ben Akacha A, Mnasria S, Akkari K

ENT Department Of Military Hospital Of Tunis

Introduction : Simulation in healthcare is a rapidly expanding teaching method. In otorhinolaryngology (ENT) otoscopy training has traditionally been based on clinical placements. However initial contact with patients can be a source of stress and restrict learning.

Aims : Evaluate the contribution of low-fidelity simulation training in otoscopy for medical students.

Methods: A prospective longitudinal study was conducted with 40 third-year medical students (DCEM3) divided into two groups:

- (1) a group that completed a practical ENT internship and
- (2) a group that only participated in an otoscopy simulation session.

Learning outcomes were assessed through a clinical examination station using real patients.

Results: The overall success rate was comparable between the two groups (70% vs 80% $p=0.92$). Students trained using simulation obtained a slightly higher average score (14.16 ± 2.16 vs 13 ± 1.96 $p=1.15$). Detailed analysis showed that the simulation group was better at identifying pathologies while the clinical training group performed better in doctor-patient relations and equipment handling.

Conclusion: Otoscopy simulation is an effective teaching alternative for learning technical procedures and identifying middle ear pathologies. However it must be supplemented by practical training to consolidate skills in real-life conditions.

Coeliac disease in paediatrics: Epidemiological and clinical profile

Hammami O, Kristou F, Siala M, Malouche S

Hôpital Mahmoud El matri Ariana Faculté de Médecine de Tunis, université El Manar

Introduction: Coeliac disease is caused by an autoimmune reaction to gluten. It increasingly affects children and must be diagnosed and treated quickly.

Aim: To describe the epidemiological characteristics of our patients.

Methods: We studied paediatric patients under 14 with coeliac disease who attended the outpatient clinic at Mahmoud El Matri Regional Hospital in Ariana between 2021-25. We collected data and studied their epidemiological profile.

Results: Eight children were included in the study four of each gender with an average age of 8.63 years (± 2.97). Only one case of gestational diabetes was documented. Five children were born vaginally with a mean birth weight of 3281.25 g (± 624.46 g). The average age at which symptoms first appeared was 5.25 years (± 2.66). The most common symptoms were abdominal bloating and anaemia ($n = 5$) followed by constipation and growth retardation ($n = 4$). Three subjects reported abdominal pain three reported diarrhoea and two reported asthenia. The average age at positive diagnosis was 5.86 years (± 2.80) ranging from 1 to 9 years. At diagnosis some patients presented with asthma ($n = 1$) allergic rhinitis ($n = 1$) and anaemia ($n = 5$). BMI assessment during follow-up showed normal BMI ($n = 4$) underweight ($n = 3$) and obesity ($n = 1$). All patients had a gluten-free diet which was successful.

Conclusion: Children can present with different symptoms of coeliac disease. Investigate warning signs with serology and if possible digestive fibroscopy. Our study shows that a gluten-free diet quickly improves.

Violent deaths among women in the region of kairouan, tunisia: epidemiological profile and preventive measures

Lakhal A, Lahsini S, Ben Abderrahim S, Mlayah S, Turki E

Department of Forensic Medicine, University Hospital Ibn El Jazzar Kairouan, Tunisia

Introduction: Violent deaths among women represent a major public health challenge globally and in Tunisia. These fatalities show distinct characteristics influenced by gender and social status. Despite rising frequency the topic remains understudied and medico-legal diagnosis is often complex.

Aim: This study Aims to discuss the epidemiological and thanatological profile of violent female deaths in Kairouan and proposes relevant preventive measures.

Methods: A retrospective and descriptive study was conducted based on data from Forensic department of Ibn El Jazzar University Hospital in Kairouan. The study included all recorded cases of violent death involving women aged over 18 years over six years (2019-2024).

Results: In our study a total of 163 cases were identified representing 6.9% of all deaths examined in the study period. The mean age of the victims was 49.95 years with the age group the most affected being over 65 years (22.1 %). Most deaths occurred in spring (28.8%) and summer (27.6%). Accidents represented the most frequent medico-legal form (59.5%) followed by suicide (32.5%) and homicide (8%). Accidents were dominated by road traffic accidents (59.8%) followed by domestic accidents (37.1%). Falls predominated among domestic incidents (30.6%). Hanging was the dominant suicidal way (60.4%). Among homicides sharp- force injuries were the predominant mechanism (53.8%) with the perpetrator known to the victim in 84.6% of cases.

Conclusion: These findings underscore the need for targeted prevention including enhancing road and domestic safety strengthening protection for women in vulnerable environments and improving early identification and management of psychiatric disorders.

Artificial intelligence and medical students: perceptions, experiences, and ethical challenges in the healthcare sector

Lahsini S¹, Lakhal A¹, Thaljawy W², Mlaiech S¹, Turki E¹

1. Department Of Forensic Medicine, university Hospital Ibn El Jazzar Of

Kairouan, Tunisia

2. Department Of Forensic Medicine, university Hospital Sidi Bouzid Of Sidi

Introduction: As artificial intelligence (AI) is further incorporated into clinical practice and medical education understanding medical students' perceptions experiences and ethical concerns becomes increasingly important. Exploring these dimensions helps identify knowledge gaps and misconceptions guiding educators and policymakers in developing effective and ethically grounded training strategies.

Methods: A cross-sectional study was conducted among first- and second-cycle medical students at the Faculty of Medicine of Sousse. Participants completed pretested self-administered questionnaires in French distributed electronically via Google Forms.

Results: Only 68.7% of students reported having basic knowledge of AI while more than 77% were unfamiliar with its fundamental principles and over half did not understand its limitations. Regarding perceptions 81.7% believed AI would play a significant role in medicine and 74.4% intended to use it in their future clinical practice. However 25.6% feared that certain medical specialties could be replaced by AI particularly radiology identified by 74.7% of respondents as the most affected field. Ethically 63.5% of students expressed concerns about personal data protection in AI applications. About 60% believed that algorithm developers should be held accountable for AI-related medical errors whereas 35.1% considered physicians responsible. Moreover 41.7% reported moderate to high confidence in AI systems in healthcare while more than one-third emphasized the need for strict ethical regulations governing AI use in medicine.

Conclusion: AI holds great promise for enhancing healthcare quality and efficiency yet it simultaneously raises significant ethical issues that require careful consideration and regulatory oversight to ensure responsible integration into medical practice.

Pre-Endoscopic Anxiety : Determinants and Impact on the Patient Experience

Hammouda L, Jelassi H, Ben Khalifa M O, Sabbah M, Bibani N, Gargouri D

Service de gastro-entérologie Hopital Habib Thameur

Introduction: Pre-endoscopic anxiety is common and can influence pain perception tolerance of the procedure and overall patient satisfaction. Understanding its determinants may help improve patient experience.

Aim: To identify the main determinants of pre-endoscopic anxiety and evaluate its impact on procedural symptoms and post-procedural satisfaction.

Methods : A cross-sectional study was conducted in 51 patients scheduled for digestive endoscopy. Anxiety levels were measured using the Spielberger Anxiety Inventory. Sociodemographic data medical and psychiatric history personality traits previous endoscopy experiences knowledge of the procedure and acceptance of unsedated endoscopy were collected. Per-procedural symptoms (pain bloating nausea/vomiting) and procedure duration were assessed. Statistical analyses included comparison tests and multivariate linear regression ($p < 0.05$).

Results : The mean anxiety score was 44.3. Higher anxiety was significantly associated with an anxious personality a previous negative endoscopic experience limited knowledge of the procedure and discomfort with the idea of an unsedated examination. No association was found with age sex or medical history. Patients with higher anxiety reported more abdominal

pain bloating and nausea/vomiting but anxiety was not related to procedure duration. Pain strongly reduced satisfaction: 83% of patients without pain rated the procedure as "very satisfactory" compared with 44% of those experiencing pain. Nearly half of patients who felt pain desired sedation for future examinations.

Conclusion : Psychological factors and insufficient information are key contributors to pre-endoscopic anxiety. Since anxiety increases procedural discomfort and decreases satisfaction early identification and targeted support may improve the overall endoscopic experience.

Prospective assessment of surgical site infection risk in general surgery patients at a Tunisian university hospital

Chebil D, Soltana E, Meddeb T, Ben Hassine D, Zaidi B, Merzougui L.

1. University of Sousse, Faculty of medicine of Sousse, Ibn Al Jazzar university hospital, Preventive and community medicine

2. University of Sousse, Faculty of medicine of Sousse, Ibn Al Jazzar university hospital, digestive and visceral surgery

Introduction: Surgical site infections (SSIs) are a leading cause of postoperative morbidity and represent a significant public health concern particularly in low- and middle-income countries.

Aim : This study Aimed to estimate the incidence of SSIs and identify associated risk factors in the general surgery department of Kairouan university hospital in 2024.

Methods: A six-month incidence study was conducted in the general surgery department. SSI definitions and data collection tools were adapted from CDC guidelines. All patients undergoing surgery during the study period were included and followed for 30 days. Collected variables covered demographic characteristics comorbidities perioperative practices and hospital stay. Multivariate logistic regression was performed to identify independent risk factors.

Results: A total of 591 patients were enrolled. The mean age was 44 ± 20 years. Most patients (54.5%) had a moderate NNIS risk score. Thirty-three SSIs were identified yielding an incidence of 6%. Based on 10 655 postoperative patient-days the incidence density was 3.1 per 1 000 patient-days. Superficial SSIs accounted for 69.7% of cases. Microbiological sampling was performed in 6 cases all isolating *Escherichia coli*. Multivariate analysis showed that age was a protective factor whereas diabetes and preoperative hair removal significantly increased SSI risk.

Conclusion: The incidence of SSIs in this Tunisian surgical setting remains a significant challenge. The identified independent risk factors including diabetes and preoperative hair removal alongside the protective effect of age underscore the need for targeted prevention strategies. Improving perioperative practices and reinforcing surveillance are essential to reducing SSIs and enhancing surgical outcomes.

Physical or emotional stress as triggers of spontaneous acute aortic dissection: a case series

Aloui F, Manoubi S A, Brahem R, Salleoui L, Cherif K, Allouche M

Department of Legal Medicine, Charles Nicolle University Hospital in Tunis, Tunisia

Introduction: Acute aortic dissection (AAD) is a life-threatening condition caused by a tear in the aortic intima leading to separation of the wall layers. While hypertension is the predominant risk factor acute triggers such as intense physical

activity or emotional stress are recognized precipitants.

Aim: This study highlights clinicopathological findings of AAD following physical or emotional stressors.

Methods: A retrospective review was conducted on all cases of AAD documented at Department of Legal Medicine between January 1 2020 and December 31 2024. Data were collected from forensic autopsy reports supplemented by interviews with family members and police reports.

Results: The series included 5 cases where AAD occurred during or shortly after a significant physical or emotional stressor. We identified one woman and four men with a mean age of 53 years [36–69 years]. Two cases had no known cardiovascular history while three had a history of hypertension. The triggering events were strenuous physical activity (sports or sexual intercourse) in three cases acute emotional distress in one instance and both physical and emotional exertion in the other. Four patients experienced sudden death without premonitory symptoms. All five cases were classified as Stanford type A with aortic rupture localized in the ascending aorta in four instances.

Conclusion: This case series showcases that acute physical or emotional stress can be a trigger for spontaneous AAD predominantly of the Stanford type A. Therefore it is crucial for clinicians to recognize such stressors as potential risk factors and to incorporate preventive counseling particularly for high-risk patients.

Epidemiological Profile and Preventable Mortality Among Two-Wheeler Users in Northern Tunisia

Aloui F, Manoubi S A, Zidi H, Ouni M, Cherif K, Allouche M

Department of Legal Medicine, Charles Nicolle University Hospital in Tunis, Tunisia

Introduction: Road traffic accidents represent a critical public health crisis in Tunisia disproportionately affecting young adults. As the most vulnerable road users individuals on two-wheelers—cyclists motorcyclists and their passengers—bear a significant burden of mortality.

Aim: A detailed epidemiological characterization of this group to inform effective prevention strategies to reduce the national injury burden.

Methods: We performed a retrospective cross-sectional analysis of all fatal road traffic cases involving two-wheeler users examined at the Department of Legal Medicine covering 8 of the 11 governorates in Northern Tunisia over a two-year period (January 1 2023 – December 31 2024). Data on demographic variables accident dynamics and post-mortem findings were systematically extracted and analyzed.

Results: Among 848 road traffic accident cases examined 214 two-wheeler fatalities were identified. The cohort was overwhelmingly male (96.7%) and consisted primarily of motorcycle users (93.0%). Young adults aged 19–45 years represented the largest demographic (44.9%) with a mean age of 43 years. Fatal incidents occurred predominantly on weekends (38.8%) and during the autumn months. The primary mechanism of injury was collision with a four-wheeled vehicle (67.8%) followed by skids (25.2%). Death was immediate or occurred within the first 24 hours in 58.8% of cases. Post-mortem examination determined the leading causes of death to be multiple traumatic injuries (41.1%) and severe traumatic head injury (25.2%).

Conclusion: This study defines a critical profile of preventable mortality in young male motorcyclists. The high incidence of collisions with larger vehicles and lethal head trauma demands targeted preventative measures.

Suicide by hanging among children and adolescent: a forensic analysis of 40 autopsy cases

Aloui F, Manoubi S A, Marai A E, Salleoui L, Cherif K, Allouche M

Department of Legal Medicine, Charles Nicolle University Hospital in Tunis, Tunisia

Introduction: Hanging is a violent and highly-lethal mechanism of suicide that is also accessible and somewhat simple to perform. The rise of suicide deaths by hanging among children is alarming and the thought process behind this act remains unfolded.

Aim: In this study we explored the epidemiological circumstantial and forensic characteristics of suicide by hanging among children and adolescents.

Methods: We conducted a retrospective cross-sectional study from January 1 2020 to September 30 2025. This study included cases of suicides among children and adolescents (aged ≤ 19 years) documented at the Department of Legal Medicine.

Results: Out of a total of 13620 cases 40 were classified as suicide by hanging involving children and adolescents aged ≤ 19 years. The average age of the victims was 14.7 years (range: 9–19) with males representing 70% of cases. 2020 and 2025 registered the highest incidence with 27.5% and 20% respectively. We also noted a predilection for April (15%). Death occurred in the home in 23 cases (57%) with 8 specifically taking place in the victim's bedroom. Seventeen were found hanging from a tree that is in a school setting in 2 cases. No suicide notes were found. Three (33.3%) had a documented psychiatric diagnosis with one under psychiatric treatment at the time of death. Four victims had school-related problems.

Conclusion: Pediatric suicide is detrimental to the communities' social fabric. This study showcased the importance of forensic investigations in revealing its patterns and enhancing preventative public health strategies in both the community and school system.

Comorbidities in Psoriatic Arthritis: Does disease duration matter?

Miladi S, Mhamdi S, Boussaa H, Fazaa A, Ben Abdelghani K, Laatar A

Tunis El Manar University, faculty Of Medicine Of Tunis
Mongi Slim Hospital, Rheumatology Department, Tunis, Tunisia

Introduction: Comorbidities impact disease management and outcomes in psoriatic arthritis (PsA).

Aim: This study Aims to examine the association between the Rheumatic Disease Comorbidity Index (RDCI) score and disease duration in patients with PsA.

Methods: A retrospective study was conducted. Data were collected from patients' medical records including sociodemographic characteristics comorbidities clinical and paraclinical data related to PsA. Disease activity was assessed using the Disease Activity in Psoriatic Arthritis (DAPSA) score. Comorbidity burden was evaluated using the RDCI which ranges from 0 to 9 and includes pulmonary disease cardiovascular disease stroke hypertension diabetes fracture depression cancer and gastrointestinal disorders.

Results: Twenty-two patients were included 68% of whom were women. The mean age was 50 ± 16 years [22–76] and the mean disease duration was 7 ± 5 years [0.3–20]. Peripheral form was observed in 73% of patients and skin involvement was present in 59%. The mean DAPSA score was 29 ± 30 [6–116]. Thirty-four percent of patients were on methotrexate 13% on sulfasalazine and 53% on biologics. The mean RDCI score was 1.3 ± 1.4 [0–4]. No significant correlation was found between RDCI and disease

duration ($p = 0.936$).

Conclusion: In this cohort comorbidity burden assessed by RDCI showed no significant association with PsA duration. However larger studies are required to confirm these Results.

Impact of Ramadan Fasting on Fetal Well-Being in Pregnancies Complicated by Fetal Growth Restriction (FGR): A Tunisian Prospective Study

Hammami M A, Azzaz S, Debbiche A, Grami Nouha, Boudaya F, Atef Y

Université Tunis Manar, Faculté de Médecine de Tunis, Centre de Maternité et de Néonatalogie, Service A, Tunis, Tunisie.

Introduction: Ramadan fasting is a major religious practice in Tunisia. Its impact on high-risk pregnancies particularly those complicated by fetal growth restriction (FGR) remains poorly documented.

Aims: This study Aims to assess the effects of fasting on fetal well-being and the psychological status of Tunisian women with FGR-complicated pregnancies.

Methods: A prospective case-control study was conducted in Department A of the Tunis Maternity and Neonatology Center. Forty women with singleton pregnancies and a confirmed diagnosis of FGR who fasted for at least 15 days during Ramadan (cases) were matched with 40 non-fasting women with FGR (controls) according to gestational age and FGR severity. Assessed parameters included fetal monitoring (CTG) and umbilical artery Doppler indices at the end of Ramadan.

Results: The fasting group showed a significantly higher incidence of decelerations on CTG (27.5% vs.

10.0% $p < 0.05$) and abnormal umbilical artery Doppler findings (pulsatility index > 95 th percentile) (32.5% vs. 15.0% $p < 0.05$). No significant differences were observed in birth weight or gestational age at delivery between the two groups.

Conclusion: In the Tunisian context Ramadan fasting among women with FGR appears to be associated with signs of impaired fetal well-being. Personalized medical counselling balancing religious practices with perinatal safety is essential for this vulnerable population.

Laparoscopic Management of Perforated Duodenal Ulcers: Which Factors Predict Conversion?

Alouani H, Lâamiri G, Gazzah H, Rchidi J, Bouassida M, Touinsi H

Service de Chirurgie Générale – Hôpital Mohamed Taher Mâamouri, Nabeul – Tunisie.

Introduction: Perforated duodenal ulcer (PDU) is a surgical emergency. Laparoscopic simple closure is the gold standard due to faster recovery and reduced morbidity but conversion to laparotomy may be required. This study Aims to identify factors predicting conversion during laparoscopic management of PDU.

Methods: A retrospective bicentric study was conducted including 288 patients operated laparoscopically for PDU from January 2010 to December 2022 at Mohamed Taher Maamouri Hospital (Nabeul) and Mongi Slim Hospital (La Marsa). Clinical biological operative and postoperative data were collected from medical records. Variables included comorbidities time to management perforation characteristics and laboratory parameters. Univariate and multivariate analyses were performed to determine independent predictors of conversion.

Results: The median age was 40 years. Diabetes was present in 5% of cases and 12.2% had creatinine $> 100 \mu\text{mol/L}$. The median delay before surgery was 1 h 40 min. Median perforation size

was 0.5 cm and friable edges were observed in 8.7%. Simple closure was achieved in 98.6%. The overall conversion rate was 11.5%. Multivariate analysis identified five independent predictors: diabetes ($\text{OR} = 25.74$) friable edges ($\text{OR} = 8.74$) perforation size ($\text{OR} = 4.95$) elevated creatinine ($\text{OR} = 1.022$) and prolonged management delay ($\text{OR} = 1.007$).

Conclusion: Diabetes elevated creatinine larger perforations friable edges and delayed management significantly increase the risk of conversion. Early identification of these factors may optimize patient selection for laparoscopic repair.

Morbidity and Mortality Factors of Radical Surgery for Hepatic Hydatid Cyst: Results of a Monocentric Retrospective Study

Alouani H, Nasri S, Trabelsi M M, Ben Safta A, Jerraya H, Nouira R

Service de Chirurgie B – Hôpital Charles Nicolle, Tunis

Introduction: Hydatid cyst of the liver (HHC) remains a significant surgical disease in endemic areas. Radical surgical treatment is increasingly favored over conservative Methods because of its lower recurrence rate and fewer residual cavity complications.

Aim: To evaluate the outcomes of radical surgical treatment of hepatic hydatid cysts in terms of postoperative morbidity and mortality.

Methods: A retrospective study was conducted over seven years (2018–2024) in the Department of General Surgery B Charles Nicolle Hospital. Thirty-six patients operated on for complicated or uncomplicated HHC using radical techniques were included. Clinical intraoperative and postoperative data were analyzed. Factors associated with postoperative complications were assessed using bivariate analysis.

Results: Postoperative outcomes were uneventful in 78% of cases. Biliary fistula occurred in 4 patients (11%) and postoperative hemorrhage in one case. No postoperative mortality was reported. Factors significantly associated with biliary fistula were cyst rupture suspicion ($p = 0.004$) cyst site ($p = 0.038$) intraoperative cysto-biliary fistula ($p = 0.027$) posterior localization ($p = 0.031$) bile duct dilatation ($p = 0.007$) choledochotomy ($p = 0.009$) and closed-cyst surgery ($p = 0.025$). Postoperative bleeding was significantly associated with diabetes ($p = 0.001$) and previous liver hydatid surgery ($p = 0.012$).

Conclusion: Radical surgery for hepatic hydatid cysts provides excellent Results with low morbidity and no mortality. However the surgical approach should be tailored to the patient's condition cyst size and number and biliovascular relationships to optimize outcomes and prevent complications.

Probiotic fermented milk alleviates hepatic and oxidative alterations induced by a high-fat diet

Hammami I^{1,2} & Arrari F³

1. Laboratory of Population Health, Environmental Aggressors and Alternative Therapies (LR24ES10), Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis, Tunisia. imen.hammami@fmt.utm.tn

2. Department of Basic Sciences, Histology Embryology and Cell Biology Section, Faculty of Medicine of Tunis, University of Tunis El Manar, 15 Street Djebel Lakhdar, La Rabta 1007, Tunis, Tunisia.

3. Laboratory of Functional Physiology and Valorization of Bio-Resources, Higher Institute of Biotechnology of Beja, University of Jendouba, Beja 9000, Tunisia.

Obesity and high-fat diets are major contributors to hepatic dysfunction and oxidative stress. Kefir, a traditional fermented milk product rich in probiotics and bioactive compounds,

has been increasingly recognized for its metabolic health benefits. This study Aimed to evaluate the hepatoprotective and antioxidant effects of a kefir-based fermented milk in a rat model of diet-induced obesity. Twenty-four male Wistar rats were assigned to four groups:

- Control (C): standard diet + sterilized milk (1 mL/100 g body weight),
- Kefir (KM): standard diet + kefir-based fermented milk (1 mL/100 g bw),
- High-fat diet (HFD),
- High-fat diet + kefir (KM/HFD).

After 60 days, blood and liver samples were collected to assess hepatic biomarkers (ALT, AST, LDH, bilirubin, creatinine) and oxidative stress parameters (malondialdehyde/MDA, thiol groups, catalase, superoxide dismutase, glutathione peroxidase).

The HFD group showed marked elevations in liver enzymes and MDA levels, along with decreased thiol content and disrupted antioxidant enzyme activities. Notably, rats receiving kefir along with the HFD exhibited significantly improved liver enzyme profiles, reduced lipid peroxidation, and restored redox balance. These findings suggest that fermented kefir milk effectively counteracts liver injury and oxidative stress associated with high-fat diet consumption. Its bioactive components may contribute to restoring hepatic homeostasis, highlighting its potential as a functional dietary intervention for obesity-related metabolic disorders.

Evaluation of proton pump inhibitor prescription practices in older adults

Adaily N, Baya W, Sefrihi F E, Rezgui A, Ben Hassine I, Kermani M, Mzabi A, Anoun J, Ben Fredj F

Faculty of Medicine 'Ibn Al Jazzar', University of Sousse, Tunisia

Introduction : Proton pump inhibitors (PPIs) long regarded as well tolerated are widely prescribed among the elderly often beyond appropriate indications. This study Aimed to assess current prescribing practices among Tunisian physicians regarding PPI use in older adults.

Methods: An observational descriptive study was conducted from August 1 to 31 2024 using a Google Forms questionnaire distributed to Tunisian physicians exploring their prescribing habits for PPIs in older patients.

Results : A total of 248 responses were collected. Among participants 46.6% reported regular PPI prescriptions most frequently esomeprazole (67.6%). Only 36.3% reassessed treatment duration or dosage. Upper gastrointestinal endoscopy prior to initiation was deemed unnecessary by 97.3%. Regarding indications 9.7% prescribed PPIs without risk factors and 12.1% used them as a therapeutic test for acute epigastric pain. Conversely 25.8% did not prescribe PPIs for peptic ulcer disease (PUD) 52% for *Helicobacter pylori* eradication 43.1% for gastroesophageal reflux disease or in nonsteroidal anti-inflammatory drug users with risk factors such as previous PUD or concomitant antiplatelet corticosteroid or anticoagulant therapy (21.4%). PPIs were used prophylactically for stress ulcer in intensive care by 57.3% even without risk factors. Renewal at patient or family request was reported by 79.8%. Awareness of adverse effects was lacking in 53.2% and only 12.9% knew the 2022 Haute Autorité de Santé recommendations.

Conclusion : This study highlights significant PPI misuse among Tunisian physicians. Promoting adherence to evidence-based guidelines may reduce inappropriate prescriptions limit self-medication and prevent prolonged use minimizing adverse effects.

Laparoscopic Myomectomy: A Retrospective Analysis of Surgical Outcomes and Fertility Impact at a Tunisian Tertiary Center

Arfaoui B, Slama F, Frikha H, Dhaoui S, Hammami R, Aloui H, Chenoufi B

Maternity and neonatology center of Tunis , Department C

Introduction: Uterine fibroids (myomas) commonly cause abnormal uterine bleeding pelvic pain and infertility. Laparoscopic myomectomy (LM) is a preferred minimally invasive approach offering advantages over open surgery. Its safety and efficacy especially for fertility preservation require continuous evaluation.

Aim: To assess surgical outcomes complication rates and subsequent impact on fertility in patients undergoing laparoscopic myomectomy at our institution.

Methods: We conducted a retrospective study of all patients undergoing LM at Service C Center for Maternity and Neonatology of Tunis from 2018-2024. Data collected included demographics myoma characteristics operative time blood loss conversion rates postoperative complications (Clavien-Dindo) hospital stay and subsequent pregnancy rates.

Results: A total of 155 LMs were performed (mean age 36.4 years). Average 2.3 myomas were removed (mean dominant size 5.8 cm). Mean operative time was 95 minutes with 180 mL mean blood loss. Conversion to laparotomy occurred in 3.2% (n=5). Overall postoperative complication rate was 6.5% (n=10) predominantly Clavien-Dindo Grade I/II. Among 78 patients desiring conception post-LM 45% (n=35) achieved pregnancy with an 85.7% (n=30) live birth rate.

Conclusion: Laparoscopic myomectomy is a safe and effective procedure for symptomatic uterine fibroids demonstrating favorable surgical outcomes and significant fertility restoration potential. Its minimally invasive nature and good reproductive outcomes support its role as a primary surgical choice for eligible patients.

Pregnancy Complications among Female Physicians in Tunisia

Mizouni R , Somri B, Hannachi MA, SamaaliK , Malek M, Neji K

CMNT

Introduction : Pregnancy among female physicians poses particular challenges due to demanding work environments and exposure to occupational risks such as long working hours night shifts high stress levels and biological hazards. With the increasing feminization of the medical workforce in Tunisia attention has turned toward potential adverse obstetric outcomes .

Aim : To determine the prevalence and types of pregnancy complications among female physicians in Tunisia and to assess their association with professional risk factors.

Methods: A descriptive cross-sectional study was conducted between January and June 2024 among 100 female physicians working in public hospitals. Data were collected using both online and paper-based questionnaires covering sociodemographic characteristics working conditions pregnancy history and obstetric outcomes. Statistical analyses were performed using SPSS version 26.0 with a significance level set at $p < 0.05$.

Results: The mean age of participants was 33.8 ± 4.6 years. The most frequently reported complications were threatened preterm labor (22.1%) hypertensive disorders of pregnancy including preeclampsia (14.6%) spontaneous miscarriage (17.9%) intrauterine growth restriction (8.5%) and gestational

diabetes (6.1%). Statistical analysis revealed significant associations between night shifts and threatened preterm labor ($p = 0.02$). Lack of rest and perceived stress were identified as independent predictors of overall obstetric complications (OR = 2.3 95% CI [1.4–3.9]).

Conclusion: Pregnancy complications appear to be more prevalent among Tunisian female physicians compared with the general population. These findings underscore the need for targeted preventive strategies including workload adjustments flexible scheduling and improved institutional support to safeguard the maternal health of healthcare professionals.

The Tenth Vascular Component of the Posterior Segment of the Cerebral Arterial Circle: A Study of Nine Cases

Maoui A¹, Allouche M²

1. University of Tunis El Manar, faculty of Medicine of Tunis, mohamed Tlatli Hospital, department of Medical Biology, laboratory of Clinical Biochemistry, Ir 99es11, 1007 Tunis, Nabeul, Tunisia

2. University of Tunis El Manar, faculty of Medicine of Tunis Charles Nicolle Hospital

The intermediate communicating artery (ICoA) described by Vasović as the “tenth vascular component” of the posterior segment of the cerebral arterial circle represents a rare anastomotic vessel. This study aimed to identify and describe this anatomical variant in a Tunisian population sample. A descriptive anatomical study was conducted on 100 human brains obtained from routine medicolegal autopsies performed at the Department of Forensic Medicine Charles Nicolle Hospital Tunis. The brains were examined in situ and the arteries forming the Circle of Willis were inspected to identify anatomical variants particularly within the posterior circulation. For each specimen the completeness of the circle the configuration of the posterior communicating arteries and the presence of an intermediate communicating artery were recorded. An intermediate communicating artery was identified in 9 out of 100 specimens. The variant was right-sided in five cases. The median age of the cadavers was 37 years with a male-to-female ratio of 1.25. The cause of death was undetermined in three cases. No aneurysms were detected. The median brain weight was 1310 g. The Circle of Willis was complete in all specimens while unilateral hypoplasia of the posterior communicating artery (type IV configuration) was observed in three cases. The intermediate communicating artery is a rare anatomical variant of the posterior circulation of the Circle of Willis observed in the Tunisian population. Further morphometric and imaging studies are required to clarify its embryologic development and possible clinical significance in cerebrovascular pathology.

Impact of Dietary Behavior and Metabolic Factors on the Severity of Endometriosis-Related Pain Symptoms

Arfaoui B, Slama F, Frikha H, Dhaoui S, Hammami R, Aloui H, Bedis Chenoufi B

Maternity and neonatology center of Tunis, Department C

Introduction: Endometriosis is a chronic inflammatory condition where pain severity varies greatly. Emerging evidence suggests that systemic factors including metabolic health and pro-inflammatory dietary patterns may modulate the intensity of endometriosis-related pain such as dysmenorrhea and dyspareunia.

Aim: To correlate specific dietary patterns and metabolic markers (specifically Body Mass Index (BMI) and metabolic

syndrome) with the self-reported severity of pain symptoms in patients surgically diagnosed with endometriosis.

Methods: We conducted a cross-sectional study among 65 patients surgically diagnosed with endometriosis (AFS-r stages IIV) at Service C (CMNT) from 2020 to 2024. Patients completed a validated food frequency questionnaire (FFQ) and provided Visual Analog Scale (VAS) scores for dysmenorrhea and dyspareunia. BMI and metabolic syndrome (MetS) status were recorded. Spearman correlation was used to assess associations.

Results: A total of 65 patients were enrolled (mean age 34.1 years). 41.5% (n=27) were overweight or obese (BMI ≥ 25 kg/m²). A high adherence to a pro-inflammatory diet (rich in red meat and processed foods) was significantly correlated with higher VAS scores for dysmenorrhea ($r = 0.42$ $p < 0.01$) and chronic pelvic pain ($r = 0.38$ $p < 0.05$). Patients meeting the criteria for MetS (18.5% n=12) reported significantly higher mean dyspareunia scores compared to those without MetS (VAS 6.7 vs 4.2 $p < 0.01$).

Conclusion: Metabolic factors particularly obesity and a pro-inflammatory diet appear to be associated with increased pain severity in our cohort of endometriosis patients. These findings suggest that lifestyle and nutritional counseling could represent valuable adjuvant therapies in the holistic management of endometriosis-related pain.

Oral immunotherapy in Cow's milk allergy : Tunisian pediatric experience

Bel Hadj I, Trabelsi E, Ben Romdhane M, Hamouda S, Trabelsi ., Boussetta K.

Department B of paediatrics, Béchir Hamza children's hospital of Tunis

Introduction: Cow's milk allergy (CMA) is the most prevalent food allergy in Tunisian children. Oral immunotherapy (OIT) has emerged as a promising approach to induce specific immune tolerance through gradual allergen exposure. This strategy was recently introduced into the management of pediatric CMA in Tunisia.

Aim: Describe the clinical immunological and outcome characteristics of children with CMA undergoing OIT.

Methods: A retrospective study was conducted in Pediatric Department B including all children diagnosed with CMA who received OIT between January 2008 and October 2025.

Results: Among 161 children with IgE-mediated CMA 48 (30%) underwent OIT. Males were predominant (sex ratio: 1.52). The median age at OIT initiation was 3.8 years (7 months–16 years). Positive skin tests to cow's milk were observed in 58% of patients before starting OIT. The protocol began with baked milk in all cases. The mean duration of therapy was seven months (5–14 months). Mild adverse reactions occurred in six children (12.5%) including five cases of oral allergy syndrome and one urticaria episode. Epinephrine administration was required in one case. Complete tolerance to cow's milk was achieved in 92% of cases.

Conclusion: OIT represents an effective therapeutic strategy for children with CMA promoting complete or partial tolerance and significantly improving quality of life. Expanding use of this therapeutic approach should be encouraged in clinical practice in Tunisia.

The prevalence of oral potentially malignant disorders in oral squamous cell carcinoma

Azzez S, Belkacem R

Taher Sfar Teaching Hospital

Objectives: To estimate the prevalence of oral potentially malignant disorders (OPMD) in oral squamous cell carcinoma (OSCCA) and to characterize the clinical behaviour of those carcinoma arising in patients with pre-existing OPMD.

Methods: A cross-sectional study was conducted. We retrospectively reviewed all cases (total 187 comprising 124 males and 63 females) with OSSCA treated at the department of oral and maxillo-facial surgery of Sahloul University Hospital. These patients were divided into two groups: groupe 1 patients with oral cancer and OPMD and group 2 patients with OSSCA with no associated premalignant lesions. The clinical histological and prognostic differences between the two groups were compared. Comparative statistics were calculated by means of the chi-square and student's t test ($p \leq 0.05$). Survival comparisons were conducted between the two groups with the Kaplan-Meier method and the log-rank test ($p \leq 0.2$)

Results: The prevalence rate of OPMD was 24.6%. The oral lichen planus and oral leukoplakia had the higher rates. In Univariate analysis no differences were found between the two groups regarding age sex clinical form and tumour location. However statistically significant differences were observed with respect to tumour stage histological form and lymph node metastases. The tumours associated with OPMD were diagnosed at a more initial stage. The mean survival rate for OPMD patients was 146 months vs 92 months for the other group with significant difference.

Conclusions: The relatively important rate of OPMD in OSSCA has also demonstrated that active follow-up in patients with premalignant lesions is necessary to detect any malignant transformation.

Caustic ingestion in children: Predictive factors for severe caustic lesions

Bel Hadj I., Balti Y., Bouzidi A., Trabelsi E., Boussetta K.

Department B of paediatrics, Béchir Hamza children's hospital of Tunis

Introduction: Accidental domestic caustic substances ingestion is common in children. This exposes to perforation and bleeding in the immediate term and oesophageal stenosis in the mid- to long term.

Aim: To determine predictive factors of severe caustic lesions.

Methodology: We conducted a retrospective study in the paediatrics department B over a period of 4 years including all children admitted for caustic ingestion and having gastrointestinal endoscopy within 48 hours following the caustic ingestion.

Results: We enrolled 137 patients. The mean age was 45 ± 35 months [5 days-168 months]. The ingested product was oxidant products in 54.7% ($n=75$). About 74.1% ($n=64$) experienced provoked vomiting and 19% ($n=26$) were given milk by their parents. Patients were admitted within 5.4 ± 6 hours [1-10] after ingestion. Most frequent symptoms were oral mucosal lesions 28.7% ($n=39$) excessive salivation 17.6% ($n=24$) Hematemesis 2.9% ($n=4$) and epigastric pain 1.5% ($n=2$). Endoscopy was performed in all children within 19 ± 7 hours it showed caustic lesions in 17.5% ($n=24$). According to the Zargar grading these caustic lesions were grade 2 in 21 cases. Medium- and long-term caustic stenosis was observed in 3 of the 24 patients with caustic lesions on initial endoscopy. Caustic lesions were significantly associated with alkaline ingestion ($p < 0.001$) mucosal lesions ($p < 0.001$) hematemesis ($p = 0.01$). However bulk bleach was not associated with caustic lesions ($p = 0.8$).

Conclusions: Even if alkaline ingestion and oral lesions should

alert the paediatrician for a potential severe caustic lesion their absence should not be reassuring requiring endoscopy for all cases.

Epidemiological, Microbiological, and Antibiotic Resistance Profile of Community-Acquired Urinary Tract Infections

Abdeljelil M, Ounissi M, Kadri Y, Saad L, Marrakchi W, Loussaief C

Service des Maladies Infectieuses CHU Fattouma Bourguiba Monastir-Tunisie

Laboratoire de Microbiologie CHU Fattouma Bourguiba Monastir-Tunisie

Introduction : Urinary tract infections (UTIs) are a major public health concern due to their high frequency and the increasing prevalence of bacterial resistance. This study Aims to characterize the epidemiology microbiological profile and antibiotic resistance patterns of UTIs to optimize therapeutic management.

Methods : A retrospective study was conducted using data from the Infectious Diseases Department and the Microbiology Laboratory between 2012 and 2023. All included patients had a bacteriologically confirmed UTI. Bacterial identification was performed using conventional Methods and antibiotic susceptibility testing followed the current guidelines of the CA-SFM/EUCAST.

Results : Among 9 214 patients hospitalized in the Infectious Diseases Department over the study period 336 (3.6%) met the inclusion criteria. The mean age was 55.3 years [14-98]. Acute pyelonephritis was the most common diagnosis ($n=245$ 72.9%). A total of 337 non-duplicate bacterial strains were isolated. Escherichia coli was the predominant pathogen (77.1%). Resistance rates among Enterobacteriaceae to penicillins penicillin/inhibitor combinations cephalosporins and carbapenems were 82% 50.5% 45.3% and 2.3% respectively. The overall resistance to fluoroquinolones was 57%. Multidrug-resistant bacteria accounted for nearly half of the isolates ($n=159$ 47.1%) with a predominance of extended-spectrum beta-lactamase producers ($n=120$ 35.6%). Carbapenemases emerged from 2015 onwards and were primarily produced by Klebsiella pneumoniae (78.7%). Co-resistance to ciprofloxacin and cotrimoxazole was observed in 82.6% and 53.7% of these isolates respectively.

Conclusion : Our findings reveal high resistance rates among Enterobacteriaceae causing UTIs particularly to fluoroquinolones and cotrimoxazole which severely limits therapeutic options and underscores the critical need for ongoing antimicrobial resistance surveillance.

Caregivers perspectives on elderly end-of-life care in emergency departments

Kort I, Khalfallah R, ridene I, Benrahma S, Hassad A, Bchir K

University Tunis El Manar, Faculty of medicine of Tunis, Mohamed Taher Maamouri hospital, department of legal medicine, Nabeul, Tunisia

Introduction : The management of elderly patients at the end of life requires anticipatory strategies and tailored protocols. These patients often present to emergency departments (EDs) with acute deterioration necessitating timely interventions.

Aim : To assess healthcare providers' perceptions of end-of-life care for elderly patients in EDs.

Methods: This was a descriptive study conducted using a structured questionnaire administered to healthcare providers

of two EDs in the Capbon.

Results : Among 53 participants (40 physicians 13 nurses) of which 25 had one to five years of experience. The participants managed end-of-life cases daily in 24 cases. 51 declared current care unsatisfactory. Emotional responses included powerlessness (13/53) frustration (18/53) and neutrality (8/53). Time constraints hindered assessments (44/53). Treatment limitation decisions involved 34/53 of providers with ethical dilemmas (33/53) and communication challenges (8/53) as barriers. Euthanasia requests were rare (7/53) but care refusal occurred in 19 cases. EDs were deemed inadequate for psychological (52/53) nutritional (42/53) and hygiene needs (38/53). Suggested improvements included palliative training (28/53) dedicated end-of-life units (15/53) and increased staffing (10/53).

Conclusions : End-of-life care for elderly patients in EDs remains suboptimal requiring better protocols resources and healthcare providers training.

VZV infections: epidemiological, clinical and evolutionary aspects in an infectious diseases department

L.Saad, O.Safta, M. Abdeljelil, W. Marrakchi, F. Ben Romdhane, A. Aouam, H. Ben Brahim, A. Toumi, C.loussaief

University of Monastir, Fattouma Bourguiba Hospital, infectious Diseases Department, Monastir, Tunisia

The varicella-zoster virus (VZV) is responsible of chickenpox and shingles. These infections remain a public health problem. The Aim of the study is to describe the epidemiological clinical therapeutic and evolutionary aspects of VZV infections. A retrospective descriptive study of patients hospitalised for VZV infection between January 2010 and June 2025 in an infectious diseases department. A total of 187 patients were included 15 cases of chickenpox (8%) and 172 cases of shingles (92%). The average age was 55.1 years [18–91 years]. All patients hospitalised for chickenpox were under 50 years of age while 76.1% of patients with shingles were ≥ 50 years of age ($n = 131/172$). The main comorbidities were diabetes (23.9%) malignant tumors (8.5%) and HIV infection (3.2%). Among the cases of chickenpox 10 involved pregnant women (66.7%). Complications were observed in 52 patients with shingles (30.2%) predominantly skin surinfections ($n=35$ 20.3%) followed by keratitis ($n=6$ 3.4%) and uveitis ($n=4$ 2.3%). Zoster meningitis meningoencephalitis and peripheral facial paralysis were observed in one case each. In patients with chickenpox a generalised rash was constant complicated by chickenpox pneumonia in 46.6% of cases. Antiviral treatment was initiated in 169 patients with herpes zoster (98.2%) and in 13 patients with chickenpox (86.6%). The outcome was favourable in all cases of chickenpox and in 90.6% of cases of shingles. Acute post-herpetic neuralgia was reported in 9.3% of cases of shingles.

In our study VZV infections remain a common reason for hospitalisation dominated by shingles (92%). Diabetes was the most common comorbidity (23.9%). The outcome was favourable in 90.6% of shingles cases and in all chickenpox cases.

Knowledge and perceptions of smoking behaviors among amateur athletes

Ridene I, Kort I, Hassad A, Khalfallah R, Benrahma S, Bchir K

University Tunis El Manar, Faculty of medicine of Tunis, Mohamed Taher Maamouri hospital, department of legal medicine, Nabeul, Tunisia

Introduction : Tobacco use remains a major public health concern affecting all population groups including amateur athletes. Despite being aware of the detrimental effects of smoking on health and performance many athletes continue to use tobacco products.

Aim : To assess the knowledge perceptions and smoking behaviors among amateur athletes.

Methods: This was a descriptive study using a structured questionnaire administered to amateur athletes recruited from various sports clubs in the Nabeul region during June 2025. The questionnaire investigated sociodemographic and sports profiles active and passive smoking behaviors knowledge and attitudes toward tobacco social representations family and social support and motivation to quit smoking.

Results: A total of 56 participants were included with a mean age of 29.6 ± 9.2 years and a male predominance (40/56). The most practiced sports were weight training (17/56) and cardio training (14/56). The most common forms of tobacco use were conventional cigarettes (26/56) waterpipe (17/56) and e-cigarettes (13/56). Nearly half (27/56) reported that practicing sports helped reduce their consumption. Most participants (36/56) declared that smoking athletes were more prone to injuries. The most cited health effects were shortness of breath (21/56) and decreased endurance (18/56). Stress (12/56) and fatigue (14/56) were the most frequently reported feelings. The most common cessation strategy reported by the participants was quitting without external help (26/56).

Conclusion : Tobacco use remains present among amateur athletes. Targeted prevention and cessation programs tailored to this population could promote healthier lifestyles and reinforce the role of athletes as models of well-being.

Computational Evaluation of Phenolic Compounds from Bee Pollen as Natural Antioxidants and Enzyme Modulators

Arrari F¹, Hammami I³, Jabri MA¹, Jridi M^{1,2}, Sebai H¹

1. Laboratory of Functional Physiology and Valorization of Bio-Resources (LR23ES08), Higher Institute of Biotechnology of Beja, University of Jendouba, Beja 9000, Tunisia;

2. Laboratory of Enzymatic Engineering and Microbiology, National School of Engineers of Sfax, University of Sfax, B.P. 1173, 3038 Sfax, Tunisia

3. Laboratory of Population Health, Environmental Aggressors and Alternative Therapies (LR24ES10), Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis 1068, Tunisia;

Bee pollen is a rich source of bioactive phenolic compounds known for their antioxidant and health-promoting properties. In this *in silico* study the molecular mechanisms underlying the antioxidant potential of major bee pollen phenolics were investigated through computational modeling and enzyme–ligand interaction analysis. The predominant phenolic compounds—quercetin kaempferol caffeic acid and ferulic acid—were selected based on literature reports.

Their antioxidant potential was evaluated via molecular docking against key oxidative stress–related enzymes including NADPH oxidase superoxide dismutase (SOD) catalase (CAT) and glutathione peroxidase (GPx). The crystal structures of target enzymes were retrieved from the Protein Data Bank and docking studies were performed using AutoDock Vina. The binding interactions were visualized and analyzed with Discovery Studio Visualizer to identify hydrogen bonding and hydrophobic contacts. Molecular dynamics simulations (100 ns) confirmed the stability of the best-docked complexes. The Results showed that phenolic compounds particularly quercetin and caffeic acid

displayed strong binding affinities toward the catalytic residues of NADPH oxidase suggesting an inhibitory potential while also forming stabilizing interactions with antioxidant enzymes potentially enhancing their activity. These findings provide molecular insight into the antioxidant mechanism of bee pollen phenolics and support their potential use as natural modulators of redox homeostasis.

In Silico Evaluation of C-Phycocyanin from *Spirulina platensis* as an Inhibitor of NADPH Oxidase and Modulator of Antioxidant Defense Enzymes

Arrari F¹, Hammami I³, Jabri MA¹, Jridi M^{1,2}, Sebai H¹

1. Laboratory of Functional Physiology and Valorization of Bio-Resources (LR23ES08), Higher Institute of Biotechnology of Beja, University of Jendouba, Beja 9000, Tunisia;

2. Laboratory of Enzymatic Engineering and Microbiology, National School of Engineers of Sfax, University of Sfax, B.P. 1173, 3038 Sfax, Tunisia

3. Laboratory of Population Health, Environmental Aggressors and Alternative Therapies (LR24ES10), Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis 1068, Tunisia;

C-phycocyanin (C-PC) a major biliprotein from *Spirulina platensis* is known for its potent bioactive and redox-regulating properties. This in silico study Aiming to elucidate the molecular interactions of C-PC with enzymes involved in redox homeostasis particularly NADPH oxidase superoxide dismutase (SOD) and catalase (CAT). The three-dimensional structures of target proteins were retrieved from the Protein Data Bank (PDB) and the C-PC structure was optimized using molecular mechanics. Molecular docking simulations were performed using AutoDock Vina to predict the binding affinities and interaction patterns between C-PC and the selected enzymes. The most stable docking poses were analyzed with Discovery Studio Visualizer to identify key hydrogen bonds and hydrophobic contacts. Molecular dynamics simulations (100 ns) were conducted using GROMACS to assess the stability and conformational flexibility of the protein-ligand complexes. The docking Results revealed strong binding affinities of C-PC to the catalytic domains of NADPH oxidase suggesting inhibitory potential and favorable interactions with SOD and CAT indicating stabilizing effects on antioxidant enzymes. These findings highlight the regulatory role of C-phycocyanin in enzymatic redox balance and support its potential as a natural bioactive modulator of oxidative processes.

Multidimensional quality of life in chronic low back pain: a cross-sectional assessment using the WHOQOL questionnaire

Jomaa O¹; Zaouali F²; Hajji H¹; Abdellatif S¹; Brahem M¹; Younes M¹

1. University of Monastir, Faculty of Medicine of Monastir, Tahar Sfar University Hospital of Mahdia, Rheumatology Department, Tunisia

2. University of Monastir, Faculty of Medicine of Monastir, Tahar Sfar University Hospital of Mahdia, Emergency Depar

Introduction: Chronic low back pain (LBP) is a major contributor to disability affecting not only physical function but also psychological social and environmental aspects of quality of life (QoL). Assessing these domains is crucial for comprehensive patient-centered care.

Aim: To evaluate physical psychological social and environmental QoL in adults with chronic LBP.

Methods: A cross-sectional study was conducted at the

Rheumatology Department of Tahar Sfar University Hospital (Mahdia Tunisia) from June to December 2024 including 62 adults with chronic LBP. QoL was assessed using the WHOQOL-BREF questionnaire which covers physical health psychological health social relationships and environmental factors.

Results: Participants had a mean age of 60.8 ± 10.4 years and were predominantly female. Most were homemakers (67.7%) with low-to-medium socioeconomic status (93.6%) and 95.2% reported limited engagement in leisure activities. Hypertension (29.0%) and diabetes (25.8%) were common comorbidities. QoL assessment revealed the environmental domain as the most impaired (median 44.0 [38.0–63.0]) with 33.9% reporting moderate or poor QoL. In contrast psychological (69.0 [50.0–75.0]) physical (59.5 [48.5–69.0]) and social (56.0 [50.0–75.0]) domains were less affected with over half of participants reporting good or very good QoL.

Conclusion: Chronic LBP substantially affects QoL especially environmental factors related to living conditions and resources. These Results underscore the need for multidimensional management strategies beyond medical treatment targeting social and environmental barriers to optimize patient well-being.

Evaluation of fatigue in primary biliary cholangitis patients responding to ursodeoxycholic acid treatment

Lassoued I, Yaakoubi M, Gharbi G, Mahmoudi M, Medhioub M, Hamzaoui L

Service de Gastroentérologie, Hôpital Taher Maamouri, Nabeul, Tunisie

Introduction : It has been shown that ursodeoxycholic acid (UDCA) helps slow the progression to cirrhosis in primary biliary cholangitis (PBC). However its impact on fatigue has not been thoroughly evaluated.

Aim: Investigate the effect of UDCA on improving fatigue in PBC patients.

Methods : A prospective study including patients managed for PBC. Patients were contacted by phone to respond to the 11 questions on the fatigue domain of the PBC-40 scale. Patients with comorbidities that could influence the evaluation of fatigue (chronic respiratory diseases heart disease severe anemia) were excluded. We utilized the Pearson chi-square test to evaluate the association between the variables with a significance threshold set at $p < 0.05$.

Results : Fifty seven patients had PBC. Five Patients with severe comorbidities and 11 patients that were unreachable by phone were excluded. Among the remaining 41 patients 33 patients presented with fatigue (80.5%). The mean age at diagnosis was 60 years [35-85]. One patient was male. Biochemical response was achieved in 20 patients (60.6%). A significant negative correlation was found between treatment response and fatigue ($p=0.01$). Among responders cirrhosis ($p=0.039$) and female sex ($p=0.01$) were associated with persistent fatigue. Multivariate analysis revealed that age menopausal status seronegative forms time to treatment initiation and treatment duration were not significant factors involved in the persistence of fatigue despite the biochemical response.

Conclusion : Fatigue is very common symptom among patients with PBC (80.5%) especially in females and cirrhotic patients. Thus achieving biochemical response is crucial to reduce its burden.

Analysis of Pre-Analytical Non-Conformities Using Pareto and Ishikawa Methods: Experience of the Biochemistry Laboratory at Mahmoud El Matri Hospital

Kouched N, Jmal L, Dhieb A, Guidara R, Jmal A

Tunis El Manar University, Faculty Of Medicine Of Tunis, Mahmoud El Matri Hospital, Department of Laboratory Medicine, Ariana,

Introduction: In clinical laboratories the pre-analytical phase is the most vulnerable stage influenced by human and organizational factors. Identifying non-conformities (NCs) is essential for continuous quality improvement. Using structured quality management tools such as the Pareto principle and the Ishikawa diagram helps prioritize corrective actions and identify root causes.

Aim: This study Aims to determine the main sources of pre-analytical NCs in the laboratory of Mahmoud El Matri Hospital through the application of Pareto and Ishikawa tools.

Methods: A prospective descriptive study was conducted from July 2022 to July 2023.

All NCs recorded in the biochemistry laboratory were collected using standardized quality forms based on ISO 15189:2022 and the National Laboratory Good Practice Guide.

NCs were classified by type and origin.

The Pareto method identified the most significant categories while Ishikawa diagrams determined root causes using the 5M approach (Manpower Methods Materials Machines and Environment).

Results: A total of 1855 NCs were identified among 51249 samples (3.62%).

The Pareto analysis showed that two categories tube-related errors (69.4%) and data-entry errors (13.4%) accounted for 82.8% of all NCs (figure1).

Ishikawa analysis revealed multifactorial causes including inadequate staff training lack of standardized operating procedures insufficient visual aids and the lack of computerized patient identification.

Conclusion: The combined use of Pareto and Ishikawa Methods provided a structured framework to identify critical weaknesses in the pre-analytical process.

These tools guided corrective measures such as staff training procedure harmonization and digital traceability establishing the basis for a sustainable quality improvement strategy in clinical biochemistry laboratories.

Impact of bone involvement on the evolutionary profile of primary biliary cholangitis

Lassoued I, Yaakoubi M, Gharbi G, Mahmoudi M, Medhioub M, Hamzaoui L

Service de Gastroentérologie, Hôpital Taher Maamouri, Nabeul, Tunisie

Introduction: Bone disease is a frequent extrahepatic manifestation of primary biliary cholangitis (PBC) resulting mainly from chronic cholestasis. Osteopenia and osteoporosis contribute to reduced quality of life and increased morbidity.

This study Aimed to evaluate the prevalence of bone involvement in patients with PBC and to assess its impact on disease progression and prognosis.

Methods: A retrospective study was conducted including patients diagnosed with PBC.

Clinical biochemical immunological and histological data were collected.

Bone involvement was assessed by bone mineral density (BMD). Osteopenia was defined as a T-score between -1 and -2.5 and

osteoporosis as a T-score ≤ -2.5 .

Associations between bone status disease stage and clinical outcomes were analyzed.

Results: The study population included 57 patients predominantly female (sex ratio F/M = 0.05) with a mean age of 54 years. Twelve women were postmenopausal. Bone involvement was observed in 20 patients (35%): 12 (21.1%) had osteopenia and 8 (14.0%) had osteoporosis. Osteoporosis was significantly more frequent among post menopausal women ($p = 0.03$) and was associated with more advanced histological stages ($p = 0.03$) and higher rates of cirrhosis ($p = 0.04$). No significant association was found between bone involvement and biochemical response to UDCA ($p = 0.28$) or overall survival ($p = 0.12$).

Conclusion: Bone involvement is a common and clinically relevant complication in PBC particularly in patients with advanced disease. Systematic evaluation of bone mineral density and early management of osteoporosis are essential to improve quality of life and potentially limit disease-related morbidity.

The contribution of simulation in training for postmortem data collection

Kort I, Ridene I, Khalfallah R, Benrahma S, Cherif K, Bchir K

University Tunis El Manar, Faculty of medicine of Tunis, Mohamed Taher Maamouri hospital, department of legal medicine, Nabeul, Tunisia

Introduction : Simulation-based education is education is a cornerstone of modern health sciences training enhancing clinical competence and patient safety by mitigating the risk of errors. Its application in legal medicine particularly postmortem data collection in the context of mass disaster remains underdeveloped.

Aim : To evaluate the effectiveness of standardized patient simulation as an educational tool for managing postmortem data collection in cases of mass disaster.

Methods : This was a prospective study including students who participated in standardized patient simulation training sessions during their internship. Learner performance was assessed using a specific validated performance score. A pre-test/post-test model was used to evaluate gains in theoretical knowledge and practical skills. Student satisfaction was evaluated at the end of the session.

Results: During the study period three groups of 7 students were included for a total of 21 participants.

The simulation training resulted in statistically significant improvements in theoretical knowledge scores (mean score: 5.7/10 to 8.4/10 $p = 0.03$) and practical skills performance (mean score: 4.9/10 to 7.4/10 $p = 0.04$). A significant reduction in the mean data collection time was also observed (712 seconds to 444 seconds $p = 0.03$). The majority of the students (18/21) were satisfied upon the completion of the simulation session.

Conclusion : Standardized patient simulation is an effective and well-received pedagogical tool for enhancing both the knowledge and procedural skills of medicine trainees in postmortem data collection offering an innovative complement to traditional educational Methods. This type of training can be an innovative addition to traditional learning.

Simulation-Based Learning in the Management of Childhood Asthma: Impact on the Skills of Pediatric Nursing Students

Atitallah S, Ben Othmen W, Chekili W, Msalhi M, Yahyaoui S, Boukthir S

University of Tunis El Manar – Higher School of Health Sciences and Technologies of Tunis , University of Tunis El Manar – Bechir Hamza Children's Hospital

Introduction: Asthma is one of the most frequent life-threatening pediatric emergencies. Its prompt and effective management requires specific competencies particularly among pediatric nurses. Simulation-based learning (SBL) is an innovative teaching method recently integrated into pediatric nursing education in Tunisia. Despite its proven benefits few studies have evaluated its impact among Tunisian students.

Aim: To assess the effect of a simulation session on the skills of third-year pediatric nursing students in managing an acute asthma exacerbation in a child.

Methods: A prospective cross-sectional quasi-experimental study was conducted on February 1 2025 at the Simulation Center of the Higher School of Health Sciences and Technologies of Tunis. Third-year pediatric nursing students participated in a high-fidelity simulation on pediatric asthma management. Knowledge was assessed by pre- and post-tests followed by a satisfaction questionnaire.

Results: Thirty students participated. The mean knowledge score increased significantly from 36.5/50 before the session to 39.5/50 after ($p = 0.002$) with an average gain of 3.03 points (± 5). Over 95% of participants were satisfied or very satisfied with the content teaching method and instructors.

Organization was rated satisfactory by 85% and 90% reported improved self-confidence.

Instructors were highly rated for maintaining a positive learning climate structured debriefing and supporting performance improvement.

Conclusion: Simulation-based learning significantly enhanced students' knowledge skills and confidence in managing pediatric asthma emergencies. It was well received and represents an effective and engaging educational strategy in pediatric nursing training.

Child runaway: prevalence and preventive measures

Salleoui L, Hmandi O, Ben Ftima MA, Ouni M, Aloui F, Allouche M

The department of forensic medicine, Charles Nicolle University Hospital, Tunis, Tunisia

Introduction: Child runaway is a concerning social phenomenon with significant implications for the safety and development of affected child. Running away exposes children to heightened risks of exploitation.

Aim: This study Aims to explore the characteristics and circumstances surrounding runaway cases among minors with the goal of informing multidisciplinary interventions and policy responses.

Methods: This is a retrospective cross-sectional and epidemiological study focused on children under the age of 18 who runned away from home were referred to the Department of Forensic Medicine at Charles Nicolle Hospital in Tunis for suspected sexual abuse between January 1 2024 and December 31 2024.

Results: During the study period a total of 142 children were referred to the Department. The vast majority were female (97.9%) with a mean age of 15.22 years (± 1.47). The duration of absence varied from one day to three weeks. During these

episodes 59.2% of the children reported staying at a friend's home. Regarding educational status 32.6% were dropped out of school. Socioeconomic status was classified as low in 72.5% of cases. Notably 30.6% of the children reported experiencing sexual assault during their time away from home. Among these vaginal penetration was the most frequently reported form of assault (46.6%). Genital examinations revealed normal findings in 67.3% of cases. However old hymenal tears were observed in 14.2%.

Conclusion: Understanding the underlying causes demographic profiles and risk factors associated with child runaway is essential for developing effective prevention strategies and support systems. The Results underscore the urgent need for targeted prevention programs early psychological support.

Assessment of Patient-Reported Experience During Endoscopy: Application of the Newcastle ENDOPREM Questionnaire in Tunisia

Louati C, Lassoued K, Belhaj Ammar L, Nsibi S, Tlili R, Kallel L

Service de gastro-entérologie Hôpital Mahmoud El Matri, Ariana, Tunisie

Introduction: Patient experience during endoscopy varies widely and should be routinely assessed before during and after the procedure. The Newcastle ENDOPREM™ developed and validated in the United Kingdom is a comprehensive tool designed to measure patient-reported experiences. We translated and culturally adapted this questionnaire for use in the Tunisian population.

Objective: To evaluate the experience of patients who underwent endoscopy in our department from the initial consultation to the communication of Results using the adapted Newcastle ENDOPREM™ questionnaire.

Methods: A prospective descriptive and analytical study was conducted in the Gastroenterology Department of Matri Regional Hospital between September and November 2023 including all adult patients undergoing endoscopy. The questionnaire assessed overall patient experience including reception waiting time and conditions explanation of the procedure satisfaction during the examination delivery of Results and post-procedure information. A global score out of 85 points was calculated with a satisfaction threshold of 60 points (70%).

Results: Ninety-three patients were included (mean age 56 years 56.9% male). A positive experience score was achieved in only 21.5% of cases. Patients with medical or surgical histories and those undergoing unsedated endoscopy were more likely to report a negative experience ($p = 0.029$). Higher educational level was also associated with a poorer overall experience ($p = 0.032$).

Conclusion: The Newcastle ENDOPREM™ questionnaire was easily applicable to our Tunisian population. Its use may improve endoscopic care quality and help identify patient subgroups at higher risk of negative experience.

Référence : <https://doi.org/10.1136/bmjgast-2021-000653>

Prognostic Factors of Gastrointestinal Stromal Tumors: A 15-Year Single-Center Experience

Mesbahi M, Cherif M, Mahmoudi W, Khedhiri N, Zaafour H, Hadded D

Department of surgery , Habib Thameur Hospital, Medecine University Of Tunis)

Introduction: Gastrointestinal stromal tumors (GISTs) are rare

mesenchymal neoplasms of the digestive tract with highly variable biological behavior. Identification of reliable prognostic factors remains crucial for postoperative management and adjuvant therapy decisions.

Aim: To analyze clinicopathological characteristics and determine prognostic factors influencing overall and recurrence-free survival in patients operated on for GIST over a 15-year period.

Methods: A retrospective study was conducted including 60 patients who underwent surgery for GIST at Habib Thameur Hospital (2005–2019). Clinical radiological surgical and pathological data were collected. Tumors were classified according to Fletcher Miettinen-Lasota and Joensuu criteria. Survival outcomes were estimated using Kaplan–Meier curves and independent prognostic factors were identified using multivariate Cox regression analysis.

Results: The mean age was 64 years (range 34–85) with a slight female predominance (55%). The most common site was the stomach (60%) followed by the small intestine (36.7%). Complete (R0) resection was achieved in all cases. The 5-year overall survival was 54% and the recurrence-free survival was 68%. In multivariate analysis tumor size >10 cm mitotic index >10/50 HPF tumor rupture serosal invasion and cytonuclear atypia were identified as independent predictors of poor prognosis ($p < 0.05$). Adjuvant Imatinib therapy significantly improved recurrence-free survival in high-risk patients.

Conclusion: GIST prognosis depends mainly on tumor size mitotic activity and rupture status. Accurate risk stratification and adjuvant targeted therapy are essential to improve long-term outcomes.

Factors Influencing Women's Sexuality in Tunisia

Somri B, Sabkha NH, Arfaoui B, Samaali K, Hannachi MA, Neji K

CMNT

Introduction : Menopause induces physiological psychological and emotional changes of varying intensity that may negatively impact women's quality of life and sexual functioning. Our health facility receives a large number of women aged over 40 years seeking sexual and reproductive health services each year.

Aim : This prompted us to conduct a study Aiming to identify the predictive factors associated with sexual dysfunction among this population.

Methods : We conducted a descriptive cross-sectional single-center study over a one-year period from January 1 to December 31 2022. Female sexual function was assessed using the validated Arabic version of the Female Sexual Function Index (FSFI) questionnaire. Sexual dysfunction was defined by an FSFI score ≤ 26.55 .

Results : The mean FSFI score was 17.61 ± 7.19 with values ranging from 2 to 30.4. The prevalence of sexual dysfunction in our study population was 91.7%. A progressive decline in FSFI scores was observed across menopausal stages: • Premenopause: 20.21 ± 6.4 • Perimenopause: 17.53 ± 7.33 • Postmenopause: 13.51 ± 5.11 The type of marriage influenced sexual function with dysfunction observed in 95.2% of women in traditional marriages compared to 82% in love-based marriages. Additional predictive factors for sexual dysfunction included low sexual motivation psychological distress unfavorable social environment and lack of initiation of sexual activity.

Conclusion : Female sexual dysfunction is a multifactorial and multidimensional condition involving biological psychological and socio-cultural determinants. It often Results in significant personal distress. Health professionals play a key role in recognizing and supporting women facing sexual health

challenges.

Evaluation of the Acceptance and Efficacy of Long-Acting Reversible Contraceptives in Young People

Somri B, Hannachi MA, Samaali K, Mizouni R, Malek M, Neji K

CMNT, Service B

Introduction: Long-acting reversible contraceptive Methods (LARC) such as intrauterine devices (IUDs) and subdermal implants are highly effective and require minimal user intervention making them ideal for preventing unintended pregnancies. Despite his progressive family planning program LARC uptake among adolescents and young adults remains limited. Key barriers include limited awareness provider reluctance cultural sensitivities and persistent myths about fertility.

Methods / Study This review draws on regional data from 2019 until 2022 complemented by findings from a local observational study conducted in urban health centers. The Aim was to assess both the acceptability and actual usage of LARC Methods among young women following standardized contraceptive counseling.

Results : Although 70% of healthcare providers recognize the clinical effectiveness of LARC only 30% routinely recommend these **Methods** to women under 25. However after targeted counseling sessions over 45% of young women in the health centers expressed a preference for LARC citing its convenience and reliability. This suggests that access to accurate information significantly improves method acceptability.

Conclusion : To enhance LARC uptake in youth population it is essential to strengthen rights-based reproductive health services expand youth-friendly counseling and improve provider training. Addressing social norms and misinformation can significantly improve both the acceptability and usage of LARC Methods among young people.

Fetal Echocardiographic Surveillance in Pregnancies Complicated by Maternal Anti-Ro/SSA Antibodies: A Case Series

Sabkha NH, Yahyaoui R, Ben Saidane S, Bouguerra B

Hopital Charles Nicole G26

Background: Maternal anti-Ro/SSA antibodies can cross the placenta and induce fetal atrioventricular (AV) conduction abnormalities including congenital heart block (CHB). Early fetal echocardiographic monitoring is essential to detect subclinical rhythm changes and initiate timely therapy.

Aim: To describe the echocardiographic findings clinical management and perinatal outcomes in a small cohort of pregnancies complicated by maternal anti-Ro/SSA antibodies.

Methods: We conducted a prospective case series including six pregnant women with confirmed anti-Ro/SSA positivity followed at our tertiary maternal–fetal medicine unit between 2022 and 2025.

Serial fetal echocardiography was performed weekly from 16 to 26 weeks of gestation assessing PR interval heart rate and myocardial function. Maternal dexamethasone (4 mg/day) was initiated upon detection of conduction delay.

Results: Two fetuses (33%) developed first-degree AV block around 22 weeks of gestation. Both cases responded favorably to corticosteroid therapy with normalization of PR interval within two weeks. No cases of complete CHB hydrops or fetal demise were observed. The remaining four fetuses maintained normal cardiac conduction throughout pregnancy. All neonates

had normal sinus rhythm at postnatal evaluation.

Conclusion: This small case series highlights the value of systematic fetal echocardiographic surveillance in pregnancies with maternal anti-Ro/SSA antibodies. Early identification of conduction delay may allow timely intervention and favorable perinatal outcomes. Larger prospective studies are needed to confirm these findings.

Post-traumatic stress disorder in a Tunisian clinical population : distribution by age and gender

Baccar M., Bourgou S., Charfi F.

Department of Child and Adolescent Psychiatry, Mongi Slim Hospital, La Marsa, Tunisia

Introduction: Post-traumatic stress disorder (PTSD) is a common but often overlooked condition in children and adolescents.

Aim: To describe the frequency of PTSD in a Tunisian clinical population of children and adolescents and to examine its association with sociodemographic variables

Methods: A cross-sectional study was conducted in the child psychiatry department of Mongi Slim Hospital (February 2024-February 2025). The sample included 300 children and adolescents aged 8–18 years. Each participant received an information and parental consent form, a demographic data sheet and the tunisian version of the Children Revised Impact of Event Scale (CRIES-13). Data were analyzed using SPSS 26.

Results: The mean age was 12.51 ± 2.64 years, with a slight female predominance (58.3%). PTSD was found in 43.3% of participants. Girls showed a slightly higher proportion of PTSD (45.7%) compared to boys (40%), but this difference was not statistically significant ($p = 0.325$). The frequency of PTSD increased progressively with age, peaking around 15–16 years. This association was statistically significant ($p = 0.028$).

Conclusion: PTSD was frequent in this Tunisian clinical population and tended to increase with age, without gender differences. These findings highlight the relevance of the CRIES-13 for PTSD screening among Tunisian youth and support its cross-cultural validation as a reliable clinical tool.

Endoscopic Ultrasound in Pancreatitis of Indeterminate Etiology

Hajlaoui A, Ben Mehrez C, Souli F, Bostani S, Ghanem M, Ben Abdallah H

Service de gastroentérologie de l'hôpital Militaire Principal D'instruction Tunis

Introduction: Acute pancreatitis (AP) is a common gastrointestinal emergency and its etiology remains undetermined in a substantial number of cases despite standard investigations. Endoscopic ultrasound (EUS) offers high-resolution imaging of the pancreatic and biliary systems enabling the detection of subtle pathological abnormalities that may not be visualized on conventional imaging.

Aim: To evaluate the diagnostic contribution of EUS in determining the etiology of AP of initially unknown origin.

Methods: A retrospective study was conducted including patients who underwent EUS between 2021 and 2025 for etiological evaluation of AP after clinical stabilization. Patients with an established cause of AP prior to EUS were excluded. Demographic clinical laboratory imaging and EUS findings were analyzed. Statistical analysis was performed using SPSS.

Results: Twenty-eight patients were included with a mean age of 49.0 ± 16.3 years and a female predominance (57.1%). Previous AP was noted in 60.7% and 39.3% had undergone

cholecystectomy. Typical epigastric pain was present in 78.6% and 57.1% exhibited elevated liver enzymes. According to the Balthazar classification stages C(39.3%) and B(32.1%) were most frequent. Cross-sectional imaging (CT and MRI) was normal in all cases and did not identify the etiology. EUS revealed abnormalities in 61% of patients identifying chronic pancreatitis(25%) cystic or neoplastic pancreatic lesions (18%) biliary sludge or cholangitis(15%) autoimmune cholangiopancreatopathy (3.6%) and ampulloma(3.6%). EUS was normal in 14% of cases.

Conclusion: EUS demonstrated a high diagnostic yield identifying a specific etiology in over 80% of cases. It is a valuable second-line diagnostic tool when standard imaging fails to reveal the cause of AP.

Childhood Maltreatment and Vicarious Trauma among Child and Adolescent Psychiatry Residents

Ghenimi A¹, Bourgou S^{1,2}, Charfi F^{1,2}

1. Service de Pédiopsychiatrie, Hôpital Mongi Slim, La Marsa, Tunis, Tunisie

2. Faculté de Médecine de Tunis, Université Tunis El Manar, Tunisie

Introduction: Child and Adolescent Psychiatry (CAP) residents are frequently exposed to the suffering and trauma of young patients, which may place them at risk of vicarious trauma

Aim: This study Aimed to explore the association between childhood maltreatment and vicarious trauma among Child and Adolescent Psychiatry residents in Tunisia.

Methods: A cross-sectional survey was conducted from August 18 to September 16, 2024, among CAP residents working in Tunisian hospitals. Participants completed an anonymous online questionnaire including sociodemographic and professional data, the Compassion Fatigue Test (TUC) to assess vicarious trauma, and the Childhood Trauma Questionnaire (CTQ) to assess childhood maltreatment. Statistical analyses were performed using SPSS v23 with non-parametric tests and Spearman's correlations.

Results: We recruited 48 residents with a mean age of 29 ± 2.1 years and a sex ratio of 0.896. The median TUC score was 41.5 [IQR = 35.5–50.5], with a very high risk of vicarious trauma in 54.2%. The median CTQ score was 35 [IQR = 28–42]; emotional neglect and emotional abuse were the most frequent forms of maltreatment (41.7% each). A moderate positive correlation was found between total CTQ and TUC scores ($r = 0.47$; $p = 0.001$), indicating that higher childhood trauma exposure was associated with greater vicarious trauma. Emotional neglect ($r = 0.414$; $p = 0.003$) and emotional abuse ($r = 0.455$; $p = 0.001$) were the strongest predictors of vicarious trauma risk.

Conclusion: Residents with a history of childhood maltreatment, particularly emotional neglect or abuse, appear more vulnerable to vicarious trauma.

Heterogeneous presentations of systemic sarcoidosis: Insights from 61 Cases

Boukhzar R, Daoud F, Arbaoui I, Rachdi I, Boussema F, Somai M

University Of Tunis El Manar, faculty Of Medicine Of Tunis, Habib Thameur Hospital, department Of Internal Medicine, Tunis, Tunisia

Introduction: Systemic sarcoidosis (SS) is a multisystem inflammatory disease characterized by non-caseating granulomatous inflammation. Its clinical presentation is heterogeneous often leading to diagnostic delays.

Aim: This study Aimed to describe the diverse modes of

presentation of SS and highlight the diagnostic challenges encountered.

Methods: We conducted a retrospective descriptive study including patients diagnosed with SS between 2014 and 2024 in our internal medicine department. The diagnosis was based on compatible clinical biological and radiological findings with histological confirmation of non-caseating granulomas after exclusion of other granulomatous diseases particularly tuberculosis.

Results: We identified 61 cases of systemic sarcoidosis (SS) including 55 women (90%) and 6 men (10%). The mean age at disease onset was 51.97 ± 11.07 years (range: 31–76 years). The main presenting clinical features were cutaneous manifestations in 24.6% of cases ocular involvement in 21.3% (predominantly uveitis) and peripheral lymphadenopathy in 11.5%. Pulmonary sarcoidosis was identified either incidentally on radiological imaging (9.8%) or through respiratory symptoms (6.6%). Other initial presentations included neurological manifestations in 4.9% and cholestatic liver dysfunction in 4.9%. Löfgren's syndrome characterized by lymphadenopathy erythema nodosum and arthritis was the initial presentation in 4.9% of cases. Polyarthritis and sicca syndrome each revealed the disease in 3.3% of patients as did nasal obstruction. One patient presented with severe hypercalcemia (3.6 mmol/L) as the first manifestation.

Conclusion: SS exhibits diverse initial presentations most commonly cutaneous and ocular. Recognition of these variable modes of onset is essential to avoid diagnostic delay and to optimize multidisciplinary management.

Autopsy-Based Study of Mesenteric Ischemia-Related Mortality: A Six-Year Experience

Braham R, Manoubi SA, Zidi H, Salleoui L, Cherif K, Allouche M

Department of Legal Medicine, Charles Nicolle University Hospital, Tunis, Tunisia

Introduction: Mesenteric ischemia represents a critical diagnostic challenge in emergency medicine. However, the diagnosis may be overlooked due to the non-specific nature of clinical symptoms, contributing to its high mortality rate.

Aim : This study Aimed to analyze the epidemiological, clinical, and pathological characteristics of fatal mesenteric ischemia cases through post-mortem examination.

Methods: We conducted a retrospective analysis of all forensic autopsies performed at Forensic Medicine Department of Charles Nicolle University Hospital in Tunis between June 2019 and June 2025 where mesenteric ischemia was identified as the primary cause of death. Diagnosis was established through macroscopic examination during autopsy.

Results: Among all autopsies performed during the study period, 16 cases (0.1%) were attributed to mesenteric ischemia. The mean age at death was 63 years (range 3-92) with equal gender distribution. Cardiovascular risk factors were prevalent: pre-existing cardiovascular disease (40%), hypertension (10%), diabetes (6.7%), and atrial fibrillation (10%). Most patients (86.7%) presented with pre-mortem symptoms, predominantly abdominal pain (53.3%). Despite 43.8% of patients seeking emergency care, only 12.5% underwent abdominal CT imaging. Arterial thrombosis accounted for 75% of cases, primarily involving the superior mesenteric artery (73.3%), with identifiable thrombus in 62.5% of autopsies.

Conclusion: This study underscores the persistent diagnostic difficulties in mesenteric ischemia, frequently unrecognized despite characteristic symptoms. The low utilization of definitive imaging modalities highlights potential opportunities

for improved diagnostic protocols. Autopsy remains an essential tool for confirming diagnosis and understanding the pathophysiology of this fatal condition.

Targeting Prevention: A Decade of Data Reveals Key Temporal Patterns in Pedestrian Fatalities

Braham R, Manoubi SA, Aloui F, Ouni M, Marai A, Allouche M

Department of Legal Medicine, Charles Nicolle University Hospital, Tunis, Tunisia

Introduction: Pedestrian fatalities represent a persistent and significant cause of preventable mortality in urban environments. A detailed understanding of their temporal distribution is crucial for developing effective, targeted public health interventions.

Aim: This study Aimed to analyze chronological trends in pedestrian mortality, identifying high-risk periods across daily, monthly, and seasonal cycles.

Methods: We conducted a retrospective analysis of all pedestrian fatalities recorded in the autopsy registry of the Department of Forensic Medicine at Charles Nicolle Hospital in Tunis, Tunisia, between January 2014 and December 2023. Data extraction included sociodemographic details, circumstances of the accident, and the precise date and time of death.

Results: Over the 10-year period, 1,510 pedestrian deaths were documented, constituting 6.56% of the department's forensic caseload. Analysis revealed significant temporal clustering: mortality peaked on weekends. The autumn months (27.5%), particularly September (9.6%) and October (9.4%), were the highest-risk period, followed by winter (25.2%). A pronounced diurnal pattern was observed, with the late afternoon to early evening (4:00–8:00 p.m.) being the most critical interval, accounting for 16.9% of fatalities. The analysis also identified clusters of fatalities coinciding with religious and festive periods, including Ramadan (6.3%) and Eid (1.6%).

Conclusion: This chronological mapping unequivocally identifies specific high-risk periods for pedestrian fatalities, strongly associated with social rhythms, traffic flux, and behavioural factors. These evidence-based insights provide a critical foundation for the strategic implementation and timing of public safety campaigns Aimed at reducing pedestrian mortality.

Assessment of Primary Care Knowledge Regarding Delayed Neurological Sequelae

Hammami O¹, Ben Charef E², Bacha I³, Mchirgui I³

1. Department of Pediatrics, Menzel Bourguiba Hospital, Bizerte, Tunisia

2. Emergency Department and SAMU 04, Habib Bourguiba Hospital, Sfax, Tunisia

3. Emergency Department, Bougatfa Hospital, Bizerte, Tunisia

Introduction: Carbon monoxide (CO) poisoning remains the leading cause of accidental poisoning-related death worldwide and in Tunisia. Delayed neuropsychiatric syndrome (DNS) occurring one to three weeks after exposure affects 1–40% of patients. While acute management occurs in hospitals primary care physicians are responsible for post-exposure follow-up.

Aim: To assess the knowledge and management of DNS following CO poisoning among primary care and emergency physicians in the Sfax region.

Methods: A descriptive cross-sectional study was conducted using an anonymous online questionnaire distributed via professional email between December 2023 and June 2024.

Results: The response rate was 12.4% (62 participants). The mean professional experience was 7.1 years.

Long-term follow-up after CO poisoning was recommended in 83.9% of cases. Most respondents (70.9%) were aware of DNS but knowledge levels varied: 80.7% identified predictive factors only 20.9% recognized the latency period and 20.7% reported systematic screening. Higher knowledge scores were significantly associated with longer professional experience ($p=0.048$). Despite limited systematic screening neurological follow-up after CO poisoning was generally maintained.

Conclusion: In the absence of national guidelines DNS remains underrecognized in Tunisia. Improving post-CO poisoning management requires stronger communication and coordination between hospital and primary care settings.

Neutrophil-to-lymphocyte ratio as a predictor for poor functional outcome in ischemic stroke : A Prospective Study

Majoul MS, Messelmani M, Ben Chihi F, Derbali H, Zaouali J

Department of Neurology, Military Hospital of Tunis, Tunisia

Introduction: Role of inflammation in the acute phase of ischemic stroke (IS) has been demonstrated in anatomopathological studies. Blood cell count ratios such as the neutrophil-to-lymphocyte ratio (NLR) have been rarely investigated in IS functional prognosis.

Aim: To determine the value of the neutrophil-to-lymphocyte ratio in predicting functional prognosis after ischemic stroke.

Methods : A monocentric observational prospective study was conducted at the neurology department of the military hospital of Tunis from January to December 2024 including patients diagnosed with IS. NLR was computed and functional outcome was determined using the modified Rankin scale (MRS) during the follow-up period. Excellent functional outcome as MRS [0 – 1] a good functional outcome as MRS [0 - 2] and a poor functional outcome as MRS [3 – 6].

Results: We included 123 patients. Sex ratio (M/F) was 1.93. Median age of our patients was 63 years (IQR=18). Median MRS at admission was 2 (IQR=3). Median NLR was 3.1 (IQR=2.9). Higher NLR was associated with higher MRS at admission ($p=0.004$) at day-7 ($p=0.002$) and at 3 months ($p=0.022$). This correlation was not identified at 6 months ($p=0.129$). In patients with poor functional outcome NLR was significantly higher in comparison with good and excellent outcome groups ($p<0.001$).

Conclusion : Our study showed the role of NLR in predicting poor functional outcome in IS. This affordable tool can help identify patients at high risk of complications help optimize healthcare provided and alleviate handicap and mortality associated with IS.

Exploring the link between Insomnia symptoms and chronotypes in a Tunisian cohort

Ben Hmida L¹, Majoul MS², Messelmani M², Derbali H², Moatemi Z¹, Zaouali J²

1. Department of Neurology, Military Hospital of Tunis, Tunisia

2. Department of pulmonology, Military Hospital of Tunis, Tunisia

Introduction : Chronotypes influence sleep-wake preferences and circadian rhythms. Understanding their link to insomnia may improve the management of patients with sleep disorders.

Aim : Investigate the impact of chronotypes on insomnia symptoms in a Tunisian population **Methods** A cross-sectional

study was conducted among healthcare providers in the Military Hospital of Tunis. Chronotype determination was done through the Horne-Ostberg Questionnaire (HOQ). Insomnia symptoms were identified using components 2 and 5 of the Pittsburgh Sleep Quality Index (PSQI).

Results : We included 120 participants. Sex-ratio was 1.2 and median age was 31 years (IQR=15). Morning-type represented 65% (n=78) intermediate 10.8% (n=13) and evening-type 24.2% (n=29). Morning-type participants showed shorter sleep latency ($p=0.042$) and better sleep maintenance with less frequent middle-of-the-night waking ($p=0.025$). Evening-type participants presented more nightmares ($p=0.017$) and more severe subjective repercussions on sleep quality ($p=0.032$).

Conclusion : Our study showed the role of chronotype in insomnia and its repercussions in a Tunisian Cohort. The significant association between evening-type chronotype and insomnia underscores the “social jetlag” caused by the discrepancies between the endogenous circadian rhythm and the social sleep-wake cycle. Chronotype determination should be assessed systematically in patients with insomnia to diagnose advanced sleep phase syndrome and suggest chronotherapy or phototherapy when needed.

Skin involvement in systemic sarcoidosis: Insights from a 10-year retrospective study

Boukhza R, Daoud F, Arbaoui I, Rachdi I, Boussema F, Somai M

Department of internal medicine, Habib Thameur hospital, Tunis, Tunisia

Introduction: Cutaneous involvement occurs in 20–35% of patients and provides an important diagnostic clue in systemic sarcoidosis (SS).

Aim: This study Aimed to describe the epidemiological clinical therapeutic and evolutionary features of cutaneous manifestations in SS.

Methods: We conducted a retrospective study including patients followed for SS in our internal medicine department from 2014 to 2024. Patients were divided into two groups: Group 1 (SS with cutaneous involvement) and Group 2 (SS without cutaneous involvement).

Results: Among 61 patients lymph node and pulmonary involvement were most frequent. Cutaneous manifestations were observed in 33 patients (54%) mostly women (93.9%) and were concomitant with diagnosis in 63.6% or inaugural in 24.6%. Specific lesions included small nodular sarcoidosis (n=12) plaque sarcoidosis (n=7) large nodular sarcoidosis (n=5) and lupus pernio (n=4) while erythema nodosum was the main nonspecific lesion (n =6). The face was the most affected site. Synthetic antimalarials were used in 22 patients and relapse occurred in 21.2%. Glandular lymph node splenic and neurological involvement as well as lymphopenia and hypercalcemia were more common in Group 1 but differences were not statistically significant. Ocular involvement predominated in Group 2. Multivariate analysis showed that joint involvement (odds ratio [OR]=4.07 95% CI 1.18–13.97 $p = 0.025$) and Ear-Nose-and-Throat (ENT) involvement (OR = 9.37 95% CI 1.06–83.14 $p = 0.045$) were significantly associated with cutaneous disease.

Conclusion: Cutaneous involvement is frequent in SS and may indicate more systemic disease especially with joint and ENT manifestations. Early recognition guides diagnosis and anticipates systemic involvement.

Epidemiological and Aetiological Profile of Pulmonary Embolism: A Five-Year Retrospective Study

Tekiki S, Debiche S, Debbiche R, Mokaddem S, Yangui F, Charfi MR

University of Tunis El Manar, Faculty of Medicine of Tunis, FSI Hospital, Pulmonology Department, La Marsa - Tunis

Introduction: Pulmonary embolism (PE) remains a common potentially life-threatening condition.

Aim: to describe the epidemiological clinical paraclinical and therapeutic characteristics of patients managed for PE in our department.

Methods: We performed a retrospective descriptive study including patients hospitalised for confirmed PE over five years (2021–2025) in the Pulmonology Department of FSI Hospital La Marsa. Data were collected from medical records and analysed descriptively.

Results: The study included 43 patients with a mean age of 62.6 years (range 26–90) and a male predominance (M/F ratio 1.68). The most frequent presenting symptoms were chest pain (65%) and dyspnoea (63%). Diagnosis was confirmed by computed tomography pulmonary angiography (CTPA 93%) or ventilation–perfusion scintigraphy (7%). CTPA revealed bilateral emboli in 44% proximal involvement in 60% paradoxical septal motion in 12% and pulmonary infarction in 21%. Echocardiography showed right heart chamber dilatation (23%) elevated pulmonary artery systolic pressure (30%) and diastolic dysfunction (7%). Anticoagulation included direct oral anticoagulants (67%) low molecular weight heparins (14%) and vitamin K antagonists (19%). Main aetiologies were malignancy (26%) recent surgery (9%) and obesity (7%). Other causes included oral contraceptives post-stroke chronic venous insufficiency crescentic glomerulonephritis–related renal failure immobilisation post-COVID status and hyperhomocysteinaemia (each 2%). PE was idiopathic in 40%. In-hospital outcomes were favourable in 79% with nine deaths during follow-up.

Conclusion: Pulmonary embolism in our cohort mainly affected elderly male patients. Malignancy was the leading identifiable cause and a high proportion of idiopathic cases underscores the need for systematic risk assessment and vigilant clinical monitoring.

Sudden cardiac death in young individuals in Northern Tunisia: a two-year retrospective forensic study (2023–2024)

Chérif K, Manoubi SA, Marai A, Aloui F, Braham R, Allouche M

Department of legal Medicine Charles Nicolle Hospital of Tunis, Tunisia. Faculty of Medicine of Tunis, Tunisia

Introduction: Sudden cardiac death (SCD) in young individuals represents a significant public health issue characterized by its unexpected nature and profound societal impact. Epidemiological data on its etiology within the young Tunisian population are scarce.

Objective: This study Aimed to characterize the epidemiological clinical and post-mortem profiles of SCD in young subjects through forensic autopsy investigations in Northern Tunisia

Methods: A retrospective descriptive study was conducted by reviewing all autopsy records from the Forensic Medicine Department of Charles Nicolle University Hospital in Tunis between January 2023 and December 2024. Cases involved individuals aged ≤40 years where SCD was the cause of death. Analyzed data included demographics medical history circumstances of death and autopsy findings.

Results: Among 5 058 autopsies performed 1 322 involved young subjects. SCD was the cause of death in 65 cases accounting for 4.9% of young-subject autopsies and 1.3% of all autopsies. The mean age was 31.1 years (range: 1 month-40 years) with a pronounced male predominance (sex ratio: 4.9). A history of smoking was documented in 64.6% of cases. Pre-existing cardiovascular risk factors included diabetes (6.2%) known coronary artery disease (6.2%) and hypertension (3.1%). A family history of sudden death was reported in 4.6% of cases. Premortem symptoms were present in 52.3% of victims. The principal autopsy-determined etiologies were atherosclerotic coronary artery disease (44.6%) pulmonary embolism (21.5%) hypertrophic cardiomyopathy (10.8%) and congenital heart disease (7.7%).

Conclusion: Coronary disease and cardiomyopathy underlie most young SCD highlighting a crucial need for targeted preventive strategies.

Prophylactic amoxicillin vs. placebo for preventing dental implant failure: A systematic review

Chtioui H, Laabidi A, Fejjari M

Université De Monastir, faculté De Medecine Dentaire, hopital Universitaire Habib Bougatfa, service Médecine Dentaire, laboratoire De Recherche A

Introduction: Dental implants are a successful solution for replacing teeth. However implant failure related to infection remains a clinical concern. Prophylactic antibiotics particularly amoxicillin are often prescribed before implant placement to reduce postoperative infections yet their true effectiveness remains debated. This systematic review evaluated whether prophylactic amoxicillin reduces dental implant failure.

Methods: This review followed PRISMA guidelines and was registered in PROSPERO (CRD420250652477). A comprehensive search of PubMed/MEDLINE and the Cochrane Library identified randomized controlled trials (RCTs) published between 2010 and 2024 in English or French. The PICO framework guided the research question. Only RCTs involving healthy adults receiving dental implants and comparing prophylactic amoxicillin with placebo were included. Study selection data extraction and risk-of-bias assessment (RoB 2 tool) were performed independently by two reviewers with a third resolving disagreements. Methodological quality was evaluated using the CONSORT checklist and only studies scoring ≥13 were retained.

Results: Across all included studies 2 527 dental implants were placed. Patients receiving amoxicillin showed fewer postoperative infections (19 vs. 42) and implant failures (21 vs. 52) than those given placebo. Although not all differences were statistically significant the overall trend favored amoxicillin. The most common regimen was a single 2 g dose administered one hour before surgery used in 73% of cases. Follow-ups ranged from one week to six months.

Conclusions: Prophylactic amoxicillin modestly reduces postoperative infections and early implant failures. However its routine use should be limited to high-risk cases to minimize antibiotic resistance. A single 2 g preoperative dose appears adequate and safe.

Epidemiology of Fatal Drug Poisoning in Northern Tunisia

Zidi H, Bellali M, Braham R, Salleoui L, Cherif K, Allouche M

Tunis El Manar University, Faculty of Medicine of Tunis, Charles Nicolle Hospital, Department of Legal Medicine, Tunis, Tunisia.

Introduction : Pharmaceutical poisoning is a significant global public health concern. The **Aim** of this study is to determine the epidemiological profile of fatal drug poisoning cases recorded in northern Tunisia, with the ultimate goal of preventing related morbidity and mortality.

Methods: We conducted a retrospective descriptive study, including all the cases of fatal drug-poisoning occurring between January 2019 and December 2024 in northern Tunisia in the department of legal medicine at Charles Nicolle hospital, Tunis.

Results: A total of 41 cases among 316 intoxications all types included were identified. Males predominated (=60.9%), with a peak incidence among young adults aged 30–39 years (=22.6%). Poly-intoxication was the prevailing pattern, observed in more than 90% of cases. Suicidal intent accounted for approximately 81.03 % of ingestions. Among non-fatal cases, 82.1% required hospital admission. Fatalities were predominantly single individuals (38.4%). A change in the pattern of drug intoxications was observed, with a rising contribution of psychotropic medications, particularly antidepressants such as selective serotonin reuptake inhibitors (SSRIs) (44.4%), as well as antihypertensive agents (36.58%), followed by analgesics (19.51%).

Conclusion: Fatal casualties of drug poisoning in northern Tunisia are frequently young, single men with strong association with suicidal behavior. This pattern would allow planning of targeted preventive measures.

From Autopsy to Algorithm: Artificial Intelligence in Forensic Scene Reconstruction and Its Ethical Implications

Zidi H, Ben Ftima A, Marai A, Cherif K, Ouni M , Allouche M.

Tunis El Manar University, Faculty of Medicine of Tunis, Charles Nicolle Hospital, Department of Legal Medicine,Tunis,Tunisia

The integration of artificial intelligence (AI) into forensic medicine offers transformative potential for reconstructing traumatic events, including crime scenes and road traffic collisions. AI can analyze lesion patterns documented in autopsy reports to infer the biomechanics of injury. This provides reproducible and objective reconstructions that augment traditional expert analysis and enhance evidentiary robustness in judicial contexts. However, the use of AI raises important ethical and legal concerns. Autopsy reports contain highly sensitive medical and forensic information. Their digitization for computational analysis carries risks of privacy breaches and unauthorized disclosure. The development of AI tools in forensic medicine must therefore be guided by secure data governance and ethical frameworks to support medico-legal investigation and judicial decision-making. The objective of this work is to explore the applications of AI in forensic medicine and to assess the ethical and legal implications of its use.

Enhancing Medicolegal Death Reporting: An Evaluation of ICD-11 Post-Coordination Coding in Northern Tunisia

Marai A, Hmandi O, Manoubi SA, Ouni M, Zidi H, Zribi M, Skhiri H, Allouche M

Department of Forensic Medicine, Charles Nicolle Hospital, Tunis, Tunisia

Introduction: Accurate classification of causes of death is essential in forensic medicine. The eleventh revision of the International Classification of Diseases (ICD-11) introduces a post-coordination system allowing multiple codes to capture

complex details improving precision over ICD-10.

Aim: This study Aimed to evaluate the application and utility of ICD-11 post-coordination codes in medicolegal death reporting at the Forensic Medicine Department of Charles Nicolle Hospital Tunis.

Methods: This was a descriptive cross-sectional study conducted on all deaths autopsied or examined at the Forensic Medicine Department of Charles Nicolle Hospital in Tunis from January 1 to December 31 2023. ICD-11 stem codes were used to record underlying causes of death while extension codes added detail on severity temporality etiology anatomy injury dimensions location and toxic substances.

Results: A total of 1 959 cases (88.5%) were successfully post-coordinated. In our context most extension codes described the location of death: “XE36S: In-hospital” (n = 1345 68.7%) “XE266: Home” (n = 408 20.8%) and “XE5NE: Public highway street or road” (n = 201 10.3%). Road traffic accident details were also precisely captured including vehicle counterparts such as “XE0JH: Car as counterpart in land transport crash” (n = 160 8.17%). ICD-11 also introduced new categories relevant to sexual assault personal abuse history and terrorist acts. The post-coordination system facilitated simultaneous coding of multiple circumstances enhancing precision for forensic reporting.

Conclusion: Post-coordination substantially improves the precision and flexibility of medicolegal death coding. It enables detailed documentation of causes circumstances and mechanisms of death supporting better epidemiological analysis.

Death by Strangulation in Northern Tunisia: A 9-Year Epidemiological Study

Marai A, Bellali M, Cherif K, Salleoui L, Braham R, Allouche M

Department of Forensic Medicine, Charles Nicolle Hospital, Tunis, Tunisia

Introduction: Strangulation represents a severe form of violent death with major forensic and public health implications. In Tunisia epidemiological data on this phenomenon remain scarce.

Aim: Our study Aimed to describe the epidemiological profile of strangulation victims in northern Tunisia.

Methods: This was a retrospective descriptive study including all deaths by strangulation autopsied at the Department of Forensic Medicine of Charles Nicolle Hospital in Tunis over a 9-year period from January 1 2014 to December 31 2022.

Results: A total of 55 cases of death by strangulation were collected. The distribution by sex showed a sex ratio of 1.6 (M/F). The mean age was 41.7 years with a frequency peak in the 19–44 age group. Deaths were more frequent during the winter season representing 23 cases (41.8%) with January first at 20% (n=11). Among the 55 cases victims were found at home in 63.6% of cases (n=35) in a public place in 30.9% (n=17) and in their workplace in 3 cases (5.5%). The medicolegal form of death was mainly homicidal (n=46 83.6%) where the victim knew the perpetrator in 25 cases (45.5%) and the perpetrators were strangers in 21 cases (38.2%). The most common type of strangulation was ligature accounting for 72.7% of cases (n=40) followed by manual strangulation in 21.8% (n=12). Cervical skin lesions were observed in 74.5% of cases (n=41).

Conclusion: Strangulation remains a significant forensic phenomenon. Homicidal cases are predominant often involving acquaintances underscoring the need for targeted prevention and awareness strategies.

Legal Analysis of the New Tunisian Legislation on Patient Information and Consent

Marai A, Bellali M, Ouni M, Cherif K, Aloui F, Allouche M

Department of Forensic Medicine, Charles Nicolle Hospital, Tunis, Tunisia

Introduction: Information and consent are cornerstones of medical law and ethics. The enactment of Law No. 2024-32 on June 19 2024 marks the first explicit recognition of these principles in Tunisian medical law.

Aim : This study Aimed to analyze the new Tunisian Law No. 2024-32 of June 19 2024 relating to the rights of healthcare service beneficiaries and medical liability and its implications for medical practice.

Methods: This was a legal analysis based on the official Law No. 2024-32. Sections related to information and consent were analysed and interpreted to assess their implications for medical practice.

Results: Law No. 2024-32 strengthens patients' rights and healthcare professionals' accountability. Article 12 mandates prior written information on the identity of the treating physician the proposed examinations and treatments and their necessity as well as recurrent and foreseeable serious risks. Exemptions are emergency situations the patient's refusal to receive information and cases involving a serious or incurable illness where disclosure could negatively affect the patient's condition (Article 13). Article 14 requires healthcare professionals to obtain the patient's or legal guardian's prior free and informed consent documented in writing while exemptions in cases of emergency or when obtaining consent from the patient guardian or legal representative is impossible are outlined by Article 15. Noncompliance may entail criminal and civil liability including patient compensation.

Conclusion: Law No. 2024-32 significantly advances Tunisian medical law by formalizing information and consent obligations reinforcing professional accountability and promoting patient protection and care quality.

Role of MRI in the Diagnosis of Abdominal Wall Endometriosis

Talbi O, Boussetta S

Faculté de médecine de Tunis,Hôpital régional de Ben Arous,service d'imagerie médicale.

Introduction : L'endométriose pariétale est une localisation rare de l'endométriose extra-génitale.Sa prévalence est estimée entre 0.03 et 1% après césarienne. Le diagnostic clinique des nodules peut être difficile en dehors d'une endométriose pelvienne connue.

Méthodes : Etude monocentrique rétrospective descriptive ayant colligé une série de 28 patientes âgées de 23 à 53 ans sur une période de 10 ans allant de Février 2014 à Janvier 2024 explorées par IRM pelvienne et de la paroi abdominale . 7 patients ont eu ont plus une échographie doppler de la paroi du nodule.

Résultats : 27 sur les 28 patientes avaient dans leur antécédent une ou plusieurs césariennes. Les nodules de paroi se localisaient au niveau du muscle droit de l'abdomen dans neuf cas du muscle droit gauche dans neuf autres cas sur la cicatrice de césarienne dans sept cas à l'ombilic quatre cas et sur la cicatrice d'épisiotomie dans un cas. L'IRM pelvienne avait trouvé un aspect typique du nodule endométriosique dans 15 cas. Dans le reste des cas une confrontation des données de l'IRM

et cliniques ainsi que l'association à une endométriose interne superficielle ou profonde (Sept patientes) a pu considérer comme présumée le diagnostic d'endométriose par IRM.

Conclusion: L'IRM a une place certaine pour confirmer le diagnostic lorsqu'elle est faite pendant la période menstruelle et en présence de signal lésionnel typique d'en étudier l'extension en profondeur et de poser ou orienter vers un diagnostic alternatif en l'absence de sémiologie typique .

Congenital Cysts in Adults: Clinical Experience from the Otolaryngology Department of Taher Maamouri University Hospital, Nabeul

Ferchichi S, Kharrat G, Gritli K, Chakroun A, Dhouib F, Charrada K

Med Taher Maamouri University Hospital, Faculty of Medicine of Tunis, University of Tunis el Manar

Introduction: Congenital cysts of the neck are uncommon findings in adults and originate from developmental anomalies such as thyroglossal duct and branchial cleft remnants. Although benign in most cases these cysts can become symptomatic due to infection enlargement or rarely malignant transformation. Accurate diagnosis and adequate surgical management are essential to achieve optimal outcomes.

Aim: To describe the clinical presentation surgical management and postoperative outcomes of congenital cysts in adults treated at the Otolaryngology Department of Taher Maamouri University Hospital in Nabeul.

Methods:A retrospective study was conducted on adult patients diagnosed with congenital cysts between January 2015 and December 2024. Demographic data cyst type and site clinical presentation imaging findings surgical techniques histopathology and outcomes were analyzed.

Results: Thirty-eight patients were included (mean age: 33.7 years). The most common lesions were thyroglossal duct cysts (47%) second branchial cleft cysts (32%) fourth branchial cleft cysts (8%) and dermoid cysts (13%). All underwent complete surgical excision under general anesthesia. Surgery was uneventful in most cases except for one postoperative hematoma successfully managed by drainage. Histopathological examination revealed one case of papillary carcinoma arising from a thyroglossal duct cyst. The postoperative course was otherwise favorable. After a mean follow-up of 22 months only one recurrence (2.6%) was recorded.

Conclusion: Congenital cysts in adults are benign lesions with excellent surgical outcomes. Malignant transformation although rare highlights the importance of systematic histopathological examination. Complete excision ensures low recurrence and minimal morbidity.

Postnatal consultation: attendance rate and reasons for dropout

Bouguerra S, Ben Saidane S, Sabkha NH, Ben Chaalia C , Yahyaoui R, Bouguerra B

Service de gynécologie-obstétrique B Hopital Charles Nicolle de Tunis

Introduction: Postnatal consultation is a crucial step in maternal care enabling early detection of complications and reinforcing health education. However attendance remains low in many developing contexts including Tunisia.

Objective: To assess the attendance rate of postnatal consultations and to identify the main reasons for non-attendance among women delivering in the G26 Department of Obstetrics and Gynecology.

Methods: A descriptive retrospective study was conducted between January and June 2025 in the G26 Department of Obstetrics and Gynecology. A total of 500 women who gave birth in the service were included. Data were collected from medical records and a structured telephone questionnaire during the postpartum period. Variables studied included age parity educational level socioeconomic status and delivery mode. Statistical analysis was performed using SPSS version 23.

Results: The attendance rate for postnatal consultation was 38%. The main reasons for non-attendance were lack of information about the importance of the visit (42%) transportation difficulties (26%) feeling of good health (18%) and family or time constraints (14%). Low educational level ($p < 0.05$) rural residence ($p < 0.01$) and multiparity ($p = 0.04$) were significantly associated with non-attendance.

Conclusion: Postnatal consultation remains underutilized in our setting. Enhanced patient education during hospitalization and greater involvement of midwives in postpartum counseling could improve adherence and prevent avoidable maternal complications.

Sleep Disorders During Pregnancy: Prevalence, Types, and Associated Factors

Ben Slimen NH, Salah H*, Khalfalah I.

University Tunis El Manar, Faculty Of Medicine Of Tunis, Dar Chaabene Primary Healthcare Center, Nabeul, Tunisia,

*University Tunis El Manar, Faculty Of Medicine Of Tunis, Mohamed Tletli Hospital, Obstetrics And Gynecology Department, Nabeul, Tunisia.

Introduction: During pregnancy sleep is often disrupted by profound hormonal anatomical psychological and behavioral changes experienced by the expectant mother.

Aims: To assess the frequency nature and impact of sleep disorders in pregnant women and associated factors.

Methods: A cross-sectional study was conducted among women in the immediate postpartum period at Mohamed Tletli Regional Hospital in Nabeul. Data were collected via an anonymous questionnaire covering sleep habits symptoms and risk factors.

Results: The study included 52 patients with a mean age of 28.3 years [20-38] mostly primiparous (61.5%) and 32.7% were overweight. Sleep disturbances worsened significantly in the third trimester: insomnia affected 65.4% of patients (compared to 7.7% before pregnancy) particularly sleep maintenance and 57.7% experienced 3 to 5 nocturnal awakenings due to multiple reasons including urination (100%) pain (42.3%) thirst (38.5%) heartburn (23.1%) childcare (23.1%) and anxiety (15.4%). Parasomnias and restless legs syndrome were reported in 53.8% and 65.4% of women respectively while 38.5% snored and 13.5% had suspected obstructive sleep apnea syndrome (OSAS). These disturbances impaired quality of life: mood disorders (23.1% depression 53.8% fatigue) cognitive deficits (53.8% memory impairment 50% attention difficulties). Insomnia prevalence was higher among cesarean deliveries (83.3% vs.55.9%). Aggravating factors included gestational pain (88.5% $p=0.008$) coffee/tea ($p=0.015$) negative perception of partner ($p=0.010$) and overweight (significant association with OSAS $p<0.001$). Only 5.8% discussed sleep issues with healthcare providers.

Conclusion: Sleep disorders are common and severe during pregnancy with significant repercussions on maternal health. Underreporting highlights the need for systematic screening and management including non-pharmacological interventions.

Clinical and economic impact of pharmaceutical interventions in the burn intensive care unit

Chabbou A^{1,2}, Ellouze I^{1,3}, Chaabouni W³, Sallem OK⁴, Gargouri M²

1. University Of Monastir, faculty Of Pharmacy Of Monastir,

2. Ben Arous Traumatology And Severe Burns Center, pharmacy Department, Ben Arous, Tunisia

3. Military Hospital Of Sfax, pharmacy Department, Sfax, Tunisia

4. Department of Nutrition and Nutritional D

Introduction: Pharmaceutical analysis of medical prescriptions empowers clinical pharmacists to identify opportunities for targeted interventions. By reviewing medication regimens pharmacists can proactively address potential drug-related problems optimize therapy and enhance patient safety through systematic pharmaceutical interventions (PIs) to improve medication use and outcomes.

Aim: To determine the typology clinical and economic impact of PIs conducted in a Burn Intensive Care Unit.

Methods : A prospective study was conducted from February to July 2025 at the Traumatology and Major Burns's Center Ben Arous. PIs were documented using the French Society of Clinical Pharmacy version 6 intervention form. Clinical and economic impacts were evaluated using the CLEO tool version 3 with clinical impact assessed by a clinical pharmacist and an intensivist and economic impact evaluated by the pharmacist.

Results: Pharmaceutical analysis of prescriptions identified 61 PI with 91.8% acceptance rate. The most frequent issues were dosage problems (36.1%) unjustified prescriptions (18%) and necessary monitoring (8.2%). Interventions included dosage adjustments (34.4%) medication discontinuation or dispensation refusal (24.6%) and medication changes (19.2%). Antibiotics were most frequently involved (30.2%) followed by vitamins and trace elements (25.3%). Clinical impact was major in 36.1% of cases moderate in 39.3% and minor in 14.7%. Regarding economic impact 60.6% of interventions reduced costs 19.7% resulted in no cost change and 13.1% increased costs.

Conclusion: This study demonstrates the pivotal role of pharmacists in optimizing medication management within intensive care settings. PIs significantly enhance therapeutic care while generating substantial economic benefits through error prevention adverse event reduction and efficient resource utilization.

Therapeutic Optimization in Renal-Insufficient Patients: Role of the Clinical Pharmacist in a Trauma and Burns Center

Chabbou A^{1,2}, Ellouze I^{1,3}, Sallem OK⁴, Gargouri M²

1. University of Monastir, Faculty of Pharmacy, Monastir, Tunisia

2. Ben Arous Traumatology and Severe Burns Center, Pharmacy Department, Ben Arous, Tunisia

3. Military Hospital of Sfax, Pharmacy Department, Sfax, Tunisia

4. Department of Nutrition and Nutritional Diseases, Fattouma Bourguiba Hospital, Monastir & Faculty of Medicine, University of Monastir, Tunisia

Introduction : Renal insufficiency profoundly alters drug pharmacokinetics necessitating rigorous dosage adjustment to prevent toxicity and therapeutic failure. In this context pharmaceutical analysis is crucial to secure and optimize medication management.

Aim: To characterize medication errors detected pharmaceutical interventions (PIs) proposed and their clinical and economic impact in renal-insufficient patients.

Methods: A descriptive study was conducted in the last quarter of 2024 at the Trauma and Burns Center of Ben Arous Tunisia. The study population comprised renal-insufficient patients presenting medication-related problems. Pharmaceutical interventions were documented using the French Society of Clinical Pharmacy standard form and assessed using the CLEO scale for clinical and economic impact evaluation.

Results: Fifty-six pharmaceutical interventions were identified predominantly from the burns intensive care unit (27%) anesthesia-intensive care (21%) and orthopedics (18%). Acceptance rate reached 87%. The most frequent issues involved dosage adjustment of nephrotoxic anti-infectives particularly aminoglycosides and vancomycin (35%) followed by cardiovascular medications mainly diuretics (22%). Clinical impact according to the CLEO scale was major in 42% of cases moderate in 38% minor in 15% and absent in 5%. Economically 57% of interventions reduced costs 25% were cost-neutral and 18% increased costs primarily due to more expensive therapeutic alternatives.

Conclusion: This study emphasizes the necessity of implementing strict protocols for dosage adjustment monitoring in renal-insufficient patients. Clinical pharmacist involvement constitutes an essential lever to strengthen treatment safety and efficacy in this complex therapeutic context.

Factors Influencing the Quality of Life of Hypertensive Patients

Kooli J¹, Miladi A², Ben Dhafer H³, Hafsa M³

1. Healthcare Department,ksar Hellal Regional Hospital
2. Monastir Health District
3. General Practice Department, ksar Hellal Regional Hospital

Introduction: Arterial hypertension is a major public health issue worldwide and in Tunisia both due to its high prevalence and the severity of its complications.

Objective: To assess the factors influencing the quality of life of hypertensive patients.

Methods: A cross-sectional study was conducted among 118 hypertensive patients followed at the Moknine health district from August to December 2022 using a self-administered questionnaire inspired by the validated ADDQoL scale.

Results: The mean age of the population was 67.91 ± 10.75 years with a sex ratio of 0.29 and a mean body mass index of 28.69 ± 5.53 kg/m². Hypertension was uncontrolled in 44.9% of patients. The mean duration of hypertension was 10 [6–20] years. Sixty-three percent presented degenerative complications. The mean quality-of-life score was -9.38 ± 6.11 . Univariate analysis showed a significant association between diminished quality of life and uncontrolled hypertension ($p = 10^{-3}$) the presence of degenerative complications ($p = 0.000$) obesity ($p = 0.046$) hospitalization for hypertensive decompensation in the past year ($p = 0.031$) and a disease duration exceeding ten years ($p = 0.000$). According to multivariate analysis obesity and uncontrolled blood pressure were risk factors with OR = 4.27 (95% CI [1.11–16.41] $p = 0.034$) and OR = 5.27 (95% CI [1.5–18.48] $p = 0.009$) respectively.

Conclusion: This study highlights multiple risk factors influencing the quality of life of hypertensive patients. These findings may help guide health policies in developing additional strategies for the management of this population.

Evaluation of a Simulation-Based Training Cycle During Medical School Integration Days

Kacem I¹, Ghenim A¹, Aloui A¹, Sridi C¹, Kahloul M²

1. Occupational Medecine,farhat Hached Teaching Hospital
2. Anesthesiology And Reanimation,sahloul Teaching Hospital

Introduction: Medical education relies on a balance between two inseparable components: theoretical instruction and practical training. However during the early years of medical school access to clinical practice remains limited. In this context integration days offer a unique opportunity to introduce active and safe learning experiences.

Objective: To assess the perceptions of first- and second-year medical students at the Faculty of Medicine of Sousse regarding a simulation-based training program integrated into the integration days.

Methods: A descriptive cross-sectional study was conducted in September 2025 at the Faculty of Medicine of Sousse. A total of 138 students participated in a one-day simulation program consisting of eight workshops (urinary catheterization digital rectal examination suturing blood pressure measurement cardiopulmonary arrest management cardiopulmonary auscultation intramuscular injection and hand hygiene). Students were asked to complete a Likert-scale (5 levels) evaluation questionnaire addressing four criteria: quality of the **Introduction** scenarios debriefing and instructors.

Results: Eighty-one students completed the questionnaire. Overall satisfaction was very high in 85% of cases and 90% reported improved practical skills. Seventy-nine percent rated their learning environment as "Excellent." Debriefing was considered constructive and pedagogical in 50% of responses and scenarios were perceived as realistic by 59% of students. The blood pressure measurement and cardiopulmonary auscultation workshops were particularly appreciated.

Conclusion: These findings support the systematic integration of simulation into all integration-day activities and potentially throughout the entire medical curriculum. Nevertheless continued evaluation is needed to refine these training programs and assess their long-term impact.

Diagnostic accuracy of the EGSYS score in predicting cardiac syncope in the emergency department

Naggara I, Yahyaoui N, Houimli S, Ben Abdallah M, Hebaieb F

Hospital of Internal Security Forces la Marsa

Introduction: Syncope is a very common presentation in the Emergency Department ED accounting for approximately 1% of all ED visits.

Objective: To evaluate the performance of the EGSYS (Evaluation of Guidelines in Syncope Study) score in differentiating cardiac from non-cardiac syncope among patients presenting to the ED.

Methods: This was a prospective and monocentric study that was conducted at the hospital of internal security forces of Tunis. The EGSYS score was calculated for each patient based on clinical data. The final diagnosis was established after complete diagnostic work-up. Sensitivity specificity and area under the ROC curve (AUC) were determined for the EGSYS cut-off points.

Results: Forty-two patients were included. The mean age was 48 ± 20 years. Sex ratio was 2 2. Cardiac etiology was identified in 33% of cases. 69% of patients had an EGSYS score ≥ 3 . The EGSYS score ≥ 3 showed a sensitivity of 78 6% and a specificity of 80% for predicting cardiac syncope. The AUC was 0.84(95% CI: 0.75-0.87).

Conclusion: In this small emergency department cohort the EGSYS score demonstrated acceptable diagnostic accuracy in identifying cardiac syncope. Larger studies are warranted though.

Chronic functional constipation in children: when should surgery be considered ?

Oumaya M¹, Kitar M¹, Jlidi S², Khalifa MB¹

Department Of General Surgery, Unit of Pediatric Surgery, Military Hospital Of Tunis
Department Of Pediatric Surgery, Children Hospital Bechir Hamza Of Tunis

Introduction: Functional constipation is a common condition in children. When medical therapy fails pediatric surgical consultation is often required.

Aim: This study Aimed to evaluate the effectiveness and indications of anorectal myomectomy in the treatment of refractory functional constipation in children.

Methods: We conducted a retrospective study over an eight-year period (2017–January 2024) including all children treated for chronic functional constipation. Patients with identifiable organic causes were excluded. The initial management consisted of fecal disimpaction followed by daily laxative therapy. Surgical intervention was considered for patients unresponsive to optimal medical treatment.

Results: Twenty-five children were included with a median age of 5 years (range: 2–16.5 years). Symptoms had persisted for a median duration of 24 months before referral to the pediatric surgery department. Only 40% of patients adhered adequately to educational measures and toilet training requiring systematic reassessment and re-education of these strategies. Eleven children underwent surgical treatment: seven with constipation refractory to all medical therapies and four with suspected ultrashort-segment Hirschsprung's disease. Histopathological evaluation was normal in all cases. Postoperative follow-up ranged from 6 months to 5 years (median: 22.4 months). All patients who underwent anorectal myomectomy showed significant clinical improvement with no recurrences observed.

Conclusion: In children with persistent symptoms despite optimal medical therapy surgery may be considered as a last resort. Anorectal myomectomy is a simple effective procedure that can serve both diagnostic and therapeutic purposes.

Comparison between clinical training and simulation in otoscopy: a complementary approach

Ammar MA, Ben Hamadou H, Mezri S, Ben Akacha A, Mnasria S, Akkari K

ENT Department Of Military Hospital Of Tunis

Introduction: Learning otoscopy relies on direct clinical exposure which is often limited by the availability of patients and supervisors.

Aim : Compare the effectiveness of clinical training in ENT with low-fidelity simulation training.

Methods: Two groups of medical students were compared:

(1) students who had completed an ENT internship (n=20) and (2) students who had only received simulation training (n=20). The evaluation focused on their performance during a practical test on patients.

Results: The success rate was similar between the groups (p>0.05). The simulation group scored higher in diagnosing pathologies while the internship group scored higher in patient interaction and equipment handling.

Conclusion: Simulation is a complementary method to clinical training in ENT enabling better acquisition of diagnostic skills. However clinical immersion remains necessary for the full integration of professional skills.

Patterns and Predictors of Gestational Weight Gain in Pregnancy

Grami N; Debbiche A; Hammami M A ; Boumaiza A, Atef Y

Centre de maternité et de néonatalogie de Tunis ; Service " A"

Background: Gestational weight gain is a key determinant of maternal and neonatal outcomes. Excessive gain is increasingly observed in maternity settings and requires early identification. This study assessed early pregnancy weight status and explored factors associated with excessive gestational weight gain.

Aim of the Study: To evaluate early pregnancy weight status total gestational weight gain and predictors of excessive weight gain among pregnant women.

Methods: A prospective cohort study was conducted in a Tunisian maternity unit among women attending antenatal care before 16 weeks of gestation. Weight was recorded at the first visit and monitored throughout pregnancy. Gestational weight gain was classified according to Institute of Medicine (IOM) guidelines. Maternal characteristics and BMI were analysed to identify predictors of excessive weight gain.

Results: At enrollment 11% of participants were underweight 78% had a normal BMI and 11% were overweight. The mean gestational weight gain was 12.6 kg (95% CI: 12.2–13.1). Based on IOM guidelines 81% of women gained weight within recommended ranges while 19% exceeded the recommendations. Excessive gestational weight gain was significantly associated with maternal age employment status and early pregnancy BMI.

Conclusion: Excessive gestational weight gain affected nearly one in five women in this Tunisian maternity cohort. Strengthening nutritional counselling and reinforcing weight-monitoring practices in antenatal care may help reduce the prevalence of excessive gain particularly among women entering pregnancy overweight or presenting risk factors for higher weight gain.

Urinary and Anorectal Consequences after Sacrococcygeal Teratoma Surgery in Children

Oumaya M¹, Kitar M¹, Jlidi S², Khalifa MB¹

1. Department Of General Surgery, Unit of Pediatric Surgery, Military Hospital Of Tunis

2. Department Of Pediatric Surgery, Children Hospital Bechir Hamza Of Tunis

Introduction: Improved survival rates for patients undergoing sacrococcygeal teratoma (SCT) resection have shifted the focus toward evaluating long-term functional outcomes.

Aim: This study Aimed to assess long-term urinary and anorectal functional outcomes in children operated on for SCT and determine predictive factors for these complications.

Methods: We conducted a cross-sectional study including all children who underwent SCT surgery between 2000 and 2020 at Bechir Hamza Children's Hospital Tunis. Lower urinary tract dysfunction was assessed through routine follow-up including history physical examination imaging and urodynamic testing when indicated. Postoperative continence was evaluated according to the Krickenbeck classification. Risk factors were analyzed using univariate analysis.

Results: Of the 30 patients who underwent SCT resection 20 were available for follow-up. The median age was 8 years and 8 months (range: 3–20 years) with 75% being female. Two female patients developed severe postoperative urinary dysfunction progressing to neurogenic bladder. Voluntary defecation was reported in 88% of patients. Constipation was the most

frequent complication observed in 24% of cases while two patients experienced fecal soiling. Altman type IV was identified as a significant risk factor for anorectal dysfunction. No other associations were found with sex age at surgery histopathology tumor size or age at evaluation.

Conclusion: This study provides the first Tunisian evaluation of long-term functional outcomes after SCT surgery in children. Our findings underscore the importance of regular multidisciplinary follow-up to detect and manage urinary and anorectal complications.

Viscosupplementation in knee osteoarthritis: Attitudes, beliefs, and feedback from rheumatologists

Ouerghi R, Ben Ayed H, Ben Ammar L, Ferniche I, Jebri R, Dhahri R, Gharsallah I

Rheumatology department, Military Hospital of Tunis, Tunis, Tunisia

Introduction: Knee osteoarthritis is a major health problem with significant socioeconomic impact.

The **Aim** of this study was to evaluate rheumatologists' approach to Viscosupplementation as a treatment option.

Methods: Cross-sectional study conducted among Tunisian rheumatologists using a questionnaire focusing on their attitudes and experiences with viscosupplementation.

Results: Forty-two rheumatologists with a mean age of 31.3 ± 5 years were included. Fifty-five percent of physicians ($n = 23$) managed more than 20 patients per week consulting for knee osteoarthritis. Stage 3 of the Kellgren and Lawrence classification was the most frequently observed in patients. Fifty-two percent of doctors sometimes prescribe viscosupplementation while 35.7% ($n = 15$) rarely prescribe it. The selection of patients depends mainly on the patient's motivation according to 81% of rheumatologists and on the stage of knee osteoarthritis according to 79%. Only 38% prefer ultrasound-guided injections. Rheumatologists' main expectations of viscosupplementation are slowing the structural progression of osteoarthritis (36%) and improving function (33%). Confidence in the clinical efficacy of viscosupplementation was rated at an average of 6 ± 1.3 out of 10 on the Likert scale (0 = not at all confident 10 = completely confident). according to 35% of them the average duration of efficacy is often less than 6 months. The main adverse effect described was local pain in 86% of cases.

Conclusion: Our study showed a wide divergence in rheumatologists' attitudes toward viscosupplementation. Clear recommendations appear to be necessary.

Between Assistance and Cheating: The Ethical Place of Artificial Intelligence in Scientific Writing

Khaskhoussy M, Ben Fredj H, Saidani S, Hafyene A, Boussassi R, Jebri A

Hospital of Charles Nicolle

Introduction: The emergence of generative artificial intelligence (AI) tools has transformed scientific writing practices raising concerns about authorship integrity originality and transparency. Editorial ethics organizations such as COPE ICMJE and Elsevier have recently issued guidelines on the responsible use of AI. However inconsistencies remain in how these bodies define acceptable versus unethical uses.

Aim: To critically analyze and compare the main editorial ethics charters (COPE ICMJE Elsevier) regarding the declared use of AI in scientific writing and to identify ethical and practical implications for researchers and editors.

Methods: A qualitative document analysis was conducted

on the most recent publicly available editorial policies (2023–2025). Each charter was examined for its stance on AI use disclosure requirements authorship responsibility and verification mechanisms. Thematic coding was used to identify convergences and divergences in ethical positions.

Results: All three organizations acknowledge AI as a legitimate assistive tool but emphasize the need for full disclosure. COPE promotes transparency and accountability ICMJE restricts authorship to human contributors and Elsevier highlights traceability and editorial oversight. Despite a growing consensus on the necessity of declaring AI use ambiguity persists regarding the boundaries between ethical assistance and intellectual misconduct.

Conclusion: Editorial guidelines reflect an evolving ethical framework where AI use must balance efficiency with integrity. A unified definition of "acceptable AI assistance" and targeted researcher education are essential to safeguard authorship credibility and trust in scientific communication.

Artificial Intelligence in Pediatric and Neonatal Care: A Survey of Nurses and Paramedical Staff

Ben Aoun H¹, Mdimagh S¹, Ben Zineb A², Dahech O², Mkhini H³, Tilouche S¹.

1. Université de sousse, Faculté de médecine de Sousse, Hopital Farhat Hached, Service de reanimation médicale pédiatrique, Sousse, Tunisie.

2. Université de sousse, Ecole de santé de Sousse, Hopital Farhat Hached

Introduction: Artificial intelligence (AI) has the potential to enhance diagnostic accuracy optimize care and support clinical decision-making. Its use remains limited in pediatric and neonatal care where patients are highly vulnerable and clinical expertise is essential. Nurses and healthcare technicians play a key role in patient monitoring early detection of complications and care coordination areas where AI could provide support.

Aim: To assess knowledge use and perceptions of AI among nurses and paramedical staff in pediatric and neonatal units.

Methods: A cross-sectional survey was conducted among nurses and paramedical staff in pediatric and neonatal units in public and private facilities in region Sousse. Data were collected via an 18-item questionnaire.

Results: A total of 101 participants completed the survey. Most were aged 45–55 years 83% female and 79% worked in hospitals. Self-rated knowledge and use of AI were low (4.2/10 and 3.5/10). ChatGPT was mainly used for medical information (52%) drug dosage (45%) and medication preparation (27%). AI was considered useful by 47% neutral by 38% and not useful by 15%. Key benefits included time saving (42%) and improved information quality (33%) while main concerns were reliability (72%) lack of training (61%) and data confidentiality (55%). Most participants (63%) wished for training and 54% believed AI will become integral to their work.

Conclusion: Knowledge and use of AI among pediatric and neonatal paramedical staff remain limited despite positive perceptions and interest in training. Education and guidance are needed for safe AI adoption.

Leveling up medical education: student's perceptions of a game based learning approach during clinical clerkship

J. Guissouma¹, O. Hammami², H. Ben Ali¹, I. Trabelsi¹, H. Allouche¹, H. Ghadhoun¹

1. Medical intensive care unit of Habib Bougatfa University Hospital, Bizerte, Tunisie FMT

2. Pediatric department of Mahmoud Matri University Hospital Ariana,

Tunis, Tunisie FMT

Background: Gamification is a contemporary pedagogical approach in healthcare that involves incorporating game mechanisms into student training. Aim to assess the feedback of medical students regarding a game-based learning approach.

Methods: A prospective study was conducted among medical students during summer clerkship. Consecutive teaching sessions were held during a two-month period (July- August 2024). A gamified quiz focused on cardiac arrest was developed using the Kahoot! platform. Google Forms was distributed to evaluate students' feedback. Statistical analysis was performed using Jamovi software.

Results: Twenty-six students took part in this apprenticeship. The mean age was 24 ± 2 years with a gender ratio of 0.7. Five successive sessions were held with four to six participants per session. Their feedback on the organization was quite positive. The group size the general atmosphere the teaching duration and the room were rated very highly in 88% 80% 69% and 61% of cases respectively. With regard to scientific interest they fully agreed that the theme was relevant and the case was authentic in 80% of cases. Assessing the pedagogical value more than half strongly agreed that their participation was active (53%) and the game was competitive (61%). Most felt that the game enabled them to retain new knowledge (92%) and would have a positive impact on subsequent practices (96%). The majority were very satisfied (76%). All learners recommended gamification and 93% asserted its legitimacy as a medical instructional strategy.

Conclusion : Gamification is an innovative and relevant learning tool for coaching medical students with high level overall satisfaction.

Exploring the association between articular and cutaneous remission in psoriatic arthritis

Miladi S, Mhamdi S, Boussaa H, Faza A, Ben Abdelghani K, Laatar A

Tunis El Manar University, faculty Of Medicine Of Tunis, Mongi Slim Hospital, Rheumatology Department, Tunis, Tunisia

Introduction: Achieving both joint and skin remission in psoriatic arthritis (PsA) remains a clinical challenge.

Aim: To assess the rate of remission in PsA and examine its association with cutaneous remission.

Methods: A retrospective study collected demographics clinical and paraclinical data. Disease activity was assessed by the Disease Activity in Psoriatic Arthritis (DAPSA) score. Remission was defined by a DASPSA score < 4 .

Results: We included 22 patients 68% of whom were women with a mean age of 50 ± 16 years [22–76]. The mean duration of PsA was 7 ± 5 years [0.3–20]. Peripheral form was observed in 73% of patients and 59% had skin involvement. The mean DAPSA score was 29 ± 30 [6–116] At the study time 34% of patients were on methotrexate (MTX) 13% on sulfasalazine and 53% on biologics (20% infliximab 13% certolizumab pegol 7% adalimumab and 13% etanercept) Clinical remission was observed in 21% of patients (n = 4) including 2 on MTX 1 on infliximab and 1 on etanercept. Cutaneous remission occurred concomitantly in 3 of these 4 patients. No significant correlation was found between articular and cutaneous remission ($p = 0.524$). Additionally remission was not associated with age ($p = 0.095$) disease duration ($p = 0.489$) or ongoing treatments: MTX ($p = 1$) sulfasalazine ($p = 0.530$) infliximab ($p = 1$) certolizumab pegol ($p = 0.350$) adalimumab ($p = 0.529$) or etanercept ($p = 0.529$).

Conclusion: Few PsA patients achieved remission and it was not consistently associated with skin remission.

Comparison of the Classical Quarterly-Average Method and artificial intelligence-Driven Triple Exponential Smoothing for Forecasting Drug Demand

Bejaoui M¹, Bokri E², Dammak A¹, Ben Azouz C², Hasni N²

1. Université de Monastir, Faculté de Pharmacie de Monastir.

2. Service de Pharmacie, Institut National de Neurologie Mongi-Ben Hamida, Tunis.

Introduction: Drug shortages(DS) constitute a major challenge in hospital pharmacy compromising treatment continuity and the quality of care. Therefore reliable forecasting of medication demand is essential for proactive stock management. However current forecasting Methods often lack sufficient accuracy.

Aim: To compare forecasts for three antibiotics affected by DS obtained using the traditional quarterly-average calculation method with those generated by an artificial intelligence(AI) model employing triple exponential smoothing(TES).

Methods: This research employs a retrospective method using data collected over a five-year period (2020–2025). The dataset used in this study consists of consumption records for colimycin tigecycline and imipenem/cilastatin collected in a neurology-specialized institution using the STKmed® system. Forecasting accuracy for 2026 was assessed using the Mean Absolute Percentage Error (MAPE). Forecasts using the TES were generated by Chatgpt4.0® while the classical method was performed by a pharmacist.

Results : Using the classical quarterly-average method forecasts showed reasonable accuracy (MAPE= 20%-50%) for colistin with a MAPE=36% and an accuracy=64% whereas the TES reduced the MAPE to 24% increasing accuracy to 76%. For tigecycline the classical method showed poor forecasting (MAPE >50%) with a MAPE=110% and accuracy=10% while the TES model substantially improved performance achieving a MAPE=52% and an accuracy=48%. For imipenem/cilastatin forecasts from the classical method were reasonably accurate with MAPE=35% accuracy=65% whereas the TES achieved good accuracy (MAPE=10%–20%) with a MAPE of 14% and an accuracy of 86%.

Conclusion: Based on Results it can be concluded that TES outperformed the classical method improving the prediction of medication needs and thereby helping to reduce DS.

Uterine Artery Doppler + PIGF for Early Prediction of Severe Preeclampsia

Nayet Mohamed K, Hammami MA, Azzaz S, Hidoussi S, Hasni Y, Youssef A

Department A, Tunis Maternity Center, Tunis, Tunisia

Severe preeclampsia remains a major cause of maternal morbidity in Tunisia. Early identification of high-risk women is essential. The combination of uterine artery Doppler and circulating placental growth factor (PIGF) has shown promising predictive value but its performance has not yet been evaluated in Tunisian populations. We conducted a prospective observational study including low-risk and moderate-risk pregnant women between 11–14 and 20–24 weeks of gestation at a tertiary center in Tunisia. All patients underwent uterine artery Doppler assessment (pulsatility index and presence of bilateral notching) and PIGF measurement. Outcomes were followed until delivery. The primary endpoint was the development of severe preeclampsia before 34 weeks. A total of 240 women were included of whom 18 (7.5%) developed severe preeclampsia. Abnormal Doppler (PI > 95 th percentile or bilateral notching) alone had a sensitivity of 61% and specificity of 82%. Low PIGF (< 5 th percentile for gestational

age) alone reached a sensitivity of 72% and specificity of 84%. The combined model significantly improved performance with sensitivity increasing to 89% specificity to 90% and positive predictive value to 41%. The combination provided the earliest identification of patients who later developed early-onset severe disease. In Tunisian women the integration of uterine artery Doppler with PlGF screening significantly enhances early prediction of severe preeclampsia. This combined approach may allow more individualized surveillance and timely prophylactic strategies. Larger multicenter studies are recommended.

Assessment of Uterine Cavity Abnormalities in Infertility: A Comparative Study

Oualha O, Ben Saiden S, Drira A, Bouguerra S, Karmous N, Bouguerra B

Charles Nicolle Hospital of Tunis, Tunis Faculty of medicine

Introduction: Evaluation of the uterine cavity is a key step in the workup of female infertility. Three imaging modalities are commonly used: transvaginal ultrasound (TVUS) hysterosalpingography (HSG) and hysteroscopy (HSC). Their respective diagnostic performances for detecting intrauterine abnormalities remain debated.

Aim: To compare the diagnostic performance of TVUS and HSG with hysteroscopy considered the gold standard for the detection of intrauterine abnormalities in infertile women.

Methods: This was a retrospective and comparative study conducted in the Department B of Obstetrics and Gynecology at Charles Nicolle Hospital in Tunis over an 8-year period from January 2017 to December 2024. Infertile patients who underwent all three examinations (TVUS HSG and hysteroscopy) were included. The diagnostic performance of TVUS and HSG was assessed using hysteroscopy as the reference test.

Results: A total of 222 patients were analyzed: 59% had primary and 41% secondary infertility. Hysteroscopy revealed 92 cases (41.4%) of intrauterine abnormalities. TVUS detected 85 cases (38.3%) HSG 87 cases (39.2%). Compared with hysteroscopy the sensitivity specificity positive predictive value and negative predictive value of TVUS were 82.6% 89.3% 85.9% and 87.1% respectively. For HSG these were 77.1% 87.7% 81.6% and 84.4%. The overall agreement with hysteroscopy was 85.5% for TVUS ($\kappa = 0.68$) and 83.3% for HSG ($\kappa = 0.65$) where κ represents Cohen's kappa coefficient indicating substantial agreement.

Conclusion: TVUS demonstrates slightly higher diagnostic accuracy than HSG for detecting intrauterine abnormalities. It remains a reliable noninvasive first-line examination while hysteroscopy continues to serve as the reference for confirmation and therapeutic management.

Breast Cancer Screening: Role Of Occupational Medicine In Health Promotion

Grissiaa S¹, Ziedi H¹, Ben Arbia N¹, Chaouch N¹, Khanchel F², Mechergui N¹

1. University Tunis El Manar, Faculty of medicine of Tunis, Habib Thameur Hospital, Occupational Health Department

2. University Tunis El Manar, Faculty of medicine of Tunis, Habib Thameur Hospital, Anatomic-pathology Department

Introduction: Early detection of breast cancer significantly enhances survival outcomes and improves overall prognosis. Organizing regular community screening initiatives plays a pivotal role in raising awareness and facilitating access to preventive healthcare services.

Aim: To conduct breast cancer screening for hospital staff and

the general population during open screening days.

Method: We conducted a descriptive cross-sectional study including 260 women who attended breast cancer screening days organized by the Department of Occupational Medicine on October 24 2024 and October 16 2025. Demographic reproductive and medical data were collected using a standardized questionnaire. All participants underwent a clinical breast examination performed by trained healthcare professionals and additional imaging investigations were prescribed when clinically indicated.

Results: The mean age of participants was 52 ± 11.9 years. Among them 76.9% were married. The mean age at first pregnancy was 25 ± 5.9 years while 23.9% of women were nulliparous and 8.8% had undergone ovarian stimulation. Breastfeeding was reported by 71.5% of participants. The use of estrogen-progestin therapy was noted in 29.2% of women. 84 participants (32.3%) reported a family history of breast cancer. Regarding occupational exposure 13.5% of participants were exposed to endocrine disruptors and 10.8% worked irregular or shift hours. On physical examination 27 women (10.4%) had abnormal breast findings. Complementary breast imaging was prescribed for 66.2% of the participants.

Conclusion: These open screening days facilitate access to breast cancer screening and help identify several breast abnormalities confirming their value in the early diagnosis of breast cancer.

Prevalence of extrauterine growth restriction in very low birth weight neonates

Ayadi Dahmane I; Hannachi MW; Hajji M; Ben Ali M; Ben Hamida E

Departement of neonatology. Charles Nicolle Hospital. Tunis. Tunisia.

Introduction: Postnatal growth restriction (PNGR) is a universal health problem in very preterm infants. The objectives of our study were to describe nutritional practices in preterm infants GA ≤ 32 weeks of gestation and ≤ 1500 g of birth weight and determine the prevalence of PNGR.

Methods: We conducted a descriptive retrospective study in the neonatology department of the Charles Nicolle Hospital in Tunis over a three years period (June 2019 – June 2022).

Results: Prevalence of PNGR was 45.6%. Nutrition protocol used followed globally the ESPGHAN recommendations. We found positive correlation between growth velocity and average carbohydrate intake at the end of the third week of life average protein intake at the end of the second week of life average protein intake at the end of the fourth week of life average caloric intake at the end of the fourth week of life. We found positive correlation between growth velocity and mean sodium intakes at the end of third week of life mean potassium intakes at the end of the first week of life mean calcium intakes at the end of the first the third and the fourth week of life. We found positive correlation between daily weight gain on and mean sodium intakes at the end of the second week of life. We found positive correlation between growth velocity and the date of reaching half of enteral feeding the date of reaching full enteral feeding.

Conclusion: Our **Results** revealed a prevalence of RCPN comparable to data from the literature.

Tunisian nurses' Educational Needs and Learning Preferences Regarding Artificial Intelligence

Chaabene A, Rmadi N, Hajjaji M, Dhoubi F, Kotti N, Jmal Hammami K

Occupational Medicine Department, Hedi Chaker University Hospital,

Sfax, Tunisia,
Polyclinic of the National Social Security Fund, Sfax, Tunisia

Introduction: Artificial intelligence is increasingly reshaping nursing practice and redefining essential professional competencies. However the educational needs and learning preferences of Tunisian nurses regarding AI remain insufficiently explored.

Aim: This study Aims to identify Tunisian nurses' expectations knowledge gaps and preferred training modalities to support the effective integration of AI into nursing practice.

Methods: A cross-sectional survey was conducted among Tunisian nurses using a self-administered online questionnaire. The last included sections on sociodemographic data AI-related knowledge assessment identification of educational needs and learning preferences. A convenience sampling method was used to recruit participants from various healthcare settings.

Results: A total of 92 Tunisian nurses participated with a mean age of 34.2 ± 7.1 years and a female predominance (65%). Overall AI knowledge was low with 53.3% of nurses demonstrating limited understanding. Despite this 70.7% of participants expressed interest in receiving training on AI in healthcare. Regarding learning preferences 44.6% favoured distance learning. Among the proposed topics 38% preferred "Introduction to Artificial Intelligence and its Applications in Healthcare" and 15% selected "AI in Diagnosis and Personalized Medicine. The need for AI training was significantly associated with age with older nurses showing greater interest (0.043).

Conclusion: Tunisian nurses exhibit strong interest in AI training despite limited knowledge particularly among older staff. Preferences for practical interactive and distance-based learning highlight the need for tailored educational programs to enhance AI literacy and facilitate its integration into nursing practice.

Clinical Study on Congenital Diaphragmatic Hernia in a tertiary care center in Tunisia

Ayadi Dahmane I; Hannachi W; Hajji M; Ben Ali M; Ben Hamida E

Departement of neonatology. Charles Nicolle Hospital. Tunis. Tunisia

Introduction: Congenital diaphragmatic hernia (CDH) is one of the most severe surgical causes of respiratory distress in neonates. We carried out a study to analyze the clinical profile management and outcome of CDH among neonates in a tertiary care center in Tunisia.

Methods: We conducted a retrospective observational study from January 2007 to December 2023 over a period of 17 years in Charles Nicolle Hospital Tunis Tunisia. We recorded clinical characteristics management and outcome of neonates diagnosed with CDH admitted to the neonatal intensive care unit.

Results: We collected 20 cases. The diagnosis was antenatal in 14/20 (70%). Mean gestational age was 37 ± 2 weeks (32-41). Mean birth weight was 2752 ± 244 g (850 - 3800). The sex ratio was 1.8. Mean Apgar score at 1 min was 3.7 ± 0.3 (1-8). Mean Apgar score at 5 min was 5.8 ± 0.2 (2-8). Intubation in delivery room was needed in 72% of cases. Heart defect was associated in two cases. Persistent pulmonary hypertension was observed in 7/20 (35%). High-frequency oscillatory ventilation was required in 6/20 (30%). Use of vasoactive drugs was in 8/20 (40%) and of prostin® in tow cases. Sixty percent of patients (12/20) underwent surgical procedures. Surgery was performed on day 1 of life in nine cases on day 2 in two cases and on day 5 in one case. Mortality rate was 75% (15/20). The mean age at death was 3.6 ± 1.5 days (1-15).

Conclusion: Our Results show high mortality rate. This suggest more interdisciplinary collaboration to optimize CDH care.

Prevalence and antimicrobial resistance patterns of hospital-acquired infections at a university Tunisian Hospital

Balhi S¹, Mehrezi M¹, Boghattas S², Trabelsi A², Laatiri Said H¹, Ben Cheick A¹

1. University Of Sousse, faculty Of Medicine Of Sousse, Sahloul, University Hospital, department Of Preventive And Community Medicine

2. University Of Monastir, faculty Of Pharmacy Of Monastir, laboratory Of Microbiology, sahloul University Hospital

Introduction : Hospital-acquired infection (HAI) represent a growing public health concern worldwide.

The burden of HAI is exacerbated by the rise of antimicrobial resistance (AMR).

Aim: This study Aimed to assess the prevalence of HAIs and the patterns of AMR at a university hospital in Tunisia in 2025.

Methods: A point-prevalence survey was conducted at Sahloul in Sousse central Tunisia in April 2025. All infections occurring more than 48 hours after hospital admission were classified as HAIs and included in the study. Data collection consisted of a one-day survey in each department. Baseline characteristics clinical features isolated pathogens and AMR profiles were recorded.

Results: Among the 255 eligible patients 29 had at least one HAI corresponding to a prevalence of 11.4%. Bloodstream infections and pneumonia were the most frequent HAIs (32.4% each). Microbiological cultures were performed in 97.3% of cases. Gram-negative bacteria accounted for 67.4% of all isolates with *Klebsiella pneumoniae* and *Acinetobacter baumannii* being the most common species (15.2% each). More than half of the isolates (59.4%) were multi-drug resistant. Additionally over half of the non-fermentative Gram-negative bacilli (53.8%) were resistant to carbapenems and 73.3% of Enterobacterales were resistant to third-generation cephalosporins.

Conclusion: These findings indicate a high prevalence of HAIs and a significant burden of MDR pathogens. Strict adherence to infection control measures combined with the implementation of an antibiotic stewardship program at regional and national level is crucial to reduce infection rates and limit the emergence of resistant strains.

The Left Portal Pedicle: Anatomical Study and Surgical Applications

Alouani H, Lâamiri G, Gazzah H, Rchidi J, Mighri MG, Touinsi H

Service de Chirurgie Générale, Hôpital Mohamed Taher Maamouri, Nabeul

Introduction: Understanding the vascular and biliary anatomy of the left hepatic pedicle is essential for safe and precise hepatic surgery. Despite its surgical importance most anatomical studies have focused on the right liver leaving the left portal pedicle less well described.

Aim: To analyze the anatomy and variations of the three main components of the left portal pedicle and highlight their surgical implications.

Methods: Forty fresh human livers obtained during routine autopsies were dissected. The study examined the origin course and termination of the left portal vein as well as the biometric and morphological features of the left hepatic arteries and bile

ducts and their anatomical variants.

Results: The left portal vein arose from the bifurcation of the main portal trunk in 87.5% of specimens. Its transverse portion measured 28 ± 6.7 mm in length and 9.1 mm in diameter while the umbilical portion measured 34.9 ± 4.4 mm and 13.8 ± 2.8 mm respectively. The middle hepatic artery was the only hepatic artery in 29 livers supplying the left lobe. A typical bifurcation into right and left hepatic arteries was seen in 14 cases while coexistence of right middle and left arteries occurred once. The common pattern of the left hepatic duct—formed by the junction of a segment 4 duct with the confluence of segments 2 and 3 ducts was present in 42.5% of cases.

Conclusion: Although variations mainly affect the right liver precise knowledge of the left portal pedicle anatomy remains crucial for safe and effective hepatobiliary surgery.

Generative AI in Occupational Medicine: Can It Navigate Challenging Fitness-for-Work Assessments?

Tebourbi Y, Bahri G, Grissa K, Mersni M, Bani M, Ladhari N

Hôpital Charles Nicolle, Service de Médecine du Travail et de Pathologies Professionnelles, Tunis, Tunisie

Introduction: Fitness-for-work assessments often require balancing occupational risks functional capacity and social factors. Cases involving permanent disabilities are particularly challenging often requiring staff discussions. Generative AI may offer valuable decision support in such scenarios.

Aim: To evaluate whether generative AI can produce clinically sound fitness-for-work recommendations comparable to occupational physician team decisions in a complex case.

Methods: We retrospectively submitted a challenging case to GEMINI 2.5 Pro: a computer scientist with 26 years of experience congenital foveal hypoplasia and bilateral visual acuity of 1/10 referred to our occupational health consultation at Charles Nicolle Hospital. The AI's analysis reasoning process and recommendations were then compared with our team's independent decision.

Results: GEMINI generated a comprehensive analysis of medical factors (visual limitations occupational risks) functional capacity (lifelong adaptation 26 years of proven competence with effective compensation strategies) and psychosocial dimensions. The AI concluded the patient was FIT for work with mandatory workplace adjustments (ergonomic assessment assistive technologies such as magnification software and large monitors and organizational modifications) highlighting the goal of preventing professional exclusion. Our team reached an identical Conclusion with similar recommendations.

Conclusion: This proof of concept demonstrates that generative AI can replicate multifactorial decision-making in occupational health. The striking concordance raises critical questions about its future role in clinical practice. Currently AI appears best positioned as a synergistic partner while human oversight remains essential for ethical and contextual judgment.

Endometriosis and Its Comorbidities among Tunisian Women – Experience of the Maternity and Neonatology Center of Tunis

Mizouni R, Somri B, Hannachi MA, Samaali K, Malek M, Neji K

CMNT

Introduction : In Tunisia endometriosis remains underdiagnosed and often managed at an advanced stage. Several studies have reported an association between endometriosis and various

comorbidities including anxiety and depression gastrointestinal disorders urinary symptoms and infertility.

Aim: To determine the prevalence and types of comorbidities associated with endometriosis among Tunisian women and to analyze the relationships between disease characteristics and these comorbidities at the Maternity and Neonatology Center of Tunis .

Methods: A descriptive cross-sectional study was conducted between January and September 2024 at the Maternity and Neonatology Center of Tunis. A total of 34 women diagnosed with endometriosis were included. Data were collected from medical records and a standardized questionnaire addressing sociodemographic data disease type and severity symptom profiles and associated comorbidities. Statistical analysis was performed using SPSS version 26.0 with significance set at $p < 0.05$.

Results: The mean age of patients was 34.5 ± 5.4 years. The most common comorbidities were anxiety and depressive disorders (38.7%) chronic pelvic pain syndrome (31.5%) irritable bowel syndrome (22.6%) and sleep disturbances (17.7%). A significant association was observed between deep infiltrating endometriosis and anxiety–depression symptoms ($p = 0.01$) as well as between chronic pelvic pain and sleep disorders ($p = 0.04$). Moreover women with long-standing disease (>5 years) showed a higher prevalence of psychological comorbidities ($p = 0.02$).

Conclusion: Endometriosis among Tunisian women is frequently associated with both physical and psychological comorbidities that substantially affect quality of life. Increased awareness of these comorbidities should be strengthened within Tunisian healthcare services.

From Spectrum to Precision: A Validated UV Method for Accurate Quantification of Paracetamol

Kamerji T^{1,2} ; Kara F^{2,3} ; Safta F²

1. Bone Marrow Transplant Center- Tunis
2. Laboratory of Chemical, Galenic and Pharmacological Development of Medicines (LR12ES09), Faculty of Pharmacy of Monastir, University of Monastir, Ibn Sina Street, 5000 Monastir, Tunisia
3. National Laboratory for Drug

Introduction : Paracetamol is a reference analgesic widely prescribed owing to its efficacy and safety. Accurate quantification of this compound is essential to ensure patient safety.

Aim : This study Aimed to validate a UV spectrophotometric method for the quantitative determination of paracetamol. The validated method was subsequently applied to the quality control of commercial formulations available on the market.

Methods : The determination of paracetamol was performed using UV–Visible spectrophotometry.

Following the acquisition of the absorption spectrum the optimal wavelength was selected for quantitative measurement. An acceptance limit of $\pm 5\%$ relative to the theoretical concentration was established as the accuracy criterion. Two pharmaceutical formulations containing 500 mg of paracetamol per tablet were analyzed to assess active substance content.

Results : The accuracy profile confirmed the validity of the paracetamol assay method within the defined concentration range (10–50 mg/L). The method exhibited excellent linearity with a correlation coefficient of 0.9976. The coefficients of variation for repeatability and intermediate precision were below 3% demonstrating high precision and measurement reliability. Recovery rates close to 100% indicated the method's ability to accurately quantify all tested samples while an uncertainty range of $\pm 5\%$ attested to its precision. Analysis

of the commercial formulations revealed mean paracetamol contents of 497.46 mg and 499.55 mg per tablet with respective coefficients of variation of 0.27% and 0.19%.

Conclusion : The developed method proved to be simple and reliable for the quantification of paracetamol. The integration of the accuracy profile provides an efficient tool for the routine quality control of pharmaceutical formulations containing paracetamol.

Evaluation of Hepatic Steatosis by CAP in Patients with Viral Hepatitis

Oueslati A, Yacoub H, Cherif D, Debbabi H, Hassine H, Kchir H, Maamouri N

Gastroenterology B department, La Rabta hospital

Introduction : The Controlled Attenuation Parameter (CAP) measured by FibroScan® provides a non-invasive assessment of hepatic steatosis. In chronic viral hepatitis steatosis is frequent and often related to metabolic factors but its relationship with fibrosis remains controversial. This study **Aimed** to determine the prevalence of steatosis assessed by CAP in patients with chronic viral hepatitis and to analyze its association with metabolic parameters and liver stiffness.

Methods A retrospective single-center study was conducted in 234 patients with hepatitis B and/or C who underwent FibroScan® with measurement of CAP (dB/m) and liver stiffness (E kPa). Collected data included age sex body mass index (BMI) diabetes hypertension fibrosis stage (F0–F4) and steatosis grade (S0–S3). Associations were analyzed using Pearson's correlation and multiple linear regression.

Results : The mean age was 56 ± 13 years and 45% were men. HBV accounted for 69% of cases and HCV for 33%. Fibrosis was $\leq F1$ in 73% and F4 in 10%. Steatosis was absent (S0) in 63% mild to moderate (S1–S2) in 21% and severe (S3) in 16%. The mean CAP was 218 ± 65 dB/m and the mean elasticity 7.8 ± 8.5 kPa. No correlation was found between CAP and liver stiffness ($p = 0.77$). CAP was significantly correlated with BMI ($p < 0.001$) which remained the only independent factor associated with CAP in multivariate analysis.

Conclusion : CAP measurement by FibroScan® effectively identifies steatosis in patients with viral hepatitis. Its correlation with BMI highlights the metabolic component of steatosis while its independence from fibrosis suggests distinct underlying mechanisms.

Fertility-Sparing Management of Atypical Endometrial Hyperplasia and Early-Stage EC in Young Women: Outcomes from a Tunisian Cohort

Arfaoui B, Slama F, Somri B, Frikha H, Selma D, Hammami R, Aloui H, Bedis C

Maternity and neonatology center of Tunis , Department C

Introduction: Standard treatment for early-stage Endometrial Cancer (EC) and Atypical Endometrial Hyperplasia (AEH) is hysterectomy. However for young women wishing to preserve fertility conservative management (CM) with high-dose progestins has emerged as a viable though challenging alternative.

Aim: To evaluate the oncological and fertility outcomes of conservative progestin-based management for FIGO Grade 1 EC and AEH in women wishing to preserve fertility at our center.

Methods: We conducted a retrospective review of patients under 45 years old managed conservatively for AEH or FIGO Grade 1 EC at Service C Center for Maternity and Neonatology

of Tunis from January 2016 to December 2024. Patients were treated with high-dose oral progestins or a levonorgestrel-releasing IUD. Oncological follow-up included endometrial biopsies every 3-6 months.

Results: A total of 24 patients were included (15 with AEH 9 with Grade 1 EC). The mean age was 36.2 years. The initial complete response (CR) rate at 6 months was 75% (18/24). Among these responders the relapse rate was 27.7% (5/18) with a mean time to relapse of 14 months. Four patients (16.6%) ultimately required hysterectomy due to treatment failure or relapse. Among the 12 women who achieved stable CR and actively attempted conception 5 (41.6%) successfully achieved at least one pregnancy.

Conclusion: Progestin-based conservative management is an effective option for selected young women with AEH or early EC offering good initial response rates. However the significant risk of relapse necessitates rigorous long-term surveillance. Fertility outcomes are promising but patients must be carefully counseled regarding the risks and intensive follow-up required.

When Chatbots Check Prescriptions: Assessing the Diagnostic Performance of AI in Drug-Drug Interaction Detection

Jenhani E¹, Khribiche A¹, Romdhane M¹, Ben Amara I¹, Benhassen A¹, Ben Mbarka F^{1,2}

1. CHU Habib Thameur, Tunis
2. Faculté de pharmacie, Monastir

Introduction: AI platforms are equipped with advanced algorithms that offer a wide range of applications in healthcare services. However information about the accuracy of AI chatbots against conventional drug-drug interaction (DDI) tools is limited.

Aim: This study **Aimed** to assess the accuracy sensitivity and specificity between different artificial intelligence-based large language models in predicting DDIs

Methods: AI-based chatbots (ChatGPT-3.5 Gemini Perplexity) were compared for their abilities to detect clinically relevant DDIs. A total of 30 DDI pairs were compiled from previously published literature and then validated using conventional drug interaction screening tools (Therisque and Thesaurus). Descriptive performance metrics including accuracy sensitivity specificity positive predictive value (PPV) and negative predictive value (NPV) were calculated for each tool.

Results : The evaluation of the three different chatbots showed that Perplexity had the highest performance with an accuracy score of 0.9 with ChatGPT-3.5 having the lowest accuracy rate of 0.8. Also the sensitivity ranged from a low of 0.5 (Gemini) to a high of 0.8 (ChatGPT-3.5) . For specificity Perplexity attains the highest specificity of 0.89. In terms of NPV Perplexity achieves the highest value of 0.90. The ChatGPT model demonstrates the lowest NPV of 0.66.

Conclusion: Perplexity had the highest accuracy and specificity outperforming Gemini and ChatGPT-3.5. These findings underscore the considerable potential of these AI tools to advance patient care. Despite their current limitations the ability of the evaluated platforms to rapidly identify clinically relevant interactions with satisfactory sensitivity represents a promising step toward enhancing patient safety.

The Infectious Diseases Residency Portfolio: A Tool for Longitudinal Learning and Assessment

Abdeljelil M, Marrakchi W, Saad L, Toumi A, Loussaief C

University of Monastir, Fattouma Bourguiba Hospital, infectious Diseases Department, Monastir, Tunisia

Introduction: The training of infectious diseases (ID) residents requires the acquisition of theoretical knowledge practical skills and reflective competencies. The portfolio emerges as an innovative tool to document and assess this multifaceted learning process.

Methods: This descriptive study **Aimed** to design a portfolio model for ID residents. The methodology was based on:

- (1) a review of international literature
- (2) identification of core competencies expected in ID
- (3) an analysis of the current postgraduate training landscape in Tunisia and
- (4) the development of an adapted portfolio structure.

The final model comprises six sections: resident identification residency curriculum learning objectives clinical rotations complementary training and research activities.

Results: The situational analysis revealed that the current training program primarily relies on mandatory clinical rotations optional electives and theoretical teaching. However assessment remains inadequately formalized focusing largely on attendance and isolated performance. The proposed portfolio model integrates tools for competency tracking authentic complex situation narratives and logs for formative activities. It provides a longitudinal view of the training journey and enables a more comprehensive evaluation of clinical scientific interpersonal and ethical competencies.

Conclusion : The portfolio represents a significant pedagogical advancement promoting reflective learning and continuous assessment. Its successful implementation requires standardization dedicated tutor training and institutional support overseen by the national college of infectious diseases.

Predictive Factors of Non-Restoration of Bowel Continuity After Hartmann's Procedure

Belgaroui L, Ben safta A, Samaali I, Nasri S, Bouasker I, Nouira R

Service de chirurgie générale B, Hôpital Charles Nicolle

Introduction: Hartmann's procedure remains a reference surgery for left-sided colonic emergencies. However the rate of restoration of bowel continuity remains low with nearly half of patients ending up with a permanent stoma. The **Aim** of this study was to identify independent predictive factors of non-restoration following Hartmann's procedure.

Methods: A retrospective single-center study including 91 patients who underwent Hartmann's procedure between January 2013 and December 2024 in the unit B of general surgery in Charles Nicolle's Hospital of Tunis was conducted. Clinical biological and intraoperative variables were analysed. Overall morbidity medical and surgical complications and mortality were assessed. Univariate and multivariate analyses were performed using SPSS software with statistical significance set at $p < 0.05$.

Results: Among 91 patients overall morbidity was 47.25% including 23% medical and 8.8% surgical complications. Mortality reached 25.3%. The rate of bowel continuity restoration was 49.4%. On multivariate analysis complicated sigmoid diverticulitis as the initial indication ($p = 0.011$) and a Clavien-Dindo score ≥ 3 after the first surgery ($p < 0.0001$) were identified as independent predictors of non-restoration.

Conclusions: Early identification of predictive factors for non-restoration allows a more refined management strategy from the initial procedure including appropriate patient selection perioperative optimisation and optimal timing of restoration.

This approach **Aims** to improve restoration rates while minimising postoperative morbidity.

Predictive factors of postoperative morbidity after hartmann reversal

Belgaroui L, Ben safta A, Samaali I, Nasri S, Bouasker I, Nouira R

Service de chirurgie générale B, Hôpital Charles Nicolle

Introduction: Restoration of bowel continuity after Hartmann's procedure is a challenging surgery usually performed as a second-stage intervention after an urgent initial operation. It has a significant morbidity due to patients' poor baseline condition and technical difficulties. This study **Aimed** to identify predictive factors of postoperative morbidity to improve patient's selection.

Methods: We conducted a monocentric retrospective study including 42 patients who underwent Hartmann's reversal between January 2013 and December 2024. Clinical biological and intraoperative variables were analyzed. Global morbidity medical and surgical complications and anastomotic leakage were assessed. Univariate and multivariate analyses were performed (SPSS software). We considered a result significant if $p < 0.05$.

Results: Forty-two patients were included. Overall morbidity was 38.1% with specific surgical complication and anastomotic leakage rates of 26.2% and 19% respectively. On multivariate analysis a low preoperative hemoglobin level was an independent predictive factor of overall morbidity ($p=0.044$) surgical morbidity ($p=0.044$) and anastomotic leakage ($p=0.019$). Prolonged operative time was an independent risk factor for specific surgical complications ($p=0.049$). ASA score emerged as an independent factor for medical complications ($p=0.024$).

Conclusion: Morbidity after Hartmann's reversal remains high. Identification of modifiable risk factors highlights the importance of targeted preoperative management. Multicenter studies are needed to better define patient selection for this surgery.

Two Years After Implementation: Evaluation and Optimization of a Cytotoxic Drug Control Unit in a Physicochemical Control Laboratory

El Kara F^{1,2}, Bizid M¹, Ben Messaoud M¹, Ben Houria B¹, Tabbabi A², Sebai S²

1. Faculty of pharmacy of Monastir - Tunisia

2. Physicochemical control laboratory – National Agency for Medicines and Health Products

Introduction: Establishing a cytotoxic drug control unit is a crucial step to ensure staff safety preparation quality and regulatory compliance. Two years after its implementation at the Physicochemical Control Laboratory of the National Agency for Medicines and Health Products (NAMHP) an evaluation was conducted to assess structural consolidation operational performance and improvement priorities.

Methods: The evaluation used a systemic approach based on the 5M framework (Manpower Machines Materials **Methods** Milieu). Each parameter was scored from 0 to 4 (0 = absent 4 = fully controlled) and weighted by relative importance (Man = 0.25 Machine = 0.25 Material = 0.20 Method = 0.20 Milieu = 0.10). Data from internal audits activity reports and on-site observations were analyzed. A global performance score expressed as a percentage provided a quantitative measure of

system maturity.

Results: Two years post-implementation the unit achieved a global performance score of 71.3% reflecting good operational maturity. Significant improvements were observed in equipment and material management including the installation of a cytotoxic safety cabinet dissolution tester disintegration apparatus and washing unit ensuring continuous availability and traceability via dedicated logbooks. However inter-site distance still limited coordination and responsiveness. Machine (4/4) and Material (3/4) obtained the highest scores while Method (2/4) and Milieu (1/4) required improvement particularly in logistics and preventive maintenance.

Conclusion: The cytotoxic control unit demonstrates strong technical performance and structural consolidation. Sustaining these Results requires ongoing training competency assessment and digitalized management of protective equipment and inventory to ensure long-term efficiency and alignment with ISO/IEC 17025:2017 standards.

Performance of First-Trimester sFlt-1/PIGF Ratio for Predicting Severe Fetal Growth Restriction: A Prospective Tunisian Study

Taamallah M, Khalfaoui A, Ben Masoud N, Salah H, Mrazguia C

Service de gynécologie obstétrique, Hôpital régional de Nabeul

Introduction: In Tunisia where vascular risk factors are highly prevalent severe fetal growth restriction (FGR) remains a major cause of perinatal morbidity. Early identification of pregnancies at risk is challenging emphasizing the need for reliable biochemical markers.

Aim: To assess the predictive performance of the first-trimester sFlt-1/PIGF ratio for severe FGR in a Tunisian population.

Methods: We conducted a prospective observational study including 80 pregnant women followed from the first trimester. Serum levels of sFlt-1 and PIGF were measured between 11 and 14 weeks of gestation using an ELISA technique. Monthly standardized ultrasound follow-up was performed. Severe FGR was defined as a birth weight below the 3rd percentile for gestational age. Diagnostic accuracy parameters were calculated for the optimal threshold.

Results: Seven women (8.7%) developed severe FGR. The mean sFlt-1/PIGF ratio was significantly higher in the FGR group than in controls (42.3 ± 5.6 vs. 16.8 ± 3.2 $p < 0.001$). Using a threshold of 38 the ratio predicted severe FGR with 85% sensitivity 90% specificity 82% PPV and 93% NPV (AUC = 0.89). The mean interval between biochemical prediction and clinical diagnosis was 18.2 weeks. Concordance with subsequent abnormal Doppler findings reached 87%.

Conclusion: First-trimester measurement of the sFlt-1/PIGF ratio demonstrates high predictive performance for severe FGR. Its early use could enhance risk stratification and support integration into routine screening programs especially in tertiary and secondary care centers.

Relationship Between Glycemic Status and Oral yeasts carriage in Type 2 Diabetic T2D Individuals: A Systematic Review

Ben Haj Slimen N, Besbes A, Ghozzi A

University of Monastir, Faculty of Dental Medicine of Monastir, Dental Medicine Clinic of Monastir

Introduction: Persistent hyperglycemia in T2D can lead to various systemic and oral complications including a greater

susceptibility to Candida infections. While studies indicate higher oral Candida colonization in diabetic patients the link between glycemic control and the oral fungal profile is not fully established. This study investigated how glycemic regulation influences the oral mycological landscape in individuals with T2D.

Methods: A systematic review was performed by searching the PubMed and Scopus databases from inception until October 2025. In PubMed the Boolean equation ((“Mouth”[Mesh]) AND (“Yeasts”[Mesh]) AND (“Diabetes Mellitus”[Mesh])) was used. Scopus searches utilized the keywords “Oral ” “Candida ” “carriage ” and “diabetes.” Only English-language studies were considered applying predefined inclusion and exclusion criteria focusing on adults with type 2 diabetes mellitus and documenting oral mycological profiles. Data were extracted using a standardized checklist and study quality was evaluated with the JBI critical appraisal tool.

Results: This systematic review included 34 studies. Patients with T2D and inadequate glycemic control display a distinct oral mycological profile characterized by higher Candida prevalence density and species diversity. Individuals with poor glycemic regulation demonstrate increased rates of Candida carriage particularly Candida albicans while non-albicans species also contribute to the overall fungal composition. Factors such as denture use smoking salivary glucose levels pH and salivary flow were identified as potential modulators of Candida colonization.

Conclusion: In T2D inadequate glycemic control is associated with elevated Candida colonization. Future investigations should implement consistent protocols to clarify the relationship between glycemic regulation and oral fungal communities.

Medical reasons for early retirement: current situation in Tunisia

Bani M , Ayed W, Bahri G, Chemingui S, Mersni M, Ladhari N

Introduction : Early retirement for medical reasons is a growing reality in Tunisia affecting various professional sectors.

Aims: To determine the socio-professional characteristics and determining factors of patients proposed for early retirement.

Methods: This was a retrospective descriptive study of the records of patients who consulted the department of occupational pathology and fitness for work at Charles Nicolle Hospital for a request for early retirement during the period from 1 January 2017 to 10 March 2025.

Results : We collected 146 proposals for early retirement. The average age was 53 ± 5 years. The sex ratio (M/F) was 1.1. The most common occupational sectors were health (17.1%) construction and public works (15.8%) and textiles (14.4%). The most common occupation was blue-collar worker (70.5%). The average length of service was 24.8 ± 9.1 years. The medical reasons for early retirement were pathologies: osteoarticular (28.1%) respiratory (23.3%) metabolic such as diabetes with degenerative complications (28.1%) psychiatric (17.1%) cardiac (15.1%) and cancers (8.9%). Eight employees were proposed for early retirement as a result of accidents at work. Early retirement was proposed for premature wear and tear in 71% of cases and for disability in 29% of cases. The average permanent partial disability (PPD) rate was 77.7%.

Conclusion: This study highlights the main pathologies leading to early retirement. It is essential to step up prevention through early detection of chronic diseases and optimised management in order to limit their impact on life.

Attitudes and perception of hospital nurses on electronic health records use

Ridene I, Kort I, Khalfallah R, Benrahma S, Cherif K, Bchir K

University Tunis El Manar, Faculty of medicine of Tunis, Mohamed Taher Maamouri hospital, department of legal medicine, Nabeul, Tunisia

Introduction: The Electronic Medical Record (EMR) is a cornerstone of modern healthcare systems. Understanding the perceptions of hospital nurses as primary end-users is crucial for its successful integration and optimization.

Aim: To assess the attitudes and perceptions of hospital nurses regarding EMR use.

Methods: This was a descriptive cross-sectional study conducted in July 2024 through a structured questionnaire administered to nurses working in the Mohamed Taher Maamouri Hospital of Nabeul and Menzel Temim Hospital.

Results: A total of 51 participants responded to the survey with a mean age of 37.7 ± 8.1 years. The participants had professional experience averaging 11.2 ± 7.5 years. Formal EMR training was reported in 7/51. Satisfaction with the reliability and speed of the EMR was reported by 40/51 and 30/51 respectively. The information provided was considered adequate by 37/51 and up-to-date 26/51. Key perceived advantages included improved patient follow-up (33/51) and enhanced data security (30/51). The EMR was perceived to enhance decision-making in 32/51 and reduce medical errors in 27/51. The most frequently reported limitation was technical issues in 39/51.

Conclusion: Nurses perceive the EMR as a beneficial tool for enhancing clinical practice and patient safety. However widespread technical issues and a critical training deficit hinder its potential. Addressing these issues through infrastructural support and comprehensive training is crucial for broader EMR adoption and optimized benefits

Breast Cancer and Sexuality: Experience and Psychological Impact

Bilel S, Hannachi MA, Samaali K, Malek M, Bamri MA, Neji K

CMNT, Service B

Introduction: Breast cancer is the leading cause of cancer among women. This disease profoundly affects emotional life body image and sexuality. Treatments—particularly breast surgery chemotherapy and hormone therapy—can alter perceived femininity and self-confidence.

Aim: To assess the impact of breast cancer on sexuality and analyze the psychological adaptation mechanisms among affected women.

Methods: This was a retrospective and descriptive study conducted among 12 patients followed for breast cancer in the Department of Obstetrics and Gynecology B at CMNT between January and December 2024. Patients were interviewed through structured sessions exploring the repercussions of the disease and treatment on sexuality body and emotional perception as well as psychological and marital coping strategies.

Results: The mean age of the patients was 46.8 years (range: 32–61 years). Sexual dysfunction was reported by 10 patients (83%) manifested by decreased sexual desire reduced frequency of intercourse and in some cases dyspareunia. The main contributing factors were loss of self-confidence fear of rejection and altered body image. Regarding coping mechanisms six patients reported partner support five consulted a psychologist and four adopted individual strategies such as relaxation or social engagement.

Conclusion: Breast cancer has a major impact on patients' sexuality and psychological well-being. Comprehensive care combining psychological support couple counseling and when appropriate breast reconstruction promotes better adaptation and improves quality of life.

Exploring Knowledge Gaps and Perceptions of Dental Implants Among Completely Edentulous Patients: A Cross-Sectional Study

Bercheche N, Tayari O, Jaouadi J

Faculty Of Dental Medicine, University Of Monastir, Tunisia

Introduction: Dental implantology is a cornerstone in oral rehabilitation for edentulous patients. The more extensive the edentulism the more complex the implant-prosthetic procedure. Although the dentist plays a central role throughout treatment patient understanding and engagement are essential for motivation and success. This study assessed knowledge and awareness of completely edentulous patients regarding dental implants and implant-supported prostheses identifying areas needing improved education in Tunisia.

Methods: A descriptive cross-sectional study was conducted over two months at the Department of Complete Denture Prosthodontics University Dental Clinic of Monastir Tunisia. Ninety-seven completely edentulous patients meeting inclusion criteria completed a structured questionnaire covering general information knowledge of implants awareness of implant-supported prostheses understanding of prognosis and motivation toward therapy.

Results: Among participants 95% had heard of dental implants mainly through relatives (85%) media or social networks. Implants were mostly perceived as "screws" inserted into bone while technical aspects such as the number of implants required (37.5% "don't know") and implant site (28.5% "don't know") were poorly understood. Main reasons for refusing treatment were cost (33%) advanced age (26.5%) and perceived lack of necessity (11%).

Conclusion: Although general awareness was satisfactory understanding of surgical principles osseointegration and prosthetic design remained limited. These misconceptions may explain patient hesitancy despite functional and psychosocial benefits. Dentists should reinforce educational roles provide individualized visual or digital guidance and implement structured pre-implant counseling to improve knowledge acceptance and long-term satisfaction.

Determinants and Characteristics of Postoperative Pain Following Mandibular Third Molar Surgery: A Cross-Sectional Clinical Study

Bercheche N, Khemiss M, Braham H

Faculty Of Dental Medicine, University Of Monastir, Tunisia

Introduction: The extraction of impacted mandibular third molars remains one of the most frequent oral surgical procedures and a major source of postoperative morbidity with pain being the predominant concern. Despite advances in surgical techniques and pharmacological management the mechanisms and predictors of postoperative pain remain poorly elucidated.

Aim: This study Aimed to assess the prevalence duration and clinical determinants of postoperative pain following surgical extraction of impacted mandibular third molars and to identify

associated postoperative complications.

Methods: A descriptive cross-sectional study was conducted over six months at the Department of Dental Medicine Main Military Training Hospital of Tunis. Healthy patients aged ≥ 18 years undergoing mandibular third molar extraction were included. Demographic anatomical and procedural parameters were recorded and postoperative outcomes were evaluated one week after surgery. Statistical analyses were performed using SPSS (v20) at a significance level of $p < 0.05$.

Results: Eighty patients were analyzed. Postoperative pain occurred in all cases predominantly localized (91.3%) with a median duration of three days. Swelling (15%) alveolitis (6.3%) bleeding (5%) and neurological disturbances (5%) were the most frequent associated complications. No significant correlation was found between pain intensity and root morphology degree of impaction operator experience or medication protocol.

Conclusion: Postoperative pain remains an inevitable but self-limiting sequela of mandibular third molar surgery. Optimal prevention requires comprehensive preoperative evaluation meticulous surgical execution and evidence-based postoperative care to mitigate additional complications and enhance patient comfort.

Assessment of the of Maxillary Anterior Dimensions using CBCT: A cross-sectional study

Kallala R, Gassara Y, Abidi M, Touzi S

Université de Monastir, Faculté de médecine dentaire

Introduction: The maxillary anterior region plays a crucial role in facial aesthetics. Accurate assessment of its dimensions is fundamental for various dental procedures including orthodontic treatment restorative rehabilitation and periodontal surgery. Understanding the variations in maxillary anterior dimensions among individuals can assist in treatment planning and improve the predictability of clinical outcomes.

Aim: This cross-sectional study Aims to assess the dimensions of the maxillary anterior region using CBCT providing reliable reference data that may guide clinicians in achieving both functional and aesthetic success in dental treatments.

Methods: This was a cross-sectional study conducted on CBCT images of patients presenting with a full intact anterior dentition. Those presenting diastema or crowding were excluded. For each included CBCT the width and length of the maxillary central incisor lateral incisor and canines were measured using a measurement tool. Data were collected then analysed using SPSS(23) software. The significance level was set at 5%.

Results: The study analyzed 100 CBCT scans. The mean crown width was highest for the Central Incisor (8.32 ± 0.59 mm) followed by the Canine (7.45 ± 0.56 mm) and the Lateral Incisor (6.61 ± 0.67 mm). Crown height was also greatest for the Central Incisor (9.65 ± 1.00 mm) then the Canine (9.16 ± 1.09 mm) and the Lateral Incisor (8.23 ± 1.05 mm).

Conclusions: CBCT proved to be a reliable and precise method for assessing the dimensions of the maxillary anterior region. The findings demonstrated consistent patterns in crown height and width.

Addictive behaviors in the emergency department : epidemiology and evaluation of the care pathway

Bakir A, Fadhel R, Chermiti I, Ghazali H, Souissi S

Emergency department, Regional Hospital of Ben Arous

Introduction: Addictions to psychoactive substances is a frequent cause of recourse to emergency departments (ED). They seem to be the best place to identify addictive behaviors and refer patients.

Aims: To study the incidence of addictive behaviors among patients attending a multi-purpose ED and to assess the care pathway followed by these patients.

Methods: Prospective observational monocentric study spread over a three-month period (September October and November 2024). Inclusion of patients consulting an ED with an addiction to psychoactive substances identified by using a hetero-questionnaire based on 2 tests: WHO-ASSIST and FACE. The demographics co-morbidities clinical biological data and in-hospital procedures were collected.

Results: Thirty-four patients were included with a clear male predominance (85.3%). The mean age was 34 ± 14 years and the majority of patients were single (79.4%). Most patients were unemployed (58.8%) or blue-collar workers (17.6%). Initial examination revealed : digestive disorders ($n=26$) tachycardia ($n=15$) and consciousness disorders ($n=4$). The psychoactive products identified are tobacco cannabis alcohol and cocaine. Thirty-three patients were tobacco smokers 85.3% of whom were daily smokers. Twenty-three patients were cannabis users 25.3% of whom smoked weekly. Eighteen patients said they had been in contact with alcohol in the past 3 months or more 26.5% of them on a weekly basis. Nine regular non-daily cocaine users were identified in the study. No deaths occurred in the emergency department and only one patient was admitted to intensive care unit.

Conclusion: In order to limit the transition to addiction the management of addiction must go through the establishment of an efficient care process.

Maternal Anemia in Pregnancy: Prevalence and Neonatal Impact

Somri B, Samaali K, Hannachi MA, Mizouni R, Malek M, Neji K

CMNT, Service B

Introduction: Maternal anemia is one of the most frequent medical complications during pregnancy particularly in developing countries. It is associated with adverse maternal and perinatal outcomes including preterm birth low birth weight and increased neonatal morbidity.

Aim: This study Aims to assess the prevalence of anemia among pregnant women and to evaluate its impact on neonatal outcomes.

Methods: A prospective descriptive study was conducted in the Department of Obstetrics and Gynecology at the Tunis Maternity and Neonatology Center over a 12-month period. A total of 30 pregnant women diagnosed with anemia (hemoglobin level < 11 g/dL) were included. Anemia was classified as: • Mild: $10-10.9$ g/dL • Moderate: $7-9.9$ g/dL • Severe: < 7 g/dL Neonatal parameters analyzed included birth weight Apgar score and gestational age at delivery.

Results: The prevalence of anemia among all pregnant women during the study period was 18.4%. Severity distribution: mild anemia (46.7%) moderate anemia (43.3%) and severe anemia: 10% The most common etiology was iron deficiency (80%) followed by folate deficiency (13%) and chronic disease (7%). Adverse neonatal outcomes included: low birth weight (< 2500 g): 40% preterm birth (< 37 weeks): 26.7% and Apgar score < 7 at 1 minute: 20% A statistically significant association was found between maternal hemoglobin level and birth weight ($p < 0.05$).

Conclusion: Maternal anemia remains a major public health problem with considerable impact on neonatal outcomes.

Early screening nutritional counseling and iron–folate supplementation are essential to prevent complications.

Development of an educational card game for patients with chronic kidney disease

Hajji H, Sellami F, Sellami N, Ben Fatma NE, Abbassi A

Pharmacy department, Charles Nicolle Hospital, Tunisia
Internal medicine department, Charles Nicolle Hospital, Tunisia

Introduction: Therapeutic education is essential to improve disease management yet adapted educational tools remain limited. An educational tool based on an assessment of patients' needs to enhance their understanding and engagement in disease management was developed.

Method: Following a needs assessment among CKD patients specific educational objectives were identified to guide the development of a card game inspired by the '7 families' concept. The tool was designed according to psycho-pedagogical principles and design standards focusing on disease knowledge therapeutic management and dietary guidance. Key design principles included clarity accessibility durability and gamification

Results: A culturally adapted educational card game named Kliwa was developed to enhance patients' knowledge about chronic kidney disease its treatment and appropriate nutrition. The game is structured around six thematic families — Athletic Sad Transplanted Happy Active and Sick — each addressing specific aspects of the disease experience. Kliwa includes a total of 91 cards divided among the six families 45 quiz cards designed to test knowledge and 10 challenge cards that encourage interaction and engagement. It also features a descriptive overview to guide players and facilitators in using the game effectively with chronic kidney disease patients. The game fosters learning through questioning social interaction and healthy competition offering a dynamic and engaging approach to patient education.

Conclusion: This educational game offers an innovative accessible approach to address CKD patients' educational gaps. Future steps will include validation of this educational game and pilot implementation in therapeutic education sessions to evaluate its impact on patient knowledge and behavior.

Polycystic Ovary Syndrome in Adolescents from Tunisia: A Clinical Investigation of Menstrual and Reproductive Outcomes

Somri B, Samaali K, Hannachi MA, Mizouni R, Neji K

CMNT, Service B

Background: Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders affecting women of reproductive age and is increasingly recognized during adolescence. However early diagnosis remains difficult due to the overlap between normal pubertal changes and PCOS diagnostic criteria. In Tunisia limited data exist on adolescent PCOS and its implications for future fertility.

Aims: This study Aims to assess the prevalence of PCOS in adolescent girls in Tunisia examine the early clinical signs and explore their potential long-term impact on reproductive health.

Methods: We conducted a cross-sectional hospital-based clinical observational study between January and December 2024 at the Department of Gynecology Tunis Maternity center . The study included 100 adolescent girls aged 14 to 19 years referred

for menstrual disturbances or signs of hyperandrogenism.

Results: The prevalence and characteristics of polycystic ovary syndrome (PCOS) found that 32% of the participants met the diagnostic criteria for the condition. The most common presenting symptom was menstrual irregularity reported by 87% of those diagnosed followed by acne (62%) and hirsutism (48%). In terms of metabolic findings 55% of the PCOS patients exhibited insulin resistance 28% were classified as overweight and 18% showed early signs of dyslipidemia. Additionally 61% of those with PCOS experienced anovulatory cycles indicating a significant risk for fertility issues.

Conclusion: This study highlights a significant prevalence of PCOS among Tunisian adolescents with menstrual disturbances with many already showing reproductive and metabolic risk factors. Given its long-term implications for fertility early screening and age-appropriate diagnostic criteria are essential.

Prenatal Detection of Cleft Lip and Palate: Diagnostic Performance of 3D Ultrasound Compared to 2D Imaging – A Case Series of 12 Pregnancies

Sabkha NE, Yahyayoui R, Daghsni S, Ben Chaalia C, Ben Saidane S, Bouguerra B

Hopital Charles Nicoles, G26

Background: Prenatal diagnosis of cleft lip and palate is essential for parental counseling and postnatal surgical planning. While 2D ultrasound remains standard 3D imaging may improve visualization of facial anatomy and enhance diagnostic accuracy.

Aim: To evaluate the performance of 3D ultrasound compared with conventional 2D imaging in the prenatal detection of cleft lip and palate in a small cohort.

Methods: We conducted a prospective case series including 12 pregnancies with suspected orofacial cleft detected on routine 2D ultrasound between 2022 and 2025 at a tertiary prenatal diagnosis center. All cases underwent complementary 3D surface rendering and multiplanar reconstruction. Prenatal findings were compared with postnatal outcomes confirmed by clinical examination or surgical repair. Sensitivity specificity and diagnostic clarity were descriptively reported.

Results: 3D ultrasound correctly identified 11 of 12 confirmed cleft cases providing detailed visualization of the lip and alveolar ridge and allowing differentiation between isolated cleft lip and combined cleft palate. 2D imaging correctly identified 9 of 12 cases. All cases were confirmed postnatally. 3D imaging improved parental counseling and surgical planning particularly in complex or bilateral clefts.

Conclusion: In this small cohort 3D ultrasound enhanced prenatal detection and characterization of cleft lip and palate compared with 2D imaging. These findings support the integration of 3D imaging in mid-trimester scans though larger studies are needed to confirm diagnostic performance.

Predictors of a liver hydatid cyst's rupture in the biliary tract

Mouelhi D, Jedidi L, Ben Lahouel S, Saidani A

Service de chirurgie générale, Hôpital Régional de Jendouba, Tunisie

Introduction: Fistulization of a hepatic hydatid cyst into the biliary tract is one of the most frequent and serious complications of hepatic echinococcosis. It may result in diverse clinical manifestations ranging from biliary colic to acute cholangitis.

Objectives: To identify predictive factors associated with cyst–

biliary fistulization in patients operated on for hepatic hydatid cysts.

Methods: A retrospective study was conducted including 185 patients who underwent surgery for hepatic hydatid cysts. Clinical laboratory radiological and intraoperative data were collected and analyzed. Univariate analysis was used to determine factors associated with cyst fistulization into the biliary tract.

Results: The mean patient age was 42.6 years with a slight female predominance.

The predominant symptoms were right upper quadrant pain (80%) fever (45%) and cholestatic jaundice (28%).

Most cysts were located in the right hepatic lobe (62%) with a mean diameter of 9.8 ± 3.1 cm.

According to Gharbi's ultrasonographic classification types III (38%) and IV (25%) were the most common.

Fistulization into the biliary tract occurred in 65 patients (35.1%) including 45 major (69.2%) and 20 minor (30.8%) fistulas.

Univariate analysis showed significant associations with cholestatic jaundice ($p = 0.001$) cyst diameter > 10 cm ($p = 0.013$) right lobe localization ($p = 0.021$) and Gharbi type III–IV cysts ($p = 0.004$).

Conclusion:

Cysto–biliary fistulization in hepatic hydatidosis is promoted by specific clinical and morphological factors particularly cyst size location and Gharbi classification.

Identifying these predictors allows better preoperative planning and may help reduce postoperative morbidity.

Analytical Validation of an HPLC-FIA Method for the Quantification of Cyclosporine in Pharmaceutical Preparations

Kamerigi T^{1,2}, Bouallegue L¹, Trabelsi Y¹, Fazaa I¹, Drira C¹

1. Bone Marrow Transplant Center- Tunis

2. Laboratory of Chemical, Galenic and Pharmacological Development of Medicines (LR12ES09), Faculty of Pharmacy of Monastir, University of Monastir, Ibn Sina Street, 5000 Monastir, Tunisia

Introduction: Cyclosporine is an immunosuppressive agent with a narrow therapeutic index widely prescribed in transplantation contexts. Its quantification requires highly accurate and reliable analytical Methods to ensure effective quality control and therapeutic monitoring.

Aim: This study Aims to validate a quantitative method for cyclosporine determination using a Shimadzu HPLC system based on the Flow Injection Analysis (FIA) principle.

Methods: The quantification of cyclosporine preparations was performed using a Shimadzu HPLC system equipped with a Diode Array Detector (DAD) operating at a detection wavelength of 199 nm. An acceptance limit of $\pm 10\%$ of the theoretical concentration was established according to ICH validation guidelines. The method's linearity accuracy trueness and precision were evaluated within the concentration range of 1.0–2.5 mg/mL. Calibration curves were generated from standard cyclosporine solutions and analytical performance parameters were statistically assessed.

Results: The accuracy profile confirmed the method's validity for cyclosporine dosage within the specified concentration range (1.0–2.5 mg/mL). The method exhibited excellent linearity with a correlation coefficient (R^2) of 0.999. Both repeatability and intermediate precision with coefficients of variation below 0.5% demonstrated high measurement reliability. Recovery rates ranging from 94.85% to 96.35% close to 100% confirmed the method's accuracy and detection efficiency. The trueness expressed as bias was $\leq 5\%$ meeting validation requirements.

Conclusion: Utilizing the accuracy profile streamlines the

validation process enhances confidence in analytical *Results* and supports robust decision-making during validation procedures. The validated method provides a reliable approach for routine quality control and therapeutic monitoring of cyclosporine.

Enzyme-Assisted Essential Oil Extraction of Aerial Parts of *Artemisia campestris* L. and by-products valorization

Ben Fatma NE¹, Ben Abdallah H³, Ben Messaoud G³, Trabelsi A², Abbassi A¹

1. University of Monastir, Faculty of Pharmacy, Charles Nicolle Hospital, Pharmacy Department, Tunis, Tunisia;

2. University of Monastir, Faculty of Pharmacy, Mohamed Ben Sassi Hospital, Gabes, Tunisia;

3. University of Monastir, Faculty of Pharmacy, Monastir, Tunisia

Introduction: *Artemisia campestris* L. widely used in traditional Tunisian medicine exhibits significant therapeutic potential due to its secondary metabolites.

Aim: To valorize this plant by characterizing its bioactive compounds and evaluating the impact of enzyme-assisted extraction on essential oil yield.

Methods: *A. campestris* leaves were collected from Kasserine and dried. Essential oil extraction was performed by hydrodistillation using a Clevenger apparatus for 3 hours with four treatments: control cellulase (50mg) hemicellulase (50mg) and cellulase-hemicellulase combination (25mg+25mg). Extraction residues were treated by Soxhlet extraction with a solvent gradient. Phytochemical screening used specific reactions to identify metabolites. Essential oil composition was analyzed by GC-MS polyphenols quantified by the Folin-Ciocalteu method and antioxidant activity evaluated by DPPH assay.

Results: Essential oil yield reached 1.23% without enzymatic treatment and 1.3% with cellulase or hemicellulase showing no significant difference. Thirty-six compounds were identified dominated by monoterpenes (54.01%) and sesquiterpenes (30.83%) with germacrene D (16.38%) and β -pinene (16.33%) as major constituents. Screening revealed polyphenols flavonoids tannins saponosides and coumarins. Cellulase-treated ethyl acetate extracts showed the highest polyphenol content (18.56 μg GAE/mg). Antioxidant activity exhibited IC50 values ranging from 14.68 to 17.10 $\mu\text{g}/\text{ml}$.

Conclusion: This study confirms *A. campestris* richness in bioactive metabolites. Although enzymatic extraction did not significantly improve quantitative yield it influenced qualitative composition opening promising pharmacological applications.

Effectiveness of Homeopathic Medicines in the Management of Primary Hypertension: A Systematic Review

Ghrissi A¹, Ben fatma NE¹, Ben Abdallah H¹, Aouina R², Abbassi A²

1. Faculty of Pharmacy of Monastir , Univesity of Monastir, Monastir,Tunisia;

2. Pharmacy department, Charles Nicolle Teaching Hospital of Tunis,Tunis, Tunisia

Introduction: Homeopathy established by Hahnemann in 1796 rests on three core principles: similarity infinitesimality and individualization. Despite its widespread use its effectiveness—especially for hypertension—remains debated.

Aim: This systematic review evaluates the scientific evidence supporting homeopathy in the management of primary hypertension.

Methods: The review followed PRISMA guidelines. The research

question was developed using the PICO framework. Inclusion and exclusion criteria were set and searches were performed across three databases. Selected studies were assessed for bias risk using the RoB2 tool.

Results: The main question was: "What is the evidence level for homeopathic treatment of essential hypertension compared to placebo and allopathic medicine?" Four studies were included: two with low bias risk showing no significant effect and two with high bias risk indicating possible efficacy.

Discussion: This review analyzed four studies: two with low bias risk that found no significant effects and two with high bias risk suggesting potential benefits. The comprehensive search strategies and RoB2 tool ensured a standardized reliable assessment. Nonetheless limitations such as the small number of trials and their heterogeneity remain.

Conclusion: The review finds no conclusive evidence supporting homeopathy's efficacy for hypertension.

It highlights the importance of further well-designed research to validate or refute these findings and to enhance the quality of evidence available.

Assessment of chronic wounds management using modern dressings in a university hospital center

Ben Fatma NE¹, Souihi N¹, Sellami F¹, Essafi A¹, Ridane D¹, Ammar A², Abbassi A¹

1. University of Monastir, Faculty of Pharmacy, Charles Nicolle Hospital, Pharmacy Department, Tunis, Tunisia ;

2. University of Monastir, Faculty of Pharmacy, Salah Azaïez Institute, Pharmacy Department, Tunis, Tunisia;

Aim: To evaluate the management of hospitalized patients with chronic wounds requiring modern dressings (MD) by analyzing the adherence of medical prescriptions to the latest HAS recommendations.

Methods: This study was conducted at a university hospital center over six months from December 8 2023 to June 8 2024. Data collection used a monitoring sheet created and validated by two pharmacists. Three judgment criteria were established: the prescription compliance score (0–3 points) the % of accepted pharmaceutical interventions and the % of interventions accepted. Statistical analysis was performed using SPSS®.

Results: A total of forty-one patients were included in our study. The sex ratio was 2.15. The mean age was 54.7 ± 21.93 years. The most prevalent wound type was pressure ulcer (87.8%) particularly stage 4 (47%). Sixty-nine affected sites were identified with the most common location being the sacrum (36.23%). Eighteen medical prescriptions containing 25 MD were written. Only three types of dressings were prescribed. Three prescriptions out of eighteen (16.70%) received a compliance score of 3 (100% compliant). Four types of discrepancies were identified: all items of the prescription were non-compliant (16%) duration of the dressing prescription was non-compliant (25%) frequency of dressing changes was non-compliant (11%) and type of dressing prescribed was non-compliant (5%). 55 pharmaceutical interventions were completed and accepted.

Conclusion: The management of chronic wounds remains inadequate due to insufficient training of healthcare personnel on modern dressings emphasizing the need for ongoing training to enhance the quality of care.

Antibioprophylactic prescription patterns in oral implant surgery among Tunisian dentists

Jemli S, Besbes E, Hdider A, Jaouadi J

Faculté de Médecine Dentaire de Monastir

Introduction: The role of antibiotics in preventing dental implant failure and postoperative infections continues to be a subject of debate.

The **Aim** of this study was to evaluate dentists' antibiotic prescribing habits when performing oral implant surgery in Tunisia.

Methods: This was a cross-sectional study using an online survey targeting Tunisian dentists who perform oral implant surgery. The questionnaire included both closed and open-ended questions covering demographics and antibiotic prescribing patterns. Data were analysed using SPSS. 27 version.

Results: A total of 351 dentists responded to the questionnaire. Approximately 71% routinely prescribed prophylactic antibiotics for oral implant surgery 24% prescribed antibiotics in particular cases and only 5% did not prescribe antibiotics at all. Overall 195 respondents prescribed antibiotics only after surgery 126 prescribed antibiotics both pre- and postoperatively and only 11 prescribed antibiotics exclusively preoperatively. The most common prophylactic antibiotic prescribed was 1000 mg amoxicillin twice a day for 7 days after surgery. Approximately only 0.6 % (n =2) of the participants who prescribed antibiotics adhered to the recommendations proposed by the latest publications and guidelines which suggested that a single dose of amoxicillin (2g) 1 hour before surgery is sufficient to reduce infections and the risk of implant failure.

Conclusion: The majority of dentists routinely prescribe prophylactic antibiotics in conjunction with dental implant surgery for healthy patients. They often used varied regimens that do not align with current evidence-based guidelines. Standardised protocols are needed to reduce bacterial resistance side effects and overtreatment.

Between Ethical Awareness and Actual Practices: A KAP Survey on Plagiarism Among Dental Interns at the University of Monastir

Chtioui H, Erray R, Labidi A

Université De Monastir, faculté De Medecine Dentaire, hopital universitaire Habib Bougatfa, service Médecine Dentaire, laboratoire De Recherche ABCDF, Bizerte, Tunisie

Introduction: Plagiarism represents a major ethical breach in higher medical education undermining academic integrity and the quality of training. In dental education this issue becomes particularly salient during thesis writing. International studies reveal a paradox: plagiarism remains prevalent even among students who recognize its ethical severity.

Objective: To assess the knowledge attitudes and practices (KAP) regarding plagiarism among dental interns at the Faculty of Dental Medicine of Monastir and to identify factors influencing their behaviors in order to guide academic integrity interventions.

Methods: A cross-sectional KAP survey was conducted during the 2024–2025 academic year among 106 interns (out of 170) using an anonymous self-administered electronic questionnaire. Data were analyzed descriptively using Google Sheets and Microsoft Excel.

Results: The participation rate was 62.4%. Major knowledge gaps were identified: only 67.9% recognized copy-paste as plagiarism 78.5% were unaware of detection software and 54.7% did not know acceptable similarity thresholds. Despite theoretical ethical awareness (64.1% viewed plagiarism as a serious offense) risky practices persisted: 58.5% had copied text without citation 79.2% had delegated writing tasks and

85.8% never used detection tools. Only 14% had received prior training while 84.9% expressed a desire for it. Qualitative responses indicated insufficient training as the main barrier (65% of suggestions).

Conclusions: A consistent knowledge-practice paradox was observed primarily driven by a lack of structured training. Three priorities emerge: integrating plagiarism education into curricula enforcing institutional policies with adequate resources and fostering a culture of academic integrity. High demand for training (84.9%) provides a strong foundation for sustainable reform.

Cesarean Scar pregnancy: Diagnostic Criteria and Therapeutic Management

Yahyaoui C, Boumaiza A, Zhiri N, Akacha A, Makni M, Slimani O

Hôpital Charles Nicole Service Gynécologie Obstétrique A G25

Introduction: Cesarean scar pregnancy is among the rarest forms of ectopic pregnancy. It occurs when the pregnancy implants on or within the niche of a previous cesarean scar. The objective of this study was to describe the diagnostic **Methods** for cesarean scar pregnancy and the various therapeutic approaches.

Methods: This was a descriptive retrospective cross-sectional in the "A" Gynecology and Obstetrics department at Charles Nicolle Hospital Tunis. It spanned an eight-year period from January 2016 to January 2023 focusing on cases of cesarean scar pregnancies.

Results: We collected 30 cases of cesarean scar pregnancy. The average age of patients in our study was 36 years. Diagnosis was primarily based on suprapubic and endovaginal ultrasound augmented by color Doppler. Therapeutic management after confirmed diagnosis was as follows: Seven patients (23%) received treatment via intramuscular methotrexate injection. Thirteen patients (43%) underwent ultrasound-guided aspiration. Six patients (20%) were treated with immediate ultrasound-guided aspiration combined with intramuscular methotrexate injection. Two patients (7%) received in situ methotrexate injection under ultrasound guidance. Two patients (7%) were treated with immediate laparotomy for resection. Three patients experienced hemorrhage during treatment. Among the factors associated with a risk of hemorrhage the following were identified: Gestational age was higher in patients who experienced hemorrhage ($p < 0.032$). Patients presenting with metrorrhagia at initial examination had a higher risk of developing hemorrhage ($p = 0.01$). The gestational sac diameter was larger in patients who experienced hemorrhage ($p = 0.04$).

Conclusion: The early diagnosis of cesarean scar pregnancy is crucial to guide optimal management.

Outcome of medication-induced abortions with misoprostol: Results of the FIGO 2017 protocol

Boumaiza A, Yahyaoui C, Zhiri N, Abdeljabbar A, Makni M, Slimani O

Hôpital Charles Nicole Service De Gynécologie Obstétrique A G25

Introduction: Missed miscarriages and intrauterine fetal death (IUFD) represent a complex and sensitive topic due to their frequency and recurrence in gynecology. The FIGO 2017 Misoprostol protocol has introduced an approach for each woman by ensuring a safe abortion. The Aim of our study was to describe the outcomes of adopting this protocol and to determine the implications of its accreditation within our population.

Methods: This was a retrospective and evaluative study conducted in the Gynecology Department A of Charles Nicole Hospital from January 1 2022 to December 31 2023. It included patients hospitalized for first-trimester missed miscarriages IUFD and medical terminations of pregnancy (MTP). Success of the protocol was defined as complete expulsion following Misoprostol administration without the need for an alternative method.

Results: The average age was 34 years and the mean gestational age was 12 weeks. First-trimester missed miscarriages accounted for 65.8% of cases IUFD for 14.4% and medical terminations of pregnancy (MTP) for 19.8%. The mean dose of Misoprostol administered was 1230 micrograms. The average time to expulsion was 32 hours for first-trimester missed miscarriages and 16.5 hours for IUFD cases. The overall success rate in our series was 89.7% while the failure rate was 10.7%. Adverse effects were reported in 46.3% of patients including pelvic pain (57.1%) gastrointestinal disturbances (27.2%) fever and chills (14.3%) and excessive or prolonged bleeding (8.2%). Thirteen cases of complications (8.8%) were recorded.

Conclusion: The integration of medical abortion into the management of missed pregnancies in Tunisia represents a major advancement for women's health.

Neurological Complications in Infectious Spondylodiscitis: A Series of 72 Cases

Refka J, Ben Ammar L, Ben Ayed H, Fenniche I, Dhaheri R, Gharsallah I.

Rheumatology Department of Military Hospital of Tunis

Introduction: Infectious spondylodiscitis (IS) is a severe infection of the intervertebral disc and adjacent vertebral bodies. Its location may lead to serious neurological complications affecting functional and vital outcomes.

Aim: To describe the neurological manifestations and complications associated with IS.

Methods: We conducted a retrospective study of 72 patients with IS hospitalized in a rheumatology department between 2009 and 2022. Clinical radiological and therapeutic data were analyzed with emphasis on neurological involvement.

Results: The cohort included 37 women and 35 men (mean age 56.3 ± 15.6 years). The infection was multifocal in 19.4% of cases mainly involving the lumbar (44.4%) thoracic (30.6%) and cervical (5.6%) regions. Pathogens were pyogenic bacteria (59.6%) Mycobacterium tuberculosis (23.6%) and Brucella spp. (16.6%). Neurological complications occurred in 25% of patients. Radicular pain was reported in 7 cases gait disturbance in 4 and flaccid paraplegia due to cauda equina syndrome in 4. MRI revealed intradiscal abscesses ($n = 16$) intraspinal abscesses ($n = 17$) paravertebral abscesses ($n = 36$) epiduritis (41.7%) and spinal cord compression (13.9%). Corticosteroids were prescribed in 26 patients and surgery performed in 16 (laminectomy or abscess drainage). Two patients died and five had persistent neurological sequelae.

Conclusion: IS is a diagnostic and therapeutic emergency. Neurological complications significantly worsen prognosis and are associated with high morbidity and mortality. Early diagnosis and appropriate medical-surgical management are essential to improving outcomes

From Cyst to Carcinoma: A Systematic Review of Malignant Transformation in Dentigerous Cysts

Khalifa C, Slim A, Garma M, Chokri A, Hentati H

Introduction: Although dentigerous cysts are generally

benign rare malignant transformations may occur leading to intraosseous carcinomas. This review synthesizes published data to clarify their clinical and pathological features.

Objective: To analyze reported cases of malignant transformation in dentigerous cysts regarding demographics histologic types and outcomes.

Methods: A systematic search of PubMed Scopus Web of Science and Embase (until October 2025) identified reports describing histologically confirmed malignancies arising from dentigerous cysts. Data were extracted on age sex location histologic diagnosis and prognosis.

Results: Thirty-eight cases met the inclusion criteria. The mean age was 52 years with a male predominance. The mandible was affected in 68% of cases. Squamous cell carcinoma accounted for 71% of malignancies followed by ameloblastic carcinoma (18%) and mucoepidermoid carcinoma (11%). Most transformations occurred in long-standing or inflamed cysts.

Conclusion: Malignant transformation of dentigerous cysts is rare but clinically significant. Routine histopathologic evaluation and early management are essential to prevent delayed diagnosis and improve prognosis.

Impact of oral lichen planus on patients' well-being

Besbes A, Slama O, Jelassi D, Selmi J, Hentati H

Service de médecine et chirurgie buccales, Clinique HU de médecine et chirurgie dentaire, Université de Monastir, Tunisie

Introduction: Oral lichen planus (OLP) is chronic inflammatory disease that affects the oral mucosa. Although OLP is not a life-threatening disease its consequences can have a significant impact on patients' well-being and quality of life.

Aim of the study: To assess the impact of OLP on quality of life.

Methods: It is an observational study of patients with histologically confirmed OLP followed in oral surgery department during from 2024 to 2025. Epidemiological clinical and histological data were collected using an oral examination and a 14-item questionnaire the Oral Health Impact Profile-14 (OHIP-14) which investigates 7 domains namely functional limitation pain and discomfort etc. in order to assess quality of life. OHIP-14 scores were attributed and ranged from 0 to 56. Lesions severity was measured by Thongprasom score.

Results: Seventy patients were included in this study. Women were most affected patients (70%). Clinically the cheeks were the most frequent location (71.7%) and the erosive/ulcerative lichen was the most common form (55%). The mean total OHIP-14 score was 26.7 ± 8.85 . The highest scores were related to the following domains: "physical pain" "physical disability" and "psychological discomfort" with respectively 5.38 ± 1.65 4.71 ± 1.87 and 4.55 ± 1.83 . A statistically significant positive correlation was observed between the clinical form the severity the location of OLP and OHIP-14 scores.

Conclusion: OLP relatively affects the life quality of patients. There is a need for a comprehensive personalized management approach. Longitudinal studies are needed to monitor changes in quality of life after treatment.

Mapping symptoms to site: clinical correlates of tumor location in colorectal cancer

Khemiri W, Ayari M, Ben Azouz S, Chehaider A, Dougui H, Jomn T

Gastroenterology department, FSI Hospital, La Marsa, Tunisia

Background: Colorectal cancer (CRC) is a multifaceted disease with diverse clinical presentations. Variation in symptom

presentation across tumor sites often contributes to delays in diagnosis and differences in clinical outcomes. Identifying the main symptoms from patient history can help guide earlier and more accurate diagnosis.

Aim: To evaluate the correlation between the initial clinical presentation and the anatomical site of the tumor in patients with CRC.

Methods: A retrospective study including patients diagnosed with CRC between 2014 and 2022 was conducted. Patients' demographics and follow-up outcomes were collected. Data were entered and analyzed by SPSS software version 26.

Results: Eighty-four patients were included with a mean age at diagnosis of 60 ± 12 years and a sex ratio M/F=1.89. Tumor locations were classified as right side in 27% of cases and left side in 73% including 35% in the sigmoid colon and 30% in the rectum. Anemia and poor general condition were significantly more frequent in right-sided colon tumors ($p=0.002$ and $p=0.02$ respectively). Bowel habit disturbances were comparable across tumor locations ($p=0.4$). Rectal bleeding was significantly higher in rectal cancers compared with left colon and sigmoid colon cancers ($p<0.001$ and $p=0.03$ respectively). Obstructive syndrome was more frequent in colon cancers (26%) than in rectal cancers (4%) at the limit of significance ($p=0.05$). The proportion of patients presenting with a palpable abdominal mass was higher in right-sided colon cancers (45%) compared with left-sided ones (26%) without a significant difference ($p=0.06$).

Conclusion: CRC symptoms vary by tumor site with right-sided tumors linked to anemia and rectal cancers to bleeding highlighting the need for site-specific diagnostic awareness.

Perceptions, Practices, and Associated Factors of Homeopathy Among Healthcare Professionals

Hajj H, Ben Fatma NE, Chourabi S, Massoudi C, Abbassi A

Pharmacy Department, Charles Nicolle hospital, Tunis, Tunisia

Introduction: Homeopathy is widely used as a complementary medical practice often perceived as a gentle approach with minimal adverse effects. However its efficacy beyond placebo remains scientifically unproven leading to ongoing debate among healthcare professionals.

Aim: This study Aims to assess physicians' and pharmacists' perceptions of homeopathy and to identify factors associated with these views.

Methods: A descriptive cross-sectional study was conducted over 8 months (January–August 2023) among physicians and pharmacists working in hospital and private settings. A 27-item questionnaire—comprising open-ended semi-open and closed questions—was used to evaluate their knowledge practices and perceptions. Chi-square tests were applied for bivariate analyses.

Results: Among 119 respondents (response rate: 98.7%) the male-to-female ratio was 0.63 with a mean age of 42 ± 14 years. Physicians accounted for 45.8% of participants and pharmacists for 54.2% with 60.7% in private practice. Mean professional experience was 17.62 ± 12.7 years. Overall 55.5% reported no formal training in homeopathy whereas others acquired knowledge through websites and scientific journals (35.4%) training courses (28.4%) or medical representatives (23.2%). In practice 75.2% prescribed or recommended homeopathic products mainly as adjunct therapies (70%). Perception was generally favorable: 68.5% believed in homeopathy's effectiveness and 71.3% supported its prescription. Significant associations were found between belief in homeopathy and age professional experience profession professional grade training

and knowledge level (all $p \leq 0.02$).

Conclusion: The study revealed predominantly positive perceptions of homeopathy despite limited training highlighting the need for better education to guide evidence-informed use. These insights may inform future policies and educational strategies ahead.

Myocardial ischaemia and post-systolic shortening

Ellouz I, Antit S, Mahfoudhi MA, Soumaya S, Boussabeh E, Zakhama L

Internal Security Forces Hospital, La Marsa

Introduction: Reduced coronary blood causes metabolic changes followed by diastolic then systolic dysfunction electrical abnormalities and finally chest pain “the ischemic cascade”. Echocardiography allows early detection of functional alterations: wall motion abnormalities strain alteration and post systolic shortening (PSS). PSS is myocardial shortening after end-systole seen in regions with contractile dysfunction.

Aim: This study assessed the presence of PSS in coronary artery disease (CAD).

Methodology: We conducted a prospective monocentric study including 61 patients hospitalized in the Cardiology Department of the Interior Security Forces Hospital with no prior history of CAD preserved ejection fraction undergoing coronary angiography between March and October 2025. An echocardiogram was performed before coronary angiography. Patients were divided into : 24 without CAD and 37 with CAD.

Results: The mean age was 57 ± 10 years with 68% male. Acute coronary syndrome was the main indication for angiography. Significant stenosis affected the left anterior descending artery in 52% 23% the circumflex artery in 23% the right artery in 21%. The median post-systolic index (PSI) was 2.47 (1.04-4.05) and was significantly associated with CAD (AUC=0.765 $p=0.001$). Among CAD patients 18 presented PSS. PSS showed 95% sensitivity and 54% specificity ($p<0.001$). Both mean PSI and number of walls with PSS correlated with Gemini score ($p=0.284$ $p=0.38$). In multivariate analysis the number of walls with pathological PSS was the only independent predictor with each affected wall increasing the odds by 12 times [1 8-91 5].

Conclusion: PSS is a sensitive marker of CAD and its extent independently predicts disease presence.

Application patterns of topical analgesics in patients with knee osteoarthritis

Miladi S, Trabelsi W, Boussaa H, Fazaa A, Ben Abdelghani K, Laatar A

University of Tunis El Manar, Faculty of Medicine of Tunis, Mongi Slim Hospital, Rheumatology Department, Tunis, Tunisia

Introduction: Topical analgesics and topical non-steroidal anti-inflammatory drugs constitute an important therapeutic option for patients with chronic osteoarticular pain particularly knee osteoarthritis as they reduce systemic exposure and limit drug-drug interactions. Despite their widespread use real-world application practices remain insufficiently characterized.

Aim: To assess how patients apply topical analgesics for knee osteoarthritis.

Methods: A cross-sectional study was conducted including 83 patients with knee osteoarthritis receiving topical analgesic therapy. Patients were asked about their knowledge of topical products used to relieve their knee osteoarthritis.

Results: The study population consisted predominantly of women (85.5%) with a mean age of 56.5 years. Illiteracy was reported in 41.5% of participants whereas 18% had completed

college-level education. Regarding occupational status 59% were housewives 19% retirees 14% manual workers and 8% non-manual workers. The mean duration of knee osteoarthritis was 8.5 years. The mean frequency of application was 9 times per week.

Housewives and retirees applied the treatment more frequently (mean 13.5 times per week) compared with employed individuals (mean 4.5 times per week). Overall 75% of patients performed massage during application averaging 10 minutes. Among those with secondary or university education 71% reported massaging the painful knee during application. Patients with disease duration exceeding 10 years applied the topical agent for shorter periods (mean 6 minutes).

Conclusion: Application habits varied according to patient characteristics: housewives and retirees applied topical analgesics more frequently than employed patients individuals with higher education more often performed massage and those with longer disease duration applied the product for shorter periods.

Prognostic Value of Chest Pain in ST-Segment Elevation Acute Coronary Syndromes

Jellali J, Ridene I, Nouicer M, Jerbi S, Ben Slimene L

University Tunis El Manar, faculty Of Medicine Of Tunis, Mohamed Taher Maamouri Hospital, Emergency Department, Nabeul, Tunisia

Introduction: Chest pain is the hallmark symptom of acute coronary syndromes (ACS). Its assessment in the emergency department (ED) is essential. The simplest and most commonly used tool in the ED is the Numerical Rating Scale (NRS) a unidimensional self-assessment scale used to quantify pain intensity.

Aim: To assess the predictive value of the NRS in patients presenting with ST-segment elevation myocardial infarction (STEMI).

Methods: This prospective observational single-center study included patients aged ≥ 18 years admitted to the ED for STEMI. Epidemiological clinical laboratory and outcome variables were collected. A receiver operating characteristic (ROC) curve analysis identified the optimal NRS cutoff for predicting in-hospital mortality. Pain was evaluated at admission using the 0–10 NRS.

Results: Over an 8-month period (January–August 2022) 76 patients were included. Mean age was 60 ± 13 years with a sex ratio of 4. Median time to presentation was 5 hours [1–72]. Major cardiovascular risk factors were coronary artery disease (16%) diabetes (38%) hypertension (38%) and smoking (40%). ECG changes were inferior (39%) anterior (35%) or lateral (22%) with right ventricular involvement in 21%. Mean NRS score was 5 ± 2 . Complications occurred in 20 patients (15%) mainly cardiogenic shock ($n=7$) supraventricular arrhythmias ($n=3$) and left ventricular failure ($n=3$). Seven patients experienced cardiac arrest. In-hospital mortality was 16%. An NRS threshold of 7/10 predicted in-hospital mortality (AUC 0.810 $p=0.001$ 95% CI [0.694–0.927] sensitivity 80% specificity 80%).

Conclusion: While chest pain remains a key diagnostic feature in ACS its intensity demonstrates valuable prognostic significance.

Psycho-affective and musculoskeletal disorders among healthcare professionals in Kairouan, Tunisia

Ben Hassine D^{1,3}, Chebil D^{1,3}, Fani N^{2,3}, Bouaziz Y^{2,3}, Meddeb T¹, Mtaouaa S^{2,3}

1. Service de médecine préventive et communautaire, Hôpital

Universitaire Ibn El Jazzar, Kairouan, Tunisie
 2. Service de médecine physique et de réadaptation, Hôpital
 Universitaire Ibn El Jazzar, Kairouan, Tunisie
 3. Faculté de médecine de Sousse, Université de Sousse, Tunisie

Background: Healthcare professionals are increasingly exposed to occupational stressors affecting both physical and psychological well-being. In Tunisia limited data exist on the intersection between psycho-affective disorders (PADs) and musculoskeletal disorders (MSDs) particularly among hospital staff.

Objectives: To assess the prevalence of PADs and MSDs among healthcare professionals at Ibn El Jazzar University Hospital in Kairouan Tunisia. To identify the potential risk factors associated with PADs with a particular focus on the contribution of MSDs.

Methods: A cross-sectional survey was conducted from September to December 2024 among healthcare workers using validated instruments: the Maslach Burnout Inventory (MBI) Hospital Anxiety and Depression Scale (HADS) Pittsburgh Sleep Quality Index (PSQI) and the Nordic Musculoskeletal Questionnaire. Data were analysed using univariate and multivariate logistic regression.

Results: A total of 196 healthcare workers is included. PADs were highly prevalent: 42.3% of participants experienced severe burnout 36.2% reported confirmed anxiety 37.2% confirmed depression and 73% had poor sleep quality. MSDs affected 70.9% of respondents most commonly in the lower back wrists and neck. Multivariate analysis identified MSDs as the most consistent and significant predictor of PADs (aOR = 3.8 p = 0.005) severe burnout (aOR = 2.15 p = 0.039) poor sleep quality (aOR = 3.89 p < 0.001) and anxiety/depression (aOR = 5.49 p < 0.001).

Conclusion: MSDs in healthcare workers significantly contributed to burnout sleep disruption and mental health disorders. The **Results** highlight the need for integrated occupational health strategies addressing both ergonomic and mental health risks to protect staff well-being and patient care.

Allergic Asthma in Children: Clinical, Functional, and Evolutionary Profile

Trabelsi I, Bouzidi A, Bouaziz M, Kbaier S, Belhadj I, Boussetta K

Department B of pediatrics, Béchir Hamza children's hospital of Tunis

Introduction : The phenotypes of childhood asthma are becoming increasingly better understood. The prevalence of allergic asthma is rising markedly.

Aim : Describe profile of allergic asthma in children

Methods : Retrospective study in the department B of paediatrics of Béchir Hamza children's hospital of Tunis about 76 school-aged children followed for asthma. Allergic asthma was diagnosed in 26 patients (34.2%).

Results : Among our 26 patients 23 (88.5%) lived in urban areas and 19 (73.1%) were exposed to passive smoking. Eight patients (30.8%) had a family history of atopy. Other allergic manifestations associated with asthma were found including allergic rhinitis in 14 children (53.8%) atopic dermatitis in 4 cases (15.4%) cow's milk protein allergy (CMPA) in 3 cases (11.5%) and conjunctivitis in 3 patients. An early onset of respiratory symptoms before 12 months of age was noted in 25 cases (96.2%). Among our patients 17 (65.4%) were hospitalized for an asthma attack during their follow-up including 6 (23.1%) for a severe attack. An obstructive pattern was found in 10 patients (38.5%). Skin prick tests were performed at a mean age of 5 years. The identified allergens were: house dust mites in 20 patients (84.6%) pollen in 4 children and cat dander in 2

cases. Progression to persistent asthma beyond 6 years of age was noted in 22 patients (84.6%).

Conclusion: This asthma phenotype is characterized by an early onset and a progression to persistent asthma beyond 6 years of age. Prevention through environmental control improves the prognosis.

Burnout among healthcare workers in critical care and emergency departments

Berkhaies D¹, Trabelsi I¹, Kouki F², Langar E², Ben Ali H¹, Ghadhoune H¹

1. FMT, Medical intensive care unit of Habib Bougatfa University Hospital, Bizerte Tunisia

2. FMT, Anesthesiology and intensive care unit of Habib Bougatfa University Hospital, Bizerte Tunisia

Introduction: Burnout is a major occupational health issue among healthcare workers particularly in high-intensity settings such as intensive care units (ICUs) and emergency departments.

Aim: To assess the prevalence severity and characteristics of burnout among healthcare personnel working in medical intensive care anesthesia and emergency departments.

Methods: We conducted a cross-sectional descriptive study. An anonymous questionnaire was administered to healthcare workers from medical ICU anesthesia-ICU and emergency departments. The survey collected demographic data work-related conditions and burnout scores using the Maslach Burnout Inventory (MBI). Burnout was considered present when at least one of the three MBI dimensions—emotional exhaustion depersonalization or reduced personal accomplishment—showed a high score

Results: A total of 67 participants completed the questionnaire. General characteristics and working conditions are summarized in the accompanying table. More than half of respondents reported intentions to transfer or leave their current positions (55%) and 57% expressed thoughts of emigrating. Persistent feelings of stress and irritability were reported by 46% and 21% of participants respectively. Occasional feelings of professional exhaustion were expressed by 64% while 30% experienced them permanently. The overall prevalence of burnout syndrome was 94%. High scores in emotional exhaustion depersonalization and reduced personal accomplishment were observed in 61% 72% and 94% of respondents respectively.

Conclusion: Burnout was highly prevalent among healthcare professionals in critical care and emergency settings with a substantial proportion reporting severe forms affecting multiple MBI dimensions. These findings highlight the urgent need for targeted interventions to improve working conditions and support mental health.

Empirical antifungal therapy in invasive candidiasis in the icu: impact of treatment adequacy on patient outcomes

D. Berkhaies, I. Trabelsi, J. Guissouma, H. Ben Ali, H. Allouche, H. Ghadhoune

FMT, Medical intensive care unit of Habib Bougatfa University Hospital, Bizerte Tunisia

Invasive candidiasis remains a significant cause of morbidity and mortality in critically ill patients and its early diagnosis is often difficult leading to delayed or suboptimal antifungal therapy. This study Aimed to determine the frequency of inappropriate empirical antifungal treatment in suspected invasive candidiasis identify associated factors and assess its impact on clinical outcomes. We performed a retrospective observational study

over 12 months in a medical ICU. Patients treated empirically for suspected invasive candidiasis were included. Empirical therapy was deemed adequate if initiated within 24–48 hours of clinical suspicion with appropriate dosing and guideline-concordant duration. Twenty-seven patients were analyzed (median age 65 years 74% male). Common comorbidities included diabetes (37%) immunosuppression (33%) and malnutrition (22%). Illness severity was moderate to high with median SOFA and SAPSII scores of 9 and 52 respectively. Most patients required mechanical ventilation (89%) broad-spectrum antibiotics (89%) and central venous catheterization (96%). Adequate empirical therapy was administered in 37% of cases while 63% received inadequate treatment. Patients with inadequate therapy had significantly higher SOFA scores (11 vs 7) longer ICU stays (21 vs 14 days) and higher hospital mortality (53% vs 20%). In multivariate analysis SOFA score was the only independent predictor of inadequate therapy (OR 1.22). Inadequate antifungal treatment independently increased mortality (OR 4.0) after severity adjustment with a non-significant trend toward prolonged ICU stay. Inadequate empirical antifungal therapy was frequent and associated with greater severity longer hospitalization and increased mortality. These findings underscore the need for improved risk stratification and timely targeted antifungal management to optimize outcomes in invasive candidiasis.

Evaluation of a cross-disciplinary training program on life-threatening emergencies management: feedback from paramedical staff

Guissouma J, Nasri S, Benali H, Trabelsi I, Allouche H, Ghadhoun H.

FMT, Medical Intensive Care Unit Of Habib Bougatfa University Hospital, Bizerte, Tunisia

Introduction: Continuing Professional Development provides healthcare practitioners with the necessary tools they need to maintain their skills at the highest level. All paramedical staff must know how to manage life-threatening emergencies (LTE). **Objective:** To evaluate paramedical staff feedback regarding a cross-disciplinary training program (CDTP) on LTE management. **Methods:** A descriptive study was conducted in 2025. A CDTP on LTE management was provided for paramedical staff. Eight sessions were held with various teaching tools (simulations gamification video capsules clinical cases and PowerPoint presentations). Learner's feedback was evaluated using Google Form questionnaire and analyzed using Jamovi software.

Results: Eighteen nurses assigned to surgical (nine) medical (seven) and emergency departments (two) completed the entire program. Their median age and rank seniority were 28 (27–35) years and 7±5 years respectively. The feedback on the organization was quite positive. The majority strongly agreed that: the sessions durations. (16) the room and the size of the group (17) were suitable. Seventeen greatly appreciated the overall atmosphere. Regarding the scientific interest most (16) were fairly satisfied with the topics relevance. Assessing the pedagogical value all strongly agreed that the teaching **Methods** were innovative. Simulation was the most appreciated method followed by gamification video capsules interactive clinical cases and finally PowerPoint presentations. Most (17) felt that this learning course would have a positive impact on new knowledge retention and subsequent practices. All were very satisfied.

Conclusion: this CDTP was well appreciated by paramedical staff owing to its effective organization a favorable learning environment and engaging teaching **Methods**.

Etiological Diversity and Clinical Profiles of Chest Pain in the Emergency Department

Maâtoug N, Hebaieb F, Houimli S, Tabka L, Yahyaoui N, Assadi M

Service des Urgences, hôpital des FSI la Marsa

Introduction: Chest pain is a frequent reason for emergency department consultations and encompasses a broad spectrum of etiologies ranging from benign conditions to life-threatening emergencies. Understanding its epidemiological patterns is essential to improving diagnostic pathways and resource-allocation.

Aim: Analyze the etiological distribution of chest pain and describe the demographic and clinical characteristics associated with each diagnostic category among patients presenting to the ED.

Methods: We conducted a prospective descriptive study including all adults admitted to the ED for chest pain. Final diagnoses were categorized into coronary cardiac non-coronary cardiac psychogenic musculoskeletal pulmonary gastric and miscellaneous causes. For each category we collected demographic and clinical variables including age sex BMI and mode-of-arrival.

Results: A total of 521 patients were included. Coronary cardiac etiologies accounted for 31.9% of cases followed by psychogenic (21.3%) non-coronary cardiac (13.8%) pulmonary (13.4%) musculoskeletal (12.9%) gastric (4.2%) and other causes (2.5%). Chest pain was predominantly observed in males across most groups except in pulmonary diagnoses where females constituted 52.9% of patients. Mean age ranged from 41 years in musculoskeletal pain to 61 years in coronary syndromes. Coronary patients presented the highest BMI values (mean 28.29) with elevated rates of overweight (38%) and obesity (34.3%). Most patients arrived ambulatory (76–100%) while medical-transport was more frequently used for cardiac presentations.

Conclusion: The heterogeneity of etiologies and demographic patterns underscores the need for refined triage strategies. The substantial burden of overweight and obesity among coronary patients highlights the importance of preventive interventions and integrated multidisciplinary management in the ED setting.

Awareness and Use of Artificial Intelligence Tools Among Gynecology Residents: A Cross-Sectional Survey

Grami N, Debbiche A, Hammami MA, Boumaiza A, Nalouti K, Atef Y

Centre de maternité et de néonatalogie de Tunis ; Service " A "

Background: Artificial intelligence (AI) and language models such as ChatGPT are reshaping medical education and clinical practice. In obstetrics and gynecology these tools may enhance learning research and patient communication. However data on their use and perception in low- and middle-income settings remain scarce.

Aim of the Study: To assess awareness usage and perceptions of AI tools particularly ChatGPT among Tunisian gynecology residents.

Methods: A cross-sectional online survey was conducted between May and July 2024 among 83 residents in public hospitals. The 17-item anonymous questionnaire explored participants' knowledge frequency of use perceived reliability benefits and ethical concerns. Descriptive analysis was performed to identify usage trends by residency level.

Results: Among 83 respondents (mean age 30.4 years) 59%

used ChatGPT more often among junior residents ($p < 0.01$). Main uses included text reformulation (71%) academic writing (58%) presentation preparation (49%) literature review (44%) and patient communication (19%). Reported advantages were time efficiency (83%) and writing improvement (56%). Limitations included inaccuracy (52%) misinformation risk (47%) limited medical understanding (46%) and confidentiality concerns (18%). Overall 88% expressed interest in a gynecology-specific AI platform.

Conclusion: Tunisian gynecology residents show growing engagement with AI recognizing its academic value while expressing caution about reliability and ethics. Integrating AI literacy into medical training could promote safer more effective adoption in clinical and educational practice.

Major cardiovascular events (MACE) after a first acute coronary syndrome (ACS) : Risk factors control impact

Braday Y, Antit S, Mrabet A, Ben Kaab B, Boussabeh E, Zakhama L

Internal Security Forces Hospital – La Marsa

Introduction: Ischemic heart disease is common worldwide and in Tunisia and secondary prevention in coronary patients is a cornerstone of their management after the acute episode.

Aim: We aimed to determine the frequency of risk factors control in coronary patients and study the impact of this control on the occurrence of MACE in the medium term.

Methods: This was a single-center prospective prognostic study conducted between January 2021 and December 2022 and included patients admitted for a first ACS. For the study we collected clinical laboratory ultrasound and angiographic data to verify risk factors control at 3 and 12 months following the first ACS and we recorded MACE during follow-up.

Results: 209 patients were included. Of these 21.5% ($n=45$) experienced a MACE in 12 months. The median time to onset of MACE was 7 months with a monthly incidence of 1.97 events per 100 patient-months. At 12 months 21.5% of patients were of normal weight and 55.6% had quit smoking. Systolic and diastolic pressure were at target in respectively 56.9% and 80.4% of patients. LDLc was within target in 61.7% of patients while HbA1c was within normal range in 51.7% of patients. Multivariate analysis showed four of the five cardiovascular risk factors studied were significantly and independently predictive of MACE : Diabetes ($p < 0.001$) active smoking ($p = 0.011$) failure to achieve target LDLc ($p = 0.04$) and overweight ($p = 0.049$).

Conclusion: Smoking overweight uncontrolled diabetes and elevated LDLc were significantly and independently predictive of MACE at 12 months in patients hospitalized for a first ACS.

Severe Community-Acquired Pneumonia in the Elderly: Specific Features and Prognostic factors

Guissouma J, Berkhaïs D, Allouche H, Trabelsi I, Benali H, Ghadhoun H

Medical Intensive Care Unit Of Habib Bougatfa University Hospital, Bizerte, Tunisia. FMT

Introduction: Severe community acquired pneumonia (SCAP) remains the most common cause of death from infectious diseases in the elderly.

Aim: To evaluate factors associated with mortality in older patients admitted to intensive care unit (ICU) for SCAP.

Methods: A 10-year retrospective descriptive study was conducted in a medical ICU. All patients over 65 years old admitted for SCAP were included. COVID-19 was excluded. Epidemiological clinical therapeutic and outcome data were

analyzed using SPSS version 23.

Results: We included 104 patients with a mean age of 72 ± 8 years and a gender ratio of 1.8. The most reported comorbidities were COPD (59%) hypertension (45%) and diabetes (41%). Mean SAPS II and APACHE II scores were 43 ± 12 and 19 ± 7 . On admission 36.5% presented with ARDS 17% with coma and 26% with shock. Chest X-ray showed lobar involvement in 38.5% and extensive infiltrates in 61.5%. Bacteriological samples were positive in 44 patients (Pneumococcus (10) Staphylococcus (5) Influenza A and B (10)). Forty-four patients (42.3%) required invasive ventilation (IV). Healthcare-associated infection (HAI) with shock was the most common complication (22.1%). Median ICU stay duration was 8 (5–11) days. Overall mortality was 44.2%. In univariate analysis mortality was associated with COPD ($p = 0.004$) shock ($p < 10^{-3}$) ARDS ($p < 10^{-3}$) SAPS II ($p = 0.004$) APACHE II ($p = 0.04$) IV ($p < 10^{-3}$) and HAI with shock ($p < 10^{-3}$). IV ($p = 0.003$) and HAI with shock ($p = 0.008$) remained the two independent prognostic factors.

Conclusion: Severity at presentation and evolutionary complications were the major prognostic factors. Thereby early optimized management and rigorous infection-control measures may improve ICU survival.

Prevalence of Helicobacter pylori in Patients with Normal Upper Gastrointestinal Endoscopy

Hajji R, Chebbi R, Debbabi H, Hassine H, Yaacoub H, Maamouri N

University of Tunis El Manar, Faculty of Medicine of Tunis, Gastroenterology Department B la Rabta Hospital, Tunis, Tunisia

Introduction: Helicobacter pylori is implicated in chronic gastritis peptic ulcer disease and gastric malignancies. The bacterium may be detected in patients with macroscopically normal mucosa on esophagogastroduodenal endoscopy (EGD). The **Aim** of this study is to determine the prevalence of H. pylori infection in patients undergoing a normal EGD.

Methods: We conducted a retrospective single-center study including 203 patients who underwent a normal EGD at the Gastroenterology Department B of La Rabta Hospital from August 2024 to August 2025. Clinical data indications for EGD endoscopic findings and histopathological **Results** were collected. Statistical analysis included both descriptive and analytical phases using SPSS software. The chi-square test was applied with statistical significance set at $p < 0.05$.

Results: A total of 203 patients were included with a female predominance (F/M ratio = 2.03). The mean age was 46 years (16–84). The main indications for EGD were epigastric pain (71.9%) investigation of iron-deficiency anemia (22.2%) and dyspepsia (13.8%).

H. pylori was detected in 50.2% of cases. Analytically H. pylori infection was significantly associated with antral and fundic gastritis ($p < 0.001$ for each). No significant association was found with intestinal metaplasia ($p = 0.476$) or atrophy ($p = 0.397$) although seven H. pylori-positive patients presented with intestinal metaplasia and one patient had severe atrophy requiring targeted management.

Conclusion: The prevalence of H. pylori remains high even in the context of a normal EGD. These findings support the systematic performance of biopsies enabling appropriate treatment to prevent complications of the infection.

Nonspecific Hyperlipasemia in Diabetic Ketoacidosis: Incidence, Biochemical Correlates, and Clinical Implications

Derbala W, Naggara I, Yahyaoui N, Tabka A, Houimli S

university of Tunis El Manar, faculty of Medicine of Tunis

Background: Elevation of pancreatic enzymes is commonly observed in diabetic ketoacidosis (DKA). Although hyperlipasemia is often interpreted as a marker of acute pancreatitis it may arise from non-pancreatic causes such as renal impairment and metabolic disturbances.

Objective: To determine the prevalence of nonspecific hyperlipasemia in DKA and evaluate its associations with biochemical abnormalities and treatment requirements.

Methods: A retrospective study was conducted in patients aged >16 years admitted with moderate or severe DKA. Serum lipase was measured at admission (H0) and after 24 hours (H24). Patients were classified into hyperlipasemia and normal-lipase groups. Biochemical markers insulin infusion needs and clinical outcomes were compared.

Results: Among 71 patients 15 (21%) exhibited hyperlipasemia. Lipase levels were significantly higher in this group at H0 (362.47 ± 653.91 vs 18.39 ± 14.29 U/L) and H24 (148.36 ± 126.81 vs 18.24 ± 18.81 U/L). Hyperlipasemia was associated with markers of renal dysfunction including higher urea ($p=0.04$) and creatinine ($p=0.01$) and lower creatinine clearance ($p<0.001$). These patients also demonstrated more severe metabolic acidosis and required higher total IV insulin doses and longer infusion duration. However ICU and overall hospital length of stay did not differ significantly between groups.

Conclusion: Nonspecific hyperlipasemia is common in DKA and correlates with renal impairment and greater metabolic severity yet it does not prolong hospitalization. Elevated lipase in the context of DKA should therefore be interpreted cautiously.

Role of pre-employment medical examination in promoting the health of hospital staff.

Ben Arbia N, Ziedi H, Grissia S, Chaouech N, Mechergui N

Tunis El Manar University, Tunis Faculty of Medicine, Habib Thameur Hospital, Occupational Medicine Department, Tunis, Tunisia.

Introduction : The pre-employment medical examination the first step in occupational health surveillance assesses the suitability of the worker's state of health for the requirements of the job.

Aim : This study analyses the health profile of healthcare professionals working in hospitals.

Methods: A descriptive study was conducted among healthcare workers (HW) recruited at Habib Thameur Hospital in Tunis between January 2024 and November 2025 using medical records and fitness certificates from pre-employment medical examinations.

Results: Eighty-seven HW were examined. The population predominantly female (sex ratio 0.58) and with an average age of 31.4 ± 6.5 years consisted mainly of nurses (38.8%) senior technicians (21.2%) and labourers (22.4%). The most common medical histories were anaemia (7.8%) and type 2 diabetes (2.4%). High blood pressure was found in 2.3% of subjects. On ECG left ventricular hypertrophy and left atrial hypertrophy were each observed in a single patient. Hepatitis C serology was positive in 1.2% of cases and specialist advice was sought for 4.6% of cases. The average number of hepatitis B vaccine doses received was 2.3 ± 1.55 with sufficient immunisation in 59% of cases and justification for revaccination in 42.2% of cases. Finally 94.3% of HW were declared fit for duty without restriction and 5.7% required job adjustments.

Conclusion: The systematic integration of pre-employment medical examination into hospital health policy is essential to protect health staff.

Enhancing antibiotic stewardship in surgical care: a clinical audit of prophylaxis guideline compliance.

Chebil D¹, Soltana E¹, Ben Hassine D¹, Meddeb T¹, Zaidi B², Merzougui L¹.

1. University of Sousse, Faculty of medicine of Sousse, Ibn Al Jazzar university hospital, Preventive and community medicine

2. University of Sousse, Faculty of medicine of Sousse, Ibn Al Jazzar university hospital, digestive and visceral surgery

Introduction: Appropriate antibiotic prophylaxis (AP) is a key strategy for surgical site infections prevention and relies on strict adherence to evidence-based recommendations.

Aim: This study Aimed to assess compliance of AP prescriptions with the 2024 French Society of Anesthesiology and Intensive Care (SFAR) guidelines in a tertiary surgical setting.

Methods: An observational audit was conducted in the surgery department of Kairouan university hospital. All Altmeier class I and II procedures performed over six months (july–december 2024) were included. Compliance with SFAR evidence-based recommendations was assessed across five criteria: indication choice of antibiotic dosage timing and duration.

Results: A total of 356 eligible procedures were analyzed. AP was administered in 342 cases (96%). The most frequent indications were uncomplicated appendicitis (29.5%) hernia repair (31.9%) and cholelithiasis (29.2%). Amoxicillin–clavulanic acid was the most prescribed antibiotic (65.8%) followed by cefazolin (32.7%). Overall compliance with SFAR guidelines was low at 23%. AP was indicated in 230 cases corresponding to a 67% compliance rate for indication. Compliance was 30% (69/230) for antibiotic choice and 23%(53/230) for duration. Compliance was high for timing of administration (100%) and initial dosage (98.2%). Non-compliance was mainly due to unnecessary indications (35.4%) and prolonged prophylaxis beyond 48 hours (77%).

Conclusion: Despite optimal compliance to timing and dosage overall compliance with AP guidelines was poor primarily due to inappropriate indications suboptimal antibiotic selection and excessive duration. These findings underscore the need for targeted interventions including clinician education and strengthened institutional protocols to improve antibiotic stewardship.

AI-Driven Early Detection of Toxicities in Cancer Care

Bejaoui M¹, Ben Fatma NE^{1,2}, Souli E¹, Sellami F^{1,2}, Abbassi A^{1,2}

1. Service de Pharmacie, Hôpital Charles Nicolle de Tunis.

2. Université de Monastir, Faculté de Pharmacie de Monastir.

Introduction: Artificial intelligence (AI) is increasingly explored for predicting toxicities associated with anticancer treatments. A recent systematic review reported a predictive performance of AUC = 0.83. Early detection of toxicity is essential to improve patient safety. This study evaluates perceptions of AI among healthcare professionals.

Aim: To assess the knowledge attitudes and practices regarding AI in oncology-related toxicities—among Tunisian healthcare professionals.

Methods: A KAP survey was carried out over two weeks (August 2025) using a Google Forms questionnaire. Each section contained five closed questions scored on an all-or-nothing basis with a maximum score of 5. Responses were optional. Data were analyzed using Excel.

Results: Sixty-one healthcare professionals participated (sex ratio M/F = 0.35). Most respondents (88.1%) worked in the public sector mainly at Charles Nicolle Hospital (18%) and the

Military Principal Hospital (11.5%). Pharmacists accounted for 88.5% of participants including 37.7% residents and 32.3% interns. The mean knowledge score was 1.74/5 indicating limited familiarity with AI. Correct-answer rates were low: 2/48 for existing oncology applications 14/54 for chatbot capabilities and 1/53 for AI techniques used in early toxicity detection. Interest in training was high: 95.1% were willing to receive AI education. Regarding reliability 66.1% had encountered inaccurate AI-generated information only 6.7% fully trusted AI outputs and 3.4% had never used AI tools.

Conclusion: Knowledge of AI applications in oncology remains limited. Although the sample was pharmacist-dominant AI is perceived as promising for clinical decision-making but improper use may expose clinicians to misleading information. Reference: Abdeldjoud FZ et al. arXiv 2024.

Pseudobartter Syndrome in Cystic Fibrosis: Unmasking a Deceptive Electrolyte Imbalance

Khalsi. F, Bouzidi. A, Balti. Y, Hammouda. S Trabelsi. I K. Boussetta

Department B of paediatrics, EL Béchir Hamza hospital of Tunis

Introduction: Pseudobartter syndrome (PBS) is a severe electrolyte imbalance including hyponatremia hypokalaemia and metabolic alkalosis that mimics bartter syndrome expect for the extrarenal salt lose. While it is a rare finding it can occur in children with CF.

Aim: In this study we **Aimed** to describe clinical biological and genetic particularities of PBS occurring in children with CF.

Methodology: we conducted a retrospective monocentric study within a period of 9 years from 2016 up to 2022. We included all patient with CF who experienced PBS syndrome.

Results: 15 patients were enrolled 73% were males (n=11). The mean age at diagnosis at 1 5 year. Nearly 87% (n=13) of PBS were seen in summer season. PBS revealed the CF in 3 cases. Only 66% (n=10) had chronic colonisation with *Pseudomonas aeruginosa* (PA) when PBS occurred. out of these patients five experienced a recurrent PBS. Clinical manifestation of PBS included vomiting in 53% (n=8) abdominal pain in 40% (n=6). And severe dehydration in 80% (n=12) cases. Laboratory findings showed severe hyponatremia 125 ± 2 mmol/L hypokalaemia 2.8 ± 1 mmol/L and metabolic alkalosis in all patients Hyponatraemic seizure occurred in two of them. Genetic investigation revealed homozygote F508del mutation in only 2 patients. one patient had one heterozygous mutation 711+1G>T and the IVS8-T5 allele he was found to have PBS as the sole manifestation of CF with no digestive or respiratory signs.

Conclusion: PBS is a serious complication of CF. It should be recognized early particularly in Tunisia where prolonged heat and summer seasons increase its risk

Management of Paediatric Visceral Leishmaniasis in Tunisia: Before and After liposomal amphotericin B

Trabelsi. I, Bouzidi. A, Balti. Y, Hammouda. S, Belhadji. I, Boussetta. K

Department B of paediatrics, Béchir Hamza children's hospital of Tunis

Introduction: In Tunisia, clinical management of visceral leishmaniasis (VL) has undergone major changes in recent years.

Aim: describe local profile of VL in children and management evolution through two eras.

Methodology: Retrospective study in the department B of paediatrics of Béchir Hamza children's hospital of Tunis over a period of 14 years. We included all children admitted for VL.

Results: We enrolled in our study 37 patients with a mean age at 30 months [4-152], male to female ratio was at 2,1. Almost 67% (n=25) were from the northwest of Tunisia. All Children presented with prolonged fever. Splenomegaly, hepatomegaly respectively in 97% (n=36), and 76% (n=28). Almost 97% (n=36) of patient had anaemia, with Haemolytic origin in 16% (n=6). Macrophage activation syndrome (MAS) was diagnosed in 19% (n=7). Diagnostic tools of VL were direct examination of bone marrow aspiration (n=27), Polymerase chain reaction (PCR) of peripheral blood (n=20), serology (n=8), bone marrow PCR in (n=4). About 78% (n=29) were treated with Meglumine antimoniate (MAM) and 21% (n=8) received liposomal amphotericin B (LAMB). There was no sign of antimonial toxicity or intolerance. However, children treated with LAMB developed hypokalaemia (n=5). In children treated with MAM, death and relapse occurred in only one patient, bacterial complications were observed in 6 patients. All . There was no statistically significant difference in favourable outcomes between LAMB and AMM (p=0.16).

Conclusion: VL in children is a serious disease, it should be recognized and treated ideally with LAMB since it allows rapid and sure favourable outcome.

Correlation between Carboxyhemoglobin and the severity of Carbon Monoxide Poisoning

Fadhel R, Bakir A, Chermiti I, Ben Turkia H, Ghazali H, Souissi S

University of Tunis El Manar, Faculty of Medicine of Tunis
Emergency department of Ben Arous Hospital , Ben Arous Tunisia
Emergency department of Abderahman Mami Hospital , Ariana Tunisia

Introduction: Carbon monoxide poisoning (CMP) is a frequent cause of accidental intoxication.

Diagnosis relies on measuring carboxyhemoglobin (HbCO) level. However the correlation between HbCO concentration and clinical severity remains controversial.

Aim: To assess the correlation between initial HbCO level and the clinical severity of CMP in the emergency department.

Methods: We conducted a prospective observational study over nine years (January 2016–March 2025). All patients admitted for confirmed CMP (suggestive history compatible symptoms and HbCO $\geq 5\%$) were included. Epidemiological clinical biological and outcome data were collected. Clinical severity was defined by the presence of neurological (altered consciousness seizures) or cardiovascular signs (syncope troponin elevation). HbCO levels were compared according to severity and the correlation between HbCO and poisoning severity was analyzed using Spearman's test.

Results: A total of 1503 patients were included. The mean age was 37 ± 15 years with a gender ratio of 0.3. Comorbidities included hypertension (9%) and diabetes (7%). Sources of exposure were brazier (48%) gas water heater (42%) and gas heater (11%). Median exposure and consultation times were 60 minutes. Severe CMP was observed in 167 patients (11%). The mean HbCO level was 21 ± 10 mmol/L and mean blood lactate 2.2 ± 1.6 mmol/L. All patients received normobaric oxygen therapy and 17% underwent hyperbaric oxygen therapy. HbCO levels were higher in severe cases (25 ± 11 mmol/L vs 20 ± 9 mmol/L p = 0.001). Spearman's correlation coefficient was -0.156 indicating a very weak relationship. Thus HbCO alone wasn't a reliable predictor of severity.

Conclusion: HbCO level is a useful diagnostic marker but has limited prognostic value.

Tunisian healthcare workers' attitude towards recommending influenza vaccine. Tunisia, 2024

Doghri S¹, Letaief H², Dhaouadi S², Hechaichi A², Fitouri S², Bouafif Ben Alaya N²

1. National Institute of Health, Tunisia
2. National Observatory Of New And Emerging Diseases, Tunisia

Background: Healthcare workers (HCWs) are trusted sources of vaccine information and play a critical role in promoting influenza vaccination (IV). Understanding their attitudes toward recommending IV is essential to enhance community uptake.

Aim: Describe the attitudes of Tunisian HCWs towards recommending the influenza vaccine.

Methods: In February 2024 we conducted a national cross-sectional KAPP survey among frontline HCWs from 46 primary healthcare centers in nine Tunisian governorates. Data were collected through face-to-face interviews using a standardized internally reviewed questionnaire based on the US-CDC protocol.

Data were analyzed using SPSS.

Results: Among the 906 surveyed HCWs 768 (84.8%) reported they would recommend influenza vaccination (IV) to their patients. The most frequently reported reason for recommending IV was identifying the patient as belonging to a high-risk group $n = (n=634 \text{ } 82.6\%)$. Among those who would not recommend IV the main reasons cited were personal beliefs or preferences ($n=35 \text{ } 25.7\%$) lack of trust in the vaccine ($n=31 \text{ } 22.8\%$) fear of side effects ($n=13 \text{ } 9.6\%$) and lack of awareness or information ($n=7 \text{ } 5.1\%$). Regarding identifying the target group of IV according to the National Influenzae program only 11.6% recognized HCWs as a target priority group for IV.

Conclusion: Tunisian HCWs show a high propensity for recommending the IV. Interventions should focus on promoting the HCW's role as a priority recipient of the IV to translate their positive recommendation attitude into higher personal coverage and more effective patient advocacy.

Reliability of the IT LEISH Rapid Test (Bio-Rad) for the Diagnosis of Visceral Leishmaniasis: Comparison with IFAT/Western Blot

Kouched N, Marouen S, Dalleli A, Cheikhrouhou S, Kallel A, Kallel K

Tunis El Manar University, Faculty of Medicine of Tunis, La Rabta Hospital, Department of Parasitology, Tunis, Tunis

Introduction: Visceral leishmaniasis (VL) remains a major cause of morbidity in endemic regions. Rapid diagnostic tests (RDTs) such as the IT-LEISH test (Bio-Rad) offer a simple and non-invasive diagnostic approach but their accuracy may vary geographically and requires local evaluation.

Aim: To assess the diagnostic reliability of the IT-LEISH rapid test for VL in comparison with serological reference

Methods: Immunofluorescence Antibody Test (IFAT) and Western Blot (WB).

Methods: A retrospective study was conducted on 269 blood samples tested for VL at the Parasitology Laboratory of La Rabta Hospital (Tunis Tunisia). Each sample was analyzed by both the IT-LEISH RDT and the reference **Methods** (IFAT/WB). A 2x2 contingency table was used to calculate sensitivity specificity positive and negative predictive values (PPV NPV) and overall accuracy with 95% confidence intervals (Wilson method). Agreement between tests was assessed using Cohen's kappa and significance by Fisher's or chi-square test.

Results: Of the 269 samples 25 were true positives 4 false positives (two undiagnosed viral infections one tuberculosis one toxoplasma seropositivity) 1 false negative (HIV-infected) and 239 true negatives (Table I). The IT-LEISH test showed a sensitivity of 96.2% (95% CI 81.1–99.3) and specificity of 98.4% (95% CI 95.8–99.4). PPV was 86.2% (95% CI 69.4–94.5) and NPV 99.6% (95% CI 97.7–99.9). Overall accuracy reached 98.1% (95% CI 95.7–99.2) with excellent agreement ($\kappa = 0.899 \text{ } p < 0.001$).

Conclusion: The IT-LEISH rapid test (Bio-Rad) demonstrated high diagnostic accuracy and strong concordance with reference serological **Methods** supporting its reliability in endemic and resource-limited settings.

Evaluation of ChatGPT as a Decision-Support Tool in therapeutic management

Khribiche A¹, Romdhane M¹, Jenhani E¹, Aissa Y¹, Ben Amara I¹, Ben Mbarka F^{1,2}

1. CHU Habib Thameur, Tunis
2. Faculté de pharmacie, Monastir

Introduction: Large language models could improve access to medical information and support health professionals in decision-making. Evaluating their safety accuracy and usefulness is essential to determine their suitability for clinical practice.

Aim: Evaluate the accuracy and completeness of chatbot responses to medical queries regarding therapeutic management..

Methods: Four pharmacists generated 30 medical questions classified as easy ($n=10$) medium ($n=10$) or hard ($n=10$) with descriptive answers. Pharmacists then graded the ChatGPT answers to these questions for accuracy (6-point Likert scale with 1 being completely incorrect and 6 being completely correct) and completeness (3-point Likert scale with 1 being incomplete and 3 being complete plus additional context).

Results: The median accuracy score was 5.5 (IQR 3.0–6.0) corresponding to responses ranging from mostly correct to completely correct. The mean (SD) accuracy was 4.6 (1.8). The median completeness score was 3.0 (IQR 1.0–3.0) corresponding to comprehensive and contextualized responses with a mean(SD) of 2.3 (0.9). For questions rated easy medium and hard the median accuracy scores were 6.0 (IQR 5.0–6.0) 6.0 (IQR 5.0–6.0) and 3.5 (IQR 2.25–4.75) respectively. Correspondingly median completeness scores were 3.0 (IQR 3.0–3.0) for easy questions 3.0 (IQR 2.0–3.0) for medium questions and 1.0 (IQR 1.0–2.75) for hard questions.

Conclusion: The chatbot provided largely accurate responses to diverse medical queries though performance declined with increasing complexity. Despite residual inaccuracies it may serve as a useful decision-support tool under professional supervision.

Immune thrombocytopenic purpura in children: Predictive factors of chronicity

Trabelsi E, Mdaini J, Trabelsi I, Meddeb S, Bel Hadj I, Boussetta K

Pediatric Department B – Bechir Hamza Children Hospital of Tunis. Faculty of Medicine of Tunis

Introduction: Immune thrombocytopenic purpura (ITP) represents the leading cause of acquired thrombocytopenia in children. Although acute forms remain predominant a growing number of chronic cases are now being reported.

Aim: To identify predictive factors of chronicity in ITP in children.

Methods: A retrospective descriptive study was conducted over a six-year period (2019–2024) including all children hospitalized for ITP in the Pediatric Department B of Bechir Hamza Children's Hospital.

Results: Forty-four cases were recorded with a sex ratio of 0.63 and a median age of 54.5 months (11 months–13 years). A seasonal peak was observed in autumn (43%) with a sudden onset often preceded by a viral infection (39%). The hemorrhagic presentation was dominated by petechiae and ecchymoses in all cases associated with oral bullae in 25 cases epistaxis in 14 cases and gingival bleeding in nine cases. Additional bleeding events included conjunctival hemorrhage (n=4) macroscopic hematuria (n=4) hematemesis and knee hemarthrosis (one case each). The mean platelet count was $7\,300/\text{mm}^3$ (0–62 000/ mm^3). Associated anemia was observed in six patients. Bone marrow aspiration performed in 15 children (34%) revealed normal or increased megakaryocytes consistent with peripheral thrombocytopenia. Treatment consisted of intravenous immunoglobulins (73%) corticosteroids (11%) or only observation (16%) with a mean response time of six days. Fourteen patients developed chronic disease. Hemorrhagic history ($p=0.01$) and insidious onset ($p=0.02$) were significantly associated with chronicity.

Conclusions: Recognising the risk factors for evolution towards chronicity enables paediatricians to better target treatment and assess long-term prognosis.

Leading Causes of Death among Women of Reproductive Age in Tunisia, 2021

Maalej I¹, Zribi M^{1,2,3}, Doghri S¹, Gharbi R¹, Aounallah-Skhiri H^{1,2,3}

1. National Health Institute, Tunis , Tunisia

2. Faculty of medicine of Tunis, University of Tunis El-Manar

3. Nutrition Surveillance and Epidemiology in Tunisia Research Laboratory (SURVEN) , Tunis, Tunisia

Introduction: Reliable death statistics are vital for understanding population health trends and guiding health planning and policy. Monitoring mortality among women of reproductive age (WRA) provides valuable insight into maternal health overall female mortality patterns and the performance of health systems addressing this population.

Aim: This study Aims to identify the leading causes of deaths(COD) in WRA in Tunisia in 2021.

Methods: Data were obtained from the Cause of Death Information System(CDIS) encompassing all medical death certificates(MDCs) recorded by the National Institute of Health(NIH) for deaths occurring in 2021. COD were coded using the International-Classification-of-Diseases.The coverage rate of the CDIS was calculated as the number of MDCs received by the NIH compared to total deaths recorded by the National Institute of Statistics. The IRIS software identified the underlying COD. The ANACoD3 tool was used for data quality checks and analysis. WRA are those aged between 15 and 49 years.

Results: In 2021 the coverage rate was 71.0%. A total of 1784 deaths were registered for WRA. Covid-19 was the leading COD responsible for a third(32.7%) of deaths in WRA followed by breast cancer(8.2%). The third leading COD in WRA was Diabetes mellitus causing 3.6% of deaths. Cerebrovascular disease and kidney disease were responsible for 3.3% and 2.1% of deaths.

Conclusion: COVID-19 was the main COD among WRA emphasizing the impact of the pandemic and the need to strengthen both non-communicable disease prevention and pandemic preparedness efforts.

Limited performance of machine learning for early identification of Acinetobacter baumannii respiratory infections

Chagra I, Boulares G, Meftah K, Bouafsoun A, Trifa M, Smaoui H

Laboratory of Microbiologie, Children's Hospital Béchir Hamza of Tunis, Faculty of Medicine of Tunis, LR18ES39, University Tunis El Manar. 2Department of Pediatric Anesthesiology and Intensive Care, Children's Hospital Béchir Hamza Of Tunis

Introduction: Acinetobacter baumannii is an increasingly common cause of hospital-acquired respiratory infections often associated with high morbidity and multidrug resistance. Early detection could improve outcomes but current diagnosis relies on microbiological confirmation which usually takes at least 48 hours.

Aim: To determine whether machine learning (ML) algorithms can use demographic clinical and routine laboratory data available before microbiological **Results** to predict A.baumannii respiratory infections.

Methods: We retrospectively analyzed five years of data from 237 patients in the pediatric anesthesiology and intensive care department with confirmed respiratory infections. We included 67 demographic clinical and biological variables available prior to microbiological confirmation. Seven ML models (Neural Network Logistic Regression Support Vector Machine Random Forest XGBoost LightGBM and CatBoost) were trained to classify infections as due to A.baumannii or other pathogens. Model performance was assessed using repeated stratified k-fold cross-validation and measured by the area under the receiver operating characteristic curve (AUC).

Results: All models performed close to chance with AUCs ranging from 0.478 to 0.573. The Neural Network had the highest AUC (0.573) followed by Logistic Regression (0.572) and LightGBM (0.550). Tree-based models performed slightly worse (AUC < 0.50). No model reached clinically useful predictive accuracy.

Conclusion : Using only pre-microbiological demographic clinical and routine laboratory data ML models could not reliably predict A.baumannii respiratory infections. Incorporating richer data may be needed for earlier detection. Reporting these negative **Results** supports transparency and guides future research.

Prescribers' satisfaction survey: microbiology laboratory of the children's hospital

Trabelsi B, Meftah K, Bouafsoun A, Maddouri K, Laabidi D, Smaoui H

Laboratory of Microbiologie, Children's Hospital Béchir Hamza Of Tunis, Faculty Of Medecine Of Tunis, LR18ES39, University Tunis El Manar, Tunis, Tunisia

Introduction: User satisfaction is the primary objective of the quality management system. Despite international standards and national guidelines prescribers' satisfaction remains insufficiently addressed.

Aim: The objectives of this study were to assess prescribers' satisfaction with the microbiology laboratory services at the Bechir Hamza Children's Hospital of Tunis and to develop necessary corrective measures.

Methods: A descriptive single-center prospective study was conducted in the children's hospital microbiology laboratory from March to June 2024. The study population included prescribers working at the hospital during the study period. The

questionnaire comprised 37 questions divided into 7 sections. Corrective measures were developed for areas with an overall satisfaction rate below 75%.

Results: The survey included 137 participants: 32.8% interns 37.2% residents and 30% specialists. Most worked in medical departments (58.4%) followed by surgical departments (21.2%) and intensive care units (20.4%). Satisfaction rates exceeded 75% for communication with the laboratory result delivery and emergency management. However information on pre-analytical conditions was deemed insufficient with limited access to the collection manual (13.1%) and test request forms (62.8%). Response times were satisfactory in only 65.7% of cases. Prescribers reported that the quality of laboratory services was inconsistent over 24 hours in 28.5% of cases. Overall satisfaction reached 86.8%. A three-month corrective action plan was designed for points with satisfaction rates below 75% incorporating participants' feedback.

Conclusion: We concluded that prescribers' primary concern was the lack of knowledge regarding preanalytical conditions. Continuous improvement based on feedback and quality standards is crucial to optimize processes and strengthen collaboration.

Sudden cardiac death due to myocardial bridging: 9-year autopsy study

Khalfallah R, Kort I, Ridene I, Benrahma S, Cherif K, Bchir K

University Tunis El Manar, Faculty of medicine of Tunis, Mohamed Taher Maamouri hospital, department of legal medicine, Nabeul, Tunisia

*University Tunis El Manar, Faculty of medicine of Tunis, Charles Nicole Hospital, department of legal medicine, Tunis,

Introduction: Myocardial bridging a congenital coronary anomaly is frequently considered a benign anatomical variant. However systolic compression of the tunneled artery can induce myocardial ischemia with risk for sudden cardiac death.

Aim: To describe the epidemiological and medicolegal characteristics of sudden cardiac death due to myocardial bridging.

Methods: This was a retrospective study including all cases of sudden cardiac subjected to autopsy at the department of legal medicine of the Mohamed Taher Maamouri hospital of Nabeul from January 2016 to December 2024.

Results: During the study period 23 myocardial bridges were considered as the cause of death. The mean age of the victims was 43 ± 16 years with a male predominance (19/23). Death occurred at rest in 16 cases and during exertion or emotional stress in 7 cases. Cardiovascular risk factors were reported in 7 victims. The myocardial bridging was most frequently located on the left anterior descending artery (18/23) predominantly in its mid-segment with a mean length of 2.0cm (range: 1.5-2.5cm) and a mean depth of 0.5cm (range: 0.4-1.2cm). Concomitant coronary atherosclerosis was observed in 5 cases. In one case the myocardial bridge compressed a segment of the artery that was already critically stenosed. In all cases the postmortem investigations ruled out alternative causes of death.

Conclusions: Although an uncommon autopsy finding myocardial bridging is possible etiology of sudden cardiac death. Our findings warrant increased clinical vigilance in cases of unexplained syncope or a positive family history to identify this potentially lethal anomaly.

Shoulder musculoskeletal disorders in Tunisian physiotherapists

Karoui S, Chmak J, Bahloul E, Beji R, Mouhli N, BenKadhi A

Services de Médecine physique et de readaptation fonctionnelle du Complexe sanitaire Jbal Ouest et de l'Hôpital Militaire

Introduction: Shoulder musculoskeletal disorders (SMSD) are increasingly prevalent among healthcare professionals. Due to the physical demands of their work physiotherapists represent a population particularly at risk.

Aim: To assess the prevalence and risk factors associated with shoulder pain among physiotherapists in Tunisia.

Methods: A multicenter cross-sectional descriptive study was conducted in the departments of Physical Medicine and Rehabilitation at the Jbal Ouest Health Complex Tunis Military Hospital and Meftah Saadallah Military Polyclinic. Data was collected through a self-administered questionnaire on Google Forms sent to volunteer staff members.

Results: A total of 31 physiotherapists participated in the study 56% were women. The mean age was 40.3 ± 9.9 years [22–59]. Regarding medical history osteoarthritis was reported by 29% of participants hypothyroidism by 23% sleep disorders by 16% high blood pressure by 13%. Twenty-six per cent were smokers. Thirty-two per cent and 23% of physiotherapists reported shoulder pain within the past 12 months and 7 days respectively. This pain interfered with work in 42% of cases required reduction of workload in 26% of cases and use of analgesics in 10% of cases. Sick leave due to shoulder pain was taken by 10% of physiotherapists. No association was found between SMSD and gender work-related stress job dissatisfaction workload performing passive mobilizations or stretching.

Conclusion: SMSD is a frequent cause of functional limitation among physiotherapists. Its impact on work performance is significant. Further studies are needed to determine occupational factors contributing to shoulder pain among physiotherapists.

Artificial intelligence vs. Residents: A Competition in Ophthalmology

Sioud S, Ben Aoun S, Ben Ayed M, Dlensi A, Sabar Y, Zbiba W

Hôpital Mohamed Taher Maamouri, Nabeul, Service d'ophtalmologie

Introduction: Artificial intelligence (AI) programs such as ChatGPT are increasingly capable of answering complex demands including medical exam questions.

Aim: This study Aimed to compare the performance of ChatGPT with ophthalmology residents on a standardized assessment evaluating the AI's ability to handle specialized knowledge in this field.

Methods: A multiple-choice question (MCQ) format was used to assess performance. A total of 72 ophthalmology questions were entered into the free version of ChatGPT-5. Each AI-generated response was classified as correct or incorrect. Simultaneously 12 ophthalmology residents answered the same set of questions under similar conditions. Scores were compared between the two groups and statistical analysis was conducted to determine the significance of performance differences. The primary outcome was the correct response rate for each group.

Results: ChatGPT achieved a score of 67.3% whereas the residents scored 76.2% with the difference being statistically significant ($P=0.009$). Despite being trained on extensive datasets including scientific and online resources ChatGPT struggled with interpreting ophthalmology-specific questions. These findings highlight the limitations of current GPT models in processing highly specialized medical knowledge.

Conclusion: While ChatGPT demonstrates potential as a tool for

evaluating ophthalmology knowledge its performance remains below that of residents. This study underscores the current boundaries of AI in medical subspecialties. Further refinement and domain-specific adaptation of language models may enhance their accuracy and effectiveness in specialized clinical areas.

Immunological presentations of primary immunodeficiencies: unrecognized drivers of delayed diagnosis

Ben Jaafar S^{1,3}, Frigui S^{1,3}, Chebbi Y^{1,3}, Ben Khaled M^{2,3}, Ouederni M^{2,3}, Achour W^{1,3}

1. Laboratories Department, National Bone Marrow Transplant Center, Tunis
2. Pediatric Immuno-Hematology Department, National Bone Marrow Transplant Center, Tunis
3. LR18ES39, Faculty of Medicine, University of Tunis El Manar, Tunis

Introduction: In primary immunodeficiencies (PID) immunological manifestations (autoimmunity lymphoproliferation allergy) are frequent and may precede infections. Their recognition as early warning signs is crucial to avoid diagnostic delay.

Aim: To identify the main immunological manifestations observed in children with PID and to assess their impact on diagnostic delay.

Methods: We conducted a six-year retrospective descriptive study (2018–2023) including all children with PID followed at the Pediatric Department of the National Bone Marrow Transplant Center. Patients were categorized according to the 2022 Update of The International Union of Immunological Societies Phenotypical Classification.

Results: Among 465 patients with DIP included in our study 166 patients had at least one immunological manifestation (35.7%). Allergic manifestations were found in 18.9% of patients followed by lymphoproliferative syndromes (16.3%) and autoimmune diseases (5.8%). Immunological manifestations were the only presenting feature of PID in 5.4% of patients. The median age at diagnosis was 4 years [1.3–6.3] in patients where immunological manifestations were the only presenting feature of PID compared with 2.4 years [0.5–6.2] in patients diagnosed after an infectious episode ($p=0.003$). Diseases of immune dysregulation showed a significant association with lymphoproliferative syndromes ($p<0.001$) and autoimmune diseases ($p<0.001$). However combined immunodeficiencies with syndromic features showed a significant association with allergic manifestations ($p=0.001$).

Conclusion: Immunological manifestations are common in children with PID. They are associated with a significant diagnostic delay when they are the only presenting feature of PID. They should be considered warning signs prompting evaluation for PID even in the absence of severe infections.

Epidemiological study of common viral respiratory pathogens using multiplex detection in the Military Hospital of Tunis

Ben Moussa M L, Lazzem A, Mezioud A, Ben Moussa M

Service de virologie, hôpital militaire principal d'instruction de Tunis

Introduction: Respiratory tract infections (RTIs) are a major global health burden due to their high morbidity and mortality. It is estimated that up to 80% of cases are caused by viruses. Our **Aim** is to investigate the viral etiology and epidemiology of

respiratory infections among adult patients.

Methods: Nasopharyngeal swabs or aspirates were collected from adult patients of various ages between September 2022 and February 2024. The samples were analyzed using a multiplex PCR QIAstat-Dx Respiratory SARS-CoV-2 Panel QIAGEN.

Results: Among the 252 samples 97 (38.5%) tested positive detecting a total of 113 pathogens. Of the positive cases 55 were male and 41 were female with a median age of 57 years. The most frequently detected pathogens were Influenza (A/B) 41% ($n=47$) Rhinovirus 25% ($n=29$) and SARS-CoV 10% ($n=12$). Other detected pathogens included Respiratory Syncytial Virus (RSV) ($n=8$) other coronaviruses ($n=7$) Parainfluenzae ($n=5$) Adenovirus ($n=2$) and Human Metapneumovirus ($n=2$). Coinfections were identified in 15 cases with one case involving three pathogens: Influenza A AHN1 and Parainfluenza. The most common coinfection combination was Influenza A and AHN1 observed in 6 out of 14 dual infections. The seasonal variability analysis revealed a significant difference in the prevalence of Influenza A that increased in the winter of 2023-2024 ($\chi^2=25$ $P<0.001$).

Conclusion: Our study highlights a notable rise of influenza cases alongside a resurgence of SARS-CoV infections though to a lesser extent. This underscores the need for ongoing surveillance and adaptive health strategies as viral dynamics continue to evolve.

Benchmarking Pre-Analytical Non-Conformities in a Tunisian Biochemistry Laboratory

Kouched N, Jmal L, Guidara R, Dhieb A, Jmal A

Tunis El Manar University, Faculty of Medicine of Tunis, Mahmoud El Matri Hospital, Department of Laboratory Medicine, Ariana, Tunisia

Introduction: The pre-analytical phase represents the main source of laboratory errors accounting for up to 85% of total testing inaccuracies. Monitoring pre-analytical non-conformities (NCs) is essential to ensure result reliability and compliance with ISO15189:2022 requirements. However few studies have benchmarked such indicators in North African laboratories.

Aim: This study **Aims** to determine the rate and distribution of pre-analytical NCs in the Biochemistry Unit of Mahmoud El Matri Hospital (Ariana Tunisia) and to compare these findings with national and international data.

Methods: A prospective descriptive study was conducted from July 2022 to July 2023. All internal and external samples were evaluated using a standardized NC form based on ISO15189:2022 and the the National Laboratory Good Practice Guide. NCs were categorized as: request form errors data entry errors tube-related errors sample appearance or transport conditions. Data were analyzed using Microsoft Excel365 and compared with published studies from Tunisia Africa Asia Europe and North America.

Results: Among 51249 samples 1855 NCs were identified (3.62%). Tube-related errors were most frequent (69.4%) followed by data entry (13.4%) request form (11.5%) sample aspect (4.9%) and transport issues (0.8%). Most NCs originated from external departments (72%). The observed rate was lower than previous Tunisian reports (7.7%–11.9%) similar to Ghana (3.7%) and India (3.75%) and higher than the USA and South Korea reported rates (0.75 % and 0.4% respectively) (table I).

Conclusion: The observed NC rate aligns with international averages. Tube and data-entry errors remain major contributors highlighting the need for staff training clear procedures and digitalization. Establishing a national benchmarking system

could harmonize quality indicators and improve laboratory performance in Tunisia.

Impact of Follow-up Adherence on Smoking Relapse: A Survival Analysis in a Smoking Cessation Clinic (Tunisia, 2024)

Bziouech O, Ayadi Y, Jrad K, Skhiri A, Fakhfekh R, Harizi C

University of Tunis El Manar, Faculty of Medicine of Tunis, Abderrahmen Mami hospital, Department of Epidemiology and Biostatistics, Ariana, Tunis

Background: Adherence to follow-up is a key determinant of success in smoking cessation programs. Early discontinuation of support increases the risk of relapse yet limited data quantify its impact in real-world settings. This study **Aimed** to evaluate the relationship between follow-up adherence and relapse-free survival among patients engaged in a smoking cessation program.

Methods: A retrospective study was conducted among smokers who attended the Smoking Cessation unit of the Department of Epidemiology and Statistics at Abderrahmane Mami University Hospital (Tunisia) between January and October 2024. Data was collected via telephone follow-up for adherent (≥ 3 consultations) and non-adherent patients (< 3 consultations). Relapse-free survival was estimated using the Kaplan–Meier method and differences between groups were assessed with the Log-Rank test under SPSS v.26.

Results: We successfully reached 86 of the 151 patients who consulted us. The remaining patients did not respond to three call attempts made at different times resulting in a 57.0% response rate. The sample included 61 men (70.9%) and 25 women (29.1%) with a sex-ratio(M/F) of 2.44 with a mean age of 47.9 ± 13.7 years. Mean relapse-free period was 483.4 ± 55.5 days (95% CI: 374.7–592.1) in the adherent group versus 101.8 ± 28.3 days (95% CI: 46.4–157.1) in the non-adherent group. Median period was 240 days and 21 days respectively ($p < 0.001$.)

Conclusions: Insufficient adherence to follow-up significantly compromises long-term abstinence.

Strengthening patient engagement through structured consultations proactive reminders and remote support may enhance the durability of smoking cessation outcomes.

Lecture absenteeism among medical Students in Sfax: Prevalence and reported reasons

Mallek Z¹, Maamri H¹, Ben Jmeaa M¹, Ketata N², Sboui I¹, Yaich S¹

1. Community and preventive medicine department, Hedi Chaker University Hospital, Sfax
2. Hygiene department, Hedi Chaker University Hospital, Sfax
3. Community and preventive medicine department, Faculty of Medicine Sfax

Introduction: Absenteeism from lectures is a growing issue in medical schools worldwide affecting the quality of learning academic achievement and the development of professional skills.

Aim: Our study **Aimed** to assess the prevalence of absenteeism among medical students in Sfax and to identify the reported reasons for lecture attendance and absenteeism.

Methods: We conducted a cross-sectional study among a sample of university students enrolled at the Faculty of Medicine in Sfax during the 2023–2024 academic year. Data collection was carried out using a self-administered and anonymous questionnaire.

Results: A total of 736 students were enrolled. Their sex ratio

(H/F) was equal to 0.41 and their median age was 23 years (Interquartile range (IQR)= [19-23 years]). The prevalence of absenteeism among students was equal to 63.6% ($n = 468$) of whom 7.6% ($n = 56$) reported never having attended lectures. Absenteeism was predominant among first-year medical students (69% $n = 138$) followed by third-year medical students (64.2% $n = 61$). When asked about the reasons for absenteeism from lectures preference for personal work was the reason most frequently reported by students (41.9% $n=196$). For students who attended lectures regularly the most common reasons cited were taking notes followed by collecting exam questions (71.6% $n=192$) and (71.3% $n=191$) respectively.

Conclusion: Absenteeism was frequent among medical students in Sfax. Reported reasons reflected both personal preferences and organizational factors. This underscores the need to rethink lecture formats to enhance student engagement and to optimize learning outcomes.

Perceptions and Ethical Considerations of Artificial Intelligence Integration in Pre-Hospital Emergency Medical Dispatch

Hebaieb F, Derbala W, Naggara I, Yahyaoui N, Tabka A, Houimli S

University of Tunis El Manar, Faculty of Medicine of Tunis
Emergency Department, Internal Security Forces Hospital La Marsa - Tunis - Tunisia

Introduction: Pre-hospital emergency medicine is a vital part of the healthcare system yet AI integration in this setting remains underexplored.

While AI tools could support medical dispatch operations little is known about dispatchers' perceptions which are critical to anticipate benefits overcome barriers and address ethical and professional challenges.

Aim: To assess emergency medical dispatchers' perceptions acceptance and ethical concerns regarding AI implementation in medical dispatch.

Materials and Methods: A cross-sectional descriptive observational study was conducted in June 2025 using a self-administered questionnaire. Participants included medical dispatchers currently working in one of the six active Emergency Medical Assistance Services in Tunisia.

Results: Thirty dispatchers completed the survey. Of these 57% were general practitioners 40% had over 10 years of experience and 13% had less than one year. Thirty-seven percent had used AI-integrated tools in daily practice. AI was mainly associated with documentation and data entry support (63%) whereas its use in medical decision-making was limited (13%). Most participants believed AI could not replace clinical judgment (73%) but supported its use for administrative tasks (83%). Ethical concerns focused on liability (80%) and data privacy (48.3%). While 30% recognized potential benefits 27% expressed concerns regarding errors and data protection. Notably 87% expressed interest in training on AI tools.

Conclusion: Medical dispatchers view AI as a valuable support for administrative tasks but concerns about errors and patient data privacy remain. Successful integration requires training ethical guidelines and secure frameworks.

Perceptions of Workplace Breastfeeding Support Among Working Mothers in the Public and Private Sectors

Hrairi A¹, Ben Ayed O², Hajjaji M¹, Rmadi N¹, Belkhir E³, Jmal Hammami K¹

1. Université de Sfax, Faculté de médecine de Sfax, Hôpital Hedi Chaker,

Service de médecine du Travail, Sfax, Tunisie

2. Université de Sfax, Faculté de médecine de Sfax, Département de médecine de famille, Sfax, Tunisie

3. Faculté de Pharmacie de Monastir, Société Lactabelle

Introduction: Balancing breastfeeding and employment remains a major challenge for working mothers. Understanding how employed women perceive breastfeeding support in their work environment is crucial to developing effective interventions that promote breastfeeding.

Aim: To assess and compare perceptions of breastfeeding support among working mothers in the public and private sectors

Methods: A cross-sectional study was conducted from September to December 2024 among working women aged 45 years or younger who had a child aged between 6 months and 5 years. Data were collected through an anonymous questionnaire designed on Google Forms including the Arabic version of the Employee Perceptions of Breastfeeding Support Questionnaire (EPBS-Q).

Results : A total of 714 responses were included in the analysis. The median age of participants was 31 years (IQR [29–34]). The majority worked in the private sector (64.1%) and nearly half (46.5%) had benefited from a two-month postnatal leave. After returning to work the perceived level of breastfeeding support at the workplace was rated as moderate according to the EPBS-Q. Working in the private sector was associated with a good perception of organizational (OR : 1.37 [1.00-1.89]) managerial (OR :2.213 [1.43-3.41]) and temporal support (OR :1.33 [1.33-2.54]).

Conclusion: Women employed in the private sector reported better perceptions of breastfeeding support compared to their counterparts in the public sector. These findings suggest that public sector workplaces might face more rigid structures limiting such support. Therefore strengthening breastfeeding policies in both sectors is essential for creating supportive workplaces for breastfeeding mothers.

Child sexual abuse among boys' victims in north of Tunisia

Salleoui L, Hmandi O, Ben Ftima MA, Chérif K, Braham R, Allouche M

The department of forensic medicine, Charles Nicolle University Hospital, Tunis, Tunisia

Introduction: Child sexual abuse is a widespread issue that affects children of all genders but male victims are often underrecognized and underreported. Acknowledging male victimization is essential to ensure comprehensive child protection and recovery efforts. This study **Aims** to identify the profile of the victims and analyze the medico-legal findings emphasizing the importance of a multidisciplinary approach.

Methods: This was a retrospective transversal and epidemiological study on boys younger than 18 years who attended the department of forensic medicine of Charles Nicolle- Tunis with suspicion of sexual abuse between January 01 2021 and December 31 2023.

Results: Over the course of the study period a total of 920 child victims of sexual assault were identified. Male victims accounted for 26.5%. The mean age of the male victims was 9.28 years (± 3.95) with ages ranging from 2 years to 17 years and 11 months. The most affected age group was between 6 years and 9 years (23.3%).

Regarding educational status 42.2% of male victims were attending school. In terms of family environment 47.9% of the victims lived in two-parent household. Socioeconomic status was classified as low in 55.3% of cases. The most reported act was sexual touching (50.4%) followed by anal penetration (33

3%). Clinical examination revealed a normal anal status in 81.2% of male victims.

Among those with traumatic findings the most common injury was ecchymotic ulceration (58.3%).

Conclusion : This study highlights the alarming prevalence and specific characteristics of sexual abuse among male children. These findings underscore the need for improved awareness early detection and multidisciplinary interventions tailored to this vulnerable population.

Role of Antibiotic Prophylaxis in Preventing Surgical Site Infection After Nephrectomy

Ouanes Y¹, Mosbahi B³, Baradai N², Chakroun A¹, Karmous J¹, Nouira Y¹

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and Emergency Department, Tunis, Tunisia.

3. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Anesthesia and Intensive Care Department, Tunis, Tunisia.

Introduction: According to the updated recommendations of the French Society of Anesthesia and Intensive Care (SFAR) Antibiotic Prophylaxis (ATBP) is no longer routinely advised for Nephrectomy.

Aim: To evaluate the practical consequences of this change and its impact on postoperative Surgical Site Infection (SSI) rates.

Methods: We performed a retrospective study of all patients who underwent nephrectomy at [institution name] with or without preoperative antibiotic prophylaxis using Cefazolin (2 g). Data were analyzed according to the 2015 National Surveillance of Surgical Site Infection (INCSO) criteria. The American Society of Anesthesiologists (ASA) score, Altemeier wound contamination class and National Nosocomial Infection Surveillance (NNIS) index were recorded. Additional variables included age, Hypertension, Diabetes Mellitus, Smoking, Immunosuppression, Body Mass Index (BMI) and durations of surgery and hospitalization.

Results: A total of 204 patients were included: 122 received prophylaxis (Group 1) and 82 did not (Group 2). SSI occurred in 7% of Group 1 and 11% of Group 2 ($p=0.45$). Factors significantly associated with increased infection risk included hypertension, higher ASA score, prolonged operative time, elevated BMI, advanced age and higher Altemeier class ($p<0.002$). The NNIS index showed a near-significant association with SSI ($p=0.08$).

Conclusion: Although the overall SSI rate did not differ significantly between groups, a trend toward higher infection incidence was observed after discontinuation of antibiotic prophylaxis. These findings suggest that while universal prophylaxis may be unnecessary, targeted antibiotic prophylaxis could remain beneficial for high-risk patients identified by clinical and perioperative factors.

Impact of Silodosin on Urinary, Sexual, and Psychological Outcomes in Men with Symptomatic Benign Prostatic Hyperplasia

Ouanes Y¹, Chakroun A¹, Baradai N², Gharbia N¹, Mosbahi B³, Nouira Y¹

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and Emergency Department, Tunis, Tunisia.

3. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Anesthesia and Intensive Care Department, Tunis, Tunisia.

Introduction: Benign prostatic hyperplasia (BPH) significantly

affects quality of life and data on the impact of silodosin on erectile function and psychological status remain limited.

Aim: To evaluate the effects of silodosin on LUTS sexual function and psychological well-being in men with symptomatic BPH.

Methods: A prospective observational study was conducted between January and April 2025 at the Urology Department La Rabta Hospital. Men aged > 50 years with newly diagnosed BPH-related LUTS and no prior urological treatment received silodosin monotherapy for at least one month. Exclusion criteria included uncontrolled diabetes mellitus neurologic disorders suspected prostate neoplasms previous lower urinary tract surgery or poor adherence. Validated questionnaires were administered pre- and post-treatment: the International Prostate Symptom Score (IPSS) the International Index of Erectile Function (IIEF-15) and the Hospital Anxiety and Depression Scale (HADS).

Results: A total of 103 patients were included. At baseline all had moderate-to-severe LUTS 74.7% showed borderline or significant anxiety (HADS) and only 26.2% had normal erectile function (IIEF-15). After one month of silodosin significant improvement was observed in urinary sexual and psychological domains. The proportion of patients with mild LUTS (IPSS) increased from 0% to 81.6% ($p = 0.023$) those with normal erectile function rose from 26.2% to 60.2% ($p < 0.001$) while significant anxiety decreased from 25.2% to 0% ($p = 0.022$).

Conclusion: Silodosin significantly improved urinary symptoms erectile function and psychological well-being after one month of treatment in men with symptomatic BPH. These findings highlight the drug's positive multidimensional impact on quality of life.

Monocyte-to-Lymphocyte Ratio as a Biomarker for Monitoring Treatment Response in Urogenital Tuberculosis

Ouanes Y¹, Karmous J², Baradai N³, Chakroun A², Mosbahi B⁴, Nouira Y²

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Research Lab on Genomics of Signalopathies at the Service of Precision Medicine LR23ES07 MESRS.tn, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine

Introduction: Tuberculosis (TB) remains a major public health issue worldwide. Although it is a curable disease it continues to represent one of the most challenging infectious conditions. The monocyte-to-lymphocyte ratio (MLR) has been proposed as a potential biomarker in TB.

Aim: This study evaluated the clinical value of MLR for monitoring treatment response in patients with urogenital tuberculosis (UGTB).

Methods: We conducted a retrospective study between 2007 and 2017 at La Rabta Hospital including all patients treated for UGTB. Epidemiological clinical therapeutic and outcome data were collected and analyzed. The MLR was calculated before and after completion of anti-tubercular therapy. Statistical analysis was performed using a significance level of $p < 0.05$.

Results: A total of 108 patients were included with a male-to-female sex ratio of 2.1:1 and a mean age of 42 ± 13 years. Positive mycobacterial culture was obtained in 48% of cases. The mean consultation delay was 7 ± 2 months. Renal involvement was the most frequent localization (55.6%) followed by prostatic (12.0%) epididymo-testicular (23.1%) and vesical forms (9.3%). Anti-tubercular therapy was initiated in all cases and discontinued due to intolerance or toxicity in 18% of patients. The mean pre-treatment MLR was 0.52 ± 0.34 while after treatment it decreased significantly to 0.37 ± 0.22 ($p=0.002$).

Conclusion: Tuberculosis remains a relevant disease in modern urology. The MLR appears to be a simple and reliable biomarker for assessing the effectiveness of anti-tubercular therapy. Its

routine use could help evaluate early treatment response and prevent irreversible complications.

Xanthogranulomatous Pyelonephritis: Diagnostic and Therapeutic Particularities

Ouanes Y¹, Karmous J², Baradai N³, Chakroun A², Mosbahi B⁴, Nouira Y²

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Research Lab on Genomics of Signalopathies at the Service of Precision Medicine LR23ES07 MESRS.tn, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine

Introduction: Xanthogranulomatous pyelonephritis (XGP) is a rare form of chronic pyelonephritis that poses diagnostic challenges particularly in its focal form.

Aim: This study Aims to describe the clinical features and highlight the diagnostic and therapeutic approaches for this uncommon condition.

Methods: We conducted a retrospective descriptive study including all patients treated for XGP in our institution between January 2003 and December 2021 at La Rabta Hospital. Clinical radiological and pathological data were analyzed. Descriptive statistics were applied to summarize continuous variables (means medians ranges) and categorical variables (percentages).

Results: A total of 64 patients were included. The mean age was 62 years with a sex ratio of 0.53. Urine cultures were positive in 75% of cases most frequently isolating *Escherichia coli* (76.6%). Radiological findings consistent with pyonephrosis were observed in 83.7% of cases. Stage II disease (diffuse renal involvement) was most common found in 58 patients while stage III (diffuse lesions with distant extension) occurred in six cases as psoas abscesses. The main predisposing factor was chronic lithiasis-related obstruction (78.1%). Treatment varied according to disease extent: partial nephrectomy was performed in some focal cases whereas diffuse forms required total nephrectomy following drainage and antibiotic therapy. No recurrence was observed after a mean follow-up of 50 months.

Conclusion: Xanthogranulomatous pyelonephritis is a rare chronic pyelonephritis with nonspecific clinical presentation and the diagnosis remains histological. Differential diagnosis should primarily include renal tumors. Conservative surgery should always be attempted in focal forms to preserve renal function.

Anaphylaxis in the emergency department : epidemiological, therapeutic, and evolutionary aspects

Bakir A, Ghazali H, Chermiti I, Keskes S, Souissi S

Emergency department, Regional Hospital of Ben Arous

Introduction: Anaphylaxis is the most severe manifestation of immediate hypersensitivity reactions. While it is a common and widespread problem in our society it remains underdiagnosed.

Aim: to assess the epidemiological-clinical therapeutic and evolutionary aspects of patients admitted to the emergency department for anaphylaxis.

Methods: Retrospective study of a prospective descriptive single-center local registry conducted in the ED over a period of 13 years. Inclusion of patients aged over 14 years and presenting clinical signs suggesting anaphylaxis as defined by the National Institute of Allergy and Infectious Disease and The Food Allergy and Anaphylaxis Network. Collection of epidemiological-clinical therapeutic and evolutionary parameters.

Results: During the study period 462 patients were included.

The mean age was 41 ± 15 years with a gender ratio of 0.87. A history of anaphylaxis was reported in 39% of cases. The allergens incriminated were (n): drugs (268) foods (105) and hymenoptera stings (17). The clinical signs found were n (%): cutaneous manifestations 427(92.4) respiratory signs 253 (54.8) cardiovascular signs 171 (37) digestive signs 142(30.7) and neurological signs 27(5.8). Adrenaline was used in 64.1% of patients. Corticosteroid therapy and a histamine H1 antagonist were prescribed in 96.7 and 68.3% respectively. The outcome was favorable in 97% of cases with a mean observation time of 4 hours. Recurrence was noted in 21 patients (4.5%). There was no death cases registered in the ED.

Conclusion: Our **Results** found that the prevalence of anaphylaxis was low demonstrating that anaphylaxis remains an underestimated condition. Therefore prospective multicenter studies in ED are needed to better determine its impact and risk factors.

Use of artificial intelligence by Tunisian doctors: A national survey

Gamara FZ¹, Blagui O¹, Chroufa M¹, Amri MS¹, Gamara K², Kouraichi N¹

1. Faculté de médecine de Tunis, Hôpital de Ben Arous, service de réanimation médicale, Ben Arous, Tunisie.

2. Faculté de médecine dentaire de Monastir, clinique hospitalo-universitaire de médecine dentaire de Monastir, Service des consultations externes,

Artificial intelligence (AI) is increasingly used by doctors. Several aspects makes AI very useful in doctors' daily practice. The **Aim** of this study is to evaluate the use of AI by Tunisian doctors in their routine practice. An online survey was conducted using a GoogleForms'one in October 2025. It consisted of 19 questions. Responses were anonymous. 44 doctors responded to the form. The male/female ratio was 0.37. The participants' mean age was of 32,8 years. Overall, 27,4% of the respondents were younger than 30 years. All physicians reported using chatbots at least once. Among the participants, 20,5% reported using AI tools on a daily basis, 38,6% stated that they often use them, and 40,9% indicated that they sometimes use AI in their daily lives. Regarding the main chatbot used, 79,5% of participants reported using ChatGPT, followed by 11,4% who use DeepSeek, 4,5% for Copilot, and 4,5% Gemini. 65,9% of participants reported using AI tools for scientific writing, 63,6% for chatbots interactions, 34,1% for medical diagnostic assistance, and 34,1% for emergency management. In addition, 13,6% used them for radiology software, 9,1% for image recognition and 2,3% for anatomopathological interpretation. The responses were considered precise by 26 (59,1%) and vague by eighteen. All doctors responded that chatbots had limitations, and 93,2% responded that AI could not replace physicians. Two physicians believed this use was unethical. Artificial intelligence offers remarkable opportunities to improve patient management. The majority of physicians acknowledge using AI in their professional practice, despite potential ethical concerns related to data reliability.

Morphometric Analysis of the Iliopubic Ramus in Tunisian Patients: Implications for Percutaneous Intramedullary Screw Fixation

Akreml S ; Abderrahim M ; Benammou A. ; Bennour S. ; Kamoun C ; Ben Saleh M

Service de chirurgie orthopédique Hopital Charles Nicolles

Introduction: Percutaneous fixation of the iliopubic ramus is a promising minimally invasive alternative to conventional pelvic surgery reducing perioperative complications. However its feasibility and safety depend on detailed knowledge of the morphometric characteristics of the iliopubic ramus which may vary by sex. This study **Aimed** to characterize these anatomical variations in a Tunisian population to improve surgical planning and implant selection.

Methods: A retrospective morphometric analysis was performed using pelvic CT scans from 80 adult patients (≥ 18 years) without pelvic deformities or fractures. Multiplanar reconstructions were used to measure the intraosseous diameter and the maximal available length for intramedullary screw placement. Sex-related differences were assessed using the Student's t-test.

Results: In male patients the mean intraosseous corridor length was 124 mm compared to 120 mm in females showing a statistically significant difference ($p < 0.05$). Similarly the mean intraosseous diameter was 8.8 mm in males and 7.0 mm in females also statistically significant ($p < 0.05$).

Conclusion: This study highlights significant morphometric differences between sexes in the iliopubic ramus. These findings emphasize the need for individualized preoperative assessment to tailor implant length and diameter to each patient's anatomy. Such personalized planning could enhance the precision and safety of percutaneous fixation reduce iatrogenic risk and improve the mechanical stability of pelvic reconstructions.

Morphometric Study of C7 Pedicle Screw Fixation: Implications for Surgical Safety in a Tunisian Population

Akreml S ; Abderrahim M ; Benammou A. ; Bennour S. ; Kamoun C ; Ben Saleh M

Service de chirurgie orthopédique Hopital Charles Nicolles

Introduction: The seventh cervical vertebra (C7) occupies a transitional position between the cervical and thoracic spine with a distinctive morphology. Its relative robustness long pedicles and unique articular configuration make it a key anchor for lower cervical fixation. However the considerable interindividual variability of C7 anatomy requires precise morphometric knowledge to assess the feasibility and safety of pedicle screw placement.

Methods: This descriptive cross-sectional morphometric study analyzed 200 cervical CT scans from Tunisian adults aged 19–79 years without spinal deformities or pathology. Measurements were obtained using RadiAnt software on axial sagittal and coronal reconstructions. Parameters included vertebral body dimensions pedicle characteristics (height width length and angulation) as well as laminar and articular mass measurements.

Results: The mean vertebral body height was 12.16 mm sagittal diameter 16.64 mm and transverse diameter 23.98 mm. Pedicles measured on average 4.62 mm in width 5.55 mm in height 33.74 mm in length with a transverse angulation of 42.3° . In all cases C7 pedicle morphology allowed safe bilateral screw insertion without medial or lateral cortical breach. Laminae averaged 14.89 mm in length 5.23 mm in thickness and 10.93 mm in height suitable for possible laminar screw fixation. Articular masses measured 10.54 mm in width 9.35 mm in depth and 9.06 mm in height.

Conclusion: C7's transitional morphology and strong pedicles make it highly suitable for pedicle screw fixation in the Tunisian population. The morphometric data obtained provide valuable reference standards for preoperative planning optimizing implant safety and minimizing neurovascular complications.

CT Morphometric Study of C1–C2 and Its Implications for Osteosynthesis

Akreml S ; Abderrahim M ; Benammou A. ; Bennour S. ; Kamoun C ; Ben Saleh M

Service de chirurgie orthopédique Hopital Charles Nicolles

Introduction: The atlanto-axial region has a unique anatomy distinct from the lower cervical spine due to its complex articular relationships and the proximity of major neurovascular structures. These features make the placement of osteosynthesis implants challenging. This study **Aimed** to establish morphometric reference values for the atlas (C1) and axis (C2) in the Tunisian population to enhance the safety and precision of surgical fixation techniques.

Methods: A descriptive cross-sectional anatomical study was conducted using 200 cranio-cervical CT scans analyzed with RadiAnt software. For C1 measurements included general dimensions lateral masses superior articular facets and posterior arch. For C2 pedicular isthmic laminar odontoid and superior facet dimensions were assessed.

Results: The mean C1 lateral mass width was 15.5 mm and height 16 mm. The mean distance between the screw entry point and the posterior tubercle was 19.2 mm. The posterior arch averaged 8.8 mm in height and 5.8 mm in width. The C2 pedicles averaged 9.8 mm in width with a 47° median angle. The odontoid process measured 14.4 mm high and 9.8 mm wide.

Conclusion: Morphometric data in this Tunisian cohort support the safe use of 4 mm screws in C1 lateral masses and C2 laminae with recommended lengths of 13–15 mm. These findings provide practical anatomical guidelines to improve the precision and safety of atlanto-axial fixation procedures.

CT scan evaluation of free hand Thoracic pedicle screw placement : About 160 screws

Seddik A, Souha B, Benammou A, Mokhtar A, Bellil M, Ben Salah M

Service de Chirurgie Orthopédique et Traumatologique Hôpital Charles Nicolle

Introduction: When it comes to thoracic pedicle screws the ideal positioning of a pedicle screw has long been debated but the most crucial factor is the diameter of the screw used. The object of our study was to evaluate the accuracy of thoracic pedicle screw placement using the free hand technique

Methods : A descriptive retrospective monocentric study was lead in our department using the records of patients operated on for a thoracic spine pathology. For each patient we recorded the etiology the type of construct used and the spinal levels requiring fixation. We then compared for each patient the estimated pedicle size on CT scans with the actual screw diameters used intraoperatively. For each screw we documented the Gertzbein-Robbins scale grade for screw positioning.. We also noted any complications.

Results : Twenty patients were included accounting for 160 pedicles . A long construct was performed in 58% of cases. The preoperatively estimated pedicle diameters matched the intraoperatively used screw diameters in 70% of cases. No neurological complications or postoperative worsening were observed. In 85% of cases the screws were considered clinically acceptable. We noted a correlation between pedicle diameter and cortical breach grading.

Conclusion : The placement of thoracic screws remains a challenge for surgeons. This is due to the smaller diameters of thoracic pedicles compared to lumbar pedicles as well as the increased severity of neurological complications at this level. Our study suggests that the free hand technique remains safe and allows for acceptable positioning

Parental Knowledge and Practices on Childhood Poisoning Prevention: A Tunisian Survey

Zmantar I., Marzouk I., Daya A., Ghedira T., Chouchane C., Chouchane S

Department of Pediatrics, Fattouma Bourguiba University Hospital Monastir, Tunisia

Background : Accidental poisoning is a leading cause of childhood injury worldwide and ranks second among home accidents after trauma and burns. It occurs predominantly in the household environment and primarily affects children under five years of age.

Aim : The objective of this study was to evaluate parents' knowledge, attitudes, and practices regarding the prevention and first-aid management of pediatric accidental poisonings.

Methods : We conducted a hospital-based cross-sectional descriptive study in the Department of Pediatrics at Fattouma Bourguiba Hospital, Monastir. Data were collected through a structured arabic questionnaire adapted from international recommendations and analyzed using descriptive statistics.

Results : Thirty parents of hospitalized children were surveyed. The mean parental age was 36.1 years (range 24–55), with 83.3 % living in urban areas. A history of childhood household poisoning was reported by 16.7 %. Only 43 % knew that most poisonings occur at home, and 33 % correctly identified medications as a leading cause, although 83 % recognized that children under five are the most vulnerable. Misconceptions were frequent: 53 % believed that giving milk was an appropriate response and 83 % would induce vomiting after ingestion of a toxic substance. Awareness of the national poison control center was strikingly absent (0 %). Protective practices were inconsistently applied ; only 53 % stored household chemicals out of children's reach. Despite these gaps, 91 % expressed willingness to attend an educational session.

Conclusion : Strengthened community education and dissemination of clear emergency guidance, including visibility of poison control resources, are urgently needed.

Percutaneous nephrolithotomy in obese patients: Does body mass index affect safety and outcomes? A 203-case comparative study

Bahria MA, Sakly A, Chakroun A, Ben Saad H

University Of Monastir, Faculty of Medicine, Tahar Sfar Hospital, Urology Department, Mahdia, Tunisia.

Introduction: The worldwide prevalence of obesity continues to rise, increasing the risk of metabolic and cardiovascular diseases. Obesity-related insulin resistance promotes urinary lithiasis, making its management particularly challenging. Percutaneous nephrolithotomy (PCNL) in obese patients remains technically demanding due to comorbidities, anesthetic risks, and longer access tracts.

Aim: To evaluate the impact of obesity on the safety and efficacy of PCNL.

Methods: We conducted a retrospective comparative study including 203 PCNLs performed between 2015 and 2020 at our institution. All procedures were carried out in the

modified supine (Valdivia) position. Patients with renal insufficiency, malformative uropathy, bleeding disorders, or pediatric age were excluded.

Patients were divided according to BMI: normal ($<25 \text{ kg/m}^2$), overweight ($25\text{--}29.9 \text{ kg/m}^2$), obese ($30\text{--}34.9 \text{ kg/m}^2$), and morbidly obese ($\geq 35 \text{ kg/m}^2$). Preoperative, intraoperative, and postoperative variables were analyzed, including operative and fluoroscopy times, puncture failure, complications (Clavien–Dindo), and stone-free rates.

Results: The mean age was 42 years with a male-to-female ratio of 2.7. Operative time increased with BMI (83 ± 25 , 112 ± 31 , 109 ± 41 , and $121 \pm 47 \text{ min}$; $p = 0.035$). Fluoroscopy time was also longer in obese patients. No anesthesia-related complications occurred. Overall complications were 21.2% (grade I), 27.4% (grade II), and 6.3% (grade III), with no significant difference among groups ($p = 0.23$). The stone-free rates were 79.3% immediate and 83.4% at one month, with no significant variation ($p > 0.05$).

Conclusion: PCNL remains a safe and effective treatment in obese patients. Operative and fluoroscopy times increase with BMI, emphasizing the need for surgical expertise and strict adherence to radiation safety measures.

Forensic and Toxicological Insights into Fatal Alcohol Poisoning : A Six-Year Autopsy Review

Braham R, Bellali M, Salleoui L, Ouni M, Cherif K, Allouche M

Department of Legal Medicine, Charles Nicolle Hospital Tunis

Introduction : Alcohol poisoning remains a critical cause of sudden death, particularly in populations with chronic alcohol use. Accurate postmortem diagnosis requires a multidisciplinary approach combining forensic autopsy findings, toxicological analyses, and contextual investigation.

Aim: This study seeks to analyze the epidemiological characteristics of confirmed fatalities due to alcohol intoxication.

Methods: A retrospective review was conducted on autopsy cases with confirmed alcohol poisoning as the cause of death, performed at the Department of Forensic Medicine, Charles Nicolle University Hospital in Tunis, over a 6-year period, from January 2019 to December 2024. Data were extracted from medico-legal reports, postmortem toxicological assessments, and Background information

Results: Alcohol poisoning deaths accounted for 0.12% of the total forensic autopsy activity during the study period and represented 5.37% of all toxicological deaths. The most frequently encountered lethal alcohol was methanol, identified in 82.35% of cases, followed by ethanol in 11.7%, with a few cases involving ethylene glycol (5.8%). Most cases involved male victims (82.3%). The medico-legal context was predominantly accidental (47%), with occasional suicidal cases (29.4%) and no documented homicides. A complete postmortem toxicological assessment was performed in more than half of the cases, confirming lethal blood ethanol concentrations. Evidence of chronic alcoholism was identified in nearly all the cases (93.3%).

Conclusion: This study highlights the forensic and toxicological characteristics of fatal alcohol poisoning, emphasizing the predominance of methanol-related deaths and the strong association with chronic alcohol abuse. The findings underscore the importance of systematic postmortem toxicological screening.

Prevalence of healthcare-associated infections (HAIs) and antibiotic prescription at the University Hospital of Sétif (Algérie), 2025.

Fermas N¹, Bouhafs K¹, Laouamri S¹, Bekakria FZ²

1. Faculty of medicine Sétif, Algérie,

2. PHE khroub

Introduction: Healthcare-associated infections (HAIs) represent a major global public health problem with a direct impact on morbidity hospital mortality economic and social costs and the emergence of multidrug-resistant bacteria.

Aim: Our study Aims to determine the prevalence and characteristics of these infections and antibiotic prescribing practices within the hospital.

Methods: This is a descriptive cross-sectional study conducted on a single day on patients hospitalized in all wards of the University Hospital Center (CHU) between February 3 and 20 2025. This study is being carried out by the Prevention Department team in collaboration with other departments. Data sources were patient medical records and care records.

Results: 395 patients were included in this survey across 20 wards. Male-to-female ratio: 1.01. Mean age: 39 years. The overall prevalence rate was 11.6% falling within the national range (10–18%). There was variation between departments: intensive care nephrology hematology and internal medicine had the highest rates. The most affected infection sites were pulmonary (26%) and cutaneous (24%). The causative agents were staphylococcus (24%) proteus mirabilis (15%) and Klebsiella pneumoniae (13%). 68% of the agents were multidrug-resistant (MDR) bacteria. The prevalence of antibiotic therapy was 69% with cephalosporins (21%) and carbapenems (7.8%) being the most commonly used.

Conclusion: The situation is alarming and urgent. The longer we delay the worse the situation will become. Responsibility is shared and requires a multidisciplinary approach necessitating a revitalization of the control program (awareness training and evaluation).

Open Surgical Reconstruction for TASC II D Aorto-Iliac Occlusive Disease: Demographic Profile and Early Outcomes

Riahi S, Benkhemis A, Derbel B, Khadhar Y, Ben Mrad M, Denguir R

Cardiovascular Surgery Department, la Rabta University Hospital, Tunis, Tunisia

Introduction: Open surgical repair remains the gold standard for the management of TASC II D aorto-iliac occlusive disease (AIOD), despite major advances in endovascular therapy. These complex lesions often require durable revascularization strategies, particularly in patients with extensive occlusions or previous endovascular failure.

Aim: To describe the demographic characteristics and early outcomes of patients undergoing open surgical reconstruction for TASC II D AIOD.

Methods: A retrospective review was conducted on patients treated for TASC II D AIOD between 2020 and 2025 in a tertiary vascular center. Demographic data, cardiovascular risk factors, clinical presentation, previous revascularization, and operative details were collected. Early outcomes included 30-day mortality, postoperative complications, and graft patency.

Results: A total of 113 patients were included, with a mean age of 63 ± 9 years; 109 were men and 4 women. Major cardiovascular risk factors included hypertension (72%), smoking (58%), hyperlipidemia (40%), diabetes mellitus (28%), and coronary artery disease (32%). Thirty-four patients (30%) had undergone previous revascularization. Clinical presentation was chronic limb-threatening ischemia in 58% and intermittent claudication

in 42%. Aortobifemoral bypass was performed in 86 patients (76%), and axillobifemoral bypass in 27 (24%). The in-hospital mortality rate was 8%. The most frequent complications were pneumonia (36.2%) and acute kidney injury (22%); ischemic colitis occurred in two patients. Early graft patency was 98%, and the median hospital stay was 9 days (range 3–18).

Conclusion: Even in the era of endovascular therapy, open surgical reconstruction remains the reference treatment for TASC II D aorto-iliac occlusive disease, offering excellent early patency and acceptable morbidity in complex or reintervention cases.

A Multicentric Analysis of Revascularization in Acute Mesenteric Ischemia

Riahi S, Derbel B, Benkhemis A, Khadhar Y, Ziadi J, Denguir R

Cardiovascular Surgery Department, la Rabta University Hospital, Tunis, Tunisia

Background: Acute mesenteric ischemia (AMI) is a life-threatening vascular emergency requiring prompt diagnosis and intervention. Surgical revascularization remains the cornerstone of treatment, yet outcomes vary depending on etiology and timing.

Aims: To evaluate the clinical characteristics, surgical strategies, and short-term outcomes of patients who underwent revascularization for AMI in a multicentric retrospective cohort.

Methods: We retrospectively analyzed 63 patients who underwent surgical revascularization for AMI across participating seven surgical centers. Demographic, etiological, intraoperative, and postoperative data were collected.

Results: The mean age was 70.2 ± 10.5 years, and 60% were female. Embolic etiology was found in 65% of cases and thrombotic in 35%. The mean surgical delay was 40.2 ± 8.1 hours, and 40% had proximal SMA occlusion. Revascularization alone was performed in 33 patients (52%), while 30 (48%) required bowel resection. Second-look surgery was performed in 7.3%, and postoperative major adverse events occurred in 15%. Mean lactate levels decreased from 4.4 ± 1.1 mmol/L at admission to 3.2 ± 1.0 mmol/L at 24 hours ($p = 0.03$). In-hospital mortality was 13.8%, and 30-day survival reached 74.6%. Kaplan–Meier analysis confirmed a significant survival advantage compared with non-revascularized patients ($p < 0.01$).

Conclusions: Surgical revascularization, predominantly via SMA embolectomy with venous patch angioplasty, significantly improves survival and metabolic recovery in AMI. Early restoration of mesenteric flow reduces bowel loss and remains the cornerstone of successful management.

Sudden deaths among athletes (SDA) in northern Tunisia: a five-year Retrospective Study (2020–2025)

Chérif K, Ben Ftima MA, Salleoui L, Ouni M, Zidi H, Allouche M

Department of legal Medicine Charles Nicolle Hospital of Tunis, Tunisia - Faculty of Medicine of Tunis, Tunisia

Introduction: Sudden death in athletes (SDA) is a sudden and unexpected event with significant social and media repercussions reinforcing the perception of sport as a potentially risky activity.

Aim: To analyze epidemiological and thanatological data related to sudden death in athletes in northern Tunisia.

Methods: This was a retrospective descriptive study including all cases of sudden death during sports activities recorded in the forensic medicine department at Charles Nicolle University

Hospital in Tunis during the period from January 2020 to July 2025.

Results: During the study period we recorded 39 cases of sudden death during sports activities. The victims were mainly male amateur athlete (87.2%). The average age of the patients was 42.4 years ranging from 8 to 73 years. Young subjects under the age of 40 accounted for 64.2% of cases. The victims had a family history of sudden death in 7.7% of cases. The sports most commonly involved were gym (33.3%) walking (30.8%) followed by soccer (23.1%) and running (28.6%). Death was cardiovascular in origin in 94.9% of cases. In young athletes coronary artery disease was the leading cause (53.8%) followed by dilated cardiomyopathy (12.8%) then hypertrophic cardiomyopathy and coronary abnormalities particularly myocardial bridges (5.1% in each case). Autopsies and additional tests were negative in 12.8% of cases. In those over 40 the increase in the frequency of sudden death during sport was directly linked to the presence of coronary artery disease (73.9%).

Conclusion: The predominance of cardiovascular causes particularly coronary artery disease highlights the importance of early screening and targeted prevention in athletes.

Deaths from rabies encephalopathy in northern Tunisia: an 11-year Retrospective study (2013–2024)

Cherif K, Bellali M, Salleoui L, Ouni M, Brahem R, Allouche M

Department of legal Medicine Charles Nicolle Hospital of Tunis, Tunisia - Faculty of Medicine of Tunis, Tunisia

Introduction : Human rabies which is always fatal at the symptomatic stage remains a preventable cause of death. Its polymorphic clinical presentation and the rarity of diagnosis in routine practice complicate its recognition particularly in primary care.

Objective: To analyse the epidemiological data and particular circumstances of deaths from rabies encephalopathy in northern Tunisia.

Methods: We conducted a descriptive study with a retrospective collection of cases of death from rabies encephalopathy recorded in the forensic medicine department at Charles Nicolle University Hospital in Tunis during the period from January 2013 to December 2024.

Results: During the study period we recorded 11 cases of death from rabies encephalopathy. The population was predominantly male with a sex ratio of 4.5. The average age of patients was 35.3 years ranging from 7 to 64 years. The initial clinical presentation was dominated by psychiatric manifestations particularly behavioral disorders (63.6%) and hallucinations (18.2%) leading 36.4% of patients to consult a traditional healer. Hydrophobia was the most frequently reported clinical sign before death (54.5%). Dog bites were the main cause of exposure (45.5%). The average time between clinical manifestations and death was 6 days. Only 27.3% of patients had received complete post-exposure prophylaxis.

Conclusion: These **Results** highlight the importance of early recognition of rabies infection in primary care and reaffirm the essential role of rapid and complete access to post-exposure prophylaxis the only strategy to prevent fatal outcomes.

Use of Artificial Intelligence Tools for Academic Writing Among Medical Students and Residents: A Cross-Sectional Study

Moussi M, Smida H, Bel Haj A, Rouiss H, Chaouki M, Bettaieb H

Department of obstetrics and gynecology, Faculty of medicine of tunis,

university of tunis el manar

Introduction: Artificial intelligence (AI) is increasingly integrated into academic and scientific writing. However its actual use ethical implications and educational potential remain insufficiently explored in medical training.

Aim: To assess the prevalence patterns and perceptions of AI tool usage for academic writing among medical students and residents and to explore their interest in integrating AI into teaching.

Methods: A descriptive cross-sectional study was conducted from March to June 2025 through an anonymous online questionnaire completed by 101 medical students and residents. Collected data included academic level AI tools used main applications motivations perception of usefulness ethical awareness prior academic training and opinions on AI in education.

Results: Most participants were residents (74.25 %) including 28.7 % in the 3rd year. Overall 92 % reported using AI for academic purposes. The most frequently used tools were ChatGPT (82 %) Zotero (74 %) Grammarly (22 %) and others such as Microsoft Editor DeepL and QuillBot (15–18 %). Main applications included improving writing clarity (58 %) literature synthesis (49 %) translation (41 %) reference management (38 %) and professional email drafting. Motivations were time-saving (67 %) improving text quality (52 %) and overcoming language barriers (38 %). While 81 % considered AI useful only 37 % were aware of its ethical limitations and 96 % had received no formal training.

Conclusion: AI tools are widely adopted particularly by advanced residents to support academic writing. The lack of structured training and limited ethical awareness highlight the need to incorporate responsible AI education into medical curricula.

Postural assessment in parkinsonian patients

Karoui S, Mouli N, Beji R, Ksibi I, Maaoui R, Rahali H

Service de Médecine Physique et de Réadaptation fonctionnelle de l'Hôpital Militaire de Tunis

Background: Parkinson's disease is a chronic neurodegenerative disorder that causes postural problems with significant repercussions on walking and balance increasing the risk of falling. The objective of this work was to study the prevalence of postural disorders in Parkinson's.

Methods: This was a cross-sectional and descriptive study carried out in the Physical Medicine and Rehabilitation Department of Mefteh Saadallah Military Polyclinic during the period July-December 2022. Patients followed for Parkinson's disease evolving for at least one year were included. Patients had a complete clinical assessment (with an evaluation of the risk of falling using the Tinetti test) and stabilometric examination. The surface(S) the lateral (mean X) and anteroposterior (mean Y) projection of the center of pressure were registered in open and closed eyes condition.

Results: Twenty patients were included in the study with a mean age of 63 years. The gender ratio (M/F) was 1.5. Abnormalities of spinal curvature were found in all patients with an increase of cervical lordosis and thoracic kyphosis in 15 patients a reduced lumbar lordosis in 12 patients and camptocormia in 11 patients. Eleven patients were at risk of falling eight of whom were at high risk. In the stabilometric examination the projection surface S of the center of pressure was pathological especially in the open eyes condition. Lateral misalignment of the center of pressure was registered in 50% of patients with pathological retroprojection in 14 patients in the open eyes condition and 16 patients with closed eyes.

Conclusion: Parkinson's disease causes significant posture problems that have a major impact on walking.

Challenges and perceptions of virtual reality rehabilitation in physical medicine

Mouhli N, Karoui S, Beji R, Yaakoubi C, Maaoui R, Rahali H

Service de Médecine Physique et de Réadaptation fonctionnelle de l'Hôpital Militaire de Tunis

Introduction: Rehabilitation is traditionally based on physical and manual **Methods** and now benefiting from significant technological advances such as virtual reality (VR). In Tunisia this technology is unfamiliar to caregivers and patients which creates challenges when using it. The objective of our work was to explore challenges faced by caregiver when using VR in rehabilitation and to study the perception and satisfaction of Tunisian patients when using it.

Methods: This was a cross-sectional and descriptive study conducted at the physical medicine and rehabilitation department of the Military Hospital of Tunis during 4 months (February-May 2025). Patients benefited from a rehabilitation session with a robotic upper limb therapy trainer using VR. At the end a pre-designed form was completed by caregivers and patients.

Results: Thirty caregivers and sixty patients affected from hemiparesis were included. Eighty percent of staff believed that VR had a positive effect on rehabilitation before trying it. After using it 73% of staff were satisfied and 86.7% found it effective. 46.7% of staff believe that VR and traditional rehabilitation should be complementary. Sixty-six of our patients were aged between 40 and 50 years-old with a majority of men. Hemiparesis was caused by ischemic stroke in 67% of cases with spasticity in 20% of cases. Fifty five percent of patients found the VR session funny. Eighty percent were very satisfied with the session. The main problem encountered was understanding the instructions in 52% of cases.

Conclusion: Virtual reality appears promising in the rehabilitation of hemiparetic patients. It should be used more frequently in combination with traditional rehabilitation.

Optimizing Laboratory Performance through the Deployment of a Technical Platform: Experience from the Physicochemical Control Unit of the NAMHP

El Kara F^{1,2}, Ben Houria B¹, Bizid M¹, Ben Messaoud M¹, Gmati S², Sebai S²

1. Faculty of pharmacy of Monastir - Tunisia

2. Physicochemical control laboratory- National Agency for Medicines and Health Products

Introduction : Enhancing the performance of quality control laboratories is crucial to ensure the quality and compliance of medicines. Implementing a technical platform **Aims** to harmonize practices and optimize organization.

Aim : This study describes its deployment in the physicochemical control laboratory of the National Agency for Medicines and Health Products (NAMHP) and alignment with international standards.

Methods : A descriptive and comparative approach, combined documentary analysis, on-site observation and review of international guidelines. The methodology followed three steps:

(1) assessment of the existing system, reviewing organization, equipment, analytical processes and human resources;

(2) design and structuring of the platform, organizing instruments by specialization to optimize utilization and clarify responsibilities;

(3) performance evaluation, using a matrix covering human resources, infrastructure, equipment and quality assurance.

Results: The platform was implemented in July 2025, reorganizing analytical areas by function: chromatography, spectroscopy, inhalation device testing and routine physicochemical analyses. An equipment manager was appointed to coordinate tests and ensure traceability. Performance assessment showed compliance levels of 100% for infrastructure, 75% for equipment and 50% for human resources and quality assurance, highlighting areas for improvement in documentation, training and monitoring of key performance indicators (KPIs). Future developments will focus on automated scheduling, electronic traceability and cautious integration of artificial intelligence to enhance predictive performance analysis and resource management.

Conclusion : The technical platform strengthens laboratory efficiency and harmonization. Defining suitable KPIs enables objective monitoring, supports continuous improvement and, combined with digitalization and staff development, will further enhance the quality of analyses.

The Buccal thickness of alveolar Bone of Maxillary Anterior Teeth: A Cross-Sectional Study among the Tunisian Population

Kallala R, Dhaouhi N, Jemli S, Saafi J

Université de Monastir, Faculté de médecine dentaire

Introduction: The placement of an immediate implant at the level of maxillary anterior teeth is considered a challenging task for dentists due.

Aim: This study Aims to evaluate the buccal thickness of alveolar bone in the maxillary anterior region using cone-beam computed tomography (CBCT) in a sample of the Tunisian population

Methods: This retrospective study was conducted at the Faculty of Dental Medicine of Monastir, Tunisia.

Measurements were taken on CBCT, meeting the inclusion criteria. Following reference points were considered: at the coronal (point A), median (point B), and apical (point C) thirds. Alveolar height, crest height, and tooth angulation were also determined. Descriptive statistics, including mean and standard deviation (SD), were calculated using SPSS version 21. T-tests, Pearson correlation, and the Friedman test were used for data analysis, with the significance level set at 95%.

Results: The mean alveolar height of the maxillary central incisor, lateral incisor, and canine was 20.5 ± 3.62 mm, 20.73 ± 2.53 mm, and 20.36 ± 2.81 mm, respectively, with a statistically significant difference between sites. Males presented greater alveolar height than females. The mean buccal bone plate thickness at points A, B, and C was 0.86, 0.90, and 0.99 mm for the central incisors; 1.04, 0.80, and 0.84 mm for the lateral incisors; and 1.08, 0.67, and 0.66 mm for the canines.

Conclusion: The buccal cortical bone was thin, indicating that immediate implant placement in this region requires careful radiological assessment, considering these anatomical features.

One north African center experience in Adult's Lymphoblastic lymphoma

Benneji H , Sayadi M, Cherni R, Achour M, Benlakhel R

Hopital Régional de Jendouba, hopital Aziza Othmana De Tunis

Introduction: Lymphoblastic Lymphoma (LBL) is a rare and highly aggressive non-Hodgkin Lymphoma (NHL) that occurs commonly on children, adolescent and young adults. LBL is treated like acute Lymphoblastic Leukemia (ALL).

Aims: Our paper evaluated the main clinical and prognosis features of adult's LBL patients.

Methods: This is a retrospective study including LBL adult patients treated in Clinical Haematology Department of Aziza Othmana Hospital between January 2009 and December 2023. Diagnosis was established by histology and immunohistochemistry on lymph node biopsies. All patients received the GRAALL05 protocol.

Results: Eighteen patients were included on a period of 14 years, with a median age of 37 years [23–54] and sex ratio of 1.57. Fifteen patients had T-LBL, and the others had B-LBL. Seven patients had B symptoms; 11 patients had mediastinal enlargement at diagnosis, 13 patients had in extended stage (IV). Bone marrow, lung and pleural involvement were seen respectively in 7, 3 and 9 patients. None of our patients had central nervous system involvement. Two patients died during induction and 14 patients achieved complete remission (CR). Five patients relapsed and only one patient was in CR after salvage chemotherapy and allogeneic stem cell transplantation. Median overall survival (OS), event-free survival (EFS) and relapse-free survival (RFS) were 81, 71 and 121 months, respectively. Cranial irradiation improved significantly OS (OR: 30.5; 95% [CI] 14.9–46.09; $p=0.02$), RFS (OR: 23.5; 95% [CI] 6.29–40; $p=0.041$) and EFS (OR: 17; 95% [CI] 3.76–30.23; $p=0.04$).

Conclusion: Adult LBL remains curable in most of patients when treated with intensive pediatric-like protocols. However, relapse rate is about 30% of patients. Prognosis of relapsed/refractory LBL's patients is poor.

Psychosocial Impact and Self-Management Responses to Gestational Diabetes: A Cross-Sectional Study

Grami N; Debbiche A; Hammami M A; Boumaiza A; Nalouti K; Atef Y

Centre de maternité et de néonatalogie de Tunis ; Service " A "

Background: Gestational diabetes mellitus (GDM) is increasingly common and can create significant emotional and behavioral challenges. Understanding women's experiences is essential for delivering supportive and culturally sensitive care. This study explored emotional reactions, perceptions and self-management behaviors following a GDM diagnosis.

Aim of the Study: To assess psychosocial responses and self-management behaviors among women diagnosed with GDM.

Methods: A descriptive cross-sectional study was conducted in a maternity hospital using a structured questionnaire informed by literature, expert input, and patient feedback. Women diagnosed with GDM were invited to participate after consent. Of 120 women approached, 98 completed the questionnaire (response rate 82%). Data included sociodemographic characteristics, obstetric history, emotional reactions, understanding of GDM, lifestyle adjustments, and support sources.

Results: The mean maternal age was 33.2 years; 29% were primiparous, and 34% reported a previous GDM pregnancy. The median gestational age at diagnosis was 27 weeks. More than half (61%) were surprised by the diagnosis, although 40% had identifiable risk factors. Common emotions included disappointment (84%) and guilt (72%). Concern for the baby's health (88%) exceeded concern for maternal health (63%). Most participants understood their diagnosis (66%) and management steps (81%). Many reported healthier dietary habits (94%), good

nutritional knowledge (87%), and manageable lifestyle changes (83%). Family support (92%) and guidance from healthcare professionals (88%) were key facilitators.

Conclusion: Women experience emotional distress after a GDM diagnosis but show strong potential for effective self-management when supported through clear communication, nutritional counselling, and appropriate psychosocial care.

Multifocal Infectious Spondylodiscitis: Clinical, Biological, Radiological, and Therapeutic Features

Jebri R, Benammar L, Benayed H, Fenniche I, Dhaheri R, Gharsallah I

L'hôpital Militaire Principal D'instruction De Tunis

Introduction: Infectious spondylodiscitis (IS) is an infection of the intervertebral disc and adjacent vertebral bodies. Multifocal forms are rare and usually occur in immunocompromised patients.

Aim: To describe the clinical, biological, radiological, and therapeutic characteristics of multifocal IS.

Methods: Fourteen cases of multifocal IS were collected in a rheumatology department over 14 years (2009–2022). Clinical, laboratory, imaging, bacteriological, and therapeutic data were analyzed.

Results: The cohort included 10 women and 4 men, mean age 53.6 years (27–67). Five patients had diabetes. Inflammatory back pain was the main symptom in 13 patients, while general health deterioration occurred in 11. Fever was noted in 4 and night sweats in 8 patients. Spinal syndrome was observed in 11, and motor deficit in 1. Laboratory inflammatory markers were elevated in 13 patients. Lesions were bifocal in 13 cases and multifocal in 1. Dorsal involvement was most frequent (12), followed by lumbar (11) and cervical (2). Radiographs showed disc space narrowing (3), erosions (3), geodes (2), and irregular endplates (1). MRI revealed osteolysis (4), vertebral fracture (2), paravertebral abscesses (9), intracanalicular (4) and intradiscal abscesses (2), and epiduritis (2). Bone biopsy was contributive in 4 of 7 cases. Tuberculosis was diagnosed in 10 patients and brucellosis in 2. All received antibiotics; 3 required surgery. Complications mainly involved anti-tuberculosis therapy (4). Clinical outcomes were favorable in 12 patients.

Conclusion: Multifocal IS is rare and occurs mostly in immunocompromised patients, with tuberculosis as the predominant cause. Early, well-conducted antibiotic therapy generally leads to favorable outcomes.

Relevance of Carbapenem Prescription in the Management of Acute Obstructive Pyelonephritis

Ouanes Y¹, Mosbahi B³, Baradai N², Chakroun A¹, Karmous J¹, Nouria Y¹

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and Emergency Department, Tunis, Tunisia.

3. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Anesthesia and Intensive Care Department, Tunis, Tunisia

Introduction: The growing prevalence of Extended-Spectrum Beta-Lactamase (ESBL)-producing Enterobacteriaceae has led to an increased use of Carbapenems, raising concerns about Antimicrobial Stewardship and Bacterial Drug Resistance.

Aim: To evaluate the appropriateness of carbapenem prescriptions in patients treated for Acute Obstructive Pyelonephritis (AOP).

Methods: A retrospective study was conducted including all

patients hospitalized for AOP between January and December 2022 at [institution name]. The appropriateness of carbapenem use was assessed using the Therapeutic Appropriateness Index (TAI), based on French Infectious Diseases Society (SPILF) criteria: indication, dosage, treatment duration, and antibiotic combination. Prescriptions were considered appropriate when the TAI score exceeded 3 at 48–72 hours, after adjustment according to Bacterial Culture and Antimicrobial Susceptibility Testing **Results.**

Results: Seventy-nine patients were included; 30 (39.2%) received carbapenems. The mean age was 52 years, and the male-to-female ratio was 1.5. Ureteral Obstruction was lithiasic in 69.6% of cases. ESBL-producing bacteria were identified in 26 patients (32.9%), mainly *Escherichia coli* (n=18). Carbapenems were prescribed empirically in 16 patients (6 with Septic Shock) and based on microbiological **Results** in 14. Compliance rates were 83.3% for indication, 83.3% for dosage, 50% for duration, and 43.3% for antibiotic combination. Overall, 80% of prescriptions were appropriate (TAI ≥ 3).

Conclusion: Carbapenems were required in over one-third of AOP cases, primarily for ESBL-related infections. Nevertheless, approximately one-quarter of prescriptions deviated from current guidelines, emphasizing the need to reinforce Antimicrobial Stewardship Programs to optimize carbapenem use and prevent the spread of Bacterial Drug Resistance.

Artificial Intelligence-Assisted Prediction of Preterm Birth Using Cervical Length and Clinical Parameters: A Model Proposal from a Prospective Multicentric Study

Moussi M, Bel Haj A, Smida H, Achour R, Bouguerra B, Youssef A

Department of obstetrics and gynecology, Faculty of medicine of tunis, university of tunis el manar

Introduction: Preterm birth remains a leading cause of neonatal morbidity and mortality, particularly in low-resource settings. Cervical length (CL) measurement between 18 and 24 weeks is one of the most validated predictors. Integrating CL and maternal factors into artificial intelligence (AI) models may enhance early risk stratification and preventive care.

Aim: To propose an AI-based predictive model for preterm birth using cervical length and associated maternal parameters derived from a prospective multicentric study.

Methods: A prospective observational study was conducted from January to June 2024 at Charles Nicolle Hospital and the Maternity and Neonatology Center of Tunis. Sixty low-risk pregnant women between 18–24 weeks' gestation were enrolled. Variables included CL, maternal age, BMI, smoking status, parity, socioeconomic and educational levels, and infection history. The main outcome was gestational age at delivery. Receiver operating characteristic (ROC) analysis determined the optimal CL threshold for predicting preterm birth (<37 weeks).

Results: Mean CL was 30.3 $\pm$ 11 mm; 31.7% had a short cervix (<25 mm). Preterm birth occurred in 38.3%, mainly between 32–37 weeks. The optimal threshold was 25 mm, with 82.6% sensitivity, 100% specificity, and AUC = 0.91. Smoking, low socioeconomic status, and urinary or vaginal infection were significantly associated with shorter CL ($p < 0.05$).

Conclusion: A 25 mm CL threshold provides excellent predictive performance. Incorporating clinical and ultrasound parameters into AI-driven models could improve early detection of women at risk for preterm birth, especially in low-resource settings.

Practices of nephrology and family medicine residents in Tunisia in the management of urinary tract infections: a cross-sectional study

Soussi Y, Ben Mahmoud N, Ben Salem M, Ben Salah M, Letayef A, Skhiri H

University of Monastir, Faculty of Medicine of Monastir, Fattouma , Bourguiba Hospital, Department of Nephrology, Monastir, Tunisia.

Introduction : Urinary tract infections (UTIs) are highly prevalent worldwide. They are often treated by nephrologists and family physicians (FPs).

Aim : To assess antibiotic prescriptions and diagnostic test requests by Nephrology and Family Practice residents for UTIs.

Methods: In 2024, we conducted a web-based questionnaire. We included residents in Nephrology and FPs who agreed to respond.

Results: Forty-one residents (15 in Nephrology, 26 in Family Practice, average age: 28.98 ± 2.27 years [25;35], M/F = 0.28) participated. Most (59%) spent < 5 minutes on patient education. It was mainly about hydration (98%), treating constipation (39%), avoiding urine retention (88%), and urinating after sex (46%). Regarding the risks of UTI complications, male gender, pregnancy, and severe renal failure were overlooked in 22%, 24%, and 24% of cases, respectively. Urinalysis was performed in 59%. Urine culture was requested in uncomplicated cystitis (41%), post-treatment cystitis in pregnancy (80%) and uncomplicated pyelonephritis (36%). In cases of uncomplicated cystitis, 89% of residents prescribed fosfomycin trometamol to patients. Asymptomatic bacteriuria was treated in pregnant women in 90% of cases and prior to urological procedures in 85% of cases. Sixty-three percent of residents considered fluoroquinolones to be the first-line treatment for documented UTI with ESBL-producing bacteria. If the patient was prescribed fluoroquinolones or cotrimoxazole for a paucisymptomatic male UTI with no signs of severity, 63% of physicians chose to continue antibiotic therapy for 14 days.

Conclusion: Our study highlights the need for ongoing medical education and better adherence to guidelines.

Under Pressure: Psychological Stress and Health Behaviors Among Future Dentists: Cross-Sectional Insights

Bercheche N, Jemli S, Jaouadi J

Faculty Of Dental Medicine, university Of Monastir, Tunisia

Introduction: Dental education is inherently demanding, exposing students to psychological stress that may compromise lifestyle behaviors and overall well-being.

This study Aims to evaluate perceived stress and lifestyle habits among dental students, and to identify factors associated with maladaptive behaviors.

Methods: A cross-sectional survey was conducted among 104 dental students at the University Dental Clinic of Monastir, Tunisia. Participants completed an online questionnaire encompassing sociodemographic data, the Perceived Stress Scale (PSS-10), and an adapted Health-Promoting Lifestyle Profile II (HPLP-II). Descriptive statistics summarized stress levels and lifestyle patterns, while associations with age, sex, academic year, living arrangements, stimulant consumption, and medical history were explored.

Results: The cohort comprised 63.5% females and 36.5% males ; 43.3% lived in shared accommodations, and 73.1% consumed stimulants regularly.

PSS-10 responses indicated moderate-to-high stress, with prevalent feelings of being overwhelmed, nervousness, and difficulty managing obligations. Lifestyle assessment revealed suboptimal behaviors: insufficient sleep, irregular exercise, limited relaxation practices, and frequent consumption of stimulants and unhealthy foods, whereas positive behaviors included maintaining social connections and regular study breaks. Trends suggest that higher stress levels correlated with poorer lifestyle adherence, consistent with previous literature on dental students' mental health.

Conclusion: Dental students exhibit considerable stress and heterogeneous lifestyle behaviors, highlighting the need for integrated wellness programs. Implementing structured stress management interventions, promoting physical activity, balanced nutrition, sufficient sleep, and relaxation strategies could enhance resilience, academic performance, and overall quality of life among future dental professionals.

The Mediating Role of Traumatic Birth Perception in Prenatal Attachment

Grami N; Debbiche A; Hammami MA; Boumaiza A; Atef Y

Centre de maternité et de néonatalogie de Tunis ; Service " A"

Background: Pregnancy involves profound physical and emotional changes that can increase vulnerability to anxiety and depression. These conditions may weaken the maternal-fetal bond, while perceiving childbirth as traumatic can further affect prenatal attachment and maternal well-being.

Aim of the Study: This study Aims to examine the relationship between antenatal anxiety and prenatal attachment, and to explore the mediating role of traumatic birth perception among pregnant women.

Methods: A descriptive and analytical study was conducted between June and December 2024 among 210 pregnant women. Data were collected using the Personal Information Form, Stirling Antenatal Anxiety Scale (SAAS), Prenatal Attachment Inventory (PAI), and Traumatic Childbirth Perception Scale (TCPS). Correlation and mediation analyses were performed, with significance set at $p < 0.05$.

Results: The mean age of participants was 28.7 ± 4.6 years; 45% had a university degree, and 35% were employed. SAAS and TCPS were moderately and positively correlated, whereas both showed moderate negative correlations with PAI ($p < 0.05$). Traumatic birth perception positively influenced anxiety and negatively affected prenatal attachment ($Y = -0.188$, $SE = 0.062$, 95% CI $[-0.312, -0.064]$, $p < 0.05$).

Conclusion: Traumatic birth perception mediates the relationship between antenatal anxiety and prenatal attachment. Early screening for anxiety and structured childbirth preparation programs may help strengthen maternal emotional health and the prenatal bond.

Development of an artificial intelligence model for predicting the etiology of venous thromboembolism

Ben Achour T, Boucherb M, Jridi M, Naceur I, Ben Ghorbel I, Smiti M, Said F

Department of Internal Medicine, Rabta Hospital, Tunis, Tunisia

Objective: Venous thromboembolism (VTE) is a complex condition with multifactorial etiologies, and identifying its underlying cause remains challenging, particularly when multiple risk factors coexist. This study Aims to develop an artificial intelligence model capable of predicting the most

probable etiology of a first episode of VTE in order to improve diagnostic accuracy and support personalized therapeutic strategies.

Methods: A retrospective study was conducted on a cohort of 161 patients diagnosed with VTE (mean age 55.03 years; 54 % male). Four machine learning algorithms: Random Forest, Support Vector Machine (SVM), eXtreme Gradient Boosting (XGBoost), and Artificial Neural Networks (ANN), were trained using 80 % of the clinico-biological dataset, following preprocessing steps including normalization, multiple imputation by chained equations (MICE), and one hot encoding. Model performance was evaluated on the remaining 20 % using accuracy, F1 micro score, and the area under the receiver operating characteristic curve (AUC ROC).

Results: Among the models tested, the ANN achieved the best predictive performance, with an accuracy of 84.2 %, an F1 micro score of 0.84, and an AUC ROC of 0.90. On an independent validation set, the model maintained high performance with an accuracy of 73.7 percent and an AUC ROC of 0.90.

Conclusion: Artificial intelligence, particularly neural networks combined with SHAP analysis, represents a promising approach for supporting the etiological diagnosis of VTE and may contribute to improved diagnostic efficiency and more targeted clinical management.

Hyperlactatemia in Diabetic Ketoacidosis: Prevalence, Metabolic Correlates, and Prognostic Implications

Hebaieb F, Naggara I, Houimli S, Yahyaoui N, Tabka A, Derbala W

University of Tunis El Manar, Faculty of Medicine of Tunis, Emergency Department, Internal Security Forces Hospital La Marsa - Tunis - Tunisia

Introduction: Unlike other clinical scenarios such as shock, myocardial infarction, or sepsis, the prognostic significance of hyperlactatemia in diabetic ketoacidosis (DKA) remains unclear. Understanding lactate elevation in DKA is essential to inform clinical management.

Aim: To evaluate the prevalence of hyperlactatemia in moderate to severe DKA and to assess its prognostic value.

Methods: This retrospective study included patients with moderate to severe DKA. Standardized management consisted of isotonic saline rehydration, intravenous insulin therapy, and potassium supplementation. Patients with alternative causes of elevated lactate were excluded. Hyperlactatemia was defined as a lactate level >2 mmol/L in arterial blood. Comparative analysis was performed between patients with lactate >2 mmol/L (Lact+) and ≤ 2 mmol/L (Lact-).

Results: Seventy patients were included (mean age 35.5 ± 17 years; 57% male). Type 1 diabetes accounted for 55.7% of cases, type 2 for 34.3%, and newly diagnosed diabetes for 13.2%. Lactate was elevated in 47.5% of patients. Compared to Lact- patients, Lact+ patients had higher blood glucose, creatinine, osmolarity, and anion gap, but similar blood pressure, pH, and bicarbonate levels. Hyperlactatemia was more frequent in type 1 diabetics and insulin-dependent patients. No significant association was observed between hyperlactatemia and duration of intensive therapy or mortality.

Conclusion: In DKA, hyperlactatemia occurs in the absence of hypotension or severe acidemia and is linked to metabolic derangements rather than tissue hypoxia. It does not predict hospitalization duration or mortality, suggesting that lactate elevation in DKA is primarily a marker of impaired carbohydrate metabolism.

Endoscopic Biliary Drainage of Pancreatic Tumors by ERCP: Experience from a Tunisian Center

Louati C, Medhioub M, Yakoubi M, Gharbi G, Khsiba A, Hamzaoui L

Service de gastro-entérologie Hôpital Taher Maamouri

Introduction: The incidence of pancreatic tumors is rising, with a poor 5-year survival rate of only 11%. Most cases are diagnosed at an advanced stage, particularly in cephalic or isthmic locations, causing biliary obstruction responsible for jaundice, cholangitis, or severe pruritus. Endoscopic biliary drainage by ERCP remains the standard approach, especially before chemotherapy or surgery.

Objective: To assess the efficacy, safety, and factors associated with technical difficulty of ERCP-guided biliary drainage in pancreatic tumors.

Methods: We conducted a retrospective study including all patients undergoing ERCP for pancreatic tumor-related biliary obstruction in the Gastroenterology Department of Mohamed Taher Maamouri Hospital between 2022 and 2025. Difficult cannulation (ESGE definition) was defined by >5 minutes of cannulation time, >5 papillary contacts, or accidental pancreatic duct cannulation.

Results: Forty-four patients were included (mean age 66.8 years; 63% male). Tumors were mainly cephalic (88%) with a mean size of 39.4 mm. Main indications were pre-chemotherapy (27.3%), preoperative drainage before cephalic duodenopancreatectomy with bilirubin >150 $\mu\text{mol/L}$ (22.7%), and acute cholangitis (27.3%). Biliary cannulation succeeded in all patients; however, 40% had difficult cannulation, significantly associated with tumor size ≥ 45 mm and papillary infiltration ($p = 0.03$ and 0.042). Infundibulotomy was required in 38% of cases. Plastic stents (10 Fr, 7 cm) were placed successfully in all patients. Procedure-related complications occurred in 11.4% (two bleedings, two cholangitis, one moderate pancreatitis).

Conclusion: ERCP is an effective and safe technique for biliary drainage in pancreatic cancer-related jaundice. Tumor size and papillary involvement predict technical difficulty.

Tolerance and Adverse Effects of Methotrexate in a Tunisian Cohort with Chronic Inflammatory Diseases

Hajjaoui A¹, Laabidi S¹, Abbes M², Tabka M³, Ben Achour T⁴, Fekih M¹

1. Service de gastroentérologie La Rabta «A», Tunis, Tunisie
2. Service de rhumatologie La Rabta, Tunis, Tunisie
3. Service de dermatologie La Rabta, Tunis, Tunisie
4. Service de médecine interne La Rabta, Tunis, Tunisie

Introduction: Methotrexate (MTX) is a cornerstone in the management of chronic inflammatory diseases. Nevertheless, its adverse effects are common and may be influenced by several factors. This study aimed to evaluate MTX tolerance, identify the most frequent adverse effects, and determine associated predictive factors.

Methods: A cross-sectional, monocentric study was conducted at La Rabta Hospital between July and September 2024. Patients treated with MTX for at least six months for rheumatoid arthritis, psoriasis, Crohn's disease, connective tissue diseases, sarcoidosis, or vasculitis were included. MTX intolerance was assessed using the Methotrexate Intolerance Severity Score (MISS), with a score ≥ 6 defining intolerance. Adverse effects were systematically searched according to those described in the Vidal.

Results: A total of 160 patients were included (mean age 53.8 years; 67% female). Main indications were rheumatoid

arthritis(45%), psoriasis(19%), and Crohn's disease(11%). The median treatment duration was 38 months, with a mean weekly dose of 14.8mg and cumulative dose 2340mg. MTX was administered orally(87.5%) or subcutaneously(22.5%). Combination therapy was frequent(71.3%), mainly with corticosteroids(45%). The mean MISS score was 5.2. Poor tolerance correlated significantly with the occurrence of adverse effects ($p < 0.001$) and concomitant medication use ($p = 0.03$). Adverse effects occurred in 119 patients, predominantly digestive (epigastric pain 37.5%, nausea/vomiting 11.9%) and hepatic(12.5%). Digestive effects were linked to doses $> 15\text{mg/week}$ ($p = 0.03$) and coffee > 3 cups/day ($p = 0.04$), while hepatic abnormalities were associated with alcohol use, metabolic comorbidities ($p = 0.002$), and cumulative dose $> 3\text{g}$ ($p < 0.001$). Daily folic acid supplementation was protective ($p = 0.04$).

Conclusion: MTX was generally well tolerated. Digestive and hepatic adverse effects were most frequent but largely reversible. Poor tolerance was associated with concomitant medications and metabolic comorbidities, underscoring the importance of regular monitoring and optimized folate supplementation.

Postpartum Post-Traumatic Stress Disorder Following Childbirth: Prevalence and Risk Factors

Sabkha NH, Laabidi S, Somri B, Ben Saidane S, Bouguerra B

Hopital Charles Nicole G26

Introduction: Childbirth can be experienced as a traumatic event, and some women develop postpartum post-traumatic stress disorder (PTSD), affecting maternal well-being, partner relationships, infant care, and future pregnancies. Despite its impact, postpartum PTSD remains under-recognized.

Objective: To determine the prevalence of postpartum PTSD and identify associated risk factors at 8 weeks after delivery.

Methods: A descriptive study was conducted among 30 postpartum women at Department B of Gynecology, HCN. Participants were contacted two months after delivery and assessed for PTSD using the City Birth Trauma Scale. Sociodemographic and obstetric data were collected.

Results: The mean age was 31 ± 5.5 years; 70% were primiparous. Obstetric history included miscarriage (13.33%), voluntary termination of pregnancy (6.66%), and therapeutic abortion (3.33%). Vaginal delivery occurred in 60% of cases, and 33.33% of women reported labor as very long. Postpartum PTSD prevalence was 16.66%. Significant risk factors included prior therapeutic abortion, history of neonatal death, exposure to intimate partner violence during pregnancy, and perception of labor as prolonged and difficult. Parity, mode of delivery, and obstetric interventions were not associated with PTSD.

Conclusion: Postpartum PTSD affects a substantial proportion of women. Subjective experiences of labor and prior psychological trauma are key risk factors. Early identification and systematic postpartum screening are essential to provide timely support and interventions, improving maternal mental health outcomes.

Pure forms versus overlap syndromes in autoimmune hepatitis: A retrospective comparative analysis of 59 cases

Krifa N, Hassine H, Dabbebi H, Cherif D, Kchir H, Maamouri N

University Of Tunis El Manar, Faculty Of Medicine Of Tunis, La Rabta University Hospital, gastroenterology Department B, Tunis, Tunisia

Introduction: Autoimmune hepatitis (AIH) is a chronic immune-

mediated liver disease that may occur alone or coexist with cholestatic autoimmune disorders such as primary biliary cholangitis (PBC) and primary sclerosing cholangitis (PSC), forming overlap syndromes (OS). These mixed forms pose diagnostic and therapeutic challenges and may represent a more aggressive phenotype.

Aim: To compare clinical, biochemical, histological, and therapeutic response characteristics between patients with pure AIH and those with OS.

Methods: This retrospective single-center study included AIH patients followed between 2010 and 2025. Based on immunologic and histologic criteria, patients were classified as pure AIH or OS (AIH-PBC, AIH-PSC, AIH-PBC-PSC). Clinical, biochemical, histologic (METAVIR), elastographic (FibroScan®), and outcome data were analyzed using appropriate statistical tests, with significance set at $p < 0.05$.

Results: Fifty-nine patients were included (mean age 50.9 years; 81 % female). Twenty-five (43.1%) had pure AIH, while 34 (56.9%) had OS, mainly AIH-PBC (81.8%). OS patients had significantly higher alkaline phosphatase (379.5 ± 272.4 U/L vs 225.3 ± 161.4 U/L; $p = 0.01$) and GGT (329.5 ± 309.6 U/L vs 180.4 ± 202.3 U/L; $p = 0.02$). Advanced fibrosis (F3-F4) was comparable (78.6 % vs 70 %, $p = 0.68$). Complete response at 12 months was higher in pure AIH (88% vs 57.1 %, $p = 0.012$). Cirrhosis-related complications were more frequent in OS (39.4 % vs 16 %, $p = 0.07$).

Conclusion: Overlap syndromes show a less favorable therapeutic response despite similar fibrosis severity. Early differentiation between pure AIH and OS is crucial for individualized management and better prognosis.

Infectious Complications Associated with Anti-TNF Alpha Therapy in Patients with Inflammatory Bowel Disease

Yacoub H, Mannai MC, Monastiri S, Hassine H, Debbabi H, Maamouri N

University of Tunis El Manar, Faculty of Medicine of Tunis, Gastroenterology Department B, La Rabta Hospital, Tunis, Tunisia

Introduction: Inflammatory bowel diseases (IBD) are commonly treated with immunosuppressive agents, such as azathioprine, and immunomodulators, including anti-TNF alpha therapies. Despite their efficacy, these treatments increase the risk of opportunistic infections, particularly tuberculosis reactivation.

Aim: To describe infectious complications associated with anti-TNF alpha therapy in patients with IBD.

Methods: A two-year retrospective descriptive study (January 2023–January 2025) included all patients with Crohn's disease (CD) or ulcerative colitis (UC) treated with anti-TNF alpha agents. Clinical, endoscopic, and follow-up data were collected. Infectious complications were confirmed using radiologic, histologic, bacteriologic, or virologic criteria. Therapeutic management was also analyzed.

Results: Sixty-nine patients were included (mean age 32.3 years [16–58], sex ratio M/F = 1.43); 87.2% had CD and 12.8% UC. Main indications for anti-TNF alpha therapy were complex perianal fistulas ($n = 30$), azathioprine failure ($n = 10$), extensive ileal CD (> 50 cm) ($n = 15$), and steroid resistance ($n = 10$). Mean treatment duration was 30.4 months; 55 patients received infliximab, 14 adalimumab, and 92.3% received combination therapy with azathioprine. Major infections included pulmonary tuberculosis reactivation in four patients, three of whom had initially negative screening. All improved after anti-TNF discontinuation and anti-tuberculosis therapy. Seven bacterial infections (respiratory $n = 4$, urinary $n = 3$) resolved with antibiotics. No clinical or biological predictor was identified.

Conclusion: Tuberculosis reactivation and bacterial infections remain the main infectious complications in IBD patients.

on anti-TNF alpha therapy, highlighting the need for vigilant monitoring and careful management.

Prognostic Value of Lactate in Acute Pulmonary Edema

Ben Slimen NE, Zariat S, Jerbi S, Jalleli J, Bounatirou C, Ben Slimene L.

University Tunis El Manar, faculty Of Medicine Of Tunis, Mohamed Taher Maamouri Hospital, Emergency Department, Nabeul, Tunisia

Introduction: Lactate is widely recognized as a prognostic biomarker in critical illnesses associated with cellular hypoxia. Acute pulmonary edema (APE) represents a frequent cause of tissue oxygen debt, often leading to severe outcomes if not rapidly managed.

Aim: To assess the prognostic significance of serum lactate levels in patients admitted to the emergency department with APE.

Methods: This prospective, single-center study was conducted over six months (June–December 2022) and included all patients admitted for APE. Epidemiological, clinical, laboratory, and outcome data were collected. Receiver operating characteristic (ROC) curve analysis was performed to identify the optimal lactate threshold at admission for predicting in-hospital mortality.

Results: Among 100 eligible patients, 77 were included after excluding those without lactate measurement. The most frequent presenting symptoms were dyspnea (80%), altered mental status (9%), and chest pain (4%). Mean arterial pressure was 122 ± 12 mmHg, and mean oxygen saturation was $88 \pm 4\%$. Lesional APE accounted for 60% of cases, while cardiogenic APE represented 40%. The mean lactate concentration was 1.8 ± 0.5 mmol/L. A cutoff value of 3.1 mmol/L predicted in-hospital mortality with an AUC of 0.800 ($p = 0.01$; 95% CI [0.619–0.982]), sensitivity of 71%, and specificity of 76%.

Conclusion: Admission lactate levels above 3 mmol/L constitute a strong independent predictor of in-hospital mortality in patients with acute pulmonary edema, emphasizing its value as a rapid and reliable prognostic tool in emergency settings.

Factors Influencing Healthcare Professionals' Attitudes Toward Tobacco Use

Kooli J¹, Miladi A², Bouzgarou L³

1. Healthcare Department, Ksar Hellal Regional Hospital;
2. Monastir Health District;
3. Occupational Medicine Department, Ksar Hellal Regional Hospital

Introduction: Beyond its impact on health, tobacco use imposes a substantial economic burden at both global and national levels. Healthcare professionals (HCPs) play a pivotal role in tobacco-control strategies.

Aim: To assess healthcare professionals' attitudes toward tobacco-control measures and to identify its determinants.

Methods: A cross-sectional survey was conducted among first- and second-line HCPs working in Ksar Hellal, Moknine, and Teboulba. Data were collected, from June to December 2022, by an anonymous self-administered questionnaire.

Results: Among the 714 participants, 9.2% revealed adequate attitudes across all items. According to multivariate analysis, medical staff, individuals with more than 15 years of professional experience, and non-smokers expressed the highest levels of discomfort and opposition to tobacco smoke (OR = 2.314; 95% CI [1.625–3.294], OR = 1.969; 95% CI [1.400–2.769], and OR = 3.711; 95% CI [2.136–6.447], respectively). Medical personnel and participants older than 30 years were more supportive of strict enforcement of tobacco-control legislation (OR = 1.824;

95% CI [1.164–2.859] and OR = 1.590; 95% CI [1.037–2.438], respectively). Individuals older than 30 years and paramedical staff showed the most favorable attitudes toward tobacco-control posters (OR = 2.093; 95% CI [1.484–2.954] and OR = 1.812; 95% CI [1.289–2.549], respectively). Men were more likely to support the establishment of designated smoking areas in healthcare facilities (OR = 2.107; 95% CI [1.233–3.600]).

Conclusion: There is a pressing need to foster improved attitudes among HCPs through strengthened initial and continuous training, targeted awareness programs, and the promotion of professional role-modeling.

Factors Influencing Healthcare Professionals' Knowledge Regarding Tobacco Use

Miladi A¹, Kooli J², Bouzgarou L³

1. Monastir Health District;
2. Nursing Department, Ksar Hellal Regional Hospital;
3. Occupational Medicine Department, Ksar Hellal Regional Hospital

Introduction: Tobacco control, one of the World Health Organization's key public health priorities, relies heavily on the involvement of healthcare professionals (HCPs).

Aim: To describe the level of knowledge of HCPs regarding tobacco use and to identify sociodemographic and professional factors associated with this knowledge.

Methods: A cross-sectional "Knowledge, Attitudes and Practices" survey was conducted from June to December 2022 among HCPs working in public hospitals in the districts of Ksar Hellal, Moknine and Teboulba.

Results: A total of 714 questionnaires were returned. "Adequate" knowledge across all tobacco-related items was observed in 1.2% of participants. According to multivariate analysis, medical staff demonstrated more adequate knowledge than paramedical staff. Smokers showed better awareness of smoking-cessation clinics (OR = 2.898; 95% CI [1.684–4.988]) and nicotine replacement therapies (OR = 3.339; 95% CI [1.996–5.586]). Men were more informed about anti-tobacco campaigns (OR = 2.143; 95% CI [1.332–3.447]). Women had better knowledge of the health effects of smoking (OR = 1.858; 95% CI [1.031–3.349]). HCPs older than 30 years were more familiar with tobacco-control legislation (OR = 1.826; 95% CI [1.262–2.642]).

Conclusion: Fulfilling the role of HCPs as educators, health promoters, and active contributors to tobacco control can only be achieved through the implementation of a targeted training program for these professionals.

Psychosocial Risk Factors and Determinants of Work-Related Stress Among Workers

Ben Afia L, Harrathi C, Brahem A, K. Belhaj M*, Elmalel O**, Bouzgarrou L

Occupational Medicine and Occupational Pathology Department, Haj Ali Soua Regional Hospital, Ksar Hellal–Monastir, Tunisia

*Sousse Occupational Medicine Group (GMTS), Sousse, Tunisia

**Occupational Medicine Department, Farhat Hached Hospital, Sousse, Tunisia

Introduction: Mental health at work is a major public health concern.

Aims: To assess psychosocial risks and their determinants among workers in the Sousse governorate.

Methodology: A representative sample of the study population ($n = 42,737$ from 420 companies covered by the Occupational Medicine Group of Sousse) was constructed and investigated through an individual interview using the Siegrist questionnaire.

Results: Among the 1,878 participants, the sex ratio was 0.77 and the average age 35.07 ± 9.06 years. Private and small-medium-sized companies respectively employed 99.2% and 23.1% of workers. The mean sub-score of effort was 14.39 ± 4.59 , of reward 19.86 ± 6.09 , and of overcommitment 14.35 ± 2.71 . According Siegrist model, effort-reward imbalance was observed in 13.7% of cases. Higher risk of work-related stress was associated with female gender ($p = 0.001$), urban origin ($p < 10^{-3}$), having dependent children ($p = 0.012$), fewer opportunities to meet extended family ($p = 0.002$) and/or friends ($p < 10^{-3}$), lack of leisure activities ($p < 10^{-3}$), and prolonged screen time ($p = 0.002$). According to multivariate analyses, effort-reward imbalance was associated with younger age (OR = 0.968; 95% CI = 0.945–0.991), vocational training (OR = 1.709; 95% CI = 1.098–2.661), and contact with customers (OR = 1.006; 95% CI = 1.000–1.012). Good sleep quality (OR = 0.714; 95% CI = 0.635–0.803) was a protective factor.

Conclusion: These findings highlight the need for targeted interventions promoting healthier work environments and reinforcing protective personal and organizational factors.

Association Between Maternal Vitamin D Deficiency and Risk of Preterm Premature Rupture of Membranes (PPROM): A Case-Control Study in Northern Tunisia

Nayet Mohamed K, Hammami MA, Azzaz S, Debbiche A, Hasni Y, Youssef A

Department A, Tunis Maternity Center, Tunis, Tunisia

PPROM is a leading cause of preterm birth in Tunisia, yet modifiable biological factors remain understudied. Vitamin D deficiency is common among Tunisian women and may weaken fetal membranes through impaired collagen regulation. This study evaluates the association between maternal vitamin D levels and PPRM. We conducted a case-control study at a regional maternity hospital. Cases included pregnant women admitted with PPRM between 24–34 weeks. Controls were healthy pregnant women matched for gestational age. Serum 25-hydroxyvitamin D levels were measured on admission. Vitamin D deficiency was defined as <20 ng/mL. Obstetric outcomes were compared between groups. A total of 160 participants were included (80 PPRM cases and 80 controls). Vitamin D deficiency was significantly more prevalent among PPRM cases (78% vs. 49%, $p < 0.001$). Mean vitamin D level was 14.2 ng/mL in cases and 22.5 ng/mL in controls. Severe deficiency (<10 ng/mL) increased the risk of PPRM by 3.4-fold (OR 3.4; 95% CI 1.6–7.1). After adjustment for BMI, infection markers, and smoking, vitamin D deficiency remained an independent risk factor (adjusted OR 2.8; $p = 0.004$). Neonatal outcomes in PPRM were significantly worse, with higher rates of respiratory distress and NICU admission. Maternal vitamin D deficiency is strongly associated with increased risk of PPRM in Tunisian women. Screening and supplementation strategies during pregnancy may help reduce PPRM incidence and related neonatal morbidity.

Association Between Infertility History and Ovarian Cancer Risk in Pre-menopausal Patients: A Case-Control Study

Arfaoui B, Slama F, Frikha H, Dhaoui S, Hammami R, Aloui H, Chenoufi B

Maternity and neonatology center of Tunis, Department C

Introduction: The relationship between infertility, its treatments, and the risk of ovarian cancer remains complex, particularly in pre-menopausal women. Understanding this

association is crucial for patient counseling and risk stratification in younger populations.

Aim: To investigate the association between a personal history of infertility and its treatments (e.g., ovulation-inducing drugs) and the subsequent risk of developing primary ovarian cancer in women under 50.

Methods: A retrospective case-control study was conducted at the Center for Maternity and Neonatology of Tunis. Cases included 42 pre-menopausal patients (<50 years) diagnosed with primary ovarian cancer (2017–2024). Controls included 84 age-matched women without ovarian cancer admitted for benign conditions (1:2 ratio). Data on reproductive history, infertility diagnosis, endometriosis, PCOS, and fertility treatments were collected. Odds ratios (OR) and 95% confidence intervals (CI) were calculated.

Results: Infertility history (>1 year attempted conception) was reported in 31.0% (13/42) of cases versus 14.3% (12/84) of controls, conferring a significant risk association (Adjusted OR = 2.6; 95% CI: 1.2–5.7).

Nulliparity was a strong independent risk factor (OR = 3.1). No significant association was found for ovulation-inducing drug use after adjusting for infertility (OR = 1.4; 95% CI: 0.5–3.9).

Conclusion: Infertility itself appears to be a significant risk factor for ovarian cancer in our pre-menopausal population, more so than fertility treatments. This suggests the underlying pathology of infertility (e.g., nulliparity, endometriosis) may play a primary role in carcinogenesis.

Prognostic Significance of the Lymph Node Ratio in Gastric Adenocarcinoma: A Single-Center Experience

Mesbahi M, Cherif M, Mahmoudi W, Khedhiri N, Zaafouri H, Hadded D

Department of surgery, Habib Thameur Hospital, Medicine University Of Tunis

Introduction: The lymph node ratio (LNR), defined as the ratio of metastatic to examined lymph nodes, has been suggested as a reliable prognostic indicator in gastric cancer.

Aim: This study aimed to evaluate the prognostic value of LNR in patients who underwent curative gastrectomy for gastric adenocarcinoma.

Methods: A retrospective study was conducted including 150 patients operated on for gastric adenocarcinoma at Habib Thameur Hospital between January 2005 and June 2019. Demographic, clinical, surgical, and pathological data were analyzed. Survival curves were generated using the Kaplan-Meier method, and prognostic factors were assessed by univariate and multivariate Cox regression analysis.

Results: The mean age was 59 years, with a male-to-female ratio of 1.6. The mean number of examined lymph nodes was 22 (6 positive on average). Patients were classified as LNRO (32%), LNR1 (24%), LNR2 (21%), and LNR3 (23%). Increasing LNR correlated with significantly lower overall and disease-free survival ($p < 0.001$). In multivariate analysis, a high LNR (> 0.25) was an independent prognostic factor for overall survival (HR = 3.4; 95% CI: 1.8–6.1; $p = 0.002$) and recurrence (HR = 2.9; 95% CI: 1.5–5.3; $p = 0.004$).

Conclusion: The lymph node ratio is a strong, independent predictor of both survival and recurrence after curative gastrectomy. Routine reporting of LNR may enhance postoperative risk stratification and help tailor adjuvant treatment strategies.

When muscle turns fatty: the prognostic significance of myosteatosi s in colorectal cancer

Khemiri W, Ayari M, Ben Azouz S, Chehaider A, Douggui H, Jomni T

Gastroenterology department, FSI Hospital, La Marsa, Tunisia

Background: Myosteatosi s, defined by pathological fat infiltration within skeletal muscle, represents a pathophysiological hallmark of metabolic dysregulation. Emerging evidence links this condition to adverse clinical outcomes across several malignancies.

Aim: To investigate the prognostic value of pretherapeutic myosteatosi s in Tunisian patients with colorectal cancer (CRC).

Methods: A retrospective study including patients diagnosed with CRC between 2014 and 2022 was conducted. Muscle density was measured as the mean Hounsfield unit (HU) of the cross-sectional area of the left and right psoas muscles at the third lumbar vertebra level on the pretherapeutic abdominopelvic CT-scan. Myosteatosi s was defined as HU < 41 for patients with a body mass index (BMI) < 25 kg/m², and HU < 33 for patients with BMI ≥ 25 kg/m². The Kaplan-Meier method was used to evaluate the impact of myosteatosi s on overall survival.

Results: Seventy-eight patients were included, with a mean age of 60.6±12.7 years and a sex ratio (M/F) of 1.89. The mean psoas muscle density was 34 ± 9.6 HU (range 14.1–53.2). Myosteatosi s was diagnosed in 52% of patients (n=40) and was statistically associated with older age (p<0.001), female gender (p=0.01), lymphopenia (p=0.01), elevated platelet-to-lymphocyte ratio (p=0.003), and elevated carbohydrate antigen 19-9 levels (p=0.005). In multivariate analysis, female gender (OR=12.44; 95%CI [2.56–60.29]; p=0.008) was an independent factor associated with myosteatosi s. Overall survival was significantly reduced in patients with myosteatosi s (56 months vs. 89 months; log-rank p=0.008). Survival analysis showed that myosteatosi s was an independent predictor of mortality (OR=5.7; 95%CI [1.3–23.54]; p=0.01).

Conclusion: Pretherapeutic myosteatosi s is common in colorectal cancer and independently predicts poorer overall survival, particularly in women, underscoring its potential as a prognostic imaging marker to enhance risk stratification and personalized management.

Musculoskeletal disorders in the textile manufacturing sector and medical fitness for work

Ayed W, Bani M, Brahim D, Bahri G, Chemingui S, Ladhari N

University Tunis Al Manar, Occupational Medicine Department, Charles Nicolle Hospital, Tunis, Tunisia

Introduction: Musculoskeletal disorders (MSDs) are a major health concern in the textile manufacturing sector, where repetitive and physically demanding tasks expose workers to prolonged strain.

Aims: To describe the socio-professional characteristics of textile workers with MSDs and assess the impact on fitness for work.

Methods: A retrospective descriptive study was conducted on patients with MSDs who consulted the Occupational Pathology and Fitness for Work Department between January 2016 and December 2023.

Results: Eighty-three patients were included, with a mean age of 45 ± 5.7 years; 95.1% were women, and 45% were obese. The main occupations were machine stitchers (74%), multi-skilled workers (12%), line managers (5%), and machine operators (5%), with an average service length of 20 ± 8.9 years.

Upper limb MSDs included carpal tunnel syndrome (38%), cervicobrachial neuralgia (28%), shoulder tendinopathy (28%), finger tenosynovitis (6%), and epicondylitis (4%). Lower limb MSDs included chronic low back pain (40%), knee pain (6%), and Achilles tendinitis (2%). Ergonomic workstation adaptation was recommended in 36% of cases. Medico-legal recognition of occupational disease was made in 46 patients (56%): carpal tunnel syndrome (61%), shoulder tendinopathy (37%), epicondylitis (7%), and tenosynovitis (11%). Recommendations included avoiding overuse of upper limbs (63%), prolonged standing/sitting (26%), and lifting heavy loads (24%).

Conclusion: The textile manufacturing sector is a significant source of MSDs. Occupational physicians play a key role in primary prevention and in guiding work fitness adjustments to reduce the burden of MSDs among workers.

Psychological Experience of Tunisian Women Following an Unsuccessful Assisted Reproductive Technology Attempt

Hammami MA ; Debbiche A ; Grami N ; Nait Med K ; Azzaz S ; Atef Y

Université Tunis Manar, Faculté de Médecine de Tunis, Centre de Maternité et de Néonatalogie, Service A, Tunis, Tunisia

Introduction: While research often focuses on women's experiences during assisted reproductive technology (ART), the critical period following treatment failure remains poorly explored, particularly in the Tunisian context where social pressure and religious fatalism are prominent.

Aims: This study aims to explore the psychological experience and coping strategies of Tunisian women in the immediate aftermath of a failed ART attempt.

Methods: This study included 20 women interviewed 2 to 8 weeks after a failed IVF/ICSI attempt.

In-depth semi-structured interviews were conducted and analyzed using thematic analysis approach.

Results: The analysis highlights that treatment failure constitutes a unique psychological ordeal, characterized by three major dimensions:

1/Double Suffering: The oscillation between hope and exhaustion evolves into an acute grief for the hoped-for child, accompanied by a profound questioning of the emotional and financial investment committed to treatment ("All of this for nothing").

2/Perceived Abandonment: The loneliness experienced during treatment intensifies after failure, transforming into a sense of abandonment by relatives who seem to "move on" more quickly than the patient herself.

3/The Search for Meaning as a New Battleground: Meaning-making becomes central, as women navigate between a medical explanation ("it's biological") and a fatalistic interpretation ("it was meant to be"), a conflict that directly influences their willingness to attempt treatment again.

Conclusion: This study demonstrates that ART failure is not simply an endpoint but a critical and underexplored psychological phase. Our findings support the need for systematic post-failure psychological support in Tunisia, designed to help women navigate grief, loneliness, and existential questioning.

Acute rheumatic fever in Pediatrics : Persistence and cardiac burden in the modern Era

Marzouk I. Zmantar I., Hadj Salem R., Sfar E., Chouchane C., Chouchane S.

Department of Pediatrics, Fattouma Bourguiba University Hospital Monastir, Tunisia

Introduction : Acute rheumatic fever (ARF) remains a preventable cause of morbidity among children in low and middle-income countries. It continues to pose a public health concern in intermediate-risk countries such as Tunisia. The severity of ARF lies in its cardiac involvement, a leading cause of acquired heart disease in children.

Aim : To describe the clinical, paraclinical, and evolutionary characteristics of ARF in children and to assess the frequency and severity of cardiac involvement.

Methods : We conducted a six-year longitudinal descriptive study from January 2020 to August 2025, including all children hospitalized for ARF in the Department of Pediatrics, Fattouma Bourguiba Hospital, Monastir.

Results : Twenty-two patients were included. The mean age was 10.4 years (5–14), with a male predominance (77%). A recent sore throat or infection was reported in 45%. The main admission reason was polyarthralgia. Symptoms preceded hospitalization by mean of 7 days. Fever was present in 54%. Polyarthritides occurred in 81% and arthralgia in 95%, predominantly affecting knees (53%), ankles (35%) and elbows (18%), with an average of three joints; all had migratory arthritis. Clinical carditis occurred in 27% with subclinical involvement in 9%. Valvular lesions observed included mitral and aortic regurgitation (27.3%; 18.2%). Only one patient developed heart failure requiring valvular replacement.

Inflammation markers were high (mean CRP = 87 mg/L, ESR = 99 mm/h). All patients received antibiotics and anti-inflammatories. Secondary benzathine penicillin prophylaxis was initiated in all.

Conclusion : Early recognition of ARF is essential to prevent the development of irreversible rheumatic heart disease.

Monocentric experience with surgical presentations of Meckel's diverticulum in adults

Ben Jabra S¹, Chaouch MA¹, Zayati M¹, Taj M², Gaied S², Ibtissem K¹, Noomen F¹

1. Department of General Surgery, Fattouma Bourguiba University Hospital, Monastir

2. Department of Radiology, Fattouma Bourguiba University Hospital, Monastir

Introduction: Meckel's diverticulum (MD) is the most common congenital anomaly of the gastrointestinal tract, resulting from persistence of the omphalomesenteric duct. It is located on the anti-mesenteric border of the small intestine near the end of the superior mesenteric artery. Although often asymptomatic, it can lead to serious, life-threatening complications. Historically seen mostly in children, complicated cases are now increasingly recognized in adults. This study aimed to describe the clinical, radiological, and therapeutic features of complicated Meckel's diverticulum in adults.

Methods: We carried out a retrospective study in the general surgery department of CHU Fattouma Bourguiba over a period of 12 years (January 2010 – December 2022).

Results: We have reported 15 cases of complicated MD aged from 18 years to 77 years (average age of 48.93). The majority of MD complications observed in our study were eight small bowel obstructions and six Meckel's diverticulitis. Abdominal X-ray was performed in six patients, and ultrasound was performed in three patients, showing no case of MD. Abdominal CT showed Meckel's diverticulitis in two cases, and injected abdominal CT scan showed active ileal bleeding in one case. The treatment is based on surgery; all of the patients underwent a laparotomy. The anatomopathological study revealed four cases of ectopic gastric mucosa. Mortality was observed at 6.6%.

Conclusion: This study highlights the challenges in diagnosing

and managing complicated MD in adults and underscores the need for further research with larger cohorts to better understand this clinical entity.

Methotrexate prescription in psoriatic arthritis: Degree of adherence to guidelines

Mhamdi S, Miladi S, Makhoul Y, Fazaa A, Ben Abdelghani K, Laatar A

Tunis El Manar University, Faculty Of Medicine Of Tunis, Mongi Slim Hospital, Rheumatology Department, Tunis, Tunisia

Introduction: Methotrexate (MTX) is often used to treat psoriatic arthritis (PsA), but not always prescribed according to guidelines.

Aim: To evaluate the conformity of MTX prescription in PsA to the most recent published guidelines: the European League Against Rheumatism (EULAR) 2023 recommendations.

Methods: A retrospective study was conducted. We collected demographics, clinical and paraclinical data, as well as MTX initiation delay, initial and maintenance doses, treatment duration, and reasons for discontinuation. Conformity to EULAR recommendations was assessed based on appropriate dosing (initial and escalated).

Results: Twenty-two patients were included, with a female/male ratio of 15/7. The mean age was 50 ± 16 years [22–76]. The mean disease duration was 7 ± 5 years [0.3–20]. Peripheral form was observed in 73% of patients; and 59% of patients had skin involvement. MTX had been used in 95% of patients and was ongoing in 34% at the time of the study. The mean delay to MTX initiation was 12 ± 19 months [0–132]. The mean initial dose was 14 ± 3 mg/week [10–20], and the mean maintenance dose was 19 ± 3 mg/week [10–25]. The mean treatment duration was 5 ± 3 years [0.5–10]. MTX discontinuation was due to gastrointestinal intolerance (18%), primary inefficacy (27%), secondary loss of response (46%), and loss to follow-up (9%). Adherence to EULAR recommendations was 79% for the initial dose and 70% for the maintenance dose.

Conclusion: Most MTX prescriptions in this PsA cohort followed the recommended initial and maintenance doses according to EULAR 2023 guidelines.

Impact of Maternal Obesity on Labor Progression: Experience from 85 Tunisian Cases

Taamallah M, Khalfaoui A, Ben Masoud N, Salah H, Mrazguia C

Service de gynécologie-obstétrique, Hôpital régional de Nabeul

Introduction: In our maternity unit, the proportion of obese patients has markedly increased over recent years, rising from 8% in 2018 to nearly 22% today. Clinical observations have suggested that obesity may influence labor progression and delivery outcomes, but objective data in Tunisian women remain limited.

Aim: To evaluate the impact of maternal obesity on labor progression and associated complications in a Tunisian obstetric population.

Methods: We conducted a 6-month retrospective study including 85 women who delivered at term. Participants were divided into two groups according to pre-pregnancy body mass index (BMI): Group 1, BMI < 30 kg/m² (n = 50); and Group 2, BMI ≥ 30 kg/m² (n = 35). We compared labor duration, mode of delivery, blood loss, and infectious complications.

Results: The mean labor duration was longer among obese women (7.8 h vs. 5.9 h; p = 0.02). Cesarean delivery during labor occurred in 45% of obese patients. Hemorrhagic complications

were more frequent in the obese group (20% vs. 8%; $p = 0.04$), as were wound infections (14% vs. 4%; $p = 0.03$).

Conclusion: Maternal obesity is associated with prolonged labor and an increased risk of hemorrhagic and infectious complications. These findings highlight the need for intensified intrapartum monitoring and dedicated preconception counseling for obese women.

Intelligence artificielle dans la chirurgie du pied : prédiction des résultats fonctionnels après correction d'hallux valgus

Kamoun C, Iheb C, Chine O, Seddik A, Benammou A, Bellil M, Ben Salah M

Service de chirurgie orthopédique et traumatologique Charles Nicolle Tunis

Introduction : L'hallux valgus est une déformation fréquente de l'avant-pied, responsable de douleurs et de gêne fonctionnelle. Les résultats chirurgicaux restent variables, et leur prédiction constitue un défi.

L'intelligence artificielle (IA) permet d'intégrer facteurs cliniques et radiologiques pour une prise en charge personnalisée. Cette étude vise à développer un modèle prédictif des résultats fonctionnels après chirurgie.

Méthodes : Étude rétrospective monocentrique incluant 70 patients opérés entre 2020 et 2025.

Données : démographiques, cliniques (AOFAS, EVA) et radiographiques (angles HVA, IMA, DDMA), suivi à 6 mois. Sept algorithmes de Machine Learning ont été comparés (Random Forest, CatBoost, Logistic Regression, XGBoost, LightGBM, SVM, Neural Networks). La performance a été évaluée par validation croisée K-fold (AUC, précision, sensibilité, spécificité, VPP, VPN). Les variables prédictives majeures ont été identifiées via SHAP. Résultats : Score AOFAS moyen : $56,2 \rightarrow 89,1$ à 6 mois. XGBoost a montré la meilleure performance: $r = 0,1$, RMSE = 5,9 points, AUC élevée pour AOFAS ≥ 85 . Variables prédictives principales : angle inter-métatarsien, douleur préopératoire et âge. Supérieur à la régression linéaire multiple ($r = 0,72$; AUC = 0,79). Validation externe sur 20 patients : AUC = 0,89.

Conclusion : L'IA prédit efficacement les résultats fonctionnels après chirurgie d'hallux valgus et constitue un outil prometteur pour la sélection des patients, la planification chirurgicale et l'information préopératoire personnalisée.

Metformin versus Insulin for Pharmacological Management of Gestational Diabetes (GDM): A Comparative Study of Maternal and Neonatal Outcomes

Arfaoui B, Slama F, Frikha H, Dhaoui S, Hammami R, Aloui H, Chenoufi B

Maternity and neonatology center of Tunis , Department C

Introduction: Gestational Diabetes Mellitus (GDM) requires strict glycemic control to prevent adverse outcomes. While insulin is standard treatment, metformin is an increasingly used oral alternative. Comparisons of their efficacy and safety in the Tunisian population are limited.

Aim: To compare the efficacy and safety of metformin versus insulin in achieving glycemic control and to assess associated maternal (e.g., C-section rate) and neonatal (e.g., macrosomia) outcomes in GDM patients.

Methods: A retrospective comparative study included women with GDM requiring pharmacological treatment at Service C (CMNT) from 2019-2024. Patients were divided into a metformin group ($n=75$) and an insulin group ($n=68$). Primary

outcomes were glycemic control and rates of maternal/neonatal complications.

Results: 143 patients were included. In the metformin group, 28.0% ($n=21$) required supplemental insulin; both groups achieved comparable final glycemic control. The metformin group had significantly less maternal weight gain (3.8 vs 5.9 kg, $p<0.01$) and a lower C-section rate (32.0% vs 47.0%, $p<0.05$). Neonatally, the metformin group had lower macrosomia (9.3% vs 20.6%, $p<0.05$) but a non-significantly higher rate of neonatal hypoglycemia (13.3% vs 8.8%, $p=0.35$).

Conclusion: Metformin is an effective oral alternative for GDM, associated with reduced maternal weight gain, lower C-section rates, and less macrosomia. However, the need for supplemental insulin and monitoring for neonatal hypoglycemia remain important clinical considerations.

Through the Lens of Inflammation: Biomarker Signatures in Inflammatory Bowel Disease

Khemiri W, Ben Azouz S, Ayari M, Chehaider A, Douggui H, Jomni T

Gastroenterology department, FSI Hospital, La Marsa, Tunisia

Background : Assessing disease activity in inflammatory bowel diseases (IBD) is a crucial step for ensuring appropriate therapeutic management.

Aim: To analyze the relationship between hematological parameters, inflammatory biomarkers, and disease activity in IBD.

Methodology: A retrospective study included patients with IBD followed between 2011 and 2020. Data collected comprised hematological parameters (hemoglobin, ferritin) and inflammatory biomarkers (C-reactive protein [CRP], albumin). Disease activity was evaluated using Mayo scores for ulcerative colitis (UC) and the Harvey-Bradshaw Index (HBI) and Crohn's Disease Activity Index (CDAI) for Crohn's disease (CD). Correlations were assessed with Pearson's and Spearman's tests.

Results: One hundred patients were included (50 UC, 50 CD) with a sex ratio (M/F) of 2.44 and a mean age at diagnosis of 37.2 ± 13.4 years. The mean hemoglobin level was 12.6 ± 2 g/dl and the median ferritin level was 30.7 ng/ml [11.8–71.3]. The mean CRP and albumin levels were 19.5 ± 4.2 mg/l and 34.9 ± 6.3 g/l, respectively. Earlier age at diagnosis correlated with lower hemoglobin (Pearson $p=0.04$, $r=0.2$). Hemoglobin level was negatively correlated with CRP level (Spearman $p<0.001$, $r = -0.43$) while a positive correlation was found between ferritin and CRP levels (Spearman $p<0.001$, $r = 0.47$). Regarding clinical and endoscopic scores, ferritin showed a positive correlation with the endoscopic Mayo score (Spearman $p=0.03$, $r = 0.46$), but not with the clinical Mayo score ($p=0.07$), HBI ($p=0.64$), or CDAI ($p=0.22$). Albumin, hemoglobin, and CRP were all significantly correlated with IBD activity scores, with CRP showing the strongest association (UC: Pearson $r=0.7$ and $r=0.73$ for clinical and endoscopic Mayo score; CD: Pearson $r=0.52$ for HBI and $r=0.53$ for CDAI).

Conclusion: Hematological and inflammatory biomarkers, particularly ferritin and CRP, are reliable indicators of IBD activity.

Mortality Predictors in patients with renal failure in Emergency Department

Fadhel R, Bakir A, Ben Turkia H, Chermiti I, Ghazali H, Souissi S

University of Tunis El Manar, Faculty of Medicine of Tunis
Emergency department of Ben Arous Hospital , Ben Arous Tunisia

Emergency department of Abderahman Mami Hospital , Ariana Tunisia

Introduction: The incidence of renal failure (RF) has significantly increased in recent decades.

Morbidity and mortality remain high despite therapeutic advances.

Aim: Identify predictive factors of mortality in patients with renal failure

Methods: A prospective observational study was conducted over two years, including patients with RF defined by a glomerular filtration rate $<60 \text{ mL/min/1.73 m}^2$ (CKD-EPI). Epidemiological, clinical and outcome data were collected. Comparison of Two Groups: M+ patients who died and group M- included the surviving patients. Predictors of mortality (POM) were analyzed using univariate and multivariate studies.

Results: A total of 270 patients were included with mean age 65 ± 15 years and sex ratio 0.96. Comorbidities included hypertension (73%), diabetes (59%), coronary disease (17%), heart failure (12%). Chronic RF was present in 75% and 53% were on hemodialysis. Clinical presentations were dyspnea (31%), abdominal pain (18%), chest pain (14%). Diagnoses included acute pulmonary edema (25%), sepsis (22%), hyperkalemia (14%), acute coronary syndrome (8%). Treatments included antibiotics (27) , diuretics (26%), non-invasive ventilation (20%), potassium-lowering therapy (15%), nitrates drugs (13%), emergency hemodialysis in 27 patients (11%). Mortality rate was 13%. Univariate analysis identified 4 POM (OR; CI 95%; p) sepsis (4; [1.7–9.4]; $p=0.002$), GCS <10 (11; [3–41]; $p<0.001$), heart rate $>95 \text{ bpm}$ (11; [3–41]; $p<0.001$) and intubation (31; [6–158]; $p<0.001$). Multivariate analysis confirmed GCS <10 (adjusted OR=2.6; [1.2–6]; $p=0.02$) and intubation (OR=4.8; [1.4–16]; $p=0.01$) as POM.

Conclusion: Mortality among patients with RF admitted to the ED remains high. Altered consciousness and the need for intubation were independent predictors of death.

Three-Year Impact of the ABC Method on Medication Procurement Performance in a Trauma and Burns Center (2020–2023)

Guibene W¹, Houidi Y², Gargouri M¹

1. Centre De Traumatologie Et Des Grands Brulés, Ben Arous, Tunisie
2. Direction Régionale De Santé De Tunis, Tunis, Tunisie

Background: Efficient medication procurement is essential to ensure patient safety, maintain the quality of the pharmaceutical supply chain, and minimize financial immobilization. The ABC method was introduced in 2019 in our institution as an optimization strategy to rationalize ordering practices and reduce unnecessary workload. This study Aiming to evaluate its long-term impact over a three-year period (2020–2023).

Methods: The hospital's traditional procurement model was based on a fixed-calendar system with variable quantities. The ABC method reclassified medications into four groups with specific ordering intervals: Class A (80% of annual value): 7-day interval; Class B (next 10%): 14 days; Class C (next 5%): 28 days; Class D (remaining 5%): 56 days. The classification was first updated in 2021 and again in 2023. A comparative analysis of procurement indicators was performed over the 2020–2023 period, including the number of order lines, urgent orders, and total orders.

Results: During the 2023 reassessment, 12% of items required adjustment of their ordering interval.

The global distribution of medications remained similar to the initial classification (A: 5.2%, B: 7%, C: 9.3%, D: 78.5%).

Between 2020 and 2023, procurement performance improved significantly, with a 24% reduction in order lines, a 46% decrease in urgent orders, and a 10% reduction in total orders.

Conclusion: The ABC method improved procurement efficiency, reduced ordering workload, and lowered the economic impact of stockholding. Its sustainability relies on regular database updates, including periodic revision of ordering intervals and safety stock thresholds based on product criticality.

Anxiety, depression and stress among health sciences Students in Sfax, southern Tunisia

Bradai S¹, Ketata N¹, Ben Ayed H¹, Benhmida M¹, Jdidi J², Yaich S³

1. Preventive Medicine And Hygiene Department Hedi Chaker University Hospital, Sfax, Tunisia
2. Department Of Preventive And Social Medicine Faculty of Medicine of Sfax , Tunisia
3. Community And Epidemiology Department Hedi Chaker University Hospital, Sfax, Tunisia

Introduction: Depression and anxiety, as well as stress, are well-known problems across the world. Health science students (HSS) have been found to experience considerable stress due to their academic studies. This study Aiming to explore the prevalence of depression, anxiety and stress among HSS and to identify their associated factors.

Methods: A cross-sectional study was conducted among a randomized sample of HSS in Sfax, Southern Tunisia, on April 2024. Data collection was performed using an anonymous self-administered questionnaire including a short version of the validated depression, anxiety and stress scales (DASS-21).

Results: A total of 210 HSS were eligible for the study. The median age was 21 years with an interquartile range (IQR) = [20–23]. There were 141 Females (67.1%), giving a male to female ratio of 0.48. History of chronic disease was noted in 39 HSS (18.5%). As for lifestyle behaviours, 48 HSS (23%) were smokers and 27 cases consumed alcohol (13%). There were 19 HSS (9%) having low monthly income. Prevalence of depression, anxiety and stress among HSS was 57.6%, 59% and 30% respectively. Extremely severe forms of depression, anxiety and stress were respectively noted in 16% ($n=35$), 31.4% ($n=66$) and 6.2% ($n=13$), respectively. History of chronic disease was statistically associated with depression (Odds Ratio (OR) = 2.5; Confidence interval (CI) = [1.3–5.4]; $p=0.019$), anxiety (OR = 2.4; CI = [1.5–6]; $p=0.048$) and stress (OR = 3.4; CI = [1.7–7.1]). Alcohol consumption was significantly associated with higher prevalence of depression (OR = 3.7; CI = [1.3–10.2]; $p=0.007$). Besides, low monthly income was significantly associated with higher prevalence of stress among HSS (OR = 4.2; CI = [1.6–6.5]; $p=0.048$).

Conclusion: High rates of depression, anxiety and stress were found among HSS. Lifestyle behaviours and socioeconomic level were their main predictors. Thus, interventions acting on these factors as well as integration of mental health programs is crucial to ensure their wellbeing.

Functional disability as a key determinant of anxiety and depression in chronic low back pain: a cross-sectional analysis

Jomaa O¹; Zaouali F²; Hajji H¹; Sarraj R¹; Brahem M¹; Younes M¹

1. University of Monastir, Faculty of Medicine of Monastir, Tahar Sfar University Hospital of Mahdia, Rheumatology Department, Tunisia
2. University of Monastir, Faculty of Medicine of Monastir, Tahar Sfar University Hospital of Mahdia, Emergency Department / SMUR, Tunisia

Introduction: Chronic low back pain (LBP) is often associated with psychological comorbidities such as anxiety and depression, which amplify pain perception and disability. Identifying their determinants is essential for developing comprehensive management strategies.

Methods: A cross-sectional study was carried out at the Rheumatology Department of Tahar Sfar University Hospital (Mahdia, Tunisia) from June to December 2024. Sixty-two adults with chronic LBP were included. Anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (HADS).

Results: The mean age was 60.8 ± 10.4 years, with a mean BMI of 28.4 ± 5.9 kg/m². Neuropathic pain was present in 54.8%, and moderate functional disability in 59.7%. The median pain intensity (VAS) was 6 [5–8]. Anxiety and depression were observed in 32.3% and 37.1% of patients, respectively. Mean HADS-A and HADS-D scores were 6.3 ± 2.9 and 6.8 ± 3.6 . In bivariate analysis, anxiety was associated with higher BMI, reduced spinal mobility, fibromyalgia, and lack of rehabilitation; depression correlated with longer pain duration, higher pain intensity, neuropathic pain, and claudication. Multivariate analysis identified reduced functional capacity as an independent determinant of both anxiety ($\beta = 1.112$; $p = 0.007$) and depression ($\beta = 1.081$; $p = 0.005$), while marital status (divorced/widowed) predicted depression ($\beta = 2.076$; $p = 0.024$).

Conclusion: Psychological comorbidities are frequent in chronic LBP and strongly linked to functional disability. Routine psychological screening and the integration of functional rehabilitation are crucial to enhance biopsychosocial care and improve patient outcomes.

Assesment of liver fibrosis by elastometry: Concordance between health professionals

Gabteni L, Sabbah M, Boussabon M, Jlassi H, Bibani N, Gargouri D

Service de Gastro-entérologie, Hôpital Habib Thameur

Introduction: Transient elastography is a reliable non-invasive method for assessing liver fibrosis. In contexts with physician shortages, especially in developing countries, delegating certain procedures to trained nurses could improve access to care.

Aim: To evaluate the concordance of transient elastography **Results** between physicians and nurses, and to identify factors influencing discrepancies.

Methods: A prospective cross-sectional study was conducted over one year (2024) in patients undergoing transient elastography for diagnosis or follow-up of liver disease. Measurements by a physician and a trained nurse were compared to assess reproducibility and factors associated with discordance, with reference to published data.

Results: One hundred patients (mean age 52.8 years; F/M ratio 1.08) were included. Mean liver stiffness was 5.7 kPa [2.8–53.2] for physicians and 6.25 kPa [3–43.5] for nurses ($p=0.014$). Nurses underestimated stiffness in 34 patients. After conversion to METAVIR stages, no significant difference was found ($p=0.407$). Concordance of measurements was excellent ($ICC=0.961$, $p<0.001$), with 78% agreement in fibrosis staging. Discordance (22%) involved underestimation in nine and overestimation in 13 cases. Elevated ALT and uncommon liver disease etiologies were independently linked to discordance.

Conclusions: Our study shows that Fibroscan® is a simple and reproducible technique when performed by trained nurses. However, in the presence of risk factors for discordance, Results should be confirmed by a physician. The interpretation of the data and communication of Results to the patient remain the

physician's responsibility.

Assessment of Occlusal Contact Area: A Cross-Sectional Study among a Tunisian Population

Kallala R, Harzallah B

Université de Monastir, Faculté de médecine dentaire

Introduction: Occlusal contact area plays a crucial role in distributing masticatory forces and ensuring efficient food fragmentation.

Objective: This cross-sectional study Aimed to assess and compare the occlusal contact area between Angle's Class I and Class II malocclusions.

Methods: This cross-sectional study was conducted at the Faculty of Dental Medicine of Monastir. Ethical approval was obtained from the Institute of Biotechnology of Monastir. Only participants with dentition were included. Those with previous orthodontic treatment, temporomandibular disorders, craniofacial deformities, severe periodontal disease, or missing teeth (except third molars) were excluded. To assess the occlusal area, MATLAB software was used. Descriptive statistics (mean $\pm$ SD) and independent t-tests were performed using SPSS 21.0, with the significance level set at $p = 0.05$.

Results: A total of 64 participants were included, with 33 males (51.6%) and 31 females (48.4%), aged 19–30 years. The mean occlusal contact area was 49.91 ± 21.47 mm². No significant differences were observed in contact area according to gender (males: 51.59 mm²; females: 46.90 mm²), occlusal scheme (canine- vs. group-protected), or mastication type (unilateral vs. bilateral). Correlation analysis demonstrated a significant negative relationship between occlusal contact area and chewing efficiency ($r = -0.616$, $p < 0.001$), indicating that participants with larger contact areas exhibited higher masticatory performance.

Conclusion: These findings emphasize the functional importance of occlusal contacts and suggest that maintaining optimal occlusal contact areas may contribute to efficient mastication. Further studies with larger samples are recommended.

Circumpapillary Vessel Density in Glaucoma: Toward a Novel Diagnostic Biomarker

Oueslati Y, Khallouli A, Bouchoucha S, Houatmi A, Maalej A

Faculty of Medicine of Tunis, University of Tunis El Manar

Introduction: Glaucoma is a chronic optic neuropathy characterized by progressive retinal ganglion cell loss and visual field damage. Optical coherence tomography angiography (OCT-A) provides a non-invasive evaluation of retinal and optic nerve head microvasculature, potentially improving glaucoma assessment.

Aim: To evaluate circumpapillary vessel density (cpVD) in normal eyes, preperimetric glaucoma, and manifest glaucoma, and to investigate its relationship with structural and functional parameters, as well as its diagnostic performance compared to structural measurements.

Methods: An analytical cross-sectional study was conducted on 168 eyes from 95 subjects divided into three groups: normal, preperimetric glaucoma, and manifest glaucoma. All participants underwent standard automated perimetry, spectral-domain OCT, and OCT-A centered on the optic disc. Structural parameters included the retinal nerve fiber layer (RNFL) and ganglion cell complex (GCC); functional parameters included mean deviation (MD) and loss variance (LV).

Correlations and diagnostic comparisons were analyzed.

Results: The study included 66 normal eyes, 42 preperimetric glaucoma eyes, and 60 manifest glaucoma eyes. cpVD was significantly reduced in glaucomatous eyes compared with the other groups. It showed a strong correlation with functional indices (MD, LV; $p < 0.001$) and a better correlation with RNFL than GCC ($R^2 = 0.752$ for mean RNFL). cpVD demonstrated higher diagnostic accuracy than RNFL and GCC only between preperimetric and manifest glaucoma stages.

Conclusion: Circumpapillary vascular impairment appears more pronounced in advanced glaucoma. Microvascular alterations likely occur secondary to RNFL and GCC loss and correlate closely with visual function. OCT-A, while complementary, remains less sensitive than SD-OCT for early glaucoma detection.

Assessment of General Practitioners and Family Physicians Knowledge Regarding the Diagnosis and Management of Enuresis: An Online Survey Analysis

Jarraya E, Bahloul E, Khezami MA, Lebib S

Service MPRF B, IMKO

Introduction: Enuresis, though commonly encountered in clinical practice, remains a pediatric condition that is often underdiagnosed or inadequately managed.

Aims: This study Aiming to evaluate the knowledge and management practices regarding enuresis among general practitioners, family physicians, and residents, who frequently serve as the first point of contact for parents.

Methods: A descriptive cross-sectional study was conducted using an online questionnaire distributed via Google Forms between December 2024 and January 2025. Participants were classified according to completion of a pediatric rotation (G1 vs. G2) and prior training in enuresis management (GE vs. GNE).

Results: A total of 54 physicians participated in the study, with a mean age of 35.35 years and an average practice duration of 6.96 years. Twelve participants (22.2%) reported having received specific training on enuresis (G1 = 10; G2 = 2). A significant difference was observed between the groups regarding the ability to differentiate primary from secondary enuresis ($P < 0.05$), while no significant differences were found for the other questionnaire items. When comparing physicians with specific training ($n = 12$) to those without ($n = 42$), significant differences were identified across several domains, including knowledge of etiologies (primary and secondary), therapeutic strategies, behavioral considerations, associated comorbidities, and involvement of relevant medical specialties.

Conclusion: Pediatric rotations alone appear insufficient to ensure adequate knowledge and management of enuresis. These findings highlight the need for targeted continuing education and improved clinical training resources to enhance long-term care and quality of life for affected children.

Influence of Age on the Outcomes and Complications of Endoscopic Retrograde Cholangiopancreatography: Experience from a Tunisian Center

Louati C, Yakoubi M, Gharbi G, Mahmoudi M, Medhioub M, Hamzaoui L

Service de Gastro-entérologie Hôpital Taher Maamouri

Introduction: Endoscopic retrograde cholangiopancreatography (ERCP) is increasingly preferred over surgery for the management of biliopancreatic disorders in elderly patients. However, data on its safety and specific outcomes in this

population remain limited. This study Aiming to evaluate the characteristics, feasibility, and complications of ERCP in patients over 65 years of age.

Methods: A retrospective descriptive and analytical study was conducted in the gastroenterology department of Taher Maamouri Hospital (Tunisia) between 2022 and 2025.

Results: A total of 800 patients were included and divided into two groups: Group 1 (G1, <65 years) and Group 2 (G2, ≥ 65 years), with 400 patients in each group. The mean age was 53 years in G1 and 75.7 years in G2. The main indications for ERCP were common bile duct stones (G1: 66.7%; G2: 65.2%), pancreatic head tumor (G1: 13.8%; G2: 18.3%), and biliary stricture (G1: 7.2%; G2: 5%). ERCP failure occurred significantly more often in elderly patients ($p = 0.016$), although no independent predictors of biliary cannulation failure were identified in multivariate analysis. The overall complication rate did not differ significantly between age groups ($p = 0.292$) when considering perforation, bleeding, post-ERCP pancreatitis, and cholangitis. Nevertheless, elderly patients had a significantly higher incidence of moderate-to-severe post-ERCP pancreatitis ($p = 0.021$).

Conclusion: In Conclusion, while ERCP indications are similar across age groups, older patients are at greater risk of biliary cannulation failure and severe pancreatitis, emphasizing the need for careful procedural planning and increased vigilance in this vulnerable population.

Nurse assessment of pain in children with cognitive impairment

Hammami O¹, Ben Charef E², Bejaoui M³, Jlassi B³, Kraoua I⁴

1. Department of Pediatrics, Menzel Bourguiba Hospital, Bizerte, Tunisia
2. Emergency Department and SAMU 04, Habib Bourguiba Hospital, Sfax, Tunisia
3. University of Tunis El Manar, Tunisia
4. Pediatric Neurology Department, Rabta Hospital, Tunisia

Introduction : Pain assessment in children, particularly those with cognitive impairments, remains a major challenge for healthcare professionals, especially nurses, due to the atypical manifestations of pain and the difficulty in using appropriate assessment scales.

Objective: The main objective of our study is to assess nurses' knowledge of pain assessment in children with cognitive impairment.

Methods: This is a prospective, descriptive, and quantitative study carried out over a four-month period from February to May 2025, among 40 nurses. A questionnaire was distributed to assess current practices in units caring for children with cognitive impairments at Mongi Slim Hospital (La Marsa), La Rabta Hospital (Tunis), and the National Institute of Neurology Mongi Ben Hmida (neuropediatric department).

Results : Forty nurses participated in the study (40% men, 60% women; gender ratio = 0.66). Most were aged 30–50 years (57.5%) and had more than 5 years of experience (50%). Three-quarters had never received specific training on pediatric pain assessment, particularly in cognitively impaired children (82.5%). Pain indicators most cited were motor agitation, facial expression changes, and sleep disturbances. Seventy-five percent reported no specific pain protocol, and 90% expressed a desire for further training, citing lack of education, adapted tools, and time as major barriers.

Conclusion : This study highlights the importance of continuing education for nurses in the assessment of pediatric pain, particularly among children with cognitive impairments. It recommends the systematic integration of clinical protocols and the use of validated tools in daily practice to improve the

quality of care.

Systemic Inflammatory Response Index For Prediction of Hemorrhagic Transformation In Ischemic Stroke: A Prospective Study

Majoul L MS, Messelmani M, Ben Chihi F, Derbali H, Zaouali J

Department of Neurology, Military Hospital of Tunis, Tunisia

Introduction: Hemorrhagic transformation (HT) is a life-threatening complication of ischemic stroke (IS). The role of inflammation in HT pathophysiology has been demonstrated. Blood inflammatory biomarkers, such as systemic Inflammatory Response Index (SIRI), have been rarely investigated as predictors of HT.

Aim: To determine the value of the systemic Inflammatory Response Index in predicting hemorrhagic transformation after ischemic stroke.

Methods: A monocentric observational prospective study was conducted at the neurology department of the military hospital of Tunis from January to December 2024, including patients diagnosed with IS.

NLR was computed, and hemorrhagic transformation was sought out during hospitalization.

Results: We included 123 patients. Sex ratio (M/F) was 1.93. Median age of our patients was 63 years (IQR=18). Hemorrhagic transformation (HT) was detected in 15 cases (12.2%). It occurred spontaneously in 9 cases and after IVT in the remaining six. The diagnostic timeframe of HT after IS onset ranged from one hour to a maximum of 17 days. SIRI was significantly correlated to HT occurrence ($p=0.019$). ROC curve analysis showed a cut-off value of 1.6 with a sensitivity of 71.4% and a specificity of 54.8%.

Conclusion: Our study showed the role of SIRI in predicting HT in IS. This affordable tool can help identify patients at high risk of HT; guide computed tomography scan prescription, and optimize healthcare provided.

Medico-Legal Characteristics of Intravenous Drug-Related Deaths: a five year study

Ouni M, Ben Ftima A, Bekir O, Jemail L, Manoubi S, Allouche M

Forensic Department, Charles Nicolle Hospital

Introduction: Intravenous opioid use contributes substantially to premature mortality. Collateral information and systematic external examination direct case interpretation and allow targeted toxicological confirmation of suspected exposures.

Objective: To describe demographic features and autopsy findings in deaths associated with intravenous drug use.

Methods: A retrospective descriptive study including all autopsy cases performed at Charles Nicolle hospital from January 1st, 2020 to August 31st 2025. We collected medico-legal cases in which intravenous drug use was documented by collateral history or injection marks on external examination.

Results: Over the study period, 27 cases were collected. The median age of the deceased was 40.5 years (P25-P75: 35-46), including 26 males and one female. Ten individuals (37%) were found dead at home and 17 (63%) reached hospital care; hospital admission frequently complicated differentiation between iatrogenic and illicit recent injections. Collateral reports cited Subutex in 11 cases (40.7%), heroin in 3 (11.1%) and multiple injected substances in 9 (33.3%). Twelve individuals (44.4%) were described as drug injectors without specification of the substance. Infectious complications included endocarditis in 10

cases (37.0%), septic shock due to pulmonary origin in 5 (18.5%) and infected injection-site complications in 3 (11.1%); hepatitis C was documented in 4 cases (14.8%). External examination found venous cords (22.2%), self-inflicted scars (44.4%) and injection marks predominantly on upper limbs (51.9%), neck (29.6%) and lower limbs (18.5%).

Conclusion: Systematic collection of history and standardized recording of external injection signs, complemented by targeted toxicology, enhance medico-legal interpretation of IV drug-related deaths and should be integrated into routine investigation protocols.

Integrating Artificial Intelligence in Healthcare: Physicians' Perceptions, Utilization, and Emerging Challenges

Ben Ali H¹, Nasri S², Guissouma J¹, Trabelsi I¹, Allouche H¹, Ghadhoun H¹

1. FMT, Medical ICU of Habib Bougatfa university hospital, Bizerte, Tunisia

2. FMT, Internal medicine department of Charles Nicolle university hospital, Tunis, Tunisia

Introduction: The integration of Artificial Intelligence (AI) in medicine holds transformative potential; however, its successful adoption hinges on healthcare professionals' perceptions.

Aim: To assess physicians' knowledge, current use, and attitudes regarding AI.

Methods: A cross-sectional survey was administered via Google Forms to physicians from various specialties. The questionnaire included demographic data, knowledge of AI applications, experience with AI, perceived AI impact, training needs, and participants' vision of AI's future role. Statistical analysis was performed using Jamovi.

Results: Seventy-two physicians participated, with a mean age of 31 ± 6 years and a gender-ratio of 0.5. The most represented specialties were medical intensive care (46%), emergency medicine (14%), and radiology (10%). Most defined AI as a set of techniques and algorithms enabling large-scale data analysis and simulating human cognitive abilities. AI was perceived especially useful in medical imaging (60%), diagnosis (60%), and clinical research (70%). Only 37% felt comfortable with AI tools, while 50% expressed apprehension and 53% reported low familiarity with these technologies. The majority used AI weekly, with ChatGPT and DeepSeek being the most popular search engines. Although 78% believed AI won't replace physicians, 60% anticipated it will become an essential complementary tool. Data protection was a major concern, with 80% reporting a moderate to high perceived risk of data breaches. A large majority (90%) emphasized the need for additional AI training.

Conclusion: This study highlights growing, yet limited, AI adoption among physicians and underlines the need for targeted training programs to ensure effective AI tools' integration into clinical practice.

Severe Acute Colitis as the Initial Presentation of Ulcerative Colitis: Evaluation of Risk Factors for Steroid Resistance

Oueslati A, Yacoub H, Rania H, Cherif D, Debbabi H, Hassine H, Kchir H, Maamouri N

Gastroenterology B department, La Rabta hospital

Introduction: Severe acute colitis (SAC) in ulcerative colitis (UC) represents a therapeutic emergency. Intravenous corticosteroid therapy is the standard first-line treatment; however, nearly

one-third of patients develop steroid resistance, requiring therapeutic escalation or colectomy. Identifying predictive factors of steroid failure is essential to optimize risk stratification.

Methods: A retrospective study was conducted in patients hospitalized for inaugural SAC due to UC between January 2000 and October 2025. Clinical, biological, and anamnesis data were collected. Patients were classified as responders or non-responders to corticosteroid therapy according to the Travis index. Factors associated with steroid resistance were analyzed using univariate tests (Mann–Whitney, chi-square), followed by multivariate analysis (logistic regression).

Results: Forty-two patients were included, with a mean age of 36.6 ± 14.4 years and a male-to-female ratio of 0.68. Among them, 18 patients (42.8%) were steroid-resistant. In univariate analysis, only metabolic syndrome was significantly associated with steroid resistance ($p = 0.05$). Other variables—sex, age, family history of IBD, CRP ≥ 100 mg/L, albumin ≤ 25 g/L, UCEIS score, disease extent, tobacco use, alcohol consumption, and prior antibiotic therapy—were not predictive of steroid resistance. In multivariate analysis, none of the parameters, including metabolic syndrome, were independently associated with steroid resistance.

Conclusion: Metabolic syndrome may represent a factor associated with steroid resistance in inaugural SAC of UC, although this association was not confirmed in multivariate analysis. Further studies with larger cohorts are needed to confirm its potential role in therapeutic risk stratification.

Generative artificial intelligence chatbots in higher education: insights from tunisian students' experiences and perceptions

Debiche S, Yangui F, Cherif H, Debiche R, Mokaddem S, Charfi MR

University of Tunis El Manar, Faculty of Medicine of Tunis, - Internal security forces Hospital La Marsa, Pulmonology Department, Health and environment in Security Forces research laboratory LR211NT01, Tunis (Tunisia)

Introduction: Generative artificial intelligence (AI) chatbots are rapidly gaining adoption in academic settings; however, their use and students' perceptions remain poorly documented in Tunisia.

Aim: This study Aimed to assess students' practices, satisfaction, and caution regarding the use of these AI tools.

Methods: A descriptive cross-sectional survey was conducted among Tunisian students using a Google Forms questionnaire distributed via social media platforms of various faculties. Sociodemographic data, usage patterns, satisfaction, and verification behaviours were collected and analysed.

Results: A total of 90 students were included (mean age: 28 years, range: 20–55), of whom 73% were female. Students from natural, life, and health sciences accounted for 53.3% of respondents. Only 28.9% had received specific training on chatbot use. Overall satisfaction was high, with 74.4% rating their experience as good or excellent. The majority reported using chatbots for writing (85%) and for translation or text reformulation (95.5%), and perceived these tools as enhancing both creativity and productivity. Nevertheless, users demonstrated caution: 82.2% systematically verified the information provided, and 61.2% cross-checked Results with other tools (e.g., statistical software). Incorrect or fabricated bibliographic references were reported by 81% of participants, which limited the use of chatbots for literature searches in 76.7% of cases.

Conclusion: Generative AI chatbots are valued by students for boosting productivity and creativity, yet their use is tempered by

the need for critical vigilance. Widespread inaccuracies in data and bibliographic references mandate systematic verification, positioning the tool as a conceptual aid rather than a reliable computational source.

Role of AI in Forensic Medical Expertise: Applications, limits, and implications for medico-legal reasoning

Ben Abderrahim S, Majdoub W, Mlayah S, Turki E

Department of Forensic Medicine, Aghlabites Surgical Unit, Kairouan

Introduction: Artificial Intelligence (AI) is increasingly proposed as a tool in forensic medicine, from image analysis and post-mortem interval estimation to toxicology and pattern recognition. Its integration raises practical opportunities as well as epistemic and legal questions about how AI may influence medico-legal analysis and responsibility.

Aim: To explore and critically analyze the current and potential applications of Artificial Intelligence in forensic medical expertise

Methods: A concise narrative literature review was performed focusing on recent systematic reviews and position papers about AI applications in forensic pathology, toxicology, and medico-legal practice.

Results: AI shows promise for objective tasks (image interpretation, pattern recognition, PMI estimation, toxicology data mining) and can improve throughput and reproducibility. However, most tools remain at the research/prototype stage; issues of validation, bias, explainability, and forensic admissibility persist. Importantly, AI currently assists factual analysis (data extraction, pattern detection) but does not replace the expert's medico-legal reasoning or normative judgments about causation and imputability. Legal and liability frameworks for expert use of AI are nascent and raise questions about expert responsibility when algorithms contribute to Conclusions.

Conclusion: AI is a valuable adjunct in forensic expertise for analytic tasks but should be integrated cautiously: experts must validate tools, understand limitations, document AI-derived outputs, and retain final medico-legal judgment. Further empirical studies, standards for validation, and legal guidance on accountability are urgently needed.

Cardiovascular risk assessment in metabolic dysfunction-associated steatotic liver disease

Krifa N , Mensi A, Ayadi S, Belhajmabrouk E, Mouelhi L, Debbeche R

University Of Tunis El Manar,faculty Of Medicine Of Tunis,charles Nicolle University Hospital,gastroenterology Department, Tunis, Tunisia

Introduction : Metabolic dysfunction-associated steatotic liver disease (MASLD) is a growing public-health burden linked to hepatic and extra-hepatic complications. Several studies suggest that MASLD increases cardiovascular morbidity independently of traditional risk factors.

Aim :To assess cardiovascular risk and identify its determinants in patients with MASLD.

Methods : This retrospective single-center study included all MASLD patients evaluated between 2017 and 2023. Data included demographic variables, metabolic comorbidities, laboratory parameters, abdominal ultrasound, and liver stiffness measured by FibroScan®. Cardiovascular risk was calculated using the Framingham Risk Score (FRS) and categorized as low (<10 %), moderate (10–20%), or high (> 20%). Univariate and multivariate analyses were performed ($p < 0.05$).

Results : One hundred ninety-one patients were included (mean age 54.5 years; M/F ratio 0.45). Diabetes, dyslipidemia, and hypertension were present in 47.6%, 59.2%, and 40.3% of cases, respectively. Obesity affected 52.9% of patients and metabolic syndrome 70.8%. Advanced fibrosis was found in 6.8% and cirrhosis in 3.1%. The mean FRS was 18.3%, with 20.9% low, 30.9% moderate, and 48.2% high-risk patients. In univariate analysis, metabolic syndrome ($p=0.001$), diabetes ($p<0.001$), hypertension ($p<0.001$), dyslipidemia ($p=0.043$), age ($p<0.001$), and female sex ($p=0.024$) were associated with higher risk. Multivariate analysis confirmed age, diabetes, and hypertension as independent predictors of major cardiovascular events (MCEs).

Conclusion : Nearly half of MASLD patients were at high cardiovascular risk. Age, diabetes, and hypertension were independent determinants of MCEs, underscoring the need for early cardiometabolic risk stratification and multidisciplinary management in MASLD.

Predictive Factors of a Good Response to Anti-TNF α Therapy in Spondyloarthritis

Gassara Z, Jerbi A, Kallel MH, Fourati H

Rheumatology Department, Hedi Chaker University Hospital, Sfax, Tunisia

Introduction: Spondyloarthritis (SpA) comprises a group of chronic inflammatory rheumatic diseases primarily affecting the axial skeleton, as well as entheses and peripheral joints. The **Aims** were to identify factors associated with a good response to anti-TNF α therapy in patients with SpA.

Methods : We conducted a retrospective, descriptive, and analytical study including SpA patients, who has been treated with anti-TNF α agents for more than 6 months. Sociodemographic, clinical and paraclinical data were collected. Therapeutic response was assessed using ASDAS-ESR at baseline, 6, and 12 months.

Results: Fifty-five patients were included (mean age 48.3 ± 10.8 years; M/F=1.39). The mean age at symptom onset, diagnosis, and biologic initiation was 32 ± 10 , 36 ± 10 , and 44 ± 10 years, respectively, with a median disease duration of 17 years [2–49]. Axial radiographic ankylosing spondylitis was observed in 74.5% ($n=41$), psoriatic arthritis 12.7% ($n=7$), and Inflammatory-Bowel-Disease-associated SpA in 12.7% ($n=7$). Hip involvement occurred in 38.2% and uveitis in 14.5%. HLA-B27 was positive in 65.5%. Biologics used included infliximab (47.3%), adalimumab (20%), certolizumab (18.2%), etanercept (10.9%), and golimumab (3.6%). Mean ASDAS-ESR scores at baseline, 6, and 12 months were 3.2 ± 0.7 , 2.4 ± 0.6 , and 2.3 ± 0.8 , respectively. No significant association was found between ASDAS improvement and age, sex, smoking, disease-duration or HLA-B27. Higher body mass index (BMI) was significantly correlated with persistently higher ASDAS-ESR at 6 and 12 months ($p=0.015$; $p=0.02$), while elevated baseline CRP and ESR predicted a better response at 6 and 12 months ($p=0.003$; $p=0.004$).

Conclusion: Our study demonstrated that, among patients with spondyloarthritis, elevated CRP and ESR levels may predict a better therapeutic response to anti-TNF α agents, whereas higher BMI appears to negatively affect treatment efficacy.

Study of frailty among the geriatric population presenting to the emergency department: Prevalence and associated factors

Adaily N, Baya W, Mabrouk R, Rezgui A, Ben Hassine I, Kermani M, Mzabi A, Anoun J, Ben Fredj F

Faculty of Medicine 'Ibn Al Jazzar', University of Sousse, Tunisia

Introduction: Identifying frail older adults and addressing reversible risk factors are essential in geriatric care to prevent loss of autonomy and reduce adverse outcomes such as hospitalization and falls. This study Aims to determine the prevalence of frailty among older adults attending the emergency department and to identify associated factors

Methods: A cross-sectional study was conducted among older adults presenting to M'saken emergency department from April to June 2024. Data were collected using a questionnaire including sociodemographic data, medical history, and frailty tools: the Identification of Seniors at Risk (ISAR) score and the Individual Frailty Assessment Grid.

Results: A total of 171 patients were included (mean age 75.6 years; male/female ratio 0.85). Cardiovascular disease was found in 27.5%, and 75.4% were not polymedicated. According to ISAR, 62.6% were frail. Univariate analysis showed significant associations between frailty and chronic disease ($p = 0.013$; OR = 3.04), degenerative complications ($p = 0.003$; OR = 7.12), polymedication ($p = 0.005$; OR = 3.26), accompanied consultation ($p \leq 10^{-3}$; OR = 5.59), and hospitalization or transfer ($p = 0.019$; OR = 2.60). Being married, autonomous, or physically active was protective. Multivariate analysis confirmed independent associations with living with family ($p = 0.037$; OR = 4.88), chronic disease ($p = 0.037$; OR = 3.15), degenerative complications ($p = 0.040$; OR = 5.63), and being accompanied ($p = 0.001$; OR = 4.82), while marriage and autonomy remained protective.

Conclusion: Recognizing and addressing frailty determinants are crucial to improve quality of life and optimize geriatric care pathways.

Assessment of Attachment in Children with Autism Spectrum Disorder without Intellectual Disability

Bayar C, Ben Abid H, Ayoub R, Guedria A

Faculty of medicine of Monastir, Child and adolescent psychiatric department, Fattouma Bourguiba hospital, Monastir

Introduction: Attachment is crucial for children's socio-emotional development. In children with Autism Spectrum Disorder (ASD) without intellectual disability, attachment patterns may differ from typically developing peers due to social communication difficulties. Understanding factors influencing attachment security in this population is essential for guiding interventions.

Aim: To evaluate attachment quality in children with ASD without intellectual disability and identify factors associated with mother-child attachment security.

Methods: A cross-sectional descriptive-analytical study was conducted in the Child and Adolescent Psychiatry Department, Fattouma Bourguiba Hospital, Monastir, between June and November 2023. ASD diagnosis relied on DSM-5 criteria and the Autism Diagnostic Interview-Revised. Children with comorbid intellectual disability were excluded. Cognitive abilities were assessed using the Differential Scales of Intellectual Efficiency, and attachment security was measured with the Kerns Security Scale. General child and family data were collected via a

standardized form.

Results: Fifty children aged 8–14 years (mean 11.52; male-to-female ratio 5.25) were included. Mother–child attachment was secure in 38% and insecure in 62%. Attachment security was significantly associated with child gender, bodily separation, and parental divorce. Maternal factors—age at conception, perceived stress, social support postpartum, breastfeeding, and changes in primary caregiver—were also significant. Child factors including early language acquisition, academic performance, intelligence level, psychiatric comorbidities, autism symptom severity, and problematic behaviors were linked to attachment quality.

Conclusion: Attachment security in children with ASD without intellectual disability is influenced by child, maternal, and family factors. These findings highlight the importance of supporting both children and caregivers to promote secure attachment relationships.

Treatment satisfaction among patients with Juvenile Idiopathic Arthritis

Fazaa A¹²; Rabhi E¹²; Miladi S¹²; Ben Abdelghani K¹²; Laatar A¹²

1. Mongi Slim Hospital, Rheumatology Department, Tunis, Tunisia

2. Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis, Tunisia

Introduction: Juvenile Idiopathic Arthritis (JIA) presents unique challenges due to its varied clinical manifestations and the age group affected. Understanding treatment satisfaction in this population is essential for optimizing care.

Aim: To assess treatment satisfaction among patients with JIA.

Methods: We conducted a cross-sectional observational study including patients treated for JIA at the Rheumatology Department of Mongi Slim Hospital. Sociodemographic, diagnosis, and treatment data were collected. Treatment satisfaction was evaluated using the TSQM-14, covering four domains: side effects, effectiveness, convenience, and global satisfaction. Responses were scored on a 5-point Likert scale. Subscale scores range from 0 to 100, with higher scores indicating greater satisfaction.

Results: Twenty patients (14 females, 6 males; mean age 10.2 years [3–16]) were enrolled. JIA subtypes included oligoarticular (40%), seropositive polyarticular (20%), seronegative polyarticular (30%), systemic-onset (5%), and enthesitis-related (5%). Short-term treatments included paracetamol (70%) and NSAIDs (55%). Long-term therapy comprised corticosteroids (4 patients), oral methotrexate (13), sulfasalazine (2), leflunomide (1), and bDMARDs (6 patients: 20% Etanercept, 5% Adalimumab, 5% Tocilizumab, 5% Secukinumab). TSQM-14 data revealed varied perspectives: 55% were satisfied with treatment effectiveness, 70% with symptom relief, and 80% with overall satisfaction. Most patients reported minimal interference with physical (68.4%) and mental function (94.9%). Regarding side effects, 25% experienced them, primarily methotrexate-induced stomach pain. Treatment convenience was rated high by 80%.

Conclusion: Treatment satisfaction in JIA patients is generally positive, but adverse effects remain a concern. These findings highlight the importance of individualized strategies to optimize outcomes and patient satisfaction.

Assessing the learning impact of a digital Patient Management Problem in emergency medicine

Kallel M, Rezgui E, Kallel E, El Ayech F, Zaouche K

Emergency Department Of Mahmoud El Matri Hospital Ariana

Background: Emergency medicine education requires innovative teaching methodologies that bridge theoretical knowledge with clinical decision-making skills. Digital Patient Management Problems (PMPs) represent an interactive educational approach that simulates real clinical scenarios, allowing students to navigate complex patient management decisions in a safe learning environment.

Aim: This study Aims to evaluate the educational effectiveness of a digital PMP in improving medical students' knowledge acquisition, assess students' clinical reasoning through PMP performance. The PMP was developed on an online platform. Student performance was assessed using pre-test and post-test scores.

Methods: We conducted a cross-sectional evaluative study, in the emergency department. Medical students completing a summer internship in emergency medicine were enrolled using convenience sampling. The educational intervention consisted of a structured session including a pre-test (10-15 minutes), individual completion of a digital PMP (5 minutes per student), and a post-test.

Results: Thirty-three students participated (12 males, 21 females; mean age 21 years, range 21-25 years; sex ratio 0.57). The mean pre-test score was 13.75 ± 1.8 out of 20 (minimum 8, maximum 20), with 5 students scoring 10 and 2 students achieving the maximum score of 20. The mean PMP score was 11.50 ± 2.86 out of 20, with 4 students receiving a failing score of 0 for selecting life-threatening interventions that would have resulted in patient death. The mean post-test score significantly improved to 18.5 ± 1.5 ($p = 0.04$)

Conclusion: Digital Patient Management Problems represent an effective, engaging, and highly acceptable educational strategy for teaching emergency management to medical students.

Attitudes, Experiences, and Perceptions of Rheumatologists During Corticosteroids Tapering in Patients with Rheumatoid Arthritis

Jebri R, Benayed H, Ben Ammar L, Fenniche I, Dhaheiri R, Gharsallah I

Rheumatology Department of the Military Hospital of Tunis

Introduction: Corticosteroids therapy remains one of the mainstays of symptomatic management in rheumatoid arthritis (RA). Rheumatologists must justify each corticosteroids prescription and initiate tapering at the most appropriate time and pace. This study Aims to describe rheumatologists' attitudes and experiences regarding corticosteroids tapering in patients with RA.

Methods: A cross-sectional survey was conducted among Tunisian rheumatologists using an online questionnaire assessing their habits and knowledge related to corticosteroids tapering in RA.

Results: Thirty-five rheumatologists (32 women, 3 men; mean age 33.6 ± 9.8 years) participated. Among them, 80% worked in academic hospitals and 37% had over five years of experience. Twelve rheumatologists (34%) reported seeing more than ten RA patients weekly. According to 65.7% ($n = 23$), low-dose corticosteroid therapy is often necessary at treatment initiation. Thirty-five percent begin tapering after synovitis resolution, while 30% wait until remission is achieved. For 67.5% and 34%, respectively, tapering pace and baseline cortisol testing at 5 mg depend on cumulative dose and duration of therapy. Tapering was considered difficult by 68.5% ($n = 24$), with major obstacles including self-medication (71%), clinical relapse (43%), and fear of relapse (40.3%). Fewer than half of patients

successfully discontinued corticosteroids according to 47.5% of respondents. Despite these challenges, 61.8% reported professional satisfaction, whereas 17% experienced stress, prompting closer follow-up in 26.5% of cases.

Conclusion: Most rheumatologists considered corticosteroids tapering in RA a therapeutic success. However, self-medication appeared to be the main barrier. Structured patient education programs may help facilitating this process.

Prevalence and factors associated with anemia in patients with inflammatory bowel disease

Yacoub H, Mannai MC, Monastiri S, Cherif D, Kchir H, Maamouri N

University of Tunis El Manar, Faculty of Medicine of Tunis, Gastroenterology Department B, La Rabta Hospital, Tunis, Tunisia

Introduction: Anemia is a frequent complication of inflammatory bowel disease (IBD) that significantly impairs patients' quality of life

Aim: This study Aimed to assess the prevalence of anemia and identify associated factors in patients with IBD

Methods: A retrospective, single-center study was conducted in the Gastroenterology Department B of La Rabta University Hospital over a 10-year period (January 2015–January 2024). All patients followed for IBD were included. Clinical, biological, endoscopic, and therapeutic data were analyzed. Anemia was defined as hemoglobin <13 g/dL in men and <12 g/dL in women, and classified as iron-deficiency, inflammatory, mixed, or vitamin B12 deficiency anemia according to laboratory parameters

Results: A total of 104 patients were included (49 men, 55 women; mean age 35.9 years [14–72]). Crohn's disease (CD) accounted for 71.2% of cases and ulcerative colitis (UC) for 28.8%. CD was mainly ileocolic (39.2%), with perianal involvement in 26 patients (37.7%). UC was left-sided in 20 cases and pancolonic in 10. Active smoking was reported in 31 patients (29.8%) and mean BMI was 21.5 kg/m². Anemia was diagnosed in 68.3% of patients: iron-deficiency (60.6%), inflammatory (29.6%), mixed (5.6%), and vitamin B12 deficiency (4.2%). Female sex, disease activity, and smoking were significantly associated with anemia ($p=0.002$, $p=0.002$, $p=0.005$), but only disease activity remained an independent predictor ($p=0.036$)

Conclusion: Anemia is common among IBD patients, predominantly iron-deficiency type. Disease activity is the main independent predictor, underscoring the need for systematic screening and targeted management to improve outcomes.

Urolithiasis in Spondyloarthritis: Prevalence and Associated Factors

Fenniche I, Majouli G, Ben Ayed H, Ben Ammar L, Dhahri R, Gharsallah I

Rheumatology department, Military Hospital of Tunis, Tunis, Tunisia

Introduction: Urolithiasis is a recognized complication in spondyloarthritis (SpA), with a reported prevalence of 3.8–5.7%. Several factors may influence its occurrence.

Aim: This study Aimed to assess the prevalence of urolithiasis in SpA and identify associated risk factors.

Methods: This retrospective study included patients with SpA fulfilling the 2009 ASAS criteria. Clinical, laboratory, and therapeutic data were collected. Urolithiasis was assessed by renal ultrasonography or CT urography.

Results: A total of 101 patients (84 men, 17 women; mean age 40.5 years) were included, with a mean disease duration of 5.7 years. IBD was present in 8 patients, psoriasis in 11, coxitis

in 30, and uveitis in 12. Mean CRP was 10.2 mg/L, ESR 28.2 mm, ASDAS-CRP 2.06, and BASDAI 2.39. NSAIDs were used by 60%, csDMARDs by 20.8%, and biologics by 46.5%. Urolithiasis was detected in 10 patients (10%). It was significantly more common in NSAID users ($p=0.028$), csDMARD-naïve patients ($p=0.007$), and those without IBD ($p=0.02$). Higher BMI was also associated with urolithiasis ($p=0.003$). Patients with urolithiasis had significantly lower CRP (16.39 vs. 68 mg/L; $p=0.04$) and ESR (23.6 vs. 60 mm; $p=0.04$). No association was found with sex, age, disease duration, or disease activity.

Conclusion: The prevalence of urolithiasis in our cohort was higher than previously reported. It was more common in patients without IBD and in those with less marked biological inflammation, likely reflecting more frequent or prolonged NSAID use. Further studies are needed to confirm these findings.

Acute Polyarthritis: A Reflection of Multiple Etiologies

Majouli G, Ben Ayed H, Fenniche I, Ben Ammar L, Rim Dhahri R, Imene Gharsallah I

Rheumatology department, Military Hospital of Tunis, Tunis, Tunisia

Introduction: Acute polyarthritis, defined by a sudden onset of multiple joint inflammations, has varied causes, some requiring urgent management. A structured diagnostic approach is essential.

Aim: This study Aimed to describe the clinical presentation, paraclinical findings, and final diagnoses of patients with acute polyarthritis.

Methods: A two-year retrospective descriptive study was conducted in a rheumatology department. Patients with polyarthritis involving more than five joints for less than six weeks were included. Data were collected from medical records.

Results: Twenty-two patients (12 women, 10 men; mean age 40.8 years) were included. Seven had a family history of chronic inflammatory rheumatism or psoriasis, and five reported recent digestive or urogenital infection. The mean delay before consultation was 13 days. On average, six joints were affected; large joints in 62% and small joints in 86.4%. Rhizomelic pain occurred in 27.3%. Fever was noted in three patients and skin lesions in five. Most patients had an inflammatory syndrome. Blood cultures were positive in two cases, and viral serologies revealed three acute infections. Immunological tests showed positive rheumatoid factor in four patients and antinuclear antibodies in five. Imaging showed sacroiliitis in two cases and infectious endocarditis in one. A final diagnosis was established in 20 patients: reactive arthritis (4), peripheral spondylarthritis (4), viral arthritis (3), gout flare (3), rheumatoid arthritis (3), infectious endocarditis (1), calcium pyrophosphate deposition disease (1), and Sjogren's syndrome (1). Two cases suggested palindromic rheumatism.

Conclusion: Acute polyarthritis has diverse and sometimes severe etiologies, requiring targeted evaluation.

Assessment of Functional Impact of Chronic Neck Pain Using the Neck Disability Index

Bettaieb H^{1,2}; Rabhi E^{1,2}; Boudokhane M^{1,2}; Bourguiba R^{1,2}; Doggui MH^{1,2}; Bellakhal S^{1,2}

1. University of Tunis El Manar, Faculty of Medicine of Tunis, Tunis, Tunisia

2. Internal Security Forces (ISF) Hospital, Department of Internal Medicine, La Marsa, Tunisia

Introduction: Chronic neck pain is a common reason for rheumatology consultation. Although often regarded as benign,

it may cause significant functional limitations.

Aim: This study Aimed to quantify functional impairment using the Neck Disability Index (NDI) and to identify the most affected daily activities.

Methods: We conducted a cross-sectional study including adults with chronic common neck pain (>3 months) without secondary causes or prior spinal surgery. Pain intensity was assessed using a visual analog scale (VAS).

Functional disability was measured with the NDI (10 items, total score 0–50), interpreted as: 0–4 (no disability), 5–14 (mild), 15–24 (moderate), 25–34 (severe), 35–50 (complete).

Results: Forty patients (13 men, 27 women; mean age 49 ± 10 years) were included. Mean pain duration was 48 ± 39 months [9–180]. At evaluation, 39% had spinal syndrome and 2.5% radicular syndrome. Poor postural habits were observed in 77.5%. Median VAS was 4 [0–8] and median NDI 6.5 [0–40]. Functional disability affected 63%, mostly mild (50%), with moderate (5%), severe (5%), and complete (3%) cases. Pain intensity, sleep, and lifting/carrying were the most affected domains. Higher NDI scores were significantly associated with poor posture ($p = 0.01$) and spinal syndrome ($p = 0.04$), but not with age at onset, pain intensity, or symptom duration.

Conclusion: Functional limitations affect nearly two-thirds of patients with chronic neck pain. Cervical stiffness and poor posture are associated with more severe disability. The NDI is a practical and reliable tool to evaluate functional impact in this population.

Fragility Fractures in Rheumatoid Arthritis: Understanding Risk to Improve Prevention

Benammar C¹, Saidane O¹, Cheikhrouhou Abdelmoula L¹, El Amri N², Baccouche K², Bouajina E²

1. Tunis El Manar University, Faculty Of Medicine Of Tunis, Charles Nicolle Hospital, Rheumatology Department, Tunis, Tunisia
2. University Of Sousse, Faculty Of Medicine Ibn El Jazzar Of Sousse, Farhat Hached Hospital, Rheumatology Department, Sousse, Tunisia

Introduction: Rheumatoid arthritis (RA) is associated with an increased risk of bone fragility, predisposing patients to low-energy or spontaneous fractures. These events represent a major complication, contributing to morbidity and functional decline.

Aim: To identify factors associated with fragility fractures in patients with RA.

Methods: This bicentric cross-sectional study, conducted from May 2023 to May 2024, included patients meeting the 2010 ACR-EULAR criteria. Sociodemographic, clinical, biological, and therapeutic data were recorded. Disease activity was assessed with DAS28-CRP, functional disability with HAQ, and fatigue with the FACIT-Fatigue score. Patients were divided into two groups: G1 (history of fragility fracture) and G2 (no fracture).

Results: A total of 100 patients were included (91 women; mean age 54 ± 12.6 years). Fragility fractures occurred in 11 patients, predominantly vertebral. Compared with G2, patients in G1 had a significantly longer disease duration (22.8 ± 9.3 vs 14.8 ± 10.2 years, $p = 0.016$), more frequent coxitis (54.5% vs 15.5%, $p = 0.002$), and higher Sharp erosion scores ($p = 0.046$). MDRD clearance was higher in G1 ($p = 0.006$).

HAQ scores were also significantly elevated ($p = 0.025$). Vertebral and femoral T-scores were markedly lower, reflecting more severe osteoporosis (81.8% vs 29.4%, $p = 0.001$). RA-related surgeries were more common in G1 ($p = 0.002$). No significant associations were found with age, BMI, cardiovascular or thyroid comorbidities, menopausal status, immunological profile, CRP, DAS28-CRP, fatigue, or corticosteroid exposure.

Conclusion: Fragility fractures in RA were linked to prolonged

disease duration, coxitis, erosive damage, glomerular hyperfiltration, functional impairment, osteoporosis, and surgical history, underscoring the importance of early multidisciplinary management to reduce fracture risk.

Diagnostic Yield of Colonoscopy and Impact of Bowel Preparation Quality in Routine Clinical Settings

Mannai MC, Yacoub H, Monastiri S, Cherif D, Debbabi H, Maamouri N

University of Tunis El Manar, Faculty of Medicine of Tunis, Gastroenterology Department B, La Rabta Hospital, Tunis, Tunisia

Introduction: Colonoscopy is a key diagnostic tool for colonic diseases, essential for screening and assessing functional, inflammatory, and neoplastic disorders. However, its diagnostic yield varies according to patient characteristics, indication, and bowel preparation quality

Aim: To describe the epidemiological, clinical, and endoscopic profiles of patients who underwent diagnostic colonoscopy over one year in our center

Methods: We conducted a retrospective descriptive study including all patients who underwent diagnostic colonoscopy between January 2024 and January 2025. Bowel preparation included a three-day low-residue diet and four liters of polyethylene glycol. Colonoscopies were performed without sedation by experienced gastroenterologists. Demographic, clinical, and endoscopic data were collected, including indications, bowel preparation quality (Boston classification), findings, and colonic segments. Associations between patient characteristics and findings were analyzed statistically

Results: A total of 1,359 patients were included (sex ratio M/F = 0.98; mean age 55.8 years). The main indications were constipation (19.5%), chronic diarrhea (17.3%), and iron-deficiency anemia (8.9%). Adequate bowel preparation was achieved in 51.5% of patients, more frequently in men ($p = 0.022$). Colonoscopy was normal in 60% of cases. The most common lesions were ulcerative colitis ($n = 35$), polyps ($n = 35$), diverticulosis ($n = 21$), and cancer ($n = 15$), the latter associated with older age (mean 68.2 years, $p = 0.045$). The sigmoid colon was most frequently involved (24.9%). Diagnostic yield was significantly higher with good bowel preparation ($p < 0.001$)

Conclusion: Diagnostic colonoscopy remains crucial in evaluating bowel disorders. This study highlights the predominance of benign lesions and emphasizes improving bowel preparation to enhance diagnostic yield.

Odontogenic Sinusitis: Clinical Features, Management and Outcomes

Ferchichi S, Chakroun A, Jouini Z, Gritli K, Karrat G

Mohamed Taher Maâmour University Hospital, faculty Of Medicine Of Tunis, university Of Tunis El Manar

Introduction: Odontogenic sinusitis is an uncommon but significant cause of maxillary sinus infection, often resulting from dental infections, extractions, or implants. Its presentation may mimic rhinogenic sinusitis, which can lead to diagnostic confusion.

Aim: To describe the clinical features, diagnostic approach, and outcomes of patients hospitalized for odontogenic sinusitis between 2018 and 2024, including rare severe complications.

Methods: A retrospective study included all adult patients hospitalized with odontogenic sinusitis from January 2018 to December 2024. Data collected included demographics, symptoms, dental history, sinus involvement, imaging,

treatment modalities, complications, and outcomes.

Results:Forty-two patients were included (25 females, 17 males; mean age: 38.6 years). The most frequent symptoms were unilateral nasal obstruction (88%), purulent rhinorrhea (76%), facial pain (69%), and dental pain (54%).

Maxillary sinus was involved in 83% of cases, with pansinusitis in 17%. Diagnosis was confirmed by CT imaging and dental evaluation. All patients received systemic antibiotics, and 31 patients (74%) underwent endoscopic sinus surgery combined with treatment of the causal tooth. One patient developed a complicated Lemierre's syndrome, requiring intravenous antibiotics, anticoagulation, and surgical drainage. All patients recovered. Recurrence occurred in 4 patients (9.5%), all of whom had not received treatment of the causal tooth.. Overall, 90% of patients had favorable outcomes.

Conclusion: Odontogenic sinusitis can mimic rhinogenic sinusitis and, rarely, may lead to life-threatening complications. A dental origin should always be considered in unilateral sinusitis. Combined medical, surgical, and dental management is essential for optimal outcomes and prevention of recurrence.

Otorhinolaryngologic Manifestations of Sarcoidosis: Experience from the Otolaryngology Department of Mohamed Taher Maâmourî University Hospital, Nabeul

Ferchichi S, Chakroun A, Jouini Z, Gritli K, Kharraz G

Mohamed Taher Maâmourî University Hospital, Faculty of Medicine of Tunis, University of Tunis el Manar

Introduction: Sarcoidosis is a chronic multisystem granulomatous disorder of unknown etiology. ENT involvement is uncommon but may be the first or only manifestation. The presence of ENT lesions may reflect a more progressive or systemic disease course.

Aim:To describe the clinical features, diagnostic evaluation, and outcomes of patients with ENT manifestations of sarcoidosis treated at the Otolaryngology Department of Taher Maâmourî University Hospital in Nabeul.

Methods: A retrospective study was conducted from January 2017 to December 2024, including 23 adult patients with sarcoidosis affecting the upper aerodigestive tract. Data on demographics, clinical presentation, ENT lesions, imaging, histopathology, treatment, and follow-up outcomes were collected and analyzed.

Results: Twenty-three patients were included (15 females, 8 males; mean age: 42 years). ENT involvement included cervical lymphadenopathy (48%), nasal obstruction with submucosal nodules (26%), septal perforations (13%), cavum lesions (17%), and laryngeal involvement with submucosal nodules on the vocal cords (9%). Diagnosis was confirmed histologically by non-caseating granulomas. Notably, two cases were diagnosed fortuitously on histopathology after thyroidectomy. Most patients received systemic corticosteroids; three required adjunct immunosuppressive therapy. Seven patients experienced spontaneous remission. One patient died due to concomitant cardiac sarcoidosis. ENT involvement generally correlated with more systemic disease progression.

Conclusion: ENT sarcoidosis can involve the nasal mucosa, cavum, and vocal cords, and may occasionally be discovered incidentally after thyroid surgery. Its presence may indicate a more progressive systemic course, highlighting the importance of early recognition, histopathological confirmation, and multidisciplinary management to optimize outcomes.

Assessment of Self-Medication Practices Among Hospitalized Patients at a Trauma and Burns Center

Chabbou A^{1,2}, Ellouze I^{1,3}, Sallem OK⁴, Gargouri M²

1. University of Monastir, Faculty of Pharmacy, Monastir, Tunisia

2. Ben Arous Traumatology and Severe Burns Center, Pharmacy Department, Ben Arous, Tunisia

3. Military Hospital of Sfax, Pharmacy Department, Sfax, Tunisia

4. Department of Nutrition and Nutritional Diseases, Fattouma Bourguiba Hospital, Monastir & Faculty of Medicine, University of Monastir, Tunisia

Introduction: Self-medication is a common behavior among hospitalized patients with significant implications for care safety and effectiveness. This study evaluates self-medication practices among patients at the Centre of Traumatology and Major Burns, Ben Arous.

Aim: To assess the prevalence, patterns, and factors associated with self-medication practices in hospitalized patients and their awareness of related risks.

Methods: A pharmaceutical interview was conducted in September 2024 with hospitalized patients from three clinical departments: general surgery, orthopedics, and neurosurgery. Data were collected using a standardized form and analyzed with Excel software.

Results: Sixty-five patients were included (sex-ratio 1.2; median age 42 years). Comorbidities included hypertension (68%), diabetes (56%), and cardiovascular disease history (47%). Self-medication was confirmed in 34.4% of participants. Most commonly self-administered medications were analgesics including paracetamol (45.7%), non-steroidal anti-inflammatory drugs (21.9%), proton pump inhibitors (10.6%), and antihistamines (3.3%). Reasons for self-medication included positive prior experience (55.7%), family recommendations (26.9%), and consultation costs (12.6%). Notably, 88.5% of patients did not consult a physician or pharmacist before self-medicating, and 76.9% were unaware of associated risks. Adverse effects were reported by only 4.6% of patients.

Conclusion: This study highlights concerning self-medication use among hospitalized patients despite significant medical histories. Most participants consumed medications without prescriptions based on past experiences or social recommendations, while unaware of potential risks. Patient education on self-medication dangers and promotion of medical consultation is essential for improving care safety.

Non-lethal weapon with fatal outcome: fatality from an air-gun projectile

Ouni M, Bellali M, Fatma Aloui F, Brahem R, Cherif K, Allouche M

Forensic Medicine Department Charles Nicolle Hospital, Tunis

Introduction: Although generally perceived as safe recreational devices, air-guns are capable of inflicting severe penetrating injuries. The severity of tissue damage depends on projectile velocity, composition, and anatomical impact site, and cranial penetration carries a substantial risk of fatality.

Objective: Air-guns are commonly considered non-lethal because of recreational use, availability and lower muzzle energy compared with firearms. Nevertheless, cranial penetration can produce fatal injuries. We present a case that illustrates this lethal potential.

Methods: We report a forensic autopsy of a death caused by an air-rifle projectile performed at the Department of Forensic Medicine, Charles Nicolle Hospital, Tunis.

Results: A young adult was found in cardiopulmonary arrest at

a friend's flat. External examination showed a single rounded contused wound on the right cheek, 4.5 mm in diameter, consistent with an entry wound; no exit wound or other external trauma was identified. Internal dissection revealed an oblique intracranial trajectory with catastrophic brain parenchymal lesions. A deformed lead pellet was located adjacent to the left sphenoid wing after impacting the left parietal bone, indicating an internal ricochet. The implicated air rifle belonged to the flat's owner.

Conclusion: This case confirms that air-guns can deliver lethal cranial injury. It underlines the need for tighter regulation and increased public education about the risks associated with these weapons.

Virtual Reality as a Teaching Tool in the Management of Blood Exposure Accidents

Kacem I^{1,2}, Gannoun N^{2,3}, Sridi C^{2,3}, Aloui A^{1,2}, Maoua M^{2,3}, Najja W^{2,4}

1. Service de Médecine du Travail – Hôpital Universitaire Farhat Hached, Sousse – Tunisie
2. Faculté de Médecine de Sousse, 4002 Sousse – Tunisie
3. Service de Médecine du Travail – Hôpital Universitaire Sahloul, Sousse – Tunisie
4. Service d'Anesthésie et de Réanimation – Hôpital Universitaire Sahloul, Sousse – Tunisie

Introduction: Originally created for military and entertainment applications, virtual reality (VR) has recently emerged as a promising resource in healthcare education, providing immersive, interactive, and experiential learning opportunities. However, despite its increasing significance, evidence concerning the integration and effectiveness of VR in medical trainings especially regarding procedural and emergency management skills remains limited.

Objective: To evaluate the usefulness of VR in teaching the management of blood exposure accidents.

Methods: We conducted a quasi-experimental before–after study assessing a VR-based training program for third-year medical students (SCM 3) during their rotation in occupational medicine. The evaluation tool included a pre-test, a post-test, and a learner satisfaction questionnaire.

Results: Eight DCEM 3 students participated in the study; none had previously experienced VR-based learning. The mean pre-test score was 3.37/5, increasing to 4.5/5 in the post-test administered after the VR learning session. Overall satisfaction with this new learning experience was rated as excellent by five students (62.5%) and good by the remaining three (37.5%). All participants expressed strong motivation to take part in similar experiences and recommended integrating VR as a teaching modality within medical faculties.

Conclusion: Virtual reality possesses significant potential in various areas of healthcare, including medical training, therapeutic interventions, and mental health applications. Despite some ongoing challenges, its further development and integration into medical education seem certain. Achieving high-quality training and patient care will necessitate a careful balance between technological advancements and essential human interaction.

Impact of Severe Head-Dominated Teratozoospermia on ICSI Outcomes

Ghodhbane E¹, Gherissi O¹, Elbani B¹, Ben Mustapha H^{1,2}, Ajina M^{1,3}

1. Reproductive Biology Department, Farhat Hached Hospital, Sousse, Tunisia
2. Faculty of Pharmacy of Monastir, Monastir, Tunisia

3. Ibn Jazzar Faculty of Medicine, Sousse, Tunisia

Introduction: Severe teratozoospermia remains a major challenge in assisted reproduction, especially when dominated by head defects. This study aimed to evaluate the impact of severe head-predominant teratozoospermia on ICSI outcomes.

Methods: A retrospective observational study was conducted at the Reproductive Biology Department of Farhat Hached Hospital, Sousse (Tunisia), from January 2024 to April 2025. Among 134 infertile couples assessed, 87 were included: a case group with severe teratozoospermia (n = 53; normal forms < 3%) and a control group (n = 34; morphology ≥ 4%). ICSI was performed after sperm selection under high-magnification inverted microscopy.

Results: Baseline characteristics were comparable between groups. The mean male age was 39.2 ± 6.1 years in the severe teratozoospermia group versus 36.4 ± 5.8 years in controls. The mean infertility duration was 4.8 ± 2.3 versus 4.1 ± 2.0 years, and BMI distribution showed no significant difference. Fertilization rates were significantly lower in the severe teratozoospermia group (58.5% vs 72.1%, p < 0.05). The proportion of top-quality embryos was also reduced (31.4% vs 47.1%, p < 0.05). Clinical pregnancy rates were markedly decreased (18.9% vs 35.3%, p < 0.05). Acrosomal defects represented 42.5% of all head anomalies, compared with 18.7% in the control group (p < 0.01). These defects showed a strong negative correlation with fertilization failure and poor embryo quality.

Conclusion: Severe head-dominant teratozoospermia significantly compromises ICSI outcomes despite micromanipulation techniques. Advanced sperm-selection approaches and targeted genetic assessments may help improve reproductive success in this population.

Occupational conditions and Cardiovascular Health in the Working Population of Sousse Governorate

Ben Afia L, Miladi A, Brahem A, Belhaj Mabrouk K*, Elmalel O**, Bouzgarrou L

Occupational Medicine and Occupational Pathology Department, Haj Ali Soua Regional Hospital, Ksar Helal–Monastir, Tunisia

*Sousse Occupational Medicine Group (GMTS), Sousse, Tunisia,

**Occupational Medicine Department, Farhat Hached Hospital, Sousse, Tunisia

Introduction: Cardiovascular diseases (CVDs) are disabling, costly conditions.

Aims: to assess cardiovascular health among workers and its determinants.

Methods: A representative sample of Sousse working population was developed (n= 1878 from 31 companies). Data were collected from medical records completed by an interview with SF-12 questionnaires.

Results: The mean age was equal to 35.15 ± 9.06 years, and the sex to 0.77. The tobacco addiction concerned 14.9% and the physical inactivity 51.4% of them. The CVDs prevalence was 8.8% (n = 158), with 126 cases of hypertension, 5 cases of angina, and 3 cases of myocardial infarction. These diseases were significantly more common among males (10.9% vs 7.2%, p = 0.006; OR = 1.58, 95% CI: 1.14–2.19); workers over 45 years (44.2 ± 9.9 vs. 34.2 ± 8.5 years, p < 0.001; OR = 1.13, 95% CI: 1.11–1.15); and those with rural origins (OR = 2.25, 95% CI: 1.51–3.35, p < 0.001). Family history of CVD, overweight, and obesity were significantly associated with CVD (OR = 2.84, 1.51, and 3.23, respectively). Exposure to vibrations and thermal constraints were significantly to CVD (p= 0.005 and < 0.001, respectively). Professional seniority, sector seniority, and time in the current position were all significantly higher among workers

with CVD (all $p < 0.001$). Night fixed-position was strongly linked to CVD (OR = 4.05, 95% CI: 2.74–5.99, $p < 0.001$).

Conclusions: Work conditions and occupational exposures may substantially contribute to cardiovascular risk among this working population, emphasizing the need for multidisciplinary comprehensive interventions.

Emphysematous pyelonephritis: Is conservative management always safe? Predictive factors of treatment failure in a 35-case series

Bahria MA, Sakly A, Chakroun A, Ben Saad H

University Of Monastir, Faculty of Medicine, Tahar Sfar Hospital, Urology Department, Mahdia, Tunisia.

Introduction: Emphysematous pyelonephritis (EPN) is a rare, life-threatening infection of the upper urinary tract. Its diagnosis is difficult due to nonspecific clinical signs, and management remains controversial, although conservative treatment is increasingly preferred.

Aim: To describe the clinical, microbiological, radiological, therapeutic, and outcome characteristics of EPN and to identify factors associated with failure of conservative management.

Methods: We conducted a retrospective descriptive and analytical study in the departments of Urology and Infectious Diseases at Mahdia University Hospital from 2013 to 2024. Data was collected from 35 patients with CT-confirmed EPN and analyzed using univariate and multivariate Methods to identify predictors of conservative treatment failure.

Results: The mean age was 60.3 ± 15.9 years, with a female predominance (62.9%). The main comorbidities were diabetes (65.7%), urolithiasis (54.3%), and hypertension (45.7%). Severe sepsis (SOFA ≥ 2) occurred in 65.7%. Urine culture was positive in 74.3%, mainly isolating *E. coli* (69.2%) and *K. pneumoniae* (30.8%). According to Huang and Tseng's classification, 45.7% were class I. All patients initially received conservative management: antibiotic therapy alone (31.4%) or with drainage (68.6%). Nephrectomy was required in 8 cases (22.9%), and mortality was 11.4%. Independent predictors of failure were a NEWS2 ≥ 5 ($p = 0.014$; OR = 12.2 [1.6–90.9]) and CRP ≥ 200 mg/L ($p = 0.028$; OR = 12.5 [1.3–119.7]).

Conclusion: Conservative management remains the preferred approach for EPN. However, patients with NEWS2 ≥ 5 or CRP ≥ 200 mg/L should be considered at high risk of failure and may require early surgical evaluation.

Acute heart failure: predictive factors of rehospitalization and mortality

Antit S, Khedher R, Gharsallah N, Boussabah E, Zakhama L

Cardiology Department, Internal Security Forces Hospital, La Marsa

Introduction: Acute heart failure (AHF) is a major cause of mortality worldwide, including in Tunisia. Medium-term outcomes remain poor, with high rates of death and rehospitalization. This study Aims to identify predictive factors for these events at 6 months.

Methods: We conducted a prospective longitudinal study including all patients hospitalized for AHF in the cardiology department of the Internal Security Forces Hospital in La Marsa between December 2020 and December 2022. Clinical, biological, and echocardiographic data were collected, and patients were followed for 6 months. The primary endpoint was a composite of mortality and/or rehospitalization. Mortality and rehospitalization were also assessed separately.

Results: A total of 152 patients were included (mean age 65 ± 10 years). The primary endpoint occurred in 69 patients. Rehospitalization and mortality rates were 39% and 19%, respectively. Age >65 years was an independent predictor of the composite endpoint (OR = 2.58, $p = 0.005$). A global longitudinal strain (GLS) $< 13\%$ was the strongest predictor of the primary outcome (OR = 4.25, $p = 0.001$). Higher IV diuretic dose, higher discharge diuretic dose, and catecholamine use were also associated with adverse events. NT-proBNP (cut-off 4100 ng/L; OR = 14, $p = 0.001$) and CRP predicted mortality. Only age (OR = 1.065, $p = 0.009$) and GLS (OR = 1.118, $p = 0.023$) predicted rehospitalization.

Conclusion: Mortality and rehospitalization after AHF are multifactorial. Identifying key predictors may guide individualized management and improve patient outcomes.

Dietary Patterns, and Vitamin D Intake in Occupational Medicine Patients: A Cross-Sectional Study

Ben Afia L, Miladi A, Baroudi A, Mahfoud A*, Khalfallah T*, Bouzgarrou L

Occupational Medicine Department, Haj Ali Soua Hospital, Ksar Hellal, Tunisia

* Occupational Medicine Department, Taher Safr Hospital, Mahdia, Tunisia

Introduction: Healthy lifestyle is essential for promoting health throughout adulthood.

Aim: to assess dietary habits and their determinants among occupational department patients.

Methods: A cross-sectional study was conducted in Mahdia Hospital's occupational department. Patients were invited to complete the STC questionnaire (Starting The Conversation), the VDQ (Short Vitamin D Questionnaire), and IPAQ (International Physical Activity Questionnaire) during a telephone interview.

Results: Among the 72 patients (50.0 ± 8.6 years) who completed the survey, 6.8% practice regular physical activity. Healthy dietary habits were adopted by 4.2%, partially balanced diets by 73.6%, and unhealthy habits by 22.2% of them. Mean daily vitamin D intake was 2.2 ± 4.9 $\mu\text{g/day}$ and insufficient in 91.7% of cases. Unhealthy dietary behaviors were significantly noted among individuals with lower coping ability ($p = 0.001$), moderate to severe concentration difficulties ($p = 0.025$), and a history of musculoskeletal disorders ($p = 0.023$). This last factor was the only independent predictor identified by multivariate analysis ($p = 0.001$; OR = 20.5, 95% CI: 4.98–84.80). Insufficient vitamin D intake was associated with age over 50 years ($p = 0.001$), long professional experience ($p = 0.024$), concentration difficulties ($p = 0.013$), atypical shifts ($p = 0.007$), and weekly working hours >40 ($p = 0.024$). This deficiency was associated with the inability to enjoy day-to-day activities, according to multivariate analysis ($p = 0.014$; OR = 2.96, 95% CI: 1.85–4.73).

Conclusion: Promoting healthy diet and lifestyle is essential for reducing morbidity, supporting health, and maintaining work performance among adults in the workforce.

Predictive Factors of Postoperative Cognitive Dysfunction in Elderly Patients Undergoing Endoscopic Resection of Bladder Tumors

Ouanes Y¹, Karmous J², Baradai N³, Chakroun A², Chikhaoui B², Nouira Y²

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Research Lab on Genomics of Signalopathies at the Service of Precision Medicine LR23ES07 MESRS.tn, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

3. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and Emergency Department, Tunis, Tunisia.

Introduction: Postoperative cognitive dysfunction (POCD) is a frequent complication in elderly surgical patients, often occurring in the first postoperative week and affecting recovery and quality of life.

Aim: This study aimed to identify predictive factors of POCD in elderly patients undergoing transurethral resection of a bladder tumor (TURBT).

Methods: We conducted a prospective observational study between December 2021 and May 2022 at La Rabta Hospital, including patients aged ≥ 65 years who underwent TURBT under spinal or general anesthesia. Cognitive function was assessed using the Mini-Mental State Examination (MMSE) before surgery, and at postoperative day 7 and month 1. A score ≤ 23 was considered indicative of cognitive impairment. Multivariate logistic regression analysis was performed to identify independent predictors of POCD, with $p < 0.05$ considered statistically significant.

Results: A total of 104 patients were included, with a mean age of 68 ± 6 years and a male-to-female ratio of 3:1. Most patients (81%) were classified as ASA II. The incidence of POCD (MMSE ≤ 23) was 27.8% at one week and 13.5% at one month postoperatively. Multivariate analysis identified preoperative blood transfusion ($p = 0.043$; OR = 3.22), postoperative urinary tract infection ($p = 0.034$; OR = 3.10), and elevated C-reactive protein levels ($p = 0.002$; OR = 13.26) as independent predictive factors of POCD.

Conclusion: Elderly patients undergoing TURBT are at increased risk of postoperative cognitive dysfunction, particularly in the presence of preoperative transfusion, postoperative infection, or systemic inflammation. Implementing preventive perioperative strategies may help reduce the incidence of POCD.

Psychological Determinants of Tunisian Nurses' Attitudes Toward Artificial Intelligence

Chaabene A, Rmadi N, Hajjaji M, Kotti N, Hrairi A, Jmal Hammami K

1. Polyclinic of the National Social Security Fund, Sfax, Tunisia
2. Occupational Medicine Department, Hedi Chaker University Hospital, Sfax, Tunisia

Introduction: The integration of artificial intelligence (AI) in healthcare presents a significant challenge, the success of which hinges on its acceptance by healthcare professionals.

Aim: To examine the psychological determinants, including occupational self-efficacy and psychological distress, influencing Tunisian nurses' attitudes toward the integration of AI in clinical practice.

Methods: A cross-sectional survey was conducted among Tunisian nurses using an anonymous online questionnaire. Data collection included the short version of the Occupational Self-Efficacy Scale (OCCSEFF) to assess self-efficacy, the Kessler K6 scale for psychological distress, and the AI Attitude Scale (AIAS-4) to evaluate attitudes toward AI. Pearson correlation and binary logistic regression analyses were applied to examine associations between variables.

Results: A total of 92 Tunisian nurses participated, with a mean age of 33.4 ± 6.3 years and a female predominance (65%). The mean self-efficacy score (OCCSEFF-8) was 24.2 ± 8.2 , psychological distress (K6) averaged 9.2 ± 4.5 , and attitudes toward AI (AIAS-4) averaged 6.5 ± 2.3 . Psychological distress was negatively correlated with AI attitudes ($r = -0.25$, $p = 0.015$). Binary logistic regression indicated that elevated occupational self-efficacy emerged as a significant predictor of more positive attitudes toward AI ($p = 0.028$; OR = 9.5; 95% CI [1.2 - 71.4]).

Conclusion: Higher self-efficacy strongly favoured positive attitudes toward AI, whereas psychological distress hindered them. Enhancing nurses' psychological readiness may therefore be essential for effective AI integration in clinical practice.

Endometriosis and Sexual Well-Being: A Case-Control Analysis

Grami N; Debbiche A; Hammami MA; Boumaiza A; Nalouti K; Atef Y

Centre de maternité et de néonatalogie de Tunis ; Service " A "

Background: Endometriosis is a chronic gynecological disorder defined by the presence of endometrial tissue outside the uterine cavity, affecting 6–10% of women of reproductive age. Beyond pelvic pain, dysmenorrhea, and dyspareunia, the disease exerts a profound effect on women's quality of life and sexual health. This study aimed to assess the global impact of endometriosis on these dimensions in women followed in a university gynecology department.

Methods: A descriptive comparative study was conducted between January and December 2024, including 74 women: 37 with imaging- or surgery-confirmed endometriosis and 37 healthy controls. Three validated questionnaires were used: SF-36 for quality of life, FSFI for female sexual function, and EHP-5 for endometriosis-specific impact. Statistical analyses were performed using SPSS 25.0, with significance set at $p < 0.05$.

Results: The mean age was 32.4 ± 5.2 years in the endometriosis group. Pelvic pain (86%) and dysmenorrhea (92%) were the predominant symptoms. Mean FSFI scores were significantly lower in the endometriosis group (22.1 ± 6.3) compared to controls (28.4 ± 5.8 ; $p < 0.001$), indicating impaired sexual function. Physical and emotional domains of SF-36 were also reduced. The EHP-5 pain score showed a strong negative correlation with FSFI ($r = -0.62$; $p < 0.01$).

Conclusion: Endometriosis significantly impairs both quality of life and female sexual function, with pain emerging as the main predictor of sexual dysfunction. A multidisciplinary management approach, integrating medical, psychological, and sexological support, is essential to enhance patients' overall well-being.

Toward Optimized OCT Parameters for Glaucoma: Evaluating SD-OCT Biomarkers in the Continuum of Primary Open-Angle Glaucoma

Oueslati Y, Khallouli A, Bouchoucha S, Houatmi A, Maalej A

Faculty of Medicine of Tunis, University of Tunis El Manar

Introduction: Early detection of structural alterations in primary open-angle glaucoma (POAG) is crucial for preventing irreversible visual field loss. Spectral-domain optical coherence tomography (SD-OCT) provides quantitative analysis of the optic nerve head (ONH), retinal nerve fiber layer (RNFL), and ganglion cell complex (GCC), offering valuable diagnostic insights even before functional impairment appears.

Aim: To assess and compare the diagnostic performance of SD-OCT parameters in preperimetric and perimetric stages of POAG.

Methods: This analytical study included 348 eyes from 192 participants who underwent standard automated perimetry and SD-OCT imaging in ONH, RNFL, and GCC modes. Participants were classified into three groups: healthy controls (86 eyes), preperimetric glaucoma (PPG, 74 eyes), and manifest POAG (188 eyes). Receiver operating characteristic (ROC) curve analysis was performed to determine the discriminative ability

of each OCT parameter.

Results: ONH parameters demonstrated lower discriminatory ability compared with RNFL and GCC measures. Significant thinning of RNFL and GCC was observed across all sectors when comparing healthy eyes to PPG ($p < 0.001$). Inferior GCC thickness exhibited the highest AUC values in both stages, outperforming the mean RNFL ($p < 0.001$). Among manifest glaucoma eyes, average RNFL (AUC = 0.841) and inferior RNFL thickness (AUC = 0.862; $p < 0.001$) showed excellent diagnostic accuracy. For differentiating PPG from manifest POAG, superior RNFL thickness achieved the highest AUC (0.723; $p < 0.001$).

Conclusion: GCC and RNFL parameters outperform ONH metrics for early and advanced POAG detection, with inferior sector analysis providing the strongest diagnostic utility at both disease stages.

Impact of Detorsion Time on Postoperative Ovarian Reserve in Ovarian Torsion: A Prospective Study Using Anti-Müllerian Hormone (AMH) Levels

Nayet Mohamed K, Hammami MA, Azzaz S, Debbiche A, Naffouti A, Youssef A

Department A, Tunis Maternity Center, Tunis, Tunisia

Ovarian torsion is a gynecological emergency that threatens ovarian viability. Early laparoscopic detorsion is crucial, but the precise relationship between ischemia duration and ovarian reserve remains unclear. This study evaluates the impact of detorsion time on postoperative AMH levels. We conducted a prospective study including women aged <40 years operated for ovarian torsion at a tertiary Tunisian center. Detorsion time was defined as duration from onset of pain to laparoscopic detorsion. AMH was measured preoperatively and at 6 weeks postoperatively. Patients were grouped by detorsion time: <6 hours, 6–12 hours, and >12 hours. Ovarian viability and recurrence were monitored. A total of 52 women were included. Mean detorsion time was 8.4 hours. Postoperative AMH decline varied significantly by group: <6 h: AMH decreased by only 9%, with 95% ovarian recovery. 6–12 h: AMH decreased by 28%, with partial recovery. >12 h: AMH decreased by 54%, with higher rates of atrophy and recurrent pain. Detorsion time strongly correlated with AMH decline ($r = -0.71$; $p < 0.001$). No cases required oophorectomy. Ovarian reserve declines proportionally with detorsion delay. Early laparoscopic intervention—ideally within the first 6 hours—offers the best chance for ovarian function preservation. AMH is a sensitive biomarker to assess postoperative ovarian viability.

Impact of albumin variation on ultrafiltration volume in patients undergoing peritoneal dialysis

Elaid R, Gaied H, Bedoui H, Benabdallah A, Hadded S, Goucha R

Mongi Slim Hospital, Faculty Of Medicine Of Monastir

Peritoneal dialysis (PD) is a home-based dialysis offering efficacy comparable to hemodialysis. Ultrafiltration (UF) maintains fluid balance and prevents cardiovascular overload. Serum albumin, reflecting plasma oncotic pressure, may affect UF. This study evaluates albumin's impact on UF and explore the potential of artificial intelligence Methods for predictive modeling. We conducted a retrospective, single-center study in the Nephrology Department of Mongi Slim Hospital between January 2022 and December 2024. The study included patients undergoing peritoneal dialysis (PD) with repeated measurements of serum albumin and ultrafiltration volume. Clinical, biochemical, and

dialysis-related data were analyzed using Python. Descriptive analyses focused on demographic, biochemical, and dialysis adequacy parameters, while analytical modeling employed linear regression and a Random Forest Regressor to explore and predict the relationship between serum albumin levels and ultrafiltration volume. The mean age was 46.6 ± 14.1 years, with 63.6% males. Mean albumin decreased from 36.0 g/L to 33.5 g/L during follow-up. Mean UF volume was 676 ± 314 mL/session. A significant correlation was found between albumin and UF ($r = 0.812$; $p < 0.001$). Predictive models showed strong performance: linear regression $R^2 = 0.826$ and Random Forest $R^2 = 0.815$, confirming a robust quasi-linear relationship between albumin and UF. Serum albumin is a major determinant of UF volume in PD. Regular monitoring of albumin can help anticipate ultrafiltration failure. Artificial intelligence models provide a promising tool for personalized UF prediction and optimization of PD management. These findings should be confirmed in multicentric studies with larger cohorts.

The Role of Artificial Intelligence in Predicting Survival Outcomes in Patients with Oral Squamous Cell Carcinoma: A Systematic Review and Meta-Analysis

Ben Haj Slimen N, Bougezzi A, Yaakoub S, Hentati H

University of Monastir, Faculty of Dental Medicine of Monastir, Dental Medicine Clinic of Monastir

Background: Oral Squamous Cell Carcinoma (OSCC) accounts for a significant proportion of oral cancers, often diagnosed at late stages with poor survival outcomes. Artificial Intelligence (AI) has demonstrated promising capabilities in oncology, particularly in survival prediction. This systematic review and meta-analysis evaluate the role of AI in predicting survival outcomes, recurrence, and treatment responses in OSCC patients.

Objective: To assess the diagnostic accuracy, sensitivity, specificity, and clinical impact of AI algorithms in predicting survival outcomes in OSCC.

Methods: A systematic search of PubMed, Scopus, Web of Science, and Cochrane Library databases was conducted to identify studies published between 2000 and 2024. Studies were included if they evaluated AI models for survival prediction in OSCC patients. Pooled diagnostic metrics were calculated, and heterogeneity was assessed using the I^2 statistic. Subgroup analyses were performed based on data type, AI model, and patient population.

Results: A total of 45 studies were included. The pooled sensitivity and specificity of AI models in predicting 5-year survival were 87% and 82%, respectively. AI models incorporating clinical, imaging, and genetic data outperformed those using single data modalities (AUC: 0.91 vs. 0.79; $p < 0.01$). Machine learning models, particularly ensemble Methods, demonstrated higher accuracy than traditional statistical approaches.

Conclusion: AI provides high accuracy in predicting survival outcomes in OSCC patients, especially when integrating multimodal data. These findings highlight the potential of AI to support personalized treatment planning and improve patient outcomes. Future research should focus on external validation and implementation in clinical workflows.

Carbon monoxide poisoning in children: Impact of a mobile application on parents' knowledge

Atitallah S, Ebdelli I, Mouelhi G, Saidani S, Yahyaoui S, Boukthir S

1. Higher Institute Of Nursing Sciences Of Tunis

2. Department Of Pediatric Medicine C, Béchir Hamza Children's Hospital Of Tunis

Introduction: Carbon monoxide (CO) poisoning is a major global public health issue and a common cause of pediatric hospitalization, particularly during winter. Parental knowledge and preventive practices play a crucial role in minimizing CO exposure. Mobile health applications may represent innovative tools to enhance awareness and prevention.

Aim: To evaluate the impact of a mobile application on parental knowledge and preventive practices regarding CO poisoning in children.

Methods: We conducted an interventional, quantitative, descriptive, and analytical cross-sectional study between February and April 2025 at the Béchir Hamza Children's Hospital. Fifty parents participated by completing a pre-test questionnaire, followed by an educational intervention using the mobile application NoCO, and then a post-test. The questionnaire assessed theoretical knowledge, preventive practices, and emergency responses. Data were analyzed using SPSS version 30 with McNemar and paired t-tests; $p < 0.05$ was considered statistically significant.

Results: The mean knowledge score increased significantly from 27.28/50 before the intervention to 49.08/50 after ($p < 0.001$; Cohen's $d = 2.93$). Similarly, parental preventive practices improved markedly (pre-test mean 12.84/25 vs. post-test 24.36/25; $p < 0.001$). All participants (100%) reported gaining new knowledge and found the application clear, useful, and easy to use. Most parents (94%) expressed willingness to download and use the application on their smartphones.

Conclusion: The NoCO mobile application significantly enhanced parental knowledge and preventive practices concerning carbon monoxide poisoning in children. This innovative tool represents a promising approach to strengthening health education and prevention, underscoring the key role of digital technologies in public health.

Impact of Metabolic Dysfunction–Associated Steatohepatitis (MASH) on Survival in Patients with Hepatocellular Carcinoma

Gabteni L, Sabbah M, Boussabon M, Zaouga S, Bibani N, Gargouri D

Service de Gastro-entérologie, Hôpital Habib Thameur

Introduction: Metabolic factors shape liver disease progression and may influence hepatocellular carcinoma (HCC) prognosis. Metabolic dysfunction–associated steatohepatitis (MASH), often linked to metabolic syndrome, could act as a cofactor for morbidity and mortality in HCC, independent of underlying etiology.

Aim: To evaluate the impact of MASH on overall survival and mortality in HCC.

Methods: We conducted a retrospective study of cirrhotic patients with HCC (2022–2024). Cases arising from MASH-related cirrhosis were excluded. Patients were stratified by the presence or absence of diagnostic features of MASH (diabetes, hypertension, obesity). Clinical, laboratory, imaging, and outcome variables were compared. Overall survival (OS) was estimated using Kaplan–Meier and compared with the log-rank test (SPSS 25; $p < 0.05$).

Results: Among 108 patients, 58% were men; mean age 66 years. Etiologies were hepatitis C 50%, hepatitis B 28%, undetermined 19%, alcohol-related 3%. Child–Pugh class was A in 33%, B in 46%, and C in 21%. By Milan criteria, 76% had large HCC and 24% had small HCC. Twenty-four percent ($n = 26$) had associated MASH. Baseline epidemiologic, clinical, laboratory,

and imaging characteristics were comparable. Six-month OS was higher with MASH than without (66% vs 51%; $p = 0.05$). OS at 18 and 24 months was not significantly influenced by MASH in this cohort.

Conclusion: In cirrhotic HCC not caused by MASH, concomitant MASH was not an unfavorable prognostic factor. Early survival appeared better, whereas longer-term outcomes were similar. Larger multicenter cohorts are needed to refine risk stratification and clarify how metabolic comorbidities should inform HCC management.

Pain and Discomfort After Endoscopy: Predictive Factors

Ben Khalifa MO, Jlassi H, Hammouda L, Sabbah M, Bibani N, Gargouri D

Université Tunis El Manar, FMT, Hopital Habib Thameur, Service d'hépatogastroentérologie

Introduction: Digestive endoscopy may cause pain and secondary symptoms such as bloating and nausea, impacting patient comfort.

Aims: To identify predictive factors of post-procedural pain and assess its association with other post-endoscopic symptoms.

Methods: Fifty-one patients undergoing digestive endoscopy were prospectively included in a cross-sectional study. Demographic, psychological, clinical, and technical variables were collected. Primary outcomes were the 24-hour VAS pain score, bloating, nausea/vomiting, and time to resume daily activities.

Results: The mean age was 59.7 years (range 29–82), sex ratio 1.32. The mean 24-hour VAS score was 1.4. Higher pain levels were associated with pre-procedural anxiety ($r = 0.52$; $p = 0.001$), higher expected pain ($p = 0.003$), and a low pain threshold ($p = 0.005$). Longer procedure duration ($p = 0.007$) and technical difficulties ($p < 0.05$) also increased pain. Biopsies and polypectomy—particularly hot-snare polypectomy—were associated with higher pain ($p = 0.02$ – 0.04) and with bloating ($p = 0.04$). A history of abdominal surgery, digestive disorders, psychiatric conditions, and constipation correlated with increased pain ($p < 0.05$). Bloating (30% of patients) strongly correlated with pain ($r = 0.58$) and with procedure duration. Nausea/vomiting occurred more often after prolonged or therapeutic procedures ($p < 0.05$). Faster return to daily activities (< 24 h) was inversely correlated with pain intensity ($r = -0.49$).

Conclusion: Post-endoscopy pain is multifactorial and influenced by psychological and technical factors. Psychological preparation and managing expectations may enhance patient comfort and recovery.

Prevalence of Healthcare-Associated Infections at Taher Sfar University Hospital, Mahdia, April 2025.

Meherzi M, Mlouki I, Ajmi Blout A, Rezg N, Khouldi A, EL Mhamdi S

Department Of Preventive And Community Medicine, university Hospital Tahar Sfar Mahdia, Tunisia

Introduction: Healthcare-associated infections (HAIs) remain a major global public health concern, contributing to increased morbidity, mortality, and healthcare costs. Their prevalence varies widely across regions, with higher rates reported in Africa, including Tunisia.

Aim: This study Aimed to determine the prevalence of HAIs at Taher Sfar University Hospital, Mahdia, in 2025.

Methods: A descriptive, cross-sectional study was conducted to assess the point prevalence of HAIs at Taher Sfar University

Hospital in April 2025. All hospitalized patients present in the facility on the day of the survey were included. Data were collected using a standardized prevalence survey form for healthcare-associated infections.

Results: Among the 188 patients included, 30 (15.9%) had at least one healthcare-associated infection (HAI), with a total of 38 infections corresponding to an HAI prevalence of 20.2%. The highest prevalence was observed in intensive care units (26.5%) compared with the surgical (16%) and medical departments (7.8%) ($p=0.027$). High-risk departments had a significantly higher prevalence compared with low- and medium-risk departments (24.1% vs. 8.9%; $p=0.004$). The most frequent HAIs were surgical site infections (31.6%), urinary tract infections (23.7%), and respiratory infections (18.4%). Gram-negative bacilli, particularly *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*, were the most commonly isolated pathogens.

Conclusions: HAIs were highly prevalent at Taher Sfar University Hospital, especially in high-risk units. These findings highlight the urgent need to strengthen infection prevention and control strategies to reduce the burden of HAIs and improve patient safety.

Toward Personalized Therapy in Diabetic Macular Edema: Comparative Analysis of Ozurdex® and Aflibercept® Predictive Outcomes

Oueslati Y, Khallouli A, Bouchoucha S, Houatmi A, Maalej A

Faculty of Medicine of Tunis, University of Tunis El Manar

Introduction: Diabetic macular edema (DME) is the leading cause of vision loss in diabetic retinopathy. Intravitreal corticosteroid implants (Ozurdex®) and anti-VEGF agents (Aflibercept®) are widely used, but comparative outcomes and prognostic factors remain debated.

Aim: Compare anatomical and functional efficacy of Ozurdex and Aflibercept in DME and identify predictors of response.

Methods: This comparative study included 76 eyes (38 Ozurdex, 38 Aflibercept) with center-involving DME. Best-corrected visual acuity (BCVA, logMAR) and central macular thickness (CMT, μm) were assessed at baseline, 1, 3 and 6 months. Predictive factors were analyzed using multivariate logistic regression.

Results: Mean BCVA improved from 0.78 ± 0.23 to 0.54 ± 0.21 logMAR at 6 months in Aflibercept group and from 0.82 ± 0.25 to 0.60 ± 0.24 logMAR with Ozurdex (both $p < 0.001$). Mean CMT decreased from $496 \pm 98 \mu\text{m}$ to $340 \pm 62 \mu\text{m}$ with Aflibercept and from $512 \pm 105 \mu\text{m}$ to $322 \pm 70 \mu\text{m}$ with Ozurdex ($p < 0.001$). Functional gain ≥ 10 letters was achieved in 57.9% of Aflibercept eyes versus 47.3% of Ozurdex eyes ($p = 0.04$). Multivariate analysis identified baseline BCVA ($\beta = -0.42$; $p = 0.008$) and CMT ($\beta = 0.31$; $p = 0.02$) as independent predictors of visual improvement. Pseudophakia and shorter diabetes duration predicted better outcomes with Ozurdex, while lower baseline CMT predicted greater gain with Aflibercept.

Conclusion: Both Ozurdex and Aflibercept significantly improve visual and anatomical outcomes. Prognostic factors including baseline BCVA, CMT, and lens status influence treatment response, supporting individualized therapeutic strategies.

Sexual dysfunction and its determinants in women with rheumatoid arthritis: a cross-sectional study

Jomaa O¹; Zaouali F²; Hajji H¹; Ardhaoui M¹; Brahem M¹; Younes M¹

1. University of Monastir, Faculty of Medicine of Monastir, Tahar Sfar University Hospital of Mahdia, Rheumatology Department, Tunisia
2. University of Monastir, Faculty of Medicine of Monastir, Tahar Sfar

University Hospital of Mahdia, Emergency Department / SMUR, Tunisia

Introduction: Sexual health is a crucial often neglected aspect of well-being in women with rheumatoid arthritis (RA). Beyond pain and joint deformities, chronic inflammation, fatigue, and psychological factors may significantly compromise intimacy and quality of life.

Aim: To evaluate sexual function and its determinants among women with RA.

Methods: A cross-sectional study was conducted in the Rheumatology Department of Tahar Sfar University Hospital (Mahdia, Tunisia) over six months (June–December 2025). Only patients who provided informed consent were included. Disease activity was assessed using DAS28 (CRP), functional disability by HAQ, and sexual function by Female Sexual Function Index (FSFI).

Results: Among 57 women with RA followed in the department, 23 were included (mean age 58.6 ± 9.9 years). Most were married (65.2%) and housewives (91.3%). Based on DAS28, 45.6% were in remission, 19.3% had low, 29.8% moderate, and 5.3% high disease activity (mean DAS28 = 2.87 ± 1.2). Mean HAQ was 1.13 ± 0.63 , with 66.7% showing moderate to severe disability. All participants presented sexual dysfunction (mean FSFI = 9.7 ± 8.7), mainly affecting lubrication (100%), orgasm (95.7%), and pain (91.3%). Age ($r = -0.53$; $p = 0.010$) and widowhood ($p < 0.001$) were significantly associated with lower FSFI scores, while DAS28 and HAQ were not.

Conclusion: Sexual dysfunction was universal among women with RA, primarily influenced by age and marital status. These findings emphasize the need to systematically address sexual health within RA management to enhance overall quality of life particularly for older and widowed patients.

Patterns of Antimicrobial Prescriptions and Prevalence of Multi-Drug Resistance in Southern Tunisian University Hospital

Mallek Z, Maamri H, Ben Ayed H, Trigui M, Ben Hamida M, Yaich S

1. Community And Preventive Medicine Department, Hedi Chaker University Hospital, Sfax
2. Hygiene department, Hedi Chaker University Hospital, Sfax
3. Hygiene department, Habib Bourguiba University Hospital, Sfax

Introduction: The inappropriate use of antimicrobial drugs is a major contributor to the rise of multi-drug resistant (MDR) pathogens worldwide. Hospitals are critical settings for such misuse, particularly through unnecessary prophylaxis and broad-spectrum empirical therapy.

Aim: To describe antimicrobial prescribing practices and determine MDR prevalence in tertiary university hospitals in Southern Tunisia

Methods: A point-prevalence survey of antimicrobial use was conducted in the two TLUH of Southern Tunisia in 2019. Detailed information was collected for all inpatients receiving antimicrobial therapy, including type, indication, and clinical factors.

Results: Among 1,047 inpatients, 410 (39.2%) received at least one antimicrobial. Penicillins ($n=165$, 40.2%) and third-generation cephalosporins ($n=114$, 27.8%) were the most frequently prescribed agents. Antimicrobials were prescribed for prophylaxis in 102 cases (24.9%). Factors independently associated with antimicrobial use included admission to surgical wards (AOR = 1.5; $p = 0.014$) or intensive care unit (ICU) (AOR = 2.5; $p = 0.006$), previous hospitalization within 90 days (AOR = 1.6; $p = 0.008$), prior surgical history (AOR = 7.4; $p < 0.001$), and insertion of central (AOR = 4.4; $p < 0.001$) or peripheral vascular

catheters (AOR = 3.7; $p < 0.001$). Multivariate analysis identified ICU admission (AOR = 4.3; $p = 0.008$), previous hospitalization within 90 days (AOR = 3.6; $p < 0.001$), and healthcare-associated infection (AOR = 2.1; $p = 0.044$) as independent predictors of MDR.

Conclusion: Our study illustrated a relatively high prevalence of antimicrobial use and MDR, which requires targeted preventive strategies, mainly for surgical prophylaxis and empirical broad-spectrum antibiotic use.

The Contribution of Hospital Occupational Medicine to Diabetes Prevention: Experience from a Workplace Screening Program"

Bani M, Ayed W, Mersni M, Youssfi I, Mechergui N, Ladhari N

University Tunis Al Manar, occupational Medicine Department, Charles Nicolle Hospital, Tunis, Tunisia

Introduction: Diabetes mellitus, a chronic metabolic disease with a rapidly increasing prevalence, also affects healthcare workers (HCWs) who are exposed to specific occupational risk factors.

Aims : to determine the prevalence of HCWs with elevated blood glucose levels, identify predictive factors for diabetes, and promote diabetes prevention measures.

Methods: A descriptive cross-sectional study was conducted in December 2023 at Charles Nicolle Hospital among non-diabetic HCWs. Data collected included socio-professional characteristics, medical history, and lifestyle habits. Random capillary blood glucose levels were measured.

Results: A total of 767 HCWs participated in the study. The mean age was 42.47 ± 11.28 years (range: 19–72 years), with a female predominance (78%). The most represented professional category was nurses (28.8%). A history of obesity was reported in 19.2% of participants. Hyperglycemia (≥ 1.4 g/L) was observed in 7.6% of cases. Six new cases of diabetes were diagnosed, including two cases of diabetic ketosis. Multivariate analysis identified two predictive factors for diabetes development: being a laborer (OR = 7.068, 95% CI [1.246–40.099]; $p = 0.027$) and presenting polyuria-polydipsia symptoms (OR = 11.029, 95% CI [2.102–57.876]; $p = 0.005$). Lifestyle and dietary counseling was provided in 86.3% of cases.

Conclusions: This study highlights a significant prevalence of abnormal blood glucose levels among healthcare workers, emphasizing the importance of regular screening and preventive measures in hospital settings.

Predictive Factors of Smoking Relapse Following a Smoking Cessation Program

Jrad K¹, Ayedi Y^{1,2}, Bziouech O¹, Skhiri A^{3,4}, Fakhfekh R^{1,2}, Harizi C^{1,2}

1. Service d'épidémiologie et de statistiques, Hôpital Abderrahmane Mami, Ariana, Tunisie

2. Université de Tunis El Manar, Faculté de Médecine de Tunis, Tunisie

3. Service de médecine préventive, CHU Farhat Hached, LR 19 SP 03, Sousse, Tunisie

4. Université de Sousse, Faculté de Médecine de Sousse, Sousse, Tunisie

Introduction: Relapses after smoking cessation remain a major challenge. We Aimed to identify the predictive factors of relapse among patients who participated in our smoking cessation program.

Methods: We conducted a retrospective study including all patients who attended the smoking cessation clinic at Abderrahmane Mami University Hospital between January

and October 2024. Baseline data were collected during consultations, and patients were later contacted by phone to assess their smoking status. We used Kaplan-Meier survival analysis for univariate comparisons and Cox regression modeling for multivariate analysis.

Results: We reached 86 of the 151 patients who consulted us. The remaining patients did not respond to three call attempts made at different times, for a 57.0% response rate. The abstinence percentage was 38.4% in six months and 32.6% in one year. The median duration of abstinence was estimated at 150 days (95% CI: 82–218 days). In univariate analysis, diabetes ($p < 0.001$), high nicotine dependence (Fagerström score ≥ 8 ; $p = 0.035$), the total number of consultations ($p = 0.003$), and smoking to cope with stress ($p = 0.091$) were associated with the risk of relapse. The multivariate analysis identified 3 independent predictive factors for smoking relapse risk: history of diabetes (HR = 2.98; $p = 0.003$), high nicotine dependence (HR = 1.97; $p = 0.047$), and the total number of consultations (HR = 0.92; $p = 0.046$).

Conclusion: Relapses were frequent, particularly within the first six months following smoking cessation. These findings highlight the need for targeted support.

Clinical Reasoning-Based Learning Versus Interactive Lecture in Teaching Urological Emergencies: An Experimental Study

Ouanes Y¹, Mosbahi B³, Baradai N², Chakroun A¹, Karmous J¹, Nouira Y¹

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and Emergency Department, Tunis, Tunisia.

3. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Anesthesia and Intensive Care Department, Tunis, Tunisia

Introduction: Modern Medical Education increasingly emphasizes active Teaching Methods that foster Clinical Reasoning and learner engagement. Clinical Reasoning-Based Learning (CRBL) is designed to integrate theoretical knowledge with problem-solving skills.

Aim: To compare the effectiveness of CRBL and Interactive Lectures (IL) in improving Clinical Competence, theoretical knowledge, and student engagement during the teaching of Urological Emergencies.

Methods: This experimental study was conducted from November 2021 to May 2022 among second-year medical students. Four common urological emergencies—renal colic, macroscopic hematuria, acute scrotal pain, and male urinary incontinence—were selected. Fifty-six students were randomly divided into four groups of 14. Each group attended one CRBL session and three IL sessions. After each session, participants completed a standardized 10-point assessment including multiple-choice questions and clinical case analyses. Informed Consent was obtained, and Research Ethics principles were observed.

Results: A total of 224 evaluations were analyzed. The overall median score was 7/10 (range 3–10). Performance was significantly higher following CRBL sessions (median 8 [4–10]) compared with IL sessions (median 6 [3–10]; $p < 0.001$). Subgroup analyses confirmed the superiority of CRBL across all topics.

Conclusion: CRBL was significantly more effective than IL in enhancing both theoretical understanding and Clinical Reasoning among medical students in urology. This approach represents a valuable educational strategy for optimizing learning outcomes and fostering active participation in Clinical Education.

Magnitude of high blood pressure among schoolteachers: Exploring the ignored dimension of school health program

Baradai S¹, Ketata N¹, Ben Ayed H¹, Maamri H², Jdidi J³, Yaich S²

1. Preventive Medicine And Hygiene Department Hedi Chaker University Hospital, Sfax, Tunisia

2. Community And Epidemiology Department Hedi Chaker University Hospital, Sfax, Tunisia

3. Department Of Preventive And Social Medicine , Faculty of medicine of Sfax Tunisia

Introduction: High blood pressure (HBP) was reported as a major precursor to cardiovascular disease and has emerged as a leading cause of global morbidity and mortality. Schoolteachers are particularly susceptible to this disease.

Objective: This study aimed to estimate the prevalence and the determinants of HBP among schoolteachers.

Methods: This was a cross-sectional study enrolling a randomized three-stage sample of schoolteachers from different secondary, middle, and primary public schools in Sfax governorate, Southern Tunisia, in March 2021. An HBP was defined as a blood pressure $\geq 140/90$ mm Hg.

Results: Overall, 525 schoolteachers were included of whom 292 cases were females (55.6%). The average age was 46.6 ± 8.6 years. According to the school location, 291 cases (72.6%) were in urban areas. Teachers were working in high schools in 374 cases (71.3%). The prevalence of patients diagnosed with hypertension (HTA) on the day of the survey was 20.7% (n=109), among whom screening for high blood pressure (HBP) revealed that 89 cases (81.6%) were newly diagnosed. Factors statistically associated with HBP were male gender (Odds Ratio (OR) = 4.53; $p < 0.01$), advanced age (49.3 ± 7 vs 46 ± 8.8 ; $p < 0.01$), and working at primary schools (OR = 1.8; $p = 0.04$). Lifestyle behaviors were also associated with HBP, such as alcohol consumption and Narghile smoking (OR = 4.3; $p = 0.02$ and OR = 3.2; $p = 0.01$; respectively). However, regular physical activity, including daily walking (OR = 0.6; $p = 0.03$) and practicing moderate-intensity sports (OR = 0.4; $p = 0.01$) were protective factors of HBP.

Conclusions: A high burden of HBP was observed among schoolteachers in Southern Tunisia. Teachers must benefit from cyclical screening campaigns, detecting and treating chronic disorders in time.

Prevalence of Antinuclear Antibodies and Correlation with Clinical Activity in Rheumatoid Arthritis

Jerbi A, Gassara Z, Baklouti S, Fourati H

Rheumatology Department, Hedi Chaker University Hospital, Sfax, Tunisia

Introduction: Although specific autoantibodies such as rheumatoid factor (RF) and anti-citrullinated peptide antibodies (ACPA) are well characterized, antinuclear antibodies (ANAs)—traditionally associated with connective tissue diseases—are frequently detected in isolated RA. Our **Aims** were to determine the prevalence and characteristics of ANAs in RA and to evaluate their association with disease activity.

Methods: We conducted a retrospective, descriptive, and analytical study including RA patients according to the 2010-ACR-EULAR criteria, after excluding associated connective tissue diseases. Biological data (RF, ACPA, and ANAs by indirect immunofluorescence on HEp-2 cells) were collected.

Results: 140 patients were included (mean age 51 ± 14 years, sex-ratio F/M :3). The median disease-duration was 11

years [1-35]. RF was positive in 80% (mean level : 354 ± 120 IU/mL) and ACPA in 60% (mean level : 74.8 ± 25 IU/mL). RA was erosive with radiographic carpal involvement in 98.5%. All patients were receiving methotrexate (mean dose 14.8 ± 3.4 mg/week). NSAIDs and corticosteroids were used in 98% and 84%, respectively. The mean DAS28-CRP and DAS28-ESR were 4.1 ± 0.9 and 4.9 ± 1.1 . ANAs were positive in 62.1% (n=87), with titers ranging from 1:160 (15.7%) to 1:1280 (9.2%). Speckled fluorescence was most frequent (88.5%). All ANA+ patients were anti-dsDNA negative. Among 40 ANA+ patients tested for extractable nuclear antigens, 15% were positive, mainly anti-SSA (38%), anti-Ro52 (38%) and anti-SSB (19%). ANA+ patients showed a non-significant trend toward higher DAS28 (OR = 1.94; $p = 0.09$).

Conclusion: Our study demonstrated that ANAs positivity is common in RA, reflecting a broader autoimmune profile. However, their presence was not significantly associated with higher disease activity, indicating that ANAs do not appear to be a reliable prognostic marker in RA.

Level and Factors Associated with Non-Pharmacological Pain Management Practices: Findings from university hospitals in Sfax

Mallek Z¹, Maamri H¹, Abbassi A², Dribek W², Sboui I¹, Yaich S¹

1. Community And Preventive Medicine Department, Hedi Chaker University Hospital, Sfax

2. Faculty Of Paramedical Sciences, Sfax

Introduction: Pain management is an essential component of quality nursing care. Non-pharmacological approaches can effectively complement pharmacological treatments, yet their implementation often varies among nurses.

Aim: To assess nurses' practices regarding non-pharmacological pain management and to identify factors associated with good practice.

Methods: We conducted a cross-sectional observational study during January 2025 among nurses employed at the two University Hospitals in Sfax, using an anonymous self-administered questionnaire. Practice was measured with 14 items, with good practice defined as a score $\geq 65/100$.

Results: We enrolled 100 nurses with a median age of 39 years (InterQuartile range (IQR) = [34-43 years]), and a sex ratio of 0.26. Among nurses' pain management practices, repositioning was performed by 37% (n=37), while patient and family education and the use of hot or cold compresses were each practiced by 27% of nurses. The evaluation of practices regarding the use of non-pharmacological approaches for pain management revealed a median score of 62.5 (IQR = [53.75-67.85]). The prevalence of good practice was 41% (n=41). Good practice was significantly associated with nurses who lacked knowledge about the latest research findings (OR = 12.44; $p = 0.003$), and among those who considered that the cost of certain non-pharmacological Methods was expensive (OR = 5.5; $p = 0.002$). In addition, it was significantly associated with nurses who worked less than 6 hours per day (OR = 2.33; $p = 0.047$).

Conclusion: Nurses demonstrated moderate use of non-pharmacological pain management Methods. These Results highlight the need for continuous training and institutional support to enhance nurses' knowledge and integration of non-drug pain management strategies into clinical practice.

Determinants of Poor Renal Outcome in Retroperitoneal Fibrosis: Insights from a Bicentric Cohort

Souissi S¹, Mami I¹, Tlili S¹, Bibi M², Noura Y², Zouaghi MK¹

1. Department of Nephrology, La Rabta Hospital, Tunis, Tunisia

2. Department of Urology, La Rabta Hospital, Tunis, Tunisia

Introduction: Retroperitoneal fibrosis(RPF) is a rare fibro-inflammatory disease that may cause ureteral obstruction and progressive renal dysfunction. Data on predictors of poor renal outcome in RPF remain limited.

Aim: To identify clinical and laboratory factors associated with adverse renal outcome, defined as development of chronic kidney disease(CKD), in patients with RPF.

Methods: We conducted a retrospective bicentric study including 25 patients diagnosed with RPF and admitted to the nephrology and urology departments of La Rabta Hospital between 2014 and 2024. The primary endpoint was the occurrence of CKD during follow-up. Patients who developed CKD were compared with those who did not using the Mann–Whitney U test for continuous variables and χ^2 or Fisher's exact test for categorical variables. Due to the small sample size and complete separation of some variables, multivariable logistic regression was not feasible.

Results: Among 25 patients, 16(64%) developed CKD. Median age at diagnosis was 62 years, with no significant difference between groups(62 vs 58 years, $p=0.18$). Baseline serum creatinine was markedly higher in patients who progressed to CKD (median 73.0 vs 11.19 mg/L; $p=0.011$). Acute renal failure(ARF) at presentation was more frequent in the CKD group (15/16 vs 5/9; $p=0.040$). Similarly, extra-renal replacement therapy(eRRT) prior to surgery was associated with CKD ($p=0.045$). Sex and laterality of obstruction were not significant predictors.

Conclusion: In this bicentric cohort, elevated baseline creatinine, ARF at presentation, and pre-surgical eRRT were associated with CKD progression in RPF patients. Larger multicentre studies are warranted to confirm these findings and refine prognostic assessment.

Particularities of Sarcoidosis with Extrathoracic Involvement

Snène H, Ben Amor K, Derouich S, Kaabi L, Mehiri N, Louzir B

Université de Tunis El Manar, Faculté de Médecine de Tunis, CHU Mongi Slim, Service de Pneumologie Allergologie, 2070 Sidi Daoud, La Marsa, Tunisie

Introduction: Sarcoidosis is a systemic granulomatous, most frequently involving the mediastino-pulmonary region. However, the disease may initially present with thoracic manifestations associated with one or more extrathoracic localizations, which could influence its prognosis.

Aims: To assess the particularities of sarcoidosis with extrathoracic involvement.

Methods: A retrospective study was conducted on 109 patients diagnosed with sarcoidosis between 2016 and 2025 in the Department of Pulmonology at Mongi Slim University Hospital. Two groups were compared:

G0: Patients with isolated mediastino-pulmonary involvement (n=64)

G1: Patients with associated extrathoracic involvement (n=45)

Results: Both groups were comparable regarding sex distribution, with a female predominance in each (59% in G0 vs. 68% in G1). Patients in G1 were younger (mean age 50 years vs. 57 years in G0, $p=0.007$). The most frequent extrathoracic

localizations were cutaneous (n=28), ocular (n=12), and hepatic (n=10). Other rarer sites included neurological, cardiac, renal, and splenic involvement, each observed in two cases. Bronchoalveolar lavage revealed a significantly higher lymphocytosis (40% in G1 vs.27% in G0; $p=0.025$). Histological confirmation was obtained in 47% of G0 and 54% of G1 patients ($p=0.48$). Severe forms of sarcoidosis were more frequent in G1 (75% vs. 26%, $p<0.001$). Corticosteroid therapy was the mainstay of treatment in all patients, with first-line immunosuppressive therapy indicated for certain severe forms. The use of second-line agents for steroid-sparing or corticosteroid dependence was comparable between groups (9% in G1 vs. 5% in G0).

Conclusion: In our series, extrathoracic sarcoidosis affected younger patients and was associated with more severe disease forms.

Career choices, mental health, and future professional intentions of family medicine residents in Tunisia

Ben Hassine D^{1,2}, Chebil D^{1,2}, Derbel O², Meddeb T¹, Merzougui L^{1,2}

1. Service de médecine préventive et communautaire, Hôpital Universitaire Ibn El Jazzar, Kairouan, Tunisie

2. Faculté de médecine de Sousse, Université de Sousse, Tunisie

Background: Family medicine residency in Tunisia raises concerns about residents' motivation, well-being, and professional prospects, particularly amid growing emigration pressures and persistent challenges in specialty recognition.

Objectif: To identify residents' motivations behind career choice, satisfaction with training, prevalence of anxiety and depression, and professional perspectives.

Methods: A cross-sectional descriptive study was conducted from April to June 2024 among family medicine residents across Tunisia's four faculties of medicine. Data were collected via an anonymous online questionnaire assessing specialty choice, training satisfaction, mental health using the Hospital Anxiety and Depression (HAD) scale, and professional perspectives.

Results: Among the 204 respondents, the majority were women (78.4%), with a mean age of 28 ± 2.3 years. Family medicine was chosen by constraint in 66.7% of cases, mainly to avoid retaking the residency exam. Fifty-seven percent reported dissatisfaction with their training, citing workload (42.2%) and frequency of night shifts (40.7%) as main reasons. Anxiety and/or depression symptoms were present in 44.1% of residents, with 17.2% reporting suicidal ideation. Satisfaction with training (ORb=0.50; $p=0.028$), night shifts schedule (ORb=0.31; $p<0.001$), workload (ORb=0.37; $p=0.001$), and relationships with colleagues (ORb=0.51; $p=0.027$) were significantly associated with a lower risk of mental health disorders. Satisfaction with the night shifts schedule remained an independent protective factor (aOR=0.31;95%CI[0.16–0.58]; $p\leq 10^{-3}$). More than half (51%) intended to practice abroad, mainly in France (39.4%) and Germany (33.5%).

Conclusion: Family medicine in Tunisia is often chosen by constraint, affecting residents'well-being. However, growing commitment highlights the need to improve training and recognition for the specialty's future.

Right ventricular echocardiographic parameters predicting the severity of sleep apnea syndrome in patients with heart failure

Ben Hassen G, Antit S, Khedher R, Baya C, Marzouki N, Boufares A, Yangui F, Abdellatif S, Boussabeh E, Zakhama L

Cardiology Department, Internal Security Forces Hospital of Marsa, Tunisia

Background: Sleep apnea syndrome (SAS) is a common disorder associated with serious cardiovascular diseases, including cardiac remodeling. Most research has focused on the left heart, with limited data on its impact on the right ventricle (RV). Our goal was to highlight the utility of RV echocardiography parameters to predict SAS severity in patients with stable chronic heart failure (HF).

Methods: We conducted a prospective, monocentric study over 18 months, including 85 HF patients. All patients underwent respiratory polygraphy and transthoracic echocardiography with specific study of RV parameters: RV free wall longitudinal strain (RVFWLS), RV fractional area change (RV FAC), and RV TEI index. SAS was diagnosed in 71 patients (83%).

Results: The average age was 69 years with a male predominance. The mean left ventricular ejection fraction was 38%. Sixty-nine percent of SAS patients had mild-to-moderate SAS, while 31% had severe SAS. In univariate analysis, an RV Tei index > 0.50 (OR=3; $p=0.035$) and an RV FAC < 40 (OR=4; $p=0.09$) were correlated with SAS severity. In multivariate analysis, RVFWLS with a cutoff of -17 (sensitivity 66%, specificity 78%) was the only independent predictor for SAS severity ($p=0.021$).

Conclusion: RV free wall longitudinal strain (RVFWLS) is a strong, independent predictor of SAS severity in patients with stable chronic heart failure.

Pulmonary tuberculosis in older people compared with younger people

Kooli J¹, Miladi A², Hafsa M³, Ben Dhafer H³

1. Healthcare Department, Ksar Hellal Regional Hospital;
2. Monastir Health District; ,
3. General Practice Department, Ksar Hellal Regional Hospital

Introduction: In Tunisia, Pulmonary tuberculosis (PTB) is a public health problem. Older people are a high-risk group.

Purpose: To study the clinical, bacteriological, therapeutic and evolutionary particularities of PTB in elderly subjects compared with young subjects.

Methods: Retrospective comparative study of 107 patients hospitalized between 2005 and 2023 for confirmed PTB: two groups: elderly subjects (G1= 26 patients) and young subjects (G2= 85 patients).

Results: Subjects aged 65 and over represented 24% of the study population. Smoking intoxication was noted in 80% G1 versus 77.5% G2. Diabetes was noted in 31.2% G1 versus 11% G2. Clinical symptoms in elderly subjects were dominated by fever (52.6% vs. 38.8%; $p=0.3$) and impairment of general condition (93.8% vs. 76.6%; $p=0.4$). Hemoptysis and cough were more frequent in young people, respectively (G2:38.7% vs G1:7%; $p=0.3$) and (G2:82.5% vs G1:51.5%; $p=0.07$). Acute respiratory failure was noted in 67.5% G1 vs 12% G2; $p=0.1$. Radiologically extensive PTB was noted in 62.5% G1 cases versus 26.6 % G2 cases; $p= 0.3$. Hematological disturbances such as lymphopenia and anemia were more common in G1 with respectively (G1:54.6%vs G2:20.8%; $p=0.2$) and (G1:62% vs G2:41.2%; $p=0.3$). Drug intolerance was noted in 39.2% G1 versus 14.2% G2. Three patients died in G2. Recurrence was more frequent in younger patients (G1:6% vs G2:13%; $p=0.05$).

Conclusion: Clinical presentation of PTB in the elderly is more severe, with more hematological disturbances, co-morbidities, complications, a higher frequency of side-effects from anti-tuberculosis treatment. This age group needs to be monitored more closely.

Patient Acceptance and Psychological Outcomes Following Non-Invasive Prenatal Testing: Experience from the Gynaecology B Service, Charles-Nicolle Hospital, Tunis

Sabkha NH, Somri B, Yahyaoui R, Ben Chaalia C, Ben Saidane S, Bouguerra B

Hopital Charles Nicole G26

Background: Non-Invasive Prenatal Testing (NIPT) offers highly accurate screening for common fetal aneuploidies with minimal risk. While its clinical performance is well documented, the psychological impact and patient acceptance remain critical for counseling and integration into routine prenatal care.

Aim: To evaluate patient acceptance, anxiety levels, and psychological outcomes following NIPT in a cohort of pregnant women managed at the Gynaecology B Service of Charles-Nicolle Hospital, Tunis.

Methods: A prospective observational study was conducted from 2022 to 2025, including 50 pregnant women offered NIPT at the tertiary Gynaecology B Service. Validated questionnaires assessed anxiety (State-Trait Anxiety Inventory), decisional conflict, and satisfaction before and after receiving Results. Follow-up interviews explored perceived stress, understanding of Results, and decision-making satisfaction.

Results: NIPT was accepted by 46 of 50 women (92%). Anxiety scores significantly decreased after low-risk Results (pre-test: 44 ± 8 ; post-test: 31 ± 6 ; $p < 0.001$). Women with high-risk

Results ($n = 4$) experienced temporary anxiety but valued early information and confirmatory testing. Overall, 95% reported adequate information and satisfaction. Qualitative analysis emphasized the importance of pre-test counseling and clear communication.

Conclusion: In this cohort of 50 women at Charles-Nicolle Hospital, NIPT was highly accepted and generally reduced anxiety when Results were reassuring. Structured counseling remains essential to optimize psychological outcomes and informed decision-making.

Artificial intelligence in occupational health and safety: knowledge, attitudes and practices of hse managers

Bani M, Mhamdi A, Chakroun W, Jarbouli N

University Tunis Manar, Faculty Of Medicine, Charles Nicolle Hospital, Laboratoire De Recherche LR 24ES10

Introduction: Artificial intelligence (AI) transforms occupational health and safety (OHS) through real-time surveillance and predictive risk management. Despite its potential for accident reduction and improved workplace quality of life, AI adoption in OHS remains limited in Tunisia, with insufficient data on current usage and acceptance among safety professionals.

Aim: To analyze knowledge, attitudes and practices of Health, Safety and Environment (HSE) managers regarding AI use in OHS, and propose practical recommendations for effective, ethical and responsible AI adoption in occupational safety.

Methods: A cross-sectional knowledge-attitudes-practices survey was conducted from March 18 to April 18, 2025, among 30 participants: third-year HSE students and practicing HSE managers. Data collection used an anonymous self-administered online questionnaire via Google Forms, comprising five sections covering respondent profile, AI knowledge, attitudes, current practices, and training needs. Statistical analysis was performed using Excel 2024.

Results: Students represented 60% of respondents; practicing managers (40%) had < 2 years' experience predominantly

in healthcare organizations with 50-249 employees. Half of students rated their AI knowledge as moderate. Top perceived benefits were improved safety culture (23.21%) and enhanced training (19.64%). Main adoption barriers included lack of technical skills (86.7%) and integration difficulties (70%). Seventy percent viewed AI as enhancing efficiency without replacing essential functions. Risk analysis was the primary AI application domain (56.7%). Eighty percent had never received AI-OHS training but expressed strong interest. Participants sought case studies (66.7%) and technical training, particularly in available market solutions (73.3%).

Conclusion: HSE managers demonstrate enthusiasm for AI's potential despite limited knowledge and significant skill gaps.

Digital Media Use among Tunisian Doctors: Balancing Professional Freedom and Ethical Oversight

Ben Abderrahim S, Ouni M, Majdoub W, Mlayah S, Turki E

Department of Forensic Medicine, Aghlabites Surgical Unit, Kairouan

Introduction: In Tunisia, many doctors use online platforms to inform, exchange, or promote their practice. While this evolution offers new opportunities, it raises major ethical, deontological, and legal challenges. In response, the National Council of the Order of Physicians (CNOM) issued in 2024 a Charter on Medical Ethics for the Use of the Web and Digital Media, Aiming to regulate this practice within the boundaries of professional ethics.

Aim: To identify the main regulatory principles governing physicians' behavior on the web and social media, in accordance with ethical and deontological standards.

Methods: Qualitative legal research with a descriptive and analytical purpose was conducted, based on an in-depth documentary analysis of the full text of the CNOM Charter.

Results: The analysis reveals a strong intention to strictly regulate physicians' digital communication. The Charter is structured around six main principles: respect for professional secrecy; prohibition of advertising and disguised promotion on social media; scientific neutrality and reliability of shared information; prohibition of patient testimonials and promotional imagery; and the physician's individual responsibility and professional restraint. It clearly distinguishes between professional communication and personal promotion, reaffirming that medicine must not be practiced as a business.

Conclusion: The position of the Tunisian Medical Council on physicians' use of social media reflects a commitment to preserving the core values of medicine—confidentiality, integrity, collegial respect, and public trust—while adapting professional ethics to the digital era.

Echocardiographic assessment of epicardial adipose tissue: A marker of coronary artery disease

Gharsallah N, Antit S, Slaoui S, Chalbi H, Mahfoudhi A, Bornaz S, Boussebeh I, Zakhama L

Cardiology Department – Internal Security Forces Hospital, La Marsa

Introduction: Recent studies have shown that epicardial adipose tissue (EAT) can be used as a cardiovascular risk evaluation tool. Coronary artery disease (CAD) assessment still to be a challenge with non-invasive explorations.

Objective: Thus, we searched for a correlation between EAT and coronary artery disease.

Method: This is a prospective study that included 100 patients admitted to the cardiology department of the hospital of the

internal security forces of Marsa and having consulted between November 2020 and April 2021 with an indication to coronary angiography.

Results: The cohort population was subdivided by Gensini score in 3 groups: thirty patients without CAD (Gensini score = 0), 29 patients with mild CAD (Gensini score = 1–19), and 41 patients with severe CAD (Gensini score >19). In univariate analysis, MEDE and MESE were significantly different between the tertiles of Gensini score (combined $P < 0.001$ for both). Bivariate analysis showed a positive and moderate to strong significant correlation between EAT and Gensini score (MEDE: $P < 0.001$; $r = 0.590$, MESE: $P < 0.001$; $r = 0.557$). The analysis of ROC curve showed that a MEDE > 3.4 (sensitivity = 80%, specificity = 72%) and a MESE > 5 (sensitivity = 78%, specificity = 73%) can predict high Gensini score (OR = 11; 95% CI: 4.23–29; $P < 0.001$ and OR = 8; 95% CI: 3.21–20.4; $P < 0.001$, respectively).

Conclusion: Echocardiographic measurement of the EAT is a useful non-invasive tool that can be used to predict obstructive CAD.

Prognostic Role of Admission Biomarkers in Morbidity and Mortality After Blunt Chest Trauma

Tbini S, Mosbahi B, Chennoufi C, Omri C, Massoudi Y, Ammous A

1. Université de Tunis El Manar, Faculté de Médecine de Tunis
2. Hôpital La Rabta, Département d'Anesthésie et de Réanimation, Tunis, Tunisie

Introduction: Blunt chest trauma is a major contributor to trauma-related morbidity and mortality worldwide. Early identification of high-risk patients remains essential to improve outcomes. This study aimed to identify biological predictors of morbidity and mortality in adults admitted for blunt chest trauma.

Methods: A retrospective study was conducted in an anesthesia and intensive care unit over a two-year period (January 2023–December 2024). Adults admitted with blunt chest trauma were included. Clinical parameters, laboratory values, and arterial blood gas Results obtained at admission were collected. Multivariate logistic regression was used to identify independent predictors of morbidity and mortality. Receiver Operating Characteristic (ROC) curves were generated for significant quantitative variables, and optimal thresholds were determined using the Youden index.

Results: Ninety-eight patients were included (mean age 44.46 ± 19.2 years; range 14–88; sex ratio 6.7). Mortality and morbidity rates were 16.7% and 48.1%, respectively. Mean ICU length of stay was 14.9 ± 15.9 days. An admission C-reactive protein (CRP) value ≥ 159 mg/L was an independent predictor of mortality (OR 1.98, $p = 0.049$; AUC 0.85). CRP ≥ 75 mg/L and lactate dehydrogenase (LDH) ≥ 384.5 UI/L were independent predictors of morbidity (OR 1.17, $p = 0.002$; AUC 0.68 for CRP; OR 2.02, $p < 0.001$; AUC 0.83 for LDH).

Conclusion: Admission CRP and LDH levels are significant biological predictors of morbidity and mortality after blunt chest trauma. CRP ≥ 159 mg/L predicts mortality, while CRP ≥ 75 mg/L and LDH ≥ 384.5 UI/L predict morbidity. Early biomarker assessment could enhance initial triage and guide clinical management in blunt chest trauma.

Should Duodenal Biopsies Be Performed Systematically in Cases of Iron Deficiency Anemia?

Oueslati A, Yacoub H, Hajji R, Cherif D, Debbabi H, Hassine H, Kchir H, Maamouri N

Gastroenterology B department, La Rabta hospital

Introduction :Iron deficiency anemia (IDA) is a common indication for upper gastrointestinal endoscopy (EGD). When no macroscopic abnormality is found, the relevance of performing systematic duodenal biopsies remains debated. These biopsies are mainly used to detect celiac disease, a classic but often underdiagnosed cause of IDA. This study Aimed to assess the diagnostic value of duodenal biopsies in identifying the etiology of iron deficiency anemia.

Methods: We conducted a retrospective descriptive study in the Department of Hepato-Gastroenterology B, La Rabta Hospital, from January 2022 to April 2025. All patients investigated for IDA with a macroscopically normal EGD who underwent systematic duodenal biopsies were included.

Results: A total of 141 patients were enrolled (mean age 49 ± 17.8 years; range 15–86; female/male ratio =0.3). All presented with IDA. The main associated symptoms were epigastric pain (18.4%), chronic diarrhea (5%), weight loss (1.4%), and gastroesophageal reflux (0.7%). Histological examination showed normal duodenal mucosa in 93.6% of patients, chronic duodenitis in 5%, and celiac disease (Marsh III) in 1.4%, with no cases of acute duodenitis.

Conclusion: In our series, systematic duodenal biopsies in patients with iron deficiency anemia and normal EGD revealed celiac disease in only a very small number of cases. Given this low diagnostic yield, their systematic use appears of limited value. Preliminary celiac serology may represent a relevant alternative, but further large-scale studies are needed to confirm this approach.

Neck pain among rehabilitation staff: A multicenter cross-sectional study

Chmak J^{1,2,3}, Bahlouli E^{1,2,3}, Karoui S^{1,2,4}, Ben Kadhi A³, Beji R⁵, Mouhli N^{1,2,3}

1. Université Tunis El Manar

2. Faculté de Médecine de Tunis

3. Service de Médecine Physique, Rééducation et Réadaptation Fonctionnelle Complexe Sanitaire Jbal Ouest

4. Service de Médecine Physique, Rééducation et Réadaptation Fonctionnelle, Hôpital Militaire Principal d'Instruction de Tunis

5. Service de Médecine Physique, Rééducation et Réadaptation Fonctionnelle Polyclinique Mefteh Saadallah

Introduction: Neck pain (NP) is one of the most frequent musculoskeletal disorders among healthcare workers. Identifying its contributing factors is essential to design preventive and ergonomic strategies.

Aim: To determine the prevalence of neck pain among staff working in rehabilitation departments and to identify associated occupational and non-occupational risk factors.

Methods: A descriptive, multicenter, cross-sectional study was conducted in October 2025 across the Physical Medicine and Rehabilitation departments of Jbal Ouest Health Complex, Tunis Military Hospital, and Mefteh Saadallah Military Polyclinic. All healthcare and administrative staff members who consented to participate were included. Data was collected through a self-administered online questionnaire distributed via WhatsApp.

Results: Seventy-one participants (mean age 40.2 ± 9.71 years; range 22–60) were enrolled, with a sex ratio of 0.3. NP was reported by 44% of participants in the previous 12 months and 31% in the past 7 days. Nineteen per cent of participants used analgesics for NP, 38% reported impact on work performance and 24% reported reduction of workload. Significant associations were found with length of service ($p = 0.027$), hours spent sitting ($p = 0.038$), hours standing ($p = 0.017$), work-related stress ($p = 0.02$), and working in a military environment ($p = 0.012$). Age was the only non-occupational factor significantly associated ($p = 0.039$).

Conclusion: NP is highly prevalent among rehabilitation staff and influenced by both physical workload and psychosocial stressors. Ergonomic improvements and stress-reduction strategies are crucial to enhance occupational health and staff well-being.

Severe Fatigue in Rheumatoid Arthritis: Insights from the FACIT-F Questionnaire

Benammar C¹, Saidane O¹, Cheikhrouhou Abdelmoula L¹, El Amri N², Baccouche K², Bouajina E²

1. Tunis El Manar University, Faculty Of Medicine Of Tunis, Charles Nicolle Hospital, Rheumatology Department, Tunis, Tunisia

2. University Of Sousse, Faculty Of Medicine Ibn El Jazzar Of Sousse, Farhat Hached Hospital, Rheumatology Department, Sousse, Tunisia

Introduction: Fatigue is a common and disabling symptom in patients with rheumatoid arthritis (RA), often persisting despite optimal disease control. It significantly affects quality of life, functional capacity, and social participation. Its pathophysiology is complex and multifactorial.

Aim: This study Aimed to identify factors associated with fatigue in RA.

Methods: We conducted a bicentric cross-sectional study including RA patients meeting the 2010 ACR–EULAR criteria, over May 2023–May 2024. Sociodemographic, clinical, biological, and therapeutic data were collected. Structural damage was assessed using the modified Sharp score. Disease activity and functional impairment were evaluated using DAS28-CRP and HAQ. Fibromyalgia and depression were assessed with the FIRST and HAD scales, respectively. Fatigue was measured using the FACIT-Fatigue questionnaire; scores ≤ 30 indicated severe fatigue. Patients were divided into two groups: G1 (FACIT ≤ 30) and G2 (>30).

Results: The study included 100 patients (91 women, 9 men), mean age 54 ± 12.6 years, mean disease duration 15.5 ± 10.4 years. Severe fatigue was present in 51%. Compared with G2, G1 patients were older, had more cardiovascular and digestive comorbidities, and more ophthalmologic manifestations. They also had higher Sharp scores, CRP, DAS28-CRP, and HAQ scores. Fibromyalgia, depression, osteoarthritis, and use of ts/bDMARDs were more frequent. No association was observed with BMI, bone comorbidities, disease duration, pulmonary involvement, hip involvement, C1–C2 instability, corticosteroid use, or csDMARDs.

Conclusion: Severe fatigue in RA is strongly associated with fibromyalgia, depression, higher disease activity, structural damage, and functional impairment, highlighting the importance of a comprehensive therapeutic approach.

The role of Self-Efficacy in practicing exclusive breastfeeding among female healthcare workers

Hrairi A¹, Ben Ayed O², Hajjaji M¹, Dhoub F¹, Belkhir E³, Jmal Hammami K¹

1. Université de Sfax, Faculté de médecine de Sfax, Hôpital Hedi Chaker, Service de médecine du Travail, Sfax, Tunisie

2. Université de Sfax, Faculté de médecine de Sfax, Département de médecine de famille, Sfax, Tunisie

3. Faculté de Pharmacie de Monastir, Société Lactabelle

Introduction : Exclusive breastfeeding (EBF) during the first six months of life is essential for infant health and development. However, returning to work often challenges mothers' ability to maintain EBF, particularly among female healthcare professionals with demanding schedules.

Objectives : This study Aimed to evaluate the relationship

between self-efficacy and breastfeeding success among female healthcare workers in Tunisia.

Methods : A cross-sectional survey was conducted in October 2024 among female healthcare workers under 45 years of age who had children aged 6 months to 5 years. Data were collected via an Arabic online questionnaire distributed through social media. Sociodemographic and professional characteristics were collected, and breastfeeding self-efficacy was assessed using three items from the short form of the Breastfeeding Self-Efficacy Scale (BSES-SF), scored from 0 to 10.

Results : A total of 220 female healthcareworkers were included, with a mean age of 31.22 ± 4.26 years. Most participants (53.18%) worked in the public sector. The mean EBF duration was 3.40 ± 2.07 months. The BSES revealed that Participants expressed strong motivation to continue breastfeeding (mean=4.87 ; SD=0.42), and moderate confidence in managing and coping with breastfeeding challenges (means = 4.10 ± 0.92 and 3.47 ± 1.13 , respectively). Higher scores on motivation and coping items were significantly associated with longer EBF duration (with p values of 0.000 and 0.001 respectively).

Conclusions : Maternal self-efficacy significantly influences breastfeeding continuity. Strengthening workplace and maternity support for healthcare workers is vital to empower mothers and promote sustained breastfeeding practices.

Molecular Docking Study of Spirulina-Derived Phenolics and C-Phycocyanin as Potential Cholinesterase Inhibitors in Neurodegenerative Diseases

Arrari F¹, Hammami I³, Jabri MA¹, Jridi M^{1,2}, Sebai H¹

1. Laboratory of Functional Physiology and Valorization of Bio-Resources (LR23ES08), Higher Institute of Biotechnology of Beja, University of Jendouba, Beja 9000, Tunisia;

2. Laboratory of Enzymatic Engineering and Microbiology, National School of Engineers of Sfax, University of Sfax, B.P. 1173, 3038 Sfax, Tunisia

3. Laboratory of Population Health, Environmental Aggressors and Alternative Therapies (LR24ES10), Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis 1068, Tunisia;

Neurodegenerative diseases, including Alzheimer's and Parkinson's diseases, are associated with cholinergic dysfunction, oxidative stress, and neuronal loss. The inhibition of acetylcholinesterase (AChE) and butyrylcholinesterase (BChE) remains one of the most effective therapeutic strategies to restore cholinergic transmission and attenuate cognitive decline. In this *in silico* study, we investigated the neuroprotective potential of *Spirulina platensis* bioactive compounds—particularly phenolic constituents and C-phycocyanin (C-PC)—as natural inhibitors of AChE and BChE. Molecular docking simulations were performed to predict the binding affinities and interaction profiles of these compounds within the active sites of both enzymes. The Results revealed that *Spirulina*-derived phenolics and C-PC exhibited strong binding affinities comparable to standard inhibitors such as donepezil and galantamine. The docking poses showed multiple hydrogen bonds and hydrophobic interactions with key catalytic residues (Ser203, His447, and Glu334 in AChE; Ser198, His438, and Glu325 in BChE), suggesting stable enzyme-inhibitor complexes. Moreover, molecular dynamics simulations confirmed the stability of these interactions over time, supporting their inhibitory potential. Collectively, these findings suggest that phenolic compounds and C-phycocyanin from *Spirulina* may act as promising natural cholinesterase inhibitors with potential therapeutic relevance in neurodegenerative disorders such as Alzheimer's disease.

The weight of care: prevalence and predictors of low back pain in rehabilitation settings

Chmak J^{1,2,3}; Bahloul E^{1,2,3}; Karoui S^{1,2,4}; Ben Kadhi A³, Beji R⁵, Mouhli N^{1,2,3}

1. Université Tunis El Manar

2. Faculté de Médecine de Tunis

3. Service de Médecine Physique, Rééducation et Réadaptation Fonctionnelle Complexe Sanitaire Jbal Ouest

4. Service de Médecine Physique, Rééducation et Réadaptation Fonctionnelle, Hôpital Militaire Principal d'Instruction de Tunis

5. Service de Médecine Physique, Rééducation et Réadaptation Fonctionnelle Polyclinique Mefteh Saadallah

Introduction: Low back pain (LBP) is a frequent occupational health issue among healthcare professionals, particularly in rehabilitation settings where physical workload is demanding. It contributes to absenteeism and decreased productivity.

Aim: To assess the prevalence of LBP among rehabilitation staff and identify associated occupational and non-occupational risk factors.

Methods: A descriptive multicenter cross-sectional study was conducted in October 2025 in the Physical Medicine and Rehabilitation departments of Jbal Ouest Health Complex, Tunis Military Hospital, and Mefteh Saadallah Military Polyclinic. All healthcare and administrative staff who agreed to participate completed a self-administered Google Forms questionnaire distributed via WhatsApp.

Results: Seventy-one participants were included (mean age 40.2 ± 9.7 years; sex ratio = 0.3). LBP was reported in the past 12 months by 81% and in the last seven days by 39%. It interfered with work performance in 59% of cases, led to workload reduction in 36%, and sick leave in 21%. LBP was significantly associated with length of service ($p = 0.02$), prolonged sitting ($p = 0.01$), and patient handling ($p = 0.03$). Job dissatisfaction ($p = 0.02$) and overweight ($p < 0.001$) were also linked to LBP. No significant associations were found with age, smoking, physical activity, or stress.

Conclusion: LBP was highly prevalent among rehabilitation staff and related to ergonomic and psychosocial factors. Workplace interventions focusing on posture, workload management, and staff satisfaction are recommended to reduce LBP and enhance occupational health.

Medication Prescription Profile in Children Followed for Autism Spectrum Disorder Without Intellectual Disability

Bayar C, Ben Abid H, Randaline A, Guedria A

Faculty of medicine of Monastir, Child and adolescent psychiatric department, Fattouma Bourguiba hospital, Monastir

Introduction: Autism spectrum disorder (ASD) without intellectual disability is frequently associated with attentional, emotional, and behavioral difficulties that may require pharmacological intervention. Describing prescribing patterns in this population is essential to guide evidence-based clinical practice.

Aim: To describe medication prescription profiles among children with ASD without intellectual disability followed in a child psychiatry setting.

Methods: This descriptive cross-sectional study was conducted in the Child Psychiatry Department of Fattouma Bourguiba Hospital in Monastir (June–November 2023). ASD diagnosis was based on DSM-5 criteria and the ADI-R. Symptom severity was assessed using the CARS, and intellectual functioning using the Differential Scales of Intellectual Efficiency – Revised (DEI-R). Clinical data were collected through a standardized form and

analyzed using SPSS 23.0.

Results: Fifty children aged 8 to 14 years (mean age: 11.52 years; sex ratio = 5.25) were included. The mean age at first consultation was 3 years and 3 months. ADHD comorbidity was present in 32% of cases, and behavioral disorders in 46%. Medication was prescribed in 44% of the sample. Psychostimulants were the most frequently used drugs (30%), followed by atypical antipsychotics (20%, mainly risperidone), antidepressants (8%), and anxiolytics (2%).

Conclusion: Pharmacological treatment in children with ASD without intellectual disability is frequent and mainly driven by comorbid ADHD and behavioral disturbances. Psychostimulants and atypical antipsychotics constitute the most commonly prescribed medications. Multidimensional assessment and regular follow-up remain essential to optimize therapeutic strategies.

Surgical Management of Renal Angiomyolipoma: Predictive Factors of Intraoperative Hemorrhagic Shock

Ouanes Y¹, Chakroun A¹, Baradai N², Karmous J¹, Chikhaoui B¹, Nouira Y¹

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and Emergency Department, Tunis, Tunisia

Introduction: Renal Angiomyolipoma (rAML) is a rare benign mesenchymal neoplasm with a global prevalence of approximately 0.44%. Its major and potentially fatal complication is spontaneous retroperitoneal hemorrhage, influenced by tumor size, vascular composition, and association with Tuberous Sclerosis Complex (TSC). Although nephron-sparing surgery is indicated for symptomatic or large lesions, it carries a significant risk of intraoperative hemorrhage due to the tumor's friable vascular architecture.

Aim: To identify independent predictive factors of intraoperative hemorrhagic shock (IOHS) during surgical management of rAML.

Methods: A retrospective observational study was conducted between January 2018 and December 2022 at La Rabta Hospital, Urology Department. Patients undergoing surgery for radiologically confirmed rAML were included. Exclusion criteria were non-AML histology, unclassifiable lesions, or imaging-pathology discrepancy. IOHS was defined as sustained systolic blood pressure < 90 mmHg or a ≥ 30% decrease from baseline (for hypertensive patients) associated with acute hypovolemia. Multivariate logistic regression was used to identify independent predictors of IOHS.

Results: Thirty-nine patients were analyzed (mean age 51 ± 12 years; sex ratio 11/28). Median tumor size was 7.9 cm [5–11.2], with unilateral involvement in 30 cases. IOHS occurred in 16 patients (41%). Multivariate analysis identified five independent predictors: preoperative hemoglobin ≤ 11.1 g/dL (p = 0.029), bilateral involvement (p = 0.016), endophytic tumor growth (p = 0.002), hemorrhagic remodeling on CT imaging (p = 0.004), and RENAL-MAP score > 0.06 (p = 0.007).

Conclusion: Anemia, bilateral disease, endophytic morphology, hemorrhagic remodeling, and high RENAL-MAP scores independently predict IOHS in rAML surgery. Their preoperative identification using clinical and radiologic parameters may enhance surgical planning, anticipate hemodynamic instability, and improve perioperative outcomes.

Do Radiological Scores Predict Function and Quality of Life in Spondyloarthritis?

Fenniche I, Majouli G, Ben Ayed H, Ben Ammar L, Dhahri R, Gharsallah I

Rheumatology department, Military Hospital of Tunis, Tunis, Tunisia

Introduction: Spondyloarthritis (SpA) is a chronic inflammatory rheumatic disease primarily affecting the axial skeleton. Persistent inflammation may lead to ankylosis and irreversible structural damage.

Aim: To evaluate the relationship between radiological scores, functional status, and quality of life in patients with SpA.

Methods: This cross-sectional study included patients diagnosed with SpA according to the 2009 ASAS criteria. Sociodemographic and clinical data were collected. Structural damage was assessed using the BASRI and mSASSS scores. Inflammatory activity was evaluated using SPARCC spine and sacroiliac scores on STIR MRI. Functional status and quality of life were assessed using BASFI and ASQoL.

Results: Fifty-three patients were included (43 men, 10 women), with a mean age of 40.15 years, a mean onset age of 35.32 years, and a mean disease duration of 5.07 years. Coxitis was present in 14 patients (11 bilateral). Radiographs were available in 39 patients; spine and pelvic MRI in 12 and 18 patients, respectively. Mean BASRI scores were 1.29 (cervical), 1.57 (lumbar), 1.23 (hips), and 2.82 (sacroiliac), with a total BASRI of 6.74. The mean mSASSS was 8.88. Mean SPARCC scores were 33.58 (spine) and 20.82 (sacroiliac). Mean BASFI and ASQoL were 3.88 and 7.01. A significant positive correlation was found between BASFI and sacroiliac SPARCC (r = 0.578; p = 0.024). No other significant associations were observed between radiological scores and BASFI or ASQoL.

Conclusion: Higher sacroiliac SPARCC scores were associated with impaired functional status, while structural radiographic damage showed no relationship with quality of life.

Histological Spectrum of Duodenal Polyps and Their Association with Gastric Lesions: A Five-Year Retrospective Study

Louati C, Belhaj Mabrouk E, Mensi A, Said Y, Mouelhi L, Debbeche R

Service de Gastro-entérologie Hôpital Charles Nicolle

Introduction: Duodenal polyps are uncommon mucosal protrusions, usually detected incidentally during endoscopy and often asymptomatic. They may be epithelial or non-epithelial, and either neoplastic or non-neoplastic. This retrospective descriptive study, conducted from January 2020 to November 2024 in the Gastroenterology Department of Charles Nicolle Hospital, aimed to analyze the histological spectrum of duodenal polyps and their association with gastric lesions. Eligible patients were those with endoscopically identified duodenal polyps for which biopsy samples were available; suspected ulcerative-proliferative lesions were excluded.

Results: A total of 49 patients were included (mean age 57 years, range 26–82; male-to-female ratio 1.8). The main indication for endoscopy was epigastric pain (71%). No cases of familial adenomatous polyposis were observed. Associated gastric lesions were present in 66% of patients, including gastritis (35%), gastric polyps (18%), duodenal ulcers (6%), and fundic mucosal changes (6%). Polyps were mainly located in the first portion of the duodenum (D1, 77%), followed by D2 (23%), with an average size of 8 mm (range 4–14 mm). Histological analysis revealed normal mucosa in 65% of cases, low-grade adenoma in 11%, glandular hyperplasia, mucosal dystrophy, and gastric

metaplasia each in 6%, and carcinoma in 6%. *Helicobacter pylori* infection was detected in 25% of patients and showed a significant association with gastric metaplasia-type polyps, gastritis, and duodenal ulcers ($p = 0.034$).

Conclusion: In **Conclusion**, duodenal polyps predominantly occur in D1 and are frequently associated with gastric pathology. Although mostly benign, adenomatous polyps warrant complete endoscopic removal due to their malignant potential.

Morphometric Study of the Iliolumbar Venous System: Analysis of 40 Human Cadavers

Akreml S ; Abderrahim M ; Benammou A; Bennour S; Kamoun C; Ben Saleh M

Service de chirurgie orthopédique Hôpital Charles Nicolle

Introduction: The anterior approach to the lumbar spine, increasingly used with modern surgical advances, carries a high risk of vascular injury, especially at L4–L5. Mobilization of the iliolumbar and ascending lumbar veins can cause severe bleeding. This study describes the morphometry and anatomical variations of the iliolumbar venous system to enhance surgical safety.

Methods: Eighty iliolumbar venous systems were dissected from 40 fresh human cadavers. The number, diameter, drainage sites, and anatomical relationships of the veins were measured.

Results: The ilioaval bifurcation was at L5 in 55.5% of cases, with a mean angle of 61.5° . The iliolumbar trunk was always present, averaging two trunks (max four). Five vein types were identified; the distal iliolumbar vein was most common (52.8%). Mean trunk diameter was 3.31 mm. The average distance from the ilioaval confluence was 5.05 cm (left 6.16 cm, right 3.86 cm; $p < 0.001$). The common iliac vein was the main drainage site (48.2%). Anastomoses occurred in 19.4% of specimens, with no sex differences. The mean distance from the left proximal trunk to the L4–L5 disc was 2.75 cm.

Conclusion: Accurate knowledge of iliolumbar venous anatomy is vital for preventing vascular complications during anterior lumbar surgery. Preoperative imaging and careful dissection reduce bleeding risk and improve procedural safety.

Socio-professional impact of psoriatic arthritis in workers with psoriasis

Hrairi A¹, Kotti N¹, Bahloul E², Hajjaji M¹, Turki H², Jmal Hammami K¹

1. Occupational health department, Hedi Chaker University Hospital, faculty of medicine of Sfax, University of Sfax

2. Dermatology department, Hedi Chaker University Hospital, Faculty of medicine of Sfax, university of Sfax

Introduction: Psoriasis is a psychosomatic disease long known for its negative impact on quality of life. Rheumatic manifestations associated with dermatological damage could have significant repercussions especially among workers.

Aim: Evaluate the socio-professional impact of psoriatic arthritis among workers with psoriasis.

Methods: This cross-sectional study had concerned patients followed for psoriasis in the Dermatology department of the Hedi Chaker University Hospital in Sfax. Patients with occupational activity at the time of the study were included. The professional impact of the pathology was determined by the Arabic version of the Work Productivity and Activity Impairment (WPAI) questionnaire. Work capacity was assessed using a visual analog scale from 0 to 10. Quality of life was

assessed by the Dermatology Life Quality Index (DLQI).

Results: Sixty four patients had participated in our study (84.4% were male; the mean age was 45.2 ± 11.2 years). The mean disease duration was 12.8 years. Twelve patients (18.7%) had psoriatic arthritis. The average rates of the indicators of the WPAI scale in patients with psoriatic arthritis were $12.8 \pm 14.9\%$ for absenteeism, $35.8 \pm 23.1\%$ for presenteeism, $29.9 \pm 19.7\%$ for the decline of productivity and $28.3 \pm 22.4\%$ for the decline in daily activities. The average work capacity was $5.9 \pm 3.1/10$. Psoriatic arthritis was associated with the decline of daily activities ($p=0.032$) and the DLQI scale ($p=0.008$). Any association was found with absenteeism, presenteeism, decline of productivity and work capacity.

Conclusion: Psoriasis alters affected individuals' lives. Depending on the severity of symptoms, the impact can evolve from a simple physical discomfort to a major disability.

Development of a mobile educational application for patients on vitamin k antagonists

Maatouk G¹, Sellami F¹, Hajji H¹, Ben Fatma NH¹, Ben Jeddou K²

1. pharmacy Departement, Charles Nicolle Hospital, Tunisia

2. pharmacy Department, Habib Bougatef Hospital, Tunisia

Introduction: Mistaken use of AVK drugs triggers avoidable harm, yet digital teaching aids remain largely untapped.

Aim: Create a user-friendly phone app that educates AVK patients.

Methods: A development project was conducted in 2022–2023 to design a mobile app for AVK-treated patients in a Tunisian healthcare context. Framework steps included analysing patient needs based on literature, reviewing the literature, writing a clear specification document, creating scientific content (INR management, drug/food interactions, side effects), and then coding an alpha prototype.

Results: Target audience, objective, and eight key features were defined for the app. The target users are patients on vitamin K antagonists (VKAs); the objective is to improve adherence and safety.

The app includes:

- (1) patient profile (user inputs, medication reminders, and dose tracking);
- (2) precautions (activities to avoid);
- (3) instructions for missed doses;
- (4) "My treatment" (simplified explanation of drug effects);
- (5) adverse effects (linked to VKA use);
- (6) treatment monitoring (INR tracking);
- (7) drug interactions;
- (8) food interactions.

Conclusion: Initial prototypes lay solid ground for better adherence and safety among AVK patients.

Formal testing of user experience and clinical outcomes will confirm real-world benefits.

Strengthening Implantable Medical Device Traceability in Orthopedic Surgery: Institutional Audit Findings and Development of the IA-Trace Workflow Model

Guibene W, Ouini A, Saoudi Z, Gargouri M, Annabi H

1. Centre De Traumatologie et Des Grands Brulés, Ben Arous, Tunisie

2. Hôpital Régional Taher Maamouri, Nabeul, Tunisie

Background: Traceability of implantable medical devices (IMDs) is essential for patient safety, material vigilance, and regulatory compliance. An institutional audit was conducted at the Major

Trauma and Burns Center of Ben Arous to evaluate real-world traceability practices and the implementation of implant cards in orthopedic surgery.

Aims: To assess the performance of IMD traceability; to analyze the workflow from implant reception to patient discharge; to evaluate implant-card implementation within the institutional procedure; and to develop a simple conceptual workflow—IA-Trace—to reinforce future traceability.

Methods: A descriptive audit was conducted following the established traceability pathway. A total of 1,240 orthopedic implants were reviewed, documentation from 7 suppliers was analyzed, and 40 healthcare professionals completed a structured questionnaire. The audit assessed completeness of labeling, UDI documentation, workflow continuity, and implant-card delivery. Statistical analyses were performed using SPSS ($p < 0.05$). Workflow gaps identified during the audit guided the design of the IA-Trace conceptual flowchart.

Results: The audit revealed major deficiencies: 0% of patients received an implant card, 53% of staff were unaware of the obligation to provide it, and supplier documentation showed significant variability ($p = 0.02$). Several breakpoints were identified, especially between operating room documentation and patient discharge. After reinforcement measures, implant cards were systematically delivered for all new orthopedic procedures. The IA-Trace flowchart introduces a lightweight, sequential model integrating UDI capture, validation steps, and automated implant-card generation.

Conclusion: The audit highlighted critical gaps in IMD traceability. IA-Trace provides a practical and scalable workflow to strengthen traceability practices and enhance patient safety.

Accidental Upper Airway Obstruction in Children in Northern Tunisia

Ouni M, Bellali M, Cherif K, Salleoui L, Zidi H, Allouche M

Forensic Medicine Department, Charles Nicolle Hospital, Tunis

Introduction: Accidental obstruction of the upper airway is a well-recognized cause of sudden death in the pediatric population. Despite preventive efforts, these events continue to present significant diagnostic and public health challenges in forensic practice.

Aims: To investigate deaths due to accidental upper airway obstruction by describing the affected pediatric population, causal mechanisms, and autopsy findings.

Methods: A retrospective descriptive study from January, 1st 2022 to December, 31st 2024. All children who died from upper airway obstruction and underwent medico-legal autopsy at the Department of Forensic Medicine, Charles Nicolle Hospital, Tunis, were included. Data were obtained from case histories and autopsy reports.

Results: Thirteen cases were identified. Median age was four months (range six days–nine years). Females predominated (F:M = 1.6). Nine deaths resulted from milk aspiration after breastfeeding when the child was left unattended. Four cases involved foreign-body aspiration, two occurring during meals. Eleven children were brought to hospital already deceased; two died during hospitalization. No congenital malformations were recorded. One child had a degenerative neurological disorder. Two children were premature and four had respiratory symptoms in the month preceding death. Milk aspiration was histologically confirmed in five cases, showing diffuse, non-inflammatory milky fluid in the airways.

Conclusions: Accidental mechanical asphyxia from upper airway obstruction remains a preventable yet serious cause of pediatric death. The high frequency among infants left unattended after

breastfeeding highlights the need for targeted prevention. Improved education for parents and healthcare professionals on aspiration and choking risks is essential to reduce mortality.

Kawasaki disease in children: What differences between the pre- and post- COVID-19 eras?

Ben Mansour K, Ben Othmen M, Hrizi H, Essadam L, Fitouri Z.

Hospital of Tunis, department of Pediatrics D, Tunis, Tunisia

Introduction: Kawasaki disease (KD) is an acute systemic vasculitis in children that can cause coronary artery complications. Changes in its clinical and biological profile after 2020 may reflect the influence of environmental or infectious factors such as the COVID-19 pandemic.

Aim: To compare the clinical, laboratory, therapeutic, and echocardiographic characteristics of children diagnosed with KD before and after the COVID-19 era.

Methods: A retrospective, single-center, descriptive and analytical study was conducted including all children diagnosed with KD between January 2015 and June 2025. Patients were divided into two groups: pre-COVID-19 (before 2020) and post-COVID-19 (after 2020), and compared across clinical, biological, therapeutic, and echocardiographic parameters.

Results: Pre-COVID ($n = 7$): median age 3 years; typical forms 85%; fever duration 10 days; bilateral conjunctivitis (100%), rash (85%), oral involvement (85%), lymphadenopathy (100%), extremity changes (30%). All had inflammatory markers; microcytic anemia (85%), thrombocytosis (45%), hyponatremia (45%). All responded to IVIG; no coronary lesions. Post-COVID ($n = 20$): median age 2.7 years; typical forms 55%; fever 7.8 days; conjunctivitis (55%), rash (55%), oral changes (90%), lymphadenopathy (25%), extremity changes (75%). Minor symptoms: gastrointestinal (30%), arthralgia (20%), BCG reactivation (10%). Complete IVIG response 75%, resistance 25%. Echocardiographic abnormalities in 8 patients (45%). No significant difference was found for complete forms, treatment resistance, or coronary lesions ($p = 0.1$).

Conclusion: Post-COVID KD cases showed more incomplete forms, broader clinical variability, and more cardiac involvement, emphasizing vigilant monitoring and individualized management to prevent coronary complications.

Parental representations of adolescent sexuality and their impact on sex education

Hajjassi A, Randaline A, Ben Abid H, Ajmi M, Guedria A

Child and Adolescent Psychiatry Department . Fattouma Bourguiba University Hospital, Monastir

Introduction: Puberty brings physical and emotional changes, during which sexuality begins to emerge. Parents' views shaped by culture, religion, and personal experiences, strongly influence how they support their children.

Objective: To explore parental representations of sexuality during puberty and analyze their influence on sex education practices and intra-family communication.

Methodology: This is a descriptive cross-sectional study conducted over a two-month period, from January to February 2025, among parents of children treated at the child psychiatry department of the Fattouma Bourguiba University Hospital in Monastir. Data were collected using an anonymous self-administered questionnaire distributed to parents, which explored parental knowledge, attitudes, and beliefs about puberty and sexuality.

Results: Among the 73 participating parents (89% women, average age 41.8), one-third had low education levels and 23.2% higher education. While 75.3% view puberty education as necessary, their views remain influenced by traditional norms. In fact, 59% perceive pubertal sexuality as a moral or social risk requiring control and caution, while 41% consider it a natural learning process. These perceptions lead to selective practices; with 89% limiting discussions to biological aspects and only 13.6% addressing emotional or sexual relationships. Topics like virginity and intimacy are generally introduced later (around age 14.2) and mainly through cultural or religious frames..

Conclusion: Parental representations of sexuality during puberty oscillate between taboo, fear, and a desire to educate, revealing tension between traditional values and a more open, modern approach to sexual health. Promoting supportive and educational attitudes requires programs that address taboos, emotional management and communication skills.

Mechanical Small intestine obstruction in the virgin abdomen: Predictive factors of small bowel resection and morbidity

Chaouch MA, Zayati M, Boughanmi F, Korbi I, Ben Jabra S, Noomen F

Department of General Surgery, Fattouma Bourguiba University Hospital, Monastir

Background: Acute mechanical small bowel obstruction (SBO) in patients without a history of abdominal surgery is a diagnostic and therapeutic challenge. Early identification of predictive factors for small bowel resection and morbidity is essential to guide clinical decision. This study Aimed to identify predictive factors for small bowel resection and morbidity in patients with mechanical SBO without prior abdominal surgery.

Methods: This retrospective, descriptive, and analytical study was conducted in the Surgery Department of Monastir University Hospital between January 2015 and December 2023. The primary outcomes were predictors of small bowel resection and morbidity. Statistical analysis included univariate analysis and multivariate logistic regression to identify independent predictors.

Results: 98 patients were included, with a median age of 53 years and a male-to-female ratio of 1.8. Crohn's disease was the most common etiology (27%), followed by small intestine tumors (11%) and hematomas (8%). Emergency surgery was required in 63.3%, and small bowel resection was performed in 33%. Elevated C-reactive protein (CRP ≥ 140 mg/L) was an independent predictor of emergency surgery, showing a specificity of 100%. Other contributing factors included leukocytosis ($\geq 14,500/\text{mm}^3$) and delayed presentation (≥ 80 hours). Morbidity occurred in 33% of emergency surgery patients and was significantly associated with advanced age (≥ 75 years), cardiac comorbidities, and signs of intraoperative severity such as intestinal necrosis.

Conclusion: Mechanical small bowel obstruction in a virgin abdomen is mainly linked to Crohn's disease, tumors, or hematomas. Elevated CRP, leukocytosis, delayed presentation, and patient comorbidities predict worse outcomes, emphasizing the need for early recognition.

Immunologic profile and cardiac manifestations in systemic lupus erythematosus

Talouh M, Chourabi C, Chourabi S, Mahfoudhi H, Haggui A, Hajlaoui N, Fehri W

Cardiology Department, Military Hospital of Tunis, Tunisia

Background: Autoantibody profiles may play a role in cardiac damage in SLE.

Methods: Immunologic markers (ANA, anti-dsDNA, anti-Sm, antiphospholipid antibodies, complement levels) were analyzed in 40 patients (24 with, 16 without cardiac involvement).

Results: Anti-dsDNA antibodies were more frequent in cardiac cases (71% vs 44%), and complement consumption (low C3/C4) was associated with pericardial effusion. Antiphospholipid antibodies correlated with mild pulmonary hypertension and valvular thickening.

Discussion: The immune basis of cardiac injury in SLE is supported by our Results. Anti-dsDNA and complement activation play major roles in endothelial injury and immune complex deposition(1). The link between antiphospholipid antibodies and valvular abnormalities (Libman-Sacks endocarditis) has been consistently reported (2,3). Monitoring immunologic activity is therefore critical in predicting cardiovascular risk in lupus.

Conclusion: Anti-dsDNA and complement activation seem linked to cardiac involvement, suggesting immune-mediated damage.

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Clinical and echocardiographic characteristics of cardiac involvement in systemic lupus erythematosus

Talouh M, Chourabi C, Chourabi S, Mahfoudhi H, Haggui A, Hajlaoui N, Fehri W

Cardiology Department, Military Hospital of Tunis, Tunisia

Background: Cardiac manifestations are common but often subclinical in systemic lupus erythematosus (SLE). Early recognition is essential to prevent morbidity.

Methods: A cross-sectional study included 40 SLE patients: 24 with cardiac involvement (Group 1) and 16 without (Group 2). Clinical, laboratory, and echocardiographic parameters were compared.

Results: Dyspnea (67% vs 31%, $p = 0.028$), chest pain (25 % vs 0%, $p = 0.03$), and serositis (50% vs 12.5%, $p = 0.015$) were significantly more frequent in Group 1. Global longitudinal strain (GLS) was reduced (-16.8 vs -19.25 , $p = 0.017$), while left ventricular ejection fraction (LVEF) remained similar. Pericardial effusion was found in 37% of Group 1 versus none in Group 2 ($p = 0.005$).

Discussion : Our findings confirm that subclinical cardiac involvement is frequent in SLE. The preserved LVEF despite abnormal GLS aligns with previous data highlighting strain imaging as an early marker of myocardial dysfunction (1,2). Pericardial effusion remains one of the most prevalent echocardiographic findings, as reported by Apte et al.(3).

Conclusion: Cardiac involvement in SLE is characterized by dyspnea, serositis, and impaired GLS despite preserved LVEF, supporting strain imaging as a sensitive diagnostic tool.

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Asphyxia: An underestimated cause of death in children

Siala H, Bendaly A, Kammoun J, Bahloul N, Zribi M, Ben Amar W

University Of Sfax, Faculty Of Medicine Sfax, Habib Bourguiba Hospital, Forensic Medicine Department

Introduction: Asphyxia remains a significant cause of death amongst our population. Its impact becomes more tragic and more dramatic when it concerns children. Each case requires a thorough and meticulous investigation to rule out any possibility of criminal involvement.

Aims: Our goal is to elaborate on the medico-legal characteristics of deaths by asphyxia in young subjects.

Methods: This is a retrospective descriptive study involving autopsy cases of deaths related to death by asphyxia involving subjects that are aged under 18 years in the Forensic Medicine Department of the Habib Bourguiba Hospital in Sfax in a period of 7 years (2018-2024).

Results: Throughout the study period we collected 113 cases of deaths by asphyxia in children. The age median was 8 with 0 percentile [25;75] of [2 years;15years]. We noted a net male predominance (72.6% of cases). Most cases happened in the summer season (32.7%). The medico-legal form of death was mainly accidental (75%) and suicidal (24%). Only one case of infanticide through thoraco-abdominal compression was reported. The main mechanisms of death by asphyxia observed in this study were drowning (57.5%) with freshwater drowning being the most common, followed by hangings (26.5%) and mechanical obstruction by a foreign object (9.7%).

Conclusion: Asphyxia remains a common cause of death for children. As the accidental form was the predominant form, The major part of these deaths could be avoided by a better communication with the relatives on the preventive measures.

Predictive Factors for Sepsis Following Ureteroscopy in the Management of Ureteral Calculi

Ouanes Y¹, Chakroun A¹, Baradai N², Karmous J¹, Chikhaoui B¹, Noura Y¹

1. University of Tunis El Manar, Faculty of Medicine, La Rabta Hospital, Urology Department, Tunis, Tunisia.

2. University of Tunis El Manar, Faculty of Medicine, National Institute of Neurology, Outpatient and ,Emergency Department, Tunis, Tunisia

Introduction: Ureteroscopy(URS) is a well-established endourological procedure for the management of ureteral calculi. Despite its high success rate, postoperative infectious complications, including sepsis, remain significant, occurring in up to 5% of cases.

Aim: To identify independent predictive factors of postoperative sepsis following semi-rigid ureteroscopy for the treatment of ureteral calculi.

Methods: A retrospective single-center study (2015–2019) was conducted at La Rabta Hospital, Urology Department, including patients with CT-confirmed ureteral calculi treated by semi-rigid ureteroscopy with pneumatic lithotripsy. Exclusion criteria were flexible ureteroscopy, laser lithotripsy, or prior ipsilateral renal surgery. All patients had sterile preoperative urine cultures, and postoperative sepsis or septic shock was defined per SEPSIS-3. Variables with $p < 0.2$ in univariate analysis entered multivariate logistic regression (significance $p < 0.05$).

Results: Among 415 patients, diabetes mellitus was the most frequent comorbidity (22.4%). Postoperative sepsis occurred in 31 patients (7.5%), including four cases of septic shock, with no mortality. The median stone size was 10 mm, mean Hounsfield unit density 895 ± 340 , and ureteral stone aggregation ("stone street") occurred in 47 cases (mean length 27.4 ± 8.2 mm).

Multivariate analysis identified three independent predictors of postoperative sepsis: ureteral stone aggregation ≥ 9 cm (OR 2.02; 95% CI 1.16–5.25; $p = 0.03$), preoperative leukocyturia (OR 1.75; 95% CI 1.29–4.09; $p = 0.001$), and turbid intraoperative urine (OR 0.07; 95% CI 0.001–0.43; $p = 0.046$).

Conclusion: Ureteral stone aggregation ≥ 9 cm, preoperative leukocyturia, and turbid intraoperative urine independently predict postoperative sepsis after semi-rigid ureteroscopy. Early identification of these factors can optimize patient selection and guide preventive measures to lower infectious morbidity.

Flexible ureteroscopy for upper tract urothelial carcinoma: Can laser ablation safely replace radical surgery?

Bahria MA, Sakly A, Chakroun A, Ben Saad H

University of Monastir, Faculty Of Medicine, Tahar Sfar Hospital, Urology department, Mahdia, Tunisia

Introduction: Upper tract urothelial carcinoma (UTUC) is a rare malignancy, representing 5–10% of all urothelial tumors. Radical nephroureterectomy (RNU) remains the gold standard but leads to significant nephron loss. Flexible ureteroscopy (f-URS) with laser ablation has emerged as a kidney-sparing alternative, particularly in patients with high surgical risk, solitary kidneys, or impaired renal function.

Aim: To assess the functional and oncological outcomes of conservative management of UTUC using f-URS with laser ablation.

Methods: A retrospective descriptive study was conducted on 20 patients treated between January 2019 and February 2025 in the Department of Urology at Tahar Sfar University Hospital, Mahdia. Clinical characteristics, tumor location, operative details, and follow-up outcomes were analyzed.

Results: The mean age was 67 years (range 37–85), with 80% males (M/F = 4). Smoking was the main risk factor (75%). Tumors were mainly located in the renal pelvis (55%) and ureter (30%). The mean operative time was 68 minutes. Postoperative drainage was required in 30% of cases. Perioperative morbidity was minimal, with no major bleeding or perforation; one case of acute pyelonephritis occurred (Clavien–Dindo II). The mean hospital stay was 2.4 days. After a mean follow-up of 11 months, the recurrence rate was 30%, and four patients required salvage RNU.

Conclusion: Flexible ureteroscopy with laser ablation is a safe and effective nephron-sparing alternative for UTUC in well-selected patients. Although recurrence remains frequent, close endoscopic surveillance ensures durable disease control and improved renal preservation.

Impact of Childhood Asthma on School Life

Bou Okkez N, Thabti R, Bouaziz A

Service de pédiatrie et néonatalogie, Hôpital Régional de Ben Arous, Tunisie

Introduction: Asthma affects approximately 7–10% of the school population, representing about 2 to 3 children per classroom. The asthmatic child spends an average of one-third of their time at school, which can influence disease control.

Methods: This was a cross-sectional and descriptive observational study conducted over a three-month period, from October 1 to December 31, 2023, in the Pediatric Department of the Regional Hospital of Ben Arous. It involved school-aged children with asthma.

Aim: describe the impact of asthma on school life.

Results: A total of 111 asthmatic children were included, with a mean age of 9.8 ± 2.3 years. Sixty-four children were male. All were enrolled in school, and the majority (79.3%) attended primary school. Grade repetition was noted in 16 children (14.4%), of whom 13 were in primary school and 3 in middle school. Thirty-two children (28.8%) required the use of their rescue medication at school. Absenteeism was reported in 43 children, with a mean of 13.9 ± 11.8 days per year (range: 0–40 days/year). The rate of school absenteeism was 75% among children with uncontrolled asthma, compared to 37% among those with partially controlled asthma and 13.5% among those with well-controlled asthma. Absenteeism was significantly associated with impaired quality of life (QoL), including activity limitation and emotional function impairment ($p = 10^{-3}$). We found that 18.9% of children felt neglected or misunderstood at school because of their illness, while 17.1% reported feelings of isolation. Multivariate analysis identified school absenteeism as an independent risk factor for poor QoL in asthmatic children ($p = 0.035$; OR = 1.117; 95% CI [1.012–5.887]). Thus, children who were frequently absent from school were at greater risk of overall well-being impairment.

Conclusion: Our findings highlight the importance of an integrated management approach for school-aged children with asthma.

Coexistence of autoimmune diseases and autoimmune liver disorders: Impact on clinical outcomes

Krifa N, Hassine H, Dabbebi H, Cherif D, Kchir H, Maamouri N

University Of Tunis El Manar, Faculty Of Medicine Of Tunis, la Rabta University Hospital, gastroenterology Department B, Tunis, Tunisia

Introduction: Autoimmune hepatitis (AIH), whether isolated or associated with primary biliary cholangitis (PBC) or primary sclerosing cholangitis (PSC) as overlap syndromes (OS), often arises within a systemic immune dysregulation context that predisposes to other autoimmune diseases (AID).

Their coexistence may reflect a distinct immunological phenotype influencing disease course and prognosis.

Aim: To determine the prevalence of associated AID and assess their impact on the clinical course of patients with pure AIH or OS.

Methods: This retrospective single-center study (2015–2025) included all patients with AIH or OS. Associated AIDs were recorded. Evolutionary outcomes—cirrhosis, complications, treatment response, and mortality—were compared between patients with (G1) and without AID (G2) using Chi-square or Fisher's exact tests ($p < 0.05$).

Results: Fifty-nine patients were included, including 25 (42.4%) with pure AIH. Seventeen (28.8%) had at least one AID. The most frequent was thyroid dysfunction ($n = 8$), followed by Sjögren's syndrome ($n = 2$), systemic lupus erythematosus ($n = 1$), type 1 diabetes ($n = 1$), pernicious anemia ($n = 1$), myositis ($n = 1$), Crohn's disease ($n = 1$), scleroderma ($n = 1$), psoriasis ($n = 1$), and celiac disease ($n = 1$). Groups were similar in mean age (51 vs 50.9 years; $p = 0.99$), sex ratio (0.32 vs 0.18; $p = 0.61$), and cirrhosis at diagnosis (35.3% vs 45.2%; $p = 0.58$). Hepatic decompensations and treatment response rates were comparable (29.4% vs 31%, $p = 1$; and 64.7% vs 59.5%, $p = 0.77$). However, mortality was significantly higher in patients without AID (0% vs 52.9%, $p < 0.001$).

Conclusion: About one-third of patients with autoimmune liver disease had another AID. Although hepatic complications and response to therapy were similar, the absence of AID was associated with higher mortality. Concurrent autoimmune diseases may signal a distinct phenotype needing closer follow-up.