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FRONTIERS IN ADVANCED EMERGENCY CARE & THE MEDITERRANEAN
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**FRONTIERS IN ADVANCED EMERGENCY CARE &
THE MEDITERRANEAN ACADEMY OF EMERGENCY
MEDICINE JOINT CONGRESSES ABSTRACTS**

PART 1

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**Abstracts Presented
in Tbilisi, Georgia
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1 Venous Blood Gas–Measured Sodium Disturbances and Hospital Admission in Emergency Department Patients

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Sodium disturbances, including hyponatremia and hypernatremia, are common among emergency department (ED) patients and are associated with adverse clinical outcomes. Venous blood gas (VBG) analysis enables rapid sodium measurement; however, its predictive role in hospital admission remains uncertain. We conducted a retrospective cohort study in a tertiary-care emergency department in Tbilisi, Georgia, at S. Khechinashvili University Clinic from January to December 2024. Adults ≥ 18 years with VBG sodium measured in the ED were included, while patients with pre-existing chronic kidney disease or heart failure were excluded. Sodium levels were categorized as normal (136–145 mmol/L), hyponatremia (<136 mmol/L), or hypernatremia (>145 mmol/L) based on institutional laboratory reference ranges. A total of 308 patients were included, of whom 216 (70.0%) were normonatremic and 92 (30.0%) were dysnatremic (20.5% hyponatremia; 9.5% hypernatremia). Hyponatremia was significantly associated with hospital admission ($\chi^2 = 5.98$, $p = 0.01$; 95% CI: 0.033–0.327). Neither overall dysnatremia nor hypernatremia showed a statistically significant association with admission ($p = 0.09$ and $p = 0.70$, respectively). Hyponatremia detected on initial VBG analysis is significantly associated with increased likelihood of hospital admission in adult ED patients, highlighting its value as an early marker of clinical severity. In contrast, hypernatremia and overall dysnatremia were not independently associated with admission. These findings support the use of rapid, point-of-care VBG sodium measurement as a practical tool for early risk stratification in the emergency department, enabling timely identification of patients who may require inpatient care and improving initial clinical decision-making.

2 Quantification of polycyclic aromatic hydrocarbons in fishery products by GC/MS on the Moroccan coast and assessment of health risks for the Moroccan population

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Industrial activities have direct adverse effects on the quality of the aquatic environment by acting as a source of chemical contaminants, including polycyclic aromatic hydrocarbons (PAHs). The aim of this work is to study specifically PAHs that can affect the quality of fish products in the Moroccan coast. 382 samples were collected randomly, 80.9% of which were fish. The matrices used for the search for these contaminants were made up of the chair or the edible part of the species concerned. The sampling campaigns for the species studied were carried out on 14 coastal sites. The four PAHs were analyzed by gas chromatography coupled to mass spectrometry (GC/MS) in SIM acquisition mode. 25g of the sample to be analyzed are crushed in a mixture of 100 ml of hexane/dichloromethane, then homogenized and then extracted by sonication. The detection limit of the PAHs studied varies between 0.03 $\mu\text{g/Kg}$ and 0.06 $\mu\text{g/Kg}$. The results relating to the analysis of PAHs in the different samples taken from the Moroccan littoral, show a variation of the contents of these substances according to the sampling sites and the species. Given the overall results of this research work aimed at studying the safety of fishery products from the Moroccan coastline, the levels obtained from PAHs remain below the limits set by the Moroccan Regulations and do not constitute any risk for the Moroccan consumer.

3 Unintentional Pediatric Poisoning by Street Drugs: A Case Series from Three Pediatric Poisoning Centers

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Background: Although rare, unintentional street

drug poisoning in children under five is a significant clinical challenge. The aim of our study is to describe the clinical characteristics of 12 cases of unintentional street drug poisoning.

Methods: A retrospective analysis was conducted across three pediatric poisoning centers from January 2017 to December 2022. Data included demographics, reported substance, clinical features and outcomes.

Results: The sample had equal numbers of males and females. The mean age was 2 years, and the average hospital length was 2.75 days. In 50% of the cases, the child originated from a family where at least one parent was a chronic substance abuser. The most common clinical manifestations were neurological: somnolence (66.66%), gait and balance disturbances (50%), psychomotor agitation (25%), conjunctival hyperemia (16.66%) and seizures (one case- poisoning with amphetamines and synthetic cathinones), followed by gastrointestinal- vomiting (41.66%). The poisoning severity score showed that most cases were moderate (83.33%), with only one severe case. No deaths have been reported, with only one case requiring admission to the intensive care unit. Patient outcomes have been good, with full recovery. No significant association was found between age, and a longer hospital stay or neurological manifestations.

Conclusions: Neurological symptoms are most common in children exposed to street drugs, highlighting the vulnerability in early development of the central nervous system. This type of poisoning poses a significant risk to children in families with chronic substance users. Most cases were moderate with good outcomes, but severe complications remain a concern.

4 Cardio-respiratory arrest in pediatric poisoning – data from a pediatric poison center Abstract

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Background: Poisoning-induced cardio-respiratory arrest in children is rare but associated with high morbidity and mortality, and evidence

remains limited to small case series.

Methods: We performed a retrospective review of poisoned pediatric patients with cardio-respiratory arrest admitted to a pediatric poisoning center over a 9-year period (2017-2025).

Results: A total of 14 pediatric cases were analyzed, with a median age of 6.5 years (range: 1–16 years). Accidental poisoning was the most common cause, accounting for 71% of cases, and the identified toxins included paracetamol (n=1), corrosive substances (n=2), carbon monoxide (n=2), toxic mushrooms (n=2), and cholinesterase-inhibitor insecticides (n=3). Other causes included recreational multidrug use (n=2, 14%), intravenous anesthesia in a stomatology setting (n=1), and drotaverine ingestion with undetermined intent (n=1). Cardio-respiratory arrest occurred in pre-hospital settings in 6 cases and within a medical unit in 8 cases. The interval between toxic exposure and the first arrest ranged from 15 minutes to 9 hours. The overall mortality rate was 64% (n=9), of which 2 patients experienced an irreversible initial arrest. The patients that were initially resuscitated but died after prolonged intensive care management lasting between 3 and 22 days. Five patients survived. The hospital stays ranged between 5 to 57 days. The outcome was favorable, except for one patient with carbon monoxide poisoning who developed neurological sequelae.

Conclusions: Cardiorespiratory arrest in pediatric poisonings is a rare but life-threatening condition associated with high mortality rates. Such arrest may occur directly because of exposure to toxic substances or due to poisoning complications.

5 Opioid Toxicity Complicated by Post-ERCP Pancreatitis and Acute Kidney Injury in a Patient with Advanced Gastrointestinal Malignancy: A Case Report

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Introduction: Patients with advanced gastrointestinal malignancy may present to the emergency department with multifactorial deterioration. Opioid exposure, dehydration, acute kidney injury, infection, and procedure-related complications can overlap and rapidly compromise consciousness and ventilation.

Case description: A patient with known advanced gastrointestinal malignancy, an ostomy, malignant biliary obstruction, and a recent ERCP with biliary stent placement presented after two days of progressive somnolence, inability to take anything orally, and dyspnea following morphine administration for analgesia. On arrival, the patient was critically ill, unconscious, with pinpoint pupils and a Glasgow Coma Scale score of 3. There were severe acidosis, leukocytosis, high creatinine, very high amylase/lipase, and high CRP. Brain CT showed no acute intracranial pathology. Abdominal CT demonstrated biliary stent findings, gallstones, mild renal pelvic dilatation, ostomy-related changes, and free intra-abdominal fluid without free air. Opioid intoxication was suspected, and intravenous naloxone was administered. Because of persistent depressed consciousness and airway risk, the patient was electively intubated. After repeated naloxone doses, consciousness improved without sedation, and the patient tolerated spontaneous ventilation. However, following extubation, hypercapnia and respiratory acidosis developed, requiring reintubation. Gastroenterology considered post-ERCP pancreatitis; nephrology assessed acute kidney injury and metabolic acidosis.

Discussion: This case highlights the diagnostic complexity of altered mental status in advanced cancer. Naloxone responsiveness supported opioid toxicity, but concurrent pancreatitis, dehydration, renal dysfunction, and acid base disturbance likely reduced respiratory reserve and contributed to extubation failure.

6 Assessing the Reliability of Rapid Ultrasound for Pneumothorax Detection in ED and ICU in Georgia; Do Chest X-Rays Remain Essential? Running title: Rapid Ultrasound vs Chest X-Ray for Pneumothorax Detection

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Background: Pneumothorax is a potentially life-threatening condition, requiring prompt and accurate diagnosis. Although chest X-ray has been regarded as the gold standard, point of care

ultrasound has emerged as a promising tool as it offers advantages in safety, speed and cost. This study evaluated diagnostic accuracy, time efficiency and cost-effectiveness of US compared with CXT for pneumothorax detection in Georgian hospital settings.

Methods: A mixed retrospective-prospective observational study analyzed 47 pneumothorax patients (30 males, 17 females) who underwent both diagnostic modalities between January 2019 and February 2024. CT scan or chest tube placement served as reference standards. Statistical analysis included diagnostic performance metrics: sensitivity, specificity, NPV, PPV, accuracy, chi-square testing, ROC curve analysis, and for time comparison- paired t-test.

Results: US demonstrated a sensitivity of 91.3%, specificity of 100%, and accuracy of 91.5%, while CXR showed sensitivity of 93.5%, specificity 100% and accuracy of 93.6%. The association with PTX diagnosis was statistically significant for both modalities (CXR: $p < 0.001$; US: $p = 0.003$). ROC revealed comparable performance (AUC: US = 0.872; CXR = 0.817; $p = 0.668$). Diagnostic time was significantly shorter for US (mean 2 minutes) than for CXR (mean 17 minutes). Cost analysis indicated that ultrasound was about 40% less expensive per patient. Both modalities achieved 100% accuracy in iatrogenic PTX.

Conclusion: Ultrasound provides diagnostic reliability comparable to chest X-ray while offering substantial advantages in speed and cost, supporting its role as a primary imaging tool for pneumothorax detection in emergency and critical care environments.

7 Whole Blood in Emergency Trauma Resuscitation: Survival Outcomes, Safety, and Applications – A Systematic Literature Review

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Background: Whole blood (WB) transfusion has re-emerged in trauma resuscitation because of its hemostatic profile and potential survival benefit in hemorrhagic shock. This systematic literature reviews the effectiveness, safety, and applications

of WB transfusion in emergency trauma care.

Methods: A systematic review was conducted using PubMed, Scopus, Embase, and the Cochrane Library for studies published between January 2018 and March 2026, also it is PRISMA guided. Studies evaluating WB (Adult and pediatric) during pre-hospital or in-hospital resuscitation were included. Dual reviewer screening and data extraction was performed, and study quality was assessed using Newcastle-Ottawa Scale and ROBINS-I tool. Out of 1,142 screened records, 25 studies met inclusion criteria, the majority being retrospective multicentered cohort. No protocol registration was performed.

Results: Almost 18,000 trauma patient's data showed that WB transfusion was consistently associated with improved early survival and lower transfusion requirements compared with component therapy. Higher WB to total transfusion volume ratio was related with reduced 24hour mortality (OR 0.29; 95% CI, 0.22–0.38) and 30day mortality (OR 0.40; 95% CI, 0.32–0.49). Pediatric studies also showed reduced early mortality (OR 0.49; 95% CI, 0.29–0.83) and fewer ventilation periods. Reported transfusion related complications were uncommon, and several studies supported the possibility of WB implementation in civilian trauma systems.

Conclusion: WB transfusion shows promising survival, hemostatic, logistical, and implementation advantages in trauma resuscitation. However, evidence remains limited by study heterogeneity and the predominance of retrospective data. Prospective randomized trials must establish standardized protocols and define optimal patient selection.

8 From Fields to Pharmacies-Mapping a Decade of Toxicological Presentations Across Pakistani Emergency Departments

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Background: Multicenter toxicovigilance data are limited in Pakistan. 10-year toxicology data across four Pakistani EDs (Karachi, Badin, Lahore, Muzaffargarh) were analyzed to describe patterns, intent, clinical course and adjusted predictors of severe disease progression.

Methods: Retrospective chart review of 7,049 patients aged ≥ 14 years with toxicological exposure, was conducted (July 2013-June 2023). Free text diagnoses and presenting complaints fields were harmonized into clinical sub-classes (e.g., envenomation, pesticides, household chemicals, pharmaceuticals), and intent was classified as confirmed/ probable deliberate self-harm, accidental, or unclear exposure. Severe outcome was need for referral, admission, ventilatory or inotropic support. Predictors were assessed using multivariable logistic regression.

Results: Mean age was 31.7 ± 12.6 years, with 60.5% men. Badin; an agricultural community, reported 69.4 cases. Envenomation (47.4%), pesticides (27.9%), household chemicals (11.5%), medications (5.9%), paraphenylenediamine (1.9%), alcohol (1.4%), and unknown exposures (4.8%) were noted. Intent was accidental- 54.1%, confirmed deliberate self-harm (DSH)-2.0%, probable DSH-8.5%, and unclear- 35.4%. Severe outcomes occurred in 54.0%; mortality was 0.6%, likely underreported due to referrals. Adverse outcomes were independently associated with Karachi campus (AOR 4.78, 95%CI 3.85-5.93), confirmed DSH (AOR 7.91, 95%CI 4.31-14.51), probable DSH (AOR 6.99, 95%CI 4.84-10.11), hypotension (AOR 3.34, 95%CI 1.42–7.88), tachypnea (AOR 4.45, 95%CI 3.38-5.87), hypoxemia (AOR 1.95, 95%CI 1.42-2.68), and AVPU scale (AOR 1.52, 95%CI 1.32-1.76).

Conclusion: Toxicological burden was predominantly agricultural, environmental, and intentional, with marked referral dependence. This supports toxicology bundles, escalation pathways, antidote/ antivenom planning, and stronger toxicovigilance.

9 Fatal Arterial Thromboembolism in an Elderly Patient with Metastatic Colorectal Cancer Receiving Bevacizumab: A Diagnostic Challenge in Acute Abdomen

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Introduction: Bevacizumab therapy creates a profoundly prothrombotic state, elevating the risk for acute mesenteric ischemia. Recognizing AMI is exceptionally challenging when the clinical

presentation and standard imaging diverge, creating a dangerous diagnostic pitfall for emergency and surgical teams.

Case description: An 81-year-old male with metastatic cancer on bevacizumab presented with sudden, severe diffuse abdominal pain. Initial CT angiography demonstrated no definitive mesenteric arterial occlusion but suggested an evolving small bowel obstruction (SBO). Under conservative SBO therapy, the patient exhibited transient clinical improvement. Forty-eight hours later, he rapidly deteriorated with refractory pain and hemodynamic instability. Emergency laparotomy revealed extensive ileal necrosis from superior mesenteric artery thrombosis. Despite immediate surgical resection and intensive care, the outcome was fatal.

Discussion: This case exemplifies critical clinicroadiologic discordance where early, occult ischemia masqueraded as SBO. The patient's transient response to conservative management provided false reassurance, masking the underlying vascular catastrophe. In highly vulnerable populations, an initial negative CT angiography can be dangerously misleading. When a patient's pre-test probability for a thromboembolic event is exceptionally high, an unwavering index of clinical suspicion must dictate ongoing management, rather than relying solely on early non-diagnostic imaging.

Key learning points:

- A single negative CT angiography cannot definitively exclude early-stage acute mesenteric ischemia.
- Ischemia may clinically mimic a mechanical SBO, and transient symptomatic improvement with conservative management can deceptively mask progressing bowel necrosis.
- In patients with profound prothrombotic risk factors, robust clinical judgment and a high index of suspicion must supersede unrevealing early imaging to prevent fatal delays in intervention.

10 Severe Organophosphate (Dimethoate/Bi-58) Poisoning Complicated by Aspiration Pneumonia

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Introduction: Organophosphate (OP) poisoning is

a life-threatening emergency causing cholinergic crisis, respiratory failure, and shock.

Case Description: A 34-year-old male presented 4 hours after intentionally ingesting approximately 10 grams of Bi-58 (dimethoate). Admission findings included somnolence, muscle tremors, tachycardia (HR 134 beats/min), BP 136/100 mmHg, tachypnea (RR 28/min), hypoxemia with oxygen saturation (SpO₂) of 89% on room air, fever (38.5°C), and leukocytosis (24.86 × 10⁹/L). Titrated intravenous atropine infusion was immediately initiated. The patient rapidly developed acute respiratory failure from macroscopic food aspiration and pneumonitis, requiring urgent endotracheal intubation, mechanical ventilation, and bronchoscopic lavage. Despite preserved renal function, early hemodialysis was performed for possible extracorporeal toxin clearance, based on a few published case reports. Distributive shock developed, requiring norepinephrine infusion. Sputum cultures isolated *Staphylococcus aureus*, treated with targeted antibiotics. Gastric lavage and activated charcoal were administered per protocol. Following stabilization, he was successfully weaned from mechanical ventilation and vasopressors, achieving complete neurological recovery by discharge on day 13.

Discussion: Severe dimethoate toxicity requires rapid, multimodal intervention. Profuse bronchorrhea and gastric aspiration necessitate immediate airway protection and bronchoscopic clearance. The benefit from hemodialysis in organophosphate poisoning remains unproven.

11 A Case Report of Temporal Lobe Abscess Mimicking a Stroke

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Otogenic Intracranial Abscess is a rare but life-threatening complication of otitis media, often presenting with nonspecific neurological symptoms and misdiagnosis in the early stages. We report the case of a 36-year-old male who was transferred to the Emergency Department with isolated aphasia and no other focal neurological deficits. Physical examination was unremarkable and vitals were stable. One month prior, the patient had an episode of acute otitis media which was treated with a course of antibiotics. Over a span of time, he

developed aphasia which was noted by his family. Initial diagnostic impression by a neurologist was a prior missed cerebral infarction and the patient was referred to get an MRI to localize the lesion. MRI revealed a left temporal lobe ring enhancing lesion, cerebral edema and midline shift. Due to the severity of the imaging findings and potential risk of neurological deterioration, urgent Neurosurgical and Otolaryngology consultation was obtained by the Emergency Department. The patient was diagnosed with an Otogenic Intracranial Abscess and underwent intracerebral abscess drainage and radical mastoidectomy without any complications. The post-operative period was uneventful, and the patient was soon discharged home.

12 A Cross-Sectional Pilot Study Assessing Awareness of Cardiopulmonary Resuscitation and Willingness to Perform Bystander CPR Among Outpatient Attendees in Tbilisi, Georgia

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Background: Out-of-hospital cardiac arrest remains a major cause of mortality worldwide, and early bystander cardiopulmonary resuscitation (CPR) plays a critical role in improving survival. This study assessed CPR awareness and willingness to perform bystander CPR among adult outpatient attendees at a clinic in Tbilisi, Georgia.

Methods: A cross-sectional questionnaire-based survey was conducted among 40 adult patients. Demographic characteristics, awareness of CPR, prior CPR training, willingness to perform bystander CPR, reasons for unwillingness, and interest in future CPR training were assessed. Data were analyzed using descriptive statistics.

Results: Forty participants completed the survey, including 20 males (50%) and 20 females (50%). Overall, 32 participants (80%) reported having heard of CPR, while 8 (20%) had no prior awareness. Only 4 participants (10%) had received formal CPR training. Fourteen participants (35%) reported willingness to perform bystander CPR, whereas 26 (65%) were unwilling. Interest in future CPR training was high, with 39 participants (97.5%) expressing a desire to receive training. Common barriers to performing CPR were identified to be fear, lack of knowledge, and concerns regarding legal consequences.

Conclusion: Despite relatively high awareness of CPR, formal training and willingness to intervene during cardiac emergencies were low. These findings highlight a gap between awareness and practical readiness. Community-based CPR education programs may improve public confidence and increase bystander intervention rates, potentially contributing to improved outcomes following out-of-hospital cardiac arrest.

13 Beyond the clot: pulmonary embolism revealing reversible anti-HER2 cardiac dysfunction with left ventricular thrombosis

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Dyspnea in active malignancy is a frequent emergency presentation, requiring prompt differential diagnosis between pleuro-pulmonary disease and cardiovascular emergencies. Anti-HER2 therapy requires baseline and serial cardiac surveillance, as therapy-related cardiac dysfunction may develop at any time during treatment. A 48-year-old woman with metastatic left breast cancer, T4bN2M1, HER2-positive, had normal cardiac function before systemic therapy. Nine months after starting trastuzumab/pertuzumab-based treatment with docetaxel and carboplatin, she presented to the emergency department with respiratory symptoms, sinus tachycardia and bilateral pleural effusion. Pulmonary embolism was suspected based on active malignancy, tachycardia, respiratory impairment and elevated D-dimer. Computed tomography confirmed bilateral segmental pulmonary embolism, with pulmonary consolidations suggestive of infarction. Bedside transthoracic echocardiography, performed for differential diagnosis and risk stratification, showed a non-dilated left ventricle with severe systolic dysfunction and multiple apical thrombi, the largest measuring approximately 30 mm. Anticoagulation

and guideline-directed heart failure therapy were initiated; anti-HER2 therapy was suspended after multidisciplinary reassessment. Follow-up echocardiography showed complete thrombus resolution and normalized systolic function. This case highlights diagnostic challenge of dyspnea in oncological patients, where thromboembolic, pleuro-pulmonary and cardiovascular complications may coexist. CT confirmed pulmonary embolism, while bedside echocardiography changed the diagnostic and therapeutic approach by identifying severe anti-HER2 therapy-related cardiac dysfunction and left ventricular thrombosis. Normal baseline cardiac evaluation does not exclude cardiotoxicity, supporting serial surveillance during anti-HER2 treatment. In oncological patients with dyspnea, emergency evaluation should assess pulmonary embolism and cardiovascular complications in parallel. CT and bedside echocardiography provide complementary information that may change diagnosis, risk stratification and acute management.

14 MgSO₄ in Refractory VF Complicating CO-Induced Takotsubo

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Background: Carbon monoxide (CO) poisoning is a leading cause of poisoning-related mortality worldwide. CO-induced Takotsubo cardiomyopathy (TTC) complicated by refractory ventricular fibrillation (VF) is a rare, life-threatening presentation. The underlying mechanism involves CO-mediated ATP depletion, Mg²⁺/K⁺ efflux, and membrane instability — rendering standard antiarrhythmic therapy ineffective.

Case Presentation: A 35-year-old woman was transferred in critical condition following CO poisoning (a 9-year-old child was found deceased at the scene). CO had not been suspected at the referring facility. On arrival, hemodynamic collapse occurred with monitor-confirmed VF/VFL. Standard ACLS — CPR, defibrillation (200–360 J, multiple attempts), epinephrine, and amiodarone — failed over 30 continuous minutes. CO diagnosis was established by a clinical-laboratory "puzzle": epidemiology (two victims, closed room, winter), markedly elevated biomarkers (Troponin I 104×, CK 30×↑), and toxicokinetic pattern, without COHb measurement. Management and Outcome: MgSO₄

2g IV bolus was administered at 00:35, targeting ATP-independent membrane stabilization. VF terminated immediately; ROSC and sinus rhythm were restored. Echocardiography confirmed TTC with LVEF 18%. Management included triple vasopressor therapy, FiO₂ 100%, and targeted electrolyte replacement (Mg²⁺ 2.0–3.0 mEq/L; K⁺ >4.5 mEq/L). Vasopressors were weaned by day 5; the patient was extubated on day 7 with LVEF 52%, neurologically intact, and discharged on day 16 with complete recovery.

Conclusion: Refractory VF in CO poisoning may reflect a metabolic, not merely electrical, arrhythmia substrate. MgSO₄ successfully terminated VF refractory to standard ACLS. CO-induced TTC is fully reversible with aggressive support. Early MgSO₄ consideration in CO-associated refractory VF/VFL may be lifesaving.

15 Clinical and Operational Predictors of Prolonged Emergency Department Length of Stay in Patients Presenting with Acute Abdominal Pain: A Prospective Study from Pakistan

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Background: Emergency department (ED) crowding contributes to delays in patient care, particularly in low-resource settings. Acute abdominal pain is a common ED presentation that often requires multiple investigations and consultations. We aimed to identify factors associated with prolonged ED length of stay (LOS) among patients presenting with acute abdominal pain.

Methods: We conducted a prospective observational study in the emergency department of a tertiary care hospital in Karachi, Pakistan. Consecutive patients aged 14–65 years presenting with acute abdominal pain were enrolled. Prolonged LOS was defined as >6 hours from ED arrival to disposition. Univariable and multivariable logistic regression analyses identified factors independently associated with prolonged LOS.

Results: A total of 498 patients were included. Median age was 30 years (IQR 26–55), and 68.1% were female. Median ED LOS was 5.2 hours (IQR

3.2–7.6), with 211 patients (42.4%) experiencing prolonged LOS. In multivariable analysis, one consultation (aOR 2.45, 95% CI 1.43–4.17) and multiple consultations (aOR 28.66, 95% CI 3.46–237.56) were associated with prolonged LOS. One round of blood testing (aOR 3.71, 95% CI 1.78–7.72) and multiple rounds (aOR 17.76, 95% CI 7.61–41.44) increased prolonged LOS. Higher pain score (aOR 1.60 per point, 95% CI 1.30–1.97) and ultrasound use (aOR 3.63, 95% CI 2.14–6.16) remained predictors.

Conclusion: Consultation burden and repeat diagnostic testing were major drivers of prolonged ED LOS. Streamlining consultations and diagnostic workflows may reduce crowding and improve patient flow.

16 Probable Strychnine Poisoning Masquerading as Seizure Disorder in a Resource-Limited Emergency Department

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Introduction: Strychnine poisoning is a rare but life-threatening toxicologic emergency that can mimic seizure disorders, tetanus, and central nervous system infections, particularly in resource-limited settings where diagnostic testing is unavailable.

Case Description: An 18-year-old previously healthy woman presented with generalized jerking movements and painful muscle spasms after ingesting two unidentified herbal tablets for fever and body aches. She remained conscious, oriented, and hemodynamically stable despite recurrent spasms. Initial treatment targeted seizure disorder and possible central nervous system infection. Laboratory evaluation demonstrated severe metabolic acidosis (pH 7.216, base excess -16.5), elevated lactate (12.61 mmol/L), leukocytosis, and raised creatine phosphokinase. Despite ongoing management, progressive spasms and acidosis resulted in hypoxia and bradycardic cardiac arrest. Severe rigidity impaired ventilation and resuscitation efforts, and the patient died. Toxicological confirmation was unavailable.

Discussion: Retrospective collateral history suggested possible exposure to rat poison or adulterated herbal medication. Toxicology review concluded that the presentation was highly consistent with probable strychnine poisoning. Preserved

consciousness, painful generalized spasms, rigidity, stimulus sensitivity, and profound lactic acidosis from sustained muscle contraction formed a characteristic toxidrome. Delayed recognition likely contributed to missed opportunities for early airway protection, deep sedation, and paralysis.

Key Learning Points:

Strychnine poisoning should be considered in patients with preserved consciousness, refractory seizure-like activity, and unexplained lactic acidosis following unknown ingestion. Early recognition can prevent diagnostic anchoring and facilitate timely airway management and supportive care.

17 Emerging severity and demographic shifts in winter Respiratory Syncytial Virus infections: a Retrospective Study

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Background: Respiratory syncytial virus (RSV) poses a significant health concern in infancy, with around 3% requiring hospitalization and over 200 deaths annually in the United States. The COVID-19 pandemic led to a significant drop in RSV, up to 98%, due to mask use and distancing. However, cases surged in some countries after restrictions eased, affecting older kids and causing severe illness. This study evaluated the impact of the COVID-19 pandemic on the incidence and severity of RSV infections among pediatric patients presenting to the Emergency Department (ED) of AUBMC, a tertiary-care center in Lebanon.

Methods: Medical records of 3,332 children aged six years or younger presenting with viral infections between November 2018 and April 2024 were reviewed. The lockdown was imposed by the Lebanese Government between March 2020 and 2021.

Results: 142 patients tested positive for RSV, with a median age of one year. Incidence increased markedly in the immediate post-lockdown era (6.6%vs2.2%), while only one RSV case was identified during lockdown. The RSV season also ended prematurely in 2020 and re-emerged in May 2021. Children presenting post-lockdown were less likely to have a history of RSV infection (4.1%vs16.7%, $p=0.049$) or preexisting respiratory disease (10.6%vs35.7%, $p=0.007$). Despite these

epidemiologic shifts, clinical severity, management, and outcomes remained unchanged; only ED length of stay increased significantly.

Conclusion: RSV infections in our population followed some of the global trends. These findings suggest increased susceptibility to RSV rather than increased pathogenicity and highlight the importance of healthcare preparedness in the face of future public health crises.