Abstract Book

The 4th Emergency Physician's International Conference

EPIC 2025

Theme: Global Emergency Medicine & Medical Education

Focus: The Role of Emergency Medicine in War Zones

16th of July 2025

Website: https://www.fromzerotohero.info/epic-2025

Email: admin@fromzerotohero.info

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Conference Schedule

Time	Title	Speaker
11:00 – 13:00	Virtual E-Poster Exhibition	
13:00	Introduction	Dr. Megan Everett (UK)
Session 1: Global Emergency Medicine		
13:10	Understanding the RCEM Global	Dr. Taj Hassan (UK)
13:30	Global EM in action: personal experience from Africa	Dr. Giles Cattermole (UK)
13:50	Emergency Medicine in War Zones: Real-life Experience	Dr. Mohamed Rashad (Switzerland) Dr. Giles Cattermole (UK)
Session 2: Medical Education		
14:30	Developing a modern EM curriculum: Lessons from the UK	Dr. Russell Duncan (UK)
14:50	Innovation in Medical Education: The ED GovCast Experiment	Dr. Gareth Davies (UK)
15:10	Own the Room: How to Give the Talk Everyone Remembers	Dr. Hesham Ibrahim
Session 3: Oral Abstract Competition		
15:35	An echo guided Protocol for Fluid Resuscitation of sepsis patients in Emergency Department: Clinical Trial	Dr. Sara Basha (Egypt)
15:45	The use of foundation simulation as a tool for institutional clinical change	Dr. Joseph Chaplin (UK)
15:55	Change in arterial blood gases after corticosteroids inhalation in obstructive lung diseases	Dr. Momna Ahsna (UK)
Session 4: New in Emergency Medicine		
16:05	The rise of the machine: How AI is transforming clinical practice	Dr. Mohamed Mortagy (UK)
16:25	What's new, What's Next: Groundbreaking evidence in EM (2025)	Dr. Naeem Toosy (UAE)
16:45	Gamified Readness: Enhancing PEM Training through escape rooms and virtual simulation	Dr. Jabeen Fayyaz (Canada)
17:05	Adjourn, Prizes and Closure	Dr. Megan Everett (UK)

Abstract Awards

The Top Oral Presentation Award

- **Dr. Joseph Chaplin**, Hampshire Hospitals NHS Foundation Trust (United Kingdom) for the abstract titled "The Use of Foundation Simulation as a Tool for Institutional Clinical Change".

The Top E-Poster Presentation Award

- **Dr. Jasmin Blake**, East Sussex NHS Foundation Trust (United Kingdom) for the abstract titled "Cross-Border Emergency Response Systems: Case Studies from the EU and ASEAN".

The Second E-Poster Presentation Award

- **Dr. Mohammad Shiraz**, Peterborough City Hospital (United Kingdom) for the abstract titled "CRACKING THE CODE TO RIB FRACTURE MANAGEMENT IN A UK DISTRICT GENERAL HOSPITAL"

The Third E-Poster Presentation Award

- **Dr. Ayesha Farooq**, Sir Gangaram Hospital (Pakistan) for the abstract titled "Bilateral Thalamic Infarction Due to Artery of Percheron Occlusion: A Rare Stroke Presentation"

Oral Presentations

ID: 52

The Use of Foundation Simulation as a Tool for Institutional Clinical Change

Authors
Joseph Chaplin (Presenting), Hampshire Hospitals NHS Foundation Trust, Winchester, United Kingdom
Sakeena Abbas, Hampshire Hospitals NHS Foundation Trust, Winchester, United Kingdom
Rachel Harrison, Hampshire Hospitals NHS Foundation Trust, Winchester, United Kingdom
Jonathan Anns, Hampshire Hospitals NHS Foundation Trust, Winchester, United Kingdom

Abstract

INTRODUCTION
Simulation training is a crucial aspect of Postgraduate Medical Education, enabling candidates to develop clinical reasoning and assessment of emergency scenarios in a safe environment. As Medical Education Fellows (MEF) at Hampshire Hospitals Foundation Trust (HHFT) we identified a deficit in the Foundation Simulation scenarios/faculty resources available. Namely, they were not comprehensive or written by HHFT staff, potentially limiting their utility for faculty and relevance for candidates. Therefore, we planned to involve specific medical specialties to develop 'in-house' scenarios and participate in delivering them as faculty to improve candidate experience for Foundation Simulation sessions delivered between January-May 2025.

METHODS
After finalising the upcoming simulation scenarios (Supraventricular Tachycardia, Stroke and Transfusion), we as MEFs spent a 2 month period (Nov-Dec 2024) meeting with the relevant specialties for each scenario (Resuscitation, Stroke and Haematology), co-writing tailored scenarios and identifying relevant resources and guidelines for each. We also arranged for the specialties to aid in delivering these Foundation Simulation sessions. We collated feedback from all simulation candidates following the seven sessions between Jan-May 2025.

RESULTS
86% of candidates reported improvement in knowledge/confidence following both Stroke and Transfusion scenarios (n=164) with 90% reporting improvement with the SVT scenario.

An unintended benefit of these new scenarios was that the specialty teams received real time feedback during the debrief from candidates regarding the protocols used in the scenarios. This led to changes in trust guidance/proformas for the Stroke and Haematology departments. The Stroke team adjusted their thrombolysis proforma to clarify locations where thrombolysis can be performed. The Haematology team used the platform provided by the sessions to encourage use of a new consent form as part of an ongoing audit.

CONCLUSION
In undertaking this project we were able to use Foundation Simulation both as a means of improving trainees clinical confidence and as a vehicle to drive Trust-wide change. Future Foundation Simulation sessions at HHFT will involve faculty liaising with relevant specialties in order to increase awareness of and revisit pertinent guidance (e.g. ACS protocol for a Myocardial Infarction scenario).

ID: 68

CHANGE IN ARTERIAL BLOOD GASES AFTER CORTICOSTEROIDS INHALATION IN OBSTRUCTIVE LUNG DISEASES.

Authors
Momna Ahsan (Presenting), University Hospitals Birmingham, Birmingham, United Kingdom
King Edward Medical University, Lahore, Pakistan

Abstract

Introduction
This study aimed to assess changes in ABG parameters following corticosteroid therapy in patients with acute COPD exacerbation. Chronic Obstructive Pulmonary Disease (COPD) is a progressive respiratory illness marked by persistent airflow limitation and acute exacerbations that significantly impact gas exchange. Arterial blood gases (ABGs), particularly PaO_2 and $PaCO_2$, reflect the severity of respiratory dysfunction. Corticosteroids are commonly used during exacerbations; however, their direct effect on ABG values warrants further evaluation.

Methods
A quasi-experimental study was conducted at Bahawalpur Victoria Hospital, Pakistan over six months (June–December 2017). Total 403 patients, male or females, were studied, fulfilling the AECOPD criteria and from the age group 18 to 60 years. Patients suffering from severe disease like sepsis, unconsciousness, trauma, those who required intubation, a pH less than 7.26 at the time of admission, vitally unstable or having cor-pulmonale were excluded from the study.

Patients diagnosed with acute COPD exacerbation were administered inhaled corticosteroids. ABG measurements, including PaO_2 and $PaCO_2$, were recorded before and after treatment. Data were analysed using mean ± standard deviation, and the significance of changes was evaluated statistically.

Results
Mean age of patients: 45.5 ± 11.1 years

Baseline ABG values:
PaO_2: 59 ± 4.4 mmHg
$PaCO_2$: 57.3 ± 2.8 mmHg

Post-treatment findings:
The study observed significant changes in arterial blood gases after treatment with inhaled corticosteroids in patients with acute exacerbation of COPD. The mean PaO2 increased from 59.05 ± 4.4 mmHg before treatment to 69.44 ± 4.0 mmHg after treatment, with a highly significant p-value of 0.0001. Similarly, the mean PaCO2 decreased from 57.3 ± 2.8 mmHg pre-treatment to 47.6 ± 2.7 mmHg post-treatment, also showing a highly significant p-value of 0.0001.

Conclusion
Inhaled corticosteroid therapy in patients with acute COPD exacerbation results in a notable improvement in oxygenation (PaO_2) and a reduction in carbon dioxide levels ($PaCO_2$). These findings reinforce the therapeutic value of corticosteroids in optimising respiratory function during exacerbations and support their continued use in clinical practice.

ID: 78

An Echo-Guided Protocol for Fluid Resuscitation of Sepsis patients in Emergency Department: Clinical trial

Authors
Sara Basha (Presenting), Alexandria main university hospital, Alexandria, Egypt
Assem Abdelrazek, Alexandria main university hospital, Alexandria, Egypt
Ahmed Elamrawy, Alexandria main university hospital, Alexandria, Egypt
Mina Montasser, Alexandria main university hospital, Alexandria, Egypt
Tamer Abdallah, Alexandria main university hospital, Alexandria, Egypt

Abstract

Background
Septic shock is a complex hemodynamic failure syndrome. The surviving sepsis campaign made several recommendations regarding resuscitation in sepsis emphasizing that fluid challenge which should be directed by frequent hemodynamic status reassessment.

Echo has already been proven to be a reliable hemodynamic monitoring method in patient populations with septic shock.

The use of bedside Echo in the emergency department deemed to be suitable for monitoring fluid therapy of septic patients, it is a non-invasive and rapid method for assessment of haemodynamic status, and guidance for resuscitation in acute care settings.

Objectives
To find if the suggested protocol can make a difference in the amount of fluid boluses given before the introduction of vasopressors, and to guide the timing of its introduction.

Methods
This randomized controlled trial comprised 60 patients who were recruited from those admitted to the Department of Emergency Medicine in Alexandria Main University Hospital with sepsis and septic shock. They were randomized into two groups: Echo-guided approach and the Standard approach.

Results
The amount of fluid before the vasopressor was statistically significantly lower in the Echo-guided group in comparison with the Standard Protocol Group ($p<.001$). The time of introduction of vasopressor was statistically significantly more in the Standard Protocol group compared with the Echo-guided Protocol group ($p<.001$). The time to lactate clearance was statistically significantly shorter in the Echo-guided Protocol Group when compared with the Standard Protocol Group.

Conclusion
Echocardiography-guided management may be considered the standard of care for fluid administration and hemodynamic support in sepsis and septic shock patients, particularly during early presentation in the emergency department.

Trial registration
The trial is retrospectively registered at the Pan African Clinical Trial Registry with the identification number for the registry PACTR202102891279505 on 25/02/2021.

E-Poster Presentations

ID: 4

Optimising Admission Decisions in Suspected Neutropenic Sepsis: A Quality Improvement Project Using the MASCC Risk Index Score

Authors
Priyanka Balasubramani (Presenting), Basingstoke and North Hampshire hospital, Basingstoke, United Kingdom
Heta Bhatt, Basingstoke and North Hampshire hospital, Basingstoke, United Kingdom
Arun Selvaraju, Basingstoke and North Hampshire hospital, Basingstoke, United Kingdom

Abstract

Background
Suspected neutropenic sepsis is a common reason for calls to the Acute Oncology helpline and hospital presentation. Given the immunocompromised status of patients undergoing anti-cancer therapy, there is a low threshold for admission and early antibiotic administration. However, many such presentations may be low-risk. The MASCC (Multinational Association for Supportive Care in Cancer) score stratifies patients by risk of septic complications and may support safe outpatient management.

Aim
To reduce unnecessary acute inpatient admissions in patients with suspected neutropenic sepsis who are deemed “low-risk” by the MASCC score.

Methods

We retrospectively reviewed 51 patients presenting to Basingstoke and North Hampshire hospital NHS, England with suspected neutropenic sepsis between July and September 2023. Patients with haematological malignancies were excluded. MASCC scores were calculated at presentation and again at 24 hours if the patient remained admitted. Data collected included admission status, septic complications, confirmed source of infection, and duration of inpatient stay.

Results
41 patients (80.4%) had a low-risk MASCC score (≥21); of these, 22 (53.7%) were admitted. Among the admitted low-risk group, 36.4% had a confirmed source of infection and 13.6% developed red flag features. Four patients (18.2%) had a high-risk MASCC score at 24 hours. In contrast, 10 patients had high-risk MASCC scores (<21); all were admitted, with 70% having a confirmed infection. Only one high-risk patient had red flag features. Among low-risk patients not admitted, just one (5.3%) had a confirmed source of infection. Mean length of stay was shorter in the low-risk group (4.0 days) than in the high-risk group (8.5 days).

Conclusion
Our data suggest that many low-risk patients with suspected neutropenic sepsis are admitted despite stable clinical parameters and low complication rates. The MASCC score is a practical, evidence-based tool that can enhance clinician decision-making and support safe outpatient management. Prospective implementation of MASCC scoring is planned, with the aim of reducing admissions, shortening hospital stays, and improving patient-centred care without compromising safety.

ID: 5

Right Atrial Myxoma with Antiphospholipid Antibody Syndrome: A Rare Case of Dual Pathology Presenting as Hemoptysis

Authors
Priyanka Balasubramani (Presenting), SIMS hospital, Chennai, India
Prasad Golla, SIMS hospital, Chennai, India

Abstract

Background
Antiphospholipid antibody syndrome (APLS) is an autoimmune hypercoagulable disorder characterised by venous or arterial thrombosis and pregnancy morbidity. Thrombocytopenia is a known, though often overlooked, feature. Its co-existence with right atrial myxoma is extremely rare and poses a diagnostic challenge.

Case Summary
A 32-year-old woman presented with hemoptysis and a history of recurrent miscarriages and thrombocytopenia. Laboratory findings revealed anaemia, thrombocytopenia, and prolonged APTT. Imaging demonstrated a large, mobile right atrial mass obstructing the tricuspid valve, alongside features suggestive of pulmonary embolism. Differential diagnoses included myxoma versus thrombus. Further workup showed a persistently positive lupus anticoagulant, confirming APLS. She was also diagnosed with autoimmune hemolytic anaemia based on a positive direct Coombs test.

Following haematology clearance, she underwent high-risk open-heart surgery for excision of the atrial mass and patent foramen ovale closure. Histopathology confirmed the mass as a right atrial myxoma with degenerative changes and calcification. Post-operative recovery was uneventful, and the patient remained asymptomatic at follow-up. Persistent lupus anticoagulant confirmed the diagnosis of APLS, and she was initiated on long-term anticoagulation and immunosuppressive therapy.

Discussion
Right atrial myxomas are rare and often mimic thrombi in hypercoagulable states like APLS. This case highlights the complexity of diagnosing cardiac masses in patients with autoimmune profiles, especially when thrombocytopenia and prolonged APTT suggest bleeding risk rather than thrombosis. Immunosuppression with corticosteroids improved platelet counts pre-operatively, aiding surgical planning. The need for anticoagulation was driven by both the closure of the PFO and APLS-related thrombotic risk.

Conclusion
Clinicians should consider APLS in patients presenting with right atrial masses and unexplained thrombocytopenia or prolonged APTT, particularly with a suggestive obstetric history. Timely recognition and a multidisciplinary approach can significantly improve outcomes in these diagnostically challenging and potentially life-threatening cases

ID: 7

Risperidone-Induced Oculogyric Crisis and Pulmonary Edema in a Patient with Chronic Kidney Disease: A Case Report

Authors
Ninigail Aphia (Presenting), Government Thoothukudi medical college, Thoothukudi, India

Abstract

Introduction
Chronic kidney disease (CKD) affects drug metabolism and clearance, making patients more susceptible to drug toxicity. Antipsychotic medications like risperidone, which are metabolized primarily by the liver and excreted via the kidneys, can accumulate in patients with impaired renal function. This case highlights the occurrence of risperidone-induced oculogyric crisis (OGC) and pulmonary edema in a young patient with CKD on maintenance hemodialysis.

Case Presentation
A 17-year-old male with a history of IgA nephropathy and CKD, on maintenance hemodialysis for 2 years, presented with severe depression and suicidal ideation. He was started on risperidone (1 mg) and lorazepam (1 mg). By day 7, he developed acute pulmonary edema with bilateral lung infiltrates on chest X-ray and an increase in serum creatinine, suggesting fluid overload. Risperidone's alpha-adrenergic blockade likely contributed to vasodilation and capillary permeability, exacerbating the pulmonary edema. On day 24, he developed recurrent episodes of bilateral upward gaze and irritability, consistent with an oculogyric crisis (OGC), which was attributed to risperidone accumulation due to impaired renal clearance.

Discussion
Risperidone, a second-generation antipsychotic, is primarily excreted by the kidneys, and in CKD patients, impaired renal clearance may lead to drug accumulation and adverse effects such as OGC. OGC is a rare but well-documented extrapyramidal side effect of antipsychotics. In this case, the patient's renal dysfunction resulted in increased plasma levels of risperidone, leading to dopaminergic toxicity. Additionally, risperidone's effect on the cardiovascular system, exacerbating fluid retention and pulmonary edema, was noted. The importance of dose adjustments and monitoring drug levels in patients with CKD cannot be overstated.

Conclusion
This case illustrates the need for careful consideration when prescribing psychotropic medications, especially antipsychotics, in patients with CKD. Dose adjustments, close monitoring, and early recognition of adverse effects such as OGC and pulmonary edema are crucial for preventing potentially severe complications. Prompt withdrawal of the offending drug, along with the use of anticholinergics and supportive care, can lead to complete resolution of symptoms.

ID: 8

Isoniazid-Induced Acute Psychosis in a Chronic Kidney Disease Patient on Hemodialysis: A Rare Case Report

Authors
Ninigail Aphia (Presenting), Government Thoothukudi medical college, Thoothukudi, India

Abstract

Introduction
Isoniazid (INH) is a cornerstone in antitubercular therapy, known for its potential neuropsychiatric side effects, including peripheral neuropathy and rarely, psychosis. The risk is heightened in patients with chronic kidney disease (CKD) due to altered drug metabolism. Early recognition of such adverse effects is critical for effective management and patient safety.

Case Presentation
We report a case of a 27-year-old male with stage 5 CKD on maintenance hemodialysis twice a week, who developed acute psychosis following the initiation of antituberculosis therapy (ATT). He presented with painless cervical lymphadenopathy, and excision biopsy confirmed tuberculous lymphadenitis. He was started on a renal-adjusted ATT regimen comprising isoniazid, rifampin, pyrazinamide, and ethambutol on alternate days.

On the second day after initiating therapy, the patient became markedly irritable, aggressive, and violent, exhibiting visual hallucinations and paranoid behavior. There was no history of substance abuse, psychiatric illness, or recent infections. Neurological examination and basic metabolic panel were unremarkable. Given the temporal relationship, isoniazid-induced psychosis was suspected. INH was discontinued immediately. Within 48 hours, the patient showed complete resolution of psychotic symptoms without the need for antipsychotic medication. Subsequently, levofloxacin was introduced as an alternative to isoniazid, and the patient tolerated the modified regimen well without recurrence of symptoms.

Discussion
Although isoniazid-induced psychosis is rare, it is a documented side effect, particularly in patients with renal impairment, malnutrition, or without adequate pyridoxine supplementation. The exact mechanism remains unclear but is thought to involve depletion of pyridoxine leading to altered neurotransmitter metabolism. In this case, early onset of symptoms and prompt resolution after INH withdrawal strongly support a causal relationship. The absence of recurrence following substitution with a fluoroquinolone confirms the diagnosis.

Conclusion
This case highlights the importance of close neuropsychiatric monitoring in CKD patients receiving isoniazid. Clinicians should maintain a high index of suspicion for INH-induced psychosis, especially in high-risk patients. Early identification and drug withdrawal can prevent unnecessary psychiatric interventions and improve outcomes.

ID: 9
It's not always sepsis – Paraneoplastic syndrome, a rare presentation

Authors
Hira Arab (Presenting), Basingstoke hospital - Hampshire Hospitals, Basingstoke, United Kingdom

Abstract

Introduction
Paraneoplastic syndromes are systemic disorders caused by the indirect effects of malignancies, resulting from the secretion of tumor-derived products or through abnormal immune responses, including immune-complex-deposition. While commonly associated with small cell lung cancer, they can also rarely occur in breast cancer. Paraneoplastic syndromes are considered the second leading cause of mortality in malignancy, after direct tumor progression. Paraneoplastic myositis is an uncommon but important diagnostic consideration, especially in emergency settings where presentations may mimic sepsis or other acute pathologies.

Case Presentation
A woman in her 50s with Stage IV breast cancer (CNS, liver, lung, bone metastases) receiving weekly Paclitaxel presented with a 4-day history of acute functional decline, generalized myalgia, proximal muscle weakness, and confusion. Examination revealed significant symmetrical proximal muscle weakness without signs of overt sepsis.

Initial blood tests showed CRP 403, CK 2,869, troponin 102, lactate 3.43, and deranged liver function (ALP 1,298, ALT 120). MSSA bacteraemia was identified. Imaging excluded spinal cord compression and showed stable CNS disease but progressive liver metastases.

Differential diagnoses included paraneoplastic myositis, chemotherapy-induced myopathy, rhabdomyolysis, and sepsis. She was treated with IV fluids, antibiotics, dexamethasone (for suspected paraneoplastic myositis), and prophylactic anticoagulation due to possible PE. Despite improvement in CK and inflammatory markers, liver function deteriorated. Oncology advised against further systemic therapy, and palliative care was initiated.

Discussion
This case underscores the diagnostic complexity of oncology patients presenting to the ED with non-specific symptoms. Paraneoplastic myositis is rare, especially in breast cancer, but should be considered when clinical findings include profound muscle weakness and inflammatory markers out of proportion to infection. Timely recognition can direct more appropriate therapy and support, avoiding unnecessary interventions in patients with advanced disease.

Conclusion
Paraneoplastic syndromes, though rare, should be considered when standard sepsis workup is inconclusive or when clinical features suggest neuromuscular involvement, such as profound proximal weakness. Early recognition of paraneoplastic myositis in the ED can facilitate appropriate management, avoid unnecessary investigations, and prompt timely palliative input. Emergency physicians play a critical role in identifying these atypical presentations and initiating multidisciplinary care that balances acute intervention with realistic goals in advanced malignancy.

ID: 10
Mental Health Assessment in Children and Young People in the Emergency Department

Authors
Dr Rachel Wharton, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Dr Aya Khattab, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Dr Amal Adel Mahmoud Sultan (Presenting), Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Dr Ope Akinbulire, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Dr Ifeyani Anyasodor, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom

Abstract

Introduction
There is a belief that mental health provision for Children and Young People (CYP) could be more patient-focused with alternative pathways that avoid attendance or prolonged stays in the Emergency Department (ED).

Our trust is running a Flagship Programme titled Children and Young People Mental Health Parity of Esteem, focusing on improving mental health care for children and young people. As part of this, a benchmarking tool was used, requiring information that was not easily available from existing data. This audit was created to ensure that the baseline information for the benchmarking tool was as accurate as possible.

Methods
Audit our current assessment of children and young people presenting to the Emergency Department with mental health complaints against the RCEM mental health audit standards (5,6,7,10) for the emergency department.

Results
(1) ED clinicians tend to focus on the self-harm event itself and the patient's resulting medical complications (overdose/cut wounds) and can neglect to assess them for risk of further harm (45% met RCEM standard 5).
(2) Need for more detailed documentation of the patient's previous mental health/self-harm history (69% met RCEM standard 6).
(3) Most clinicians are not familiar with MSE (5% met RCEM standard 7).
(4) Need for mental health staff to document all follow-up arrangements on our digital record system (76% met RCEM standard 10)

Conclusion
(1) The ED staff should perform an accurate assessment of risk and document it clearly in the records.
(2) The ED staff should explore patients' previous mental health history further and document those findings in the records.
(3) The necessity to ensure all patients' records contain details of further follow-up upon discharge by the mental health team reviewing the patient.

ID: 13
Beyond Wernicke's: A thiamine deficiency trap!

Authors
Priyanka Augustine (Presenting), Sheffield Teaching Hospitals NHS trust, Sheffield, United Kingdom

Abstract

INTRODUCTION
Vitamin B1 (thiamine) deficiency is a potentially life-threatening complication following bariatric surgery, often manifesting as neurological or cardiac dysfunction [1]. While Wernicke's encephalopathy is a recognised neurological sequelae, cardiac presentations such as wet beriberi remain under recognised [2]. This case highlights the importance of considering thiamine deficiency in post-bariatric patients, even with atypical presentations.

CASE PRESENTATION
A 30-year-old woman presented to the emergency department with progressive ataxia 6 weeks after gastric bypass surgery. Neurological examination revealed gait instability without nystagmus or cognitive deficits. Routine blood tests and ECG were unremarkable. Within 24 hours of admission, she developed sinus tachycardia (140 bpm) and early signs of heart failure. Echocardiography demonstrated mild left ventricular systolic dysfunction. Due to the coexistence of neurological and cardiac manifestations in the background of bypass surgery, a possibility of thiamine deficiency was considered. Thiamine levels were severely low (20 nmol/L; reference: 50–220 nmol/L). Intravenous thiamine was initiated, leading to resolution of her symptoms over 7 days.

DISCUSSION
Isolated neurological symptomatology can be challenging and is often missed. The patient presented with ataxia followed by rapid progression of cardiac symptoms. Ataxia without the classic Wernicke's triad, (ophthalmoplegia, confusion, ataxia) aligns with atypical neuropathic presentations, while tachycardia and ventricular dysfunction reflect wet beriberi, a high-output cardiac failure phenotype [2]. Bariatric patients are at high risk due to malabsorption and non-adherence to supplementation, yet cardiac involvement remains under reported [2]. Rapid reversal of symptoms with parenteral thiamine reinforces its therapeutic efficacy [3].

CONCLUSION
Ataxia requires a thoughtful evaluation. Thiamine deficiency should be suspected in patients with unexplained neurological or cardiac symptoms, even without classical signs.

ID: 15
Pemphigus Vulgaris Presenting as Exfoliative Esophagitis: A Case Report

Authors
Abdalla Ahmed (Presenting), Colchester General Hospital, Colchester, United Kingdom

Abstract

We present a rare case of exfoliative esophagitis in a 48-year-old male with a known diagnosis of pemphigus vulgaris (PV), an autoimmune blistering disorder. The patient, with no history of diabetes or hypertension, was on corticosteroid therapy for PV when he developed new symptoms of significant heartburn and vomiting. Notably, he expelled a long streak of soft, white tissue during emesis, raising concern for esophageal mucosal involvement.

An upper gastrointestinal endoscopy revealed striking longitudinal sloughing of the esophageal mucosa, mucosal detachment, and underlying hyperemic tissue—findings consistent with exfoliative esophagitis (also termed esophagitis dissecans superficialis). Histologically, this condition involves sloughing of the superficial layers of the esophageal epithelium and is often associated with dermatologic diseases, including PV.

While esophageal involvement in PV is uncommon, several case reports have documented similar presentations. The pathophysiology involves autoantibodies targeting desmogleins, crucial adhesion molecules in epithelial cells. Disruption of these leads to acantholysis, epithelial fragility, and sloughing. Singh et al. (2023) and Del Castillo et al. (2021) emphasized the diagnostic utility of endoscopy in such cases, where findings may include mucosal exfoliation, erythema, and ulcerations. Huang and Liu (2021) reported a similar case with vomiting of esophageal casts, highlighting the dramatic and rare nature of this complication.

This patient's presentation suggests that his current immunosuppressive regimen may be insufficient to control esophageal disease activity. Management involved continued corticosteroid therapy, consideration of adjunct immunosuppressive agents (e.g., azathioprine or mycophenolate mofetil), proton pump inhibitors for acid suppression, and supportive care. Follow-up endoscopy and potential esophageal biopsy were advised to confirm PV involvement and monitor healing.

This case underscores the need for clinicians to maintain a high index of suspicion for esophageal manifestations in PV patients presenting with gastrointestinal symptoms. Early recognition and aggressive immunosuppressive management are critical to preventing complications such as hemorrhage or strictures. Given the rarity of exfoliative esophagitis in PV, this report contributes valuable insight into the diagnostic and therapeutic approach to this severe mucosal complication.

ID: 18
Symptomatic Bradycardia Secondary to Cope's Sign (Cardio-Biliary Reflex)

Authors
Rafat Shehata (Presenting), Basingstok Hospital, Basingstok, United Kingdom
Mohammed Fathy, Basingstok Hospital, Basingstok, United Kingdom

Abstract
Introduction
While cardiac, metabolic, or pharmacological causes are typically considered in cases of symptomatic bradycardia, visceral pain, particularly from the gallbladder, can sometimes provoke a vagally mediated reflex bradycardia—often under-recognized in acute care.

Case Presentation
We present the case of a 75-year-old woman with bradycardia, initially she was suspected to be cardiac in origin but later identified as secondary to acute cholecystitis. She presented to A&E with a heart rate of 43 bpm and complaining of dizziness, with stable hemodynamics (BP 130/70 mmHg). Initial investigations focused on ruling out cardiac and metabolic causes. ECG demonstrated sinus bradycardia.
Further history revealed upper abdominal pain preceding the dizziness. On examination, epigastric and RUQ tenderness was noted. Blood tests revealed elevated ALT and CRP, and CTAP confirmed acute cholecystitis.
After analgesia was administered, her heart rate and dizziness improved. She was admitted under the surgical team for further management.

Discussion
This case illustrates Cope's sign, a manifestation of the cardio-biliary reflex, in which visceral afferent stimulation—typically from the gallbladder or biliary tract—induces vagally mediated sinus bradycardia. Often under-recognized in acute settings.
Interestingly enough, Cope's sign, not only can present with sinus tachycardia, but also can present with: 1-Atrioventricular (AV) Blocks: Second-degree and complete (third-degree) heart block.
2-T-wave Inversions: Often mimicking cardiac ischemia.
3-ST-segment Changes: Elevation in inferior leads, potentially resembling ACS, and non-specific ST-segment depression.
4-Right Bundle Branch Block (RBBB): Observed in some cases of acute cholecystitis.

The initial focus on bradycardia risked missing the underlying abdominal pathology. A detailed history and physical examination led to the correct diagnosis.
Other potential causes of bradycardia in patients with abdominal pain, such as myocardial infarction, electrolyte imbalances, or drug-induced effects, were ruled out based on the clinical presentation, ECG and further investigations.

Conclusion
This case emphasizes the need for diagnostic flexibility in the evaluation of bradycardia. Clinicians should be aware of Cope's sign and the cardio-biliary reflex in patients presenting with bradycardia and abdominal pain. This case underscores the importance of considering visceral pain as a potential trigger for bradycardia and the need for a comprehensive evaluation to avoid misdiagnosis.

ID: 19

The Hidden Leak: A Case of Spontaneous Intracranial Hypotension Masquerading as Benign Headache.

Authors
Rafat Shehata (Presenting), Basingstok Hospital, Basingstok, United Kingdom
Mohammed Fathy, Basingstok Hospital, Basingstok, United Kingdom

Abstract

Introduction
Spontaneous intracranial hypotension (SIH) is a rare cause of orthostatic headache, often misdiagnosed in the absence of preceding cerebrospinal fluid (CSF) loss through trauma or medical procedures. SIH has an estimated annual incidence of 5 per 100,000 and often presents with subtle findings on initial imaging. Diagnosis requires a high index of suspicion, particularly in patients with characteristic postural headache. We present a case of SIH in a healthy woman, diagnosed only after her third emergency attendance, illustrating the importance of recognising key clinical features.

Case Presentation
A 39-year-old previously healthy woman presented with moderate daily headache that worsened on standing or sitting up and was relieved by lying flat. Symptoms began after a stretching movement. She had no recent trauma, lumbar puncture, or past neurological surgical operations.

On initial and second emergency visits, CT head and routine blood tests, including inflammatory markers, were normal. She was treated for a presumed tension-type headache and discharged.

On the third visit, given the persistent orthostatic nature of the headache, spontaneous intracranial hypotension was suspected. Intravenous fluids were started. A lumbar puncture was done later to rule out SAH, however a low CSF opening pressure raised the suspicion of SIH. An MRI brain was done showing pachymeningeal enhancement and confirming the diagnosis.

She was managed conservatively with bed rest and oral hydration. Her symptoms gradually improved, with complete resolution reported at three-week follow-up and no recurrence at three months.

Discussion
Spontaneous intracranial hypotension (SIH) remains under-recognised due to its subtle radiological findings and non-specific initial presentations. In this case, the classic orthostatic headache pattern was initially misattributed to benign causes. Repeated normal CT imaging delayed diagnosis, highlighting the limitation of non-contrast CT in SIH. MRI findings of pachymeningeal enhancement were key to confirming the diagnosis. Early recognition is vital, as SIH responds well to conservative management if identified promptly.

Conclusion
This case illustrates the importance of considering SIH in patients presenting with persistent postural headache, especially when routine investigations are unremarkable. Awareness of characteristic clinical features and timely use of MRI can significantly reduce diagnostic delay and prevent unnecessary morbidity.

ID: 20
Gradenigo Shadow: the silent danger behind a common infection

Authors
John Josephat, North West Anglis NHS Foundation Trust, Peterborough, United Kingdom
Hasibeh Mahani (Presenting), North West Anglis NHS Foundation Trust, Peterborough, United Kingdom

Abstract

Introduction
Otitis media is a common pediatric infection, often self-limiting or managed with oral antibiotics. However, rare complications can have life-threatening or vision-threatening consequences. We present a complex case of a 6-year-old boy whose persistent ear infection rapidly progressed to involve multiple cranial structures, leading to intracranial and vascular complications.

Case Presentation
A 6-year-old previously healthy boy presented to the Emergency Department with a 5-day history of right ear pain and fever, previously diagnosed as otitis media by his GP and treated with amoxicillin, later escalated to co-amoxiclav due to lack of improvement. On the day of admission, he developed worsening symptoms including neck pain, persistent headache, lethargy, and new-onset left-sided sixth cranial nerve palsy (noted as a lazy eye), with suspected visual changes and slowed speech. On examination, he was febrile (temp 37.2), bradycardic for age, and appeared ill and lethargic. There was right-sided mastoid tenderness, lymphadenopathy, and a suspected perforated tympanic membrane with pus. Neurological exam was largely normal except for left CN VI palsy; no meningeal signs were present. Bloods revealed raised neutrophils and fibrinogen. Broad-spectrum antibiotics were initiated immediately. MRI brain with contrast revealed:

Acute right-sided coalescent otitis media
Right Bezold abscess
Sigmoid groove extradural empyema
Thrombosis of right transverse/sigmoid sinuses extending into the right internal jugular vein

Discussion
This case exemplifies a rare but serious complication of acute otitis media — Gradenigo's Syndrome, characterized by petrositis with cranial nerve VI palsy and deep neck infection such as Bezold's abscess. The evolution into sigmoid sinus thrombosis further highlights the potential for septic thrombophlebitis and intracranial spread.

Key learning points include
Early neurological signs may be subtle and easily missed.
Urgent imaging is critical when a child with otitis media deteriorates or presents with focal neurological deficits.
Multidisciplinary coordination is essential in complex infectious cases with potential CNS involvement.

Conclusion
Persistent or worsening symptoms in pediatric otitis media should raise red flags. This case emphasizes the need for high clinical vigilance, especially when neurological signs appear. Early recognition, aggressive management, and specialist referral are vital to prevent long-term complications in such life-threatening infections.

ID: 23
An interesting case of Hypokalaemic Periodic Paralysis

Authors
Mohsin Wani (Presenting), Hampshire Hospital NHS Foundation trust, Winchester, United Kingdom
Zara Marchant, Hampshire Hospital NHS Foundation trust, Winchester, United Kingdom

Abstract

Hypokalaemic Periodic Paralysis (HPP) is a rare neuromuscular disorder characterized by recurrent episodes of acute, transient muscle weakness with hypokalaemia (serum potassium <3.5mmol/L). These episodes typically present with flaccid proximal muscle weakness and reduced deep tendon reflexes. HPP follows an autosomal dominant inheritance pattern - most associated with mutations in the CACNA1S and SCN4A genes, which encode calcium and sodium skeletal muscle channels respectively. These mutations result in dysfunctional ion channels which inhibits muscle contractibility.

The condition typically presents in childhood or adolescence, and there is often a positive family history. A diagnosis is usually made after multiple paralysis episodes with concurrent hypokalaemia. Common triggers include high-carbohydrate meals, intense exercise, stress and certain medications.

Acute management of HPP depends on symptom severity. While some patients recover without intervention, others require potassium replacement. Long-term management includes avoidance of triggers, adherence to a potassium-rich diet and using medications such as carbonic anhydrase inhibitors, beta-blockers and potassium-sparing diuretics.

A 17-year-old male presented to the Emergency Department with acute-onset limb paralysis on waking. He denied any other symptoms or recent illnesses. Notably he had eaten a carbohydrate-rich meal the previous evening. He had no past medical history and took no regular medications. His siblings had experienced similar episodes of transient paralysis which were never investigated.

Observations, including blood pressure, were stable. Examination revealed marked truncal and proximal muscle weakness with preserved distal strength. Sensation was intact, with no other neurological findings.

Electrocardiogram showed sinus bradycardia with U waves in the inferior leads. Serum potassium was 2.7mmol/L, with normal magnesium and thyroid function. Renin-aldosterone ratio, cortisol and dexamethasone suppression tests were normal. CT and MRI head were unremarkable.

The patient received multiple intravenous potassium infusions, after which his leg weakness fully resolved. However he represented the following month with similar symptoms following episodes of diarrhoea; potassium on admission was 2.9mmol/L. His symptoms again resolved following intravenous potassium.

This case demonstrates the importance of considering a diagnosis of HPP in young patients with acute weakness, particularly with concurrent hypokalaemia and a significant family history. Early recognition is important to ensure timely treatment and to prevent recurrent episodes.

ID: 29

Optimising Surgical Recovery: A Clinical Audit of ERAS Protocol Adherence and Discharge Delays in Elective Colorectal Surgery.

Authors
Charlotte Sherpa-Blaiklock (Presenting), Hampshire Hospitals Trust, Winchester, United Kingdom

Abstract

Background
Enhanced Recovery After Surgery (ERAS) is a structured, evidence-based pathway introduced by Henrik Kehlet in the 1990s aimed at improving postoperative recovery. By optimising perioperative care, ERAS seeks to reduce complication rates, shorten hospital length of stay (LOS), and improve patient outcomes.

This audit was initiated to assess current LOS, identify reasons for discharge delays, and evaluate opportunities to improve adherence to ERAS principles.

Aims
Compare LOS for elective colorectal resections at RHCH against national benchmarks.
Identify common causes of delayed discharge.
Quantify the financial impact of delayed discharge.
Propose interventions to reduce avoidable delays and enhance ERAS compliance.

Methodology
Design: Retrospective audit
Period: August to October 2024
Population: 46 patients undergoing elective colorectal resections (left, right, and total)
Data Sources: Electronic health records
Data Collected:
Demographics, ASA score
Type of surgery (open vs laparoscopic)
LOS (with/without complications)
Use of analgesia (PCA, rectus sheath)
Surgical team, day of procedure, return to theatre

Results
Patient Age: Average 68 years (Female 66, Male 69)

LOS:
National benchmark: 6 days
RHCH median LOS: 6 days
Mean LOS at RHCH:
6.25 days (with complications)
4.6 days (no complications)

By surgery type:
Open: 8.5 days
Laparoscopic: 5.09 days

Discharge Delays:
63% of patients experienced delayed discharge
Mean delay: 3.48 days
Common causes:
Bowel not open (BNO): 26.2%
Pain: 21.4%
Plan not followed/achieved: 16.7%

Economic Impact
Cost per NHS bed per day (adjusted for inflation): £424
Average cost of delay per patient: £1,475
Total cost for 29 patients with delay: £42,775

Recommendations & Interventions
Standardise discharge criteria: Ensure consistent application across teams
Introduce ERAS ward round (WR) template: Facilitate compliance and streamline daily goals
Staff education: Reinforce ERAS principles and discharge planning

Conclusion
This audit highlights that while RHCH's average LOS aligns with national benchmarks, delayed discharge remains prevalent, driven largely by modifiable factors. By reinforcing adherence to ERAS protocols and implementing systemic changes (like ward round templates and discharge planning), there is scope to reduce LOS and generate substantial cost savings.

ID: 30

Evaluation of the adherence to VTE risk assessment and prophylaxis according to the Trust guidelines.

Authors
Mahnoor Rehman (Presenting), Hampshire Hospitals, Winchester, United Kingdom
Angelika Brzeska, Hampshire Hospitals, Winchester, United Kingdom

Abstract

Introduction
Venous thromboembolism (VTE) risk assessment is vital for patient safety in acute care. Despite education sessions, electronic prompts, and multidisciplinary reminders on the General Medicine Ward, adherence to Trust guidelines remained low. We therefore conducted a repeat QIP to (1) measure current compliance with VTE assessment standards and (2) identify where assessments are still missed. By re-assessing and refining our interventions, we aim to embed lasting ward-wide adherence to VTE protocols and reduce preventable thromboembolic events.

Methods
We reviewed the Electronic Patient Record on the General Medicine Ward at Hampshire Hospitals over two QIP cycles, each with 36 patients.

First Cycle (19–30 August 2024): A daily list of patients lacking completed VTE assessments was generated before the morning MDT. Designated doctors ensured all outstanding assessments in their bays were completed by day's end.

Second Cycle (15 September–24 October 2024): The same identification and completion protocol was continued, with regular feedback provided to the ward team on guideline compliance.

Results
Assessments: Improved from 40.0% in the first cycle to 94.4% in the second.

Prophylaxis: Increased from 66.0% to 91.6%.

Contraindications: Of the 8.4% not prescribed prophylaxis or on DOACs, 2.7% had a recent bleeding history; the remaining 5.7% had no contraindication.

Dosage Accuracy: Maintained at 100% correct dosing for all patients receiving chemical prophylaxis in both cycles.

Unassessed: Remained at 5.5% of patients who had neither a VTE risk assessment nor prophylaxis despite no contraindications.

Bleeding-Risk: The proportion of patients assessed for bleeding risk but not prescribed or switched to appropriate prophylaxis fell from 8.3% to 2.7%.

Conclusions
The repeat cycle demonstrated significant improvements and established a solid foundation for full adherence to Trust standards. To sustain and extend these gains, we recommend:

Daily Checklist: A concise morning checklist verifying patient identity and VTE assessment completion.
Weekly "VTE Champion": A rotating role to circulate the checklist, liaise with the multidisciplinary team, and report compliance at weekly governance meetings.
Trust-wide Rollout: Implement the checklist-and-champion model Trust-wide, track VTE metrics on the quality dashboard, and provide feedback.
These measures will embed consistency and reduce preventable thromboembolic events.

ID: 32
An Unusual Case of Forehead Swelling: Potts Puffy Tumor in an Elderly Patient

Authors
Ahmed Khalifa (Presenting), Emergency Physician in Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom
Hesham Ibrahim, Emergency Consultant in Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom

Abstract

Background
Potts puffy tumor (PPT) is a rare complication of frontal sinusitis involving subperiosteal abscess and osteomyelitis of the frontal bone. It is most commonly described in adolescents, with few reported cases in elderly adults. Early recognition is crucial to prevent intracranial complications.

Case Presentation
A 69-year-old male presented to the emergency department with a one-week history of feeling generally unwell and confusion, accompanied by a progressively enlarging forehead swelling. He reported worsening symptoms over the preceding 24 hours. His past medical history included chronic obstructive pulmonary disease (COPD), chronic sinusitis, prostatic cancer, and vascular dementia.

On examination, the patient was tachycardic (HR 125), tachypnoeic (RR 25), hypotensive (BP 95/55), and had an oxygen saturation of 94% on room air. Glasgow Coma Scale was 13/15. Local examination revealed a tender, fluctuant swelling over the frontal region.

Initial blood work revealed markers of infection, and an urgent CT scan of the head and paranasal sinuses showed pansinusitis with a complicated mucocele of the left frontal sinus, consistent with a diagnosis of Potts puffy tumor.

Discussion
Although typically associated with adolescents, PPT can occur in older adults, particularly those with underlying sinus disease or immunosuppression. The diagnosis can be challenging in elderly patients due to atypical presentations or coexisting cognitive impairment, as seen in this case. Prompt imaging is essential to confirm the diagnosis and guide surgical management. If left untreated, PPT can lead to serious complications including intracranial abscess, meningitis, and dural sinus thrombosis.

Conclusion
This case highlights the importance of considering Potts puffy tumor in the differential diagnosis of forehead swelling, even in elderly patients. Early diagnosis through imaging and timely surgical intervention are key to preventing life-threatening complications.

ID: 33
CRACKING THE CODE TO RIB FRACTURE MANAGEMENT IN A UK DISTRICT GENERAL HOSPITAL

Authors
Mohammad Shiraz (Presenting), Peterborough city hospital, Peterborough, United Kingdom

Abstract

Introduction
Multiple rib fractures are associated with significant morbidity and mortality, which is more relevant in elderly patients due to co-morbidities. In the UK, rib fractures are commonly managed in District General Hospitals (DGHs) without dedicated thoracic teams. Local protocols ensure identification of patients likely to have complications or deteriorate, with tools for prevention. This study aimed to assess compliance to local protocols, with focus on patients ≥65 years old (yo).

Methods
Retrospective data was collected on all adult patients admitted with ≥2 rib fractures over 12 months. Data gathered using Trust IT systems. Standards identified using current trust guidelines, specifically looking at Chest Injury Score (CIS) and Analgesia Bundle.

Results
101 patients were included, mean age was 71yo and 66 (65%) were ≥65yo. Overall, 12 (12%) patients died and 22 (22%) suffered complications (pneumonia or pulmonary embolism). Increased age had a positive correlation with length of stay, complications and risk of death. CIS was calculated in 60 (59%) cases, although in 34 (57%) cases this was only documented in separate physiotherapy notes. Appropriate Analgesia Bundle was prescribed in only 18 (18%) cases. 42 (64%) and 14 (21%) patients ≥65yo received appropriate scoring and analgesia respectively. Only 22 (33%) patients ≥65yo received a geriatrician review.

Conclusion
Adherence rates to trust guidelines identified areas for improvement in the care of rib fracture patients in a DGH. Most patients were aged ≥65yo and although CIS and analgesia prescription was at similar rates to younger patients, outcomes were worse. Furthermore, calculation of CIS did not correlate with analgesia prescription. Focus moving forward should be on education regarding local guidelines to increase compliance, and consideration of a guideline for mandatory referral to geriatricians in all patients ≥65yo.

ID:34

Transforming Procedural Teaching in the Emergency Department at RSCH: From Passive, Educator-Led Instruction to Interactive, Learner-Centred teaching

Authors
Anna Vaulks, RSCH, Guildford, United Kingdom
Ahmed Amer (Presenting), RSCH, Guildford, United Kingdom
Michael Shakhloul, RSCH, Guildford, United Kingdom
Rhoda Noriega, RSCH, Guildford, United Kingdom
Muhammad Kamal, RSCH, Guildford, United Kingdom
Ahmed Syed, RSCH, Guildford, United Kingdom

Abstract

Introduction
Procedural competence is a core requirement in emergency medicine. However, traditional teaching in the Emergency Department (ED) at Royal Surrey County Hospital (RSCH) relied heavily on didactic lectures with minimal interactivity and low attendance. Trainees reported limited confidence in performing key procedures.

Methods
A novel, structured teaching program was introduced with the aim of improving procedural skills and trainee engagement. The 2-hour weekly sessions focused on hands-on simulation, interactive learning, and peer-led teaching. Trainees were both learners and co-educators, supported by consultants and specialty experts. Feedback was continuously gathered to refine the program.

Results
Post-session surveys demonstrated high satisfaction scores (>9/10) and a marked improvement in trainee-reported confidence in performing emergency procedures. The learner-centered, simulation-based approach was perceived as significantly more effective than traditional methods.

Conclusion
This program, grounded in adult learning theory and experiential education, offers a replicable model for procedural teaching in emergency departments. It can be tailored to local needs and has shown positive educational impact in a short period.

ID: 37

Early Cross Match and blood grouping in patients with upper GI bleed can help in reduction of time of endoscopy

Author

Amir Bashir (Presenting), Shahida Islam medical college, Lodhran, Pakistan
Royal Hampshire hospital, Winchester, United Kingdom

Abstract

Introduction
Acute upper Gastrointestinal bleeding is common medical emergency that has 10% hospital mortality. ESGE 2015 recommended timing of upper GI endoscopy very early<12 hours, early<24 hours and delayed >24 hours. Target haemoglobin recommended is between 7g/dl to 9g/dl and higher threshold may be considered in older patients before attempting endoscopy. Our aim was to gauge if we are performing endoscopy as per ESGE time recommendations and to establish if any delay in performing cross match and group save on time of admission to achieve target Hb is causing delay in endoscopy time.

Methods
In Audit first cycle from April 2024 to December 2024 retrospective data was collected, patients record were reviewed for timing of endoscopy and early cross match and blood grouping on time of admission.

Recommendations were made after data review for early group and save and blood grouping, pre labelled blood forms placed in emergency, flow sheets placed on emergency main board and doctors room. Teaching sessions were carried out to update about guidelines. Second cycle was done on march 2024 to September 2024.

Results
Audit cycle 1 showed 14 patients were admitted with upper GI bleed from April to December 2024 and only 5 has group and cross matching at time of admission, and time for endoscopy was >48 hours mainly because of delayed in transfusion for achieving target Hb levels. Cross match on time of admission was 36%

Audit Cycle 2 done after interventions ,28 patients were admitted between the time with upper GI bleed, cross match was done for 24 patients early transfusions were arranged , that increased blood grouping and cross match percentage from 36% to 86% and endoscopy time was significantly reduce below 24 hours posy admission.

Conclusion
Early blood grouping and cross match can help in early transfusion for achieving target Hb as per ESGE guideline and can decrease time of endoscopy.

ID: 38

Beyond the Ascending Pattern: An Atypical Case of Guillain-Barré Syndrome with Early Cranial Nerve Involvement.

Authors

Mohamed Asaf (Presenting), Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom
Janice Chow, Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom
Muhammad Abdulhaleem, Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom

Abstract

Introduction
Guillain-Barré Syndrome (GBS) is an acute immune-mediated polyneuropathy characterised by ascending symmetrical weakness, areflexia, and sensory disturbances. While post-infectious, it is classically associated with Campylobacter jejuni, cytomegalovirus, and Epstein-Barr virus. However, atypical presentations can complicate diagnosis.

Case presentation
We present a 30-year-old previously healthy woman who presented to the emergency department (ED) with a sore throat and fatigue. Initial tests, including oropharyngeal swabs and blood tests, were unremarkable, resulting in her discharge with supportive care. After 48 hours, she returned with new-onset numbness affecting all four limbs—predominantly on the right side—extending to the right elbow, while the left side's involvement was limited to the hands. She also experienced symmetrical weakness that progressively affected all four of her limbs at the same time, particularly proximal and absent knee reflexes on the right side. Bulbar symptoms, such as dysphagia and hoarseness, indicated cranial nerve involvement. Viral testing confirmed the presence of influenza B, while other blood tests remained normal.

Initially, there was uncertainty about the diagnosis due to atypical onset and multifocal neurological signs. Neurology ordered brain and spinal MRIs alongside a lumbar puncture. MRI findings were unremarkable, but cerebrospinal fluid analysis revealed albuminocytologic dissociation, evidenced by elevated protein levels with a normal white cell count, consistent with GBS. Consequently, she began treatment with intravenous immunoglobulin (IVIG). Despite early intervention, her condition deteriorated rapidly, necessitating intubation and intensive care support. She remained ventilated for 20 days before making gradual neurological progress that allowed for successful weaning and rehabilitation.

Discussion
This case shows the diagnostic challenges of GBS, particularly when presenting atypically with simultaneous limb and early cranial nerve involvement and asymmetrical sensory symptoms in a young, healthy individual. The association with influenza B emphasises the diverse viral infections that can trigger GBS.

Conclusion
Clinicians should maintain a high index of suspicion for GBS even in atypical cases, including non-ascending patterns and early cranial nerve involvement. Early recognition and treatment are critical to improve outcomes, especially in rapidly progressive variants.

ID: 40

Seizures, Cyanosis, and Chocolate Blood: Sodium Nitrite-Induced Methemoglobinemia Presenting as Status Epilepticus

Authors
Mohammad Irfan (Presenting), Mid Yorkshire Teaching Trust Hospitals, Wakefield, United Kingdom

Abstract

Introduction
Methemoglobinemia is a rare but potentially fatal condition in which the iron in hemoglobin is oxidized to the ferric (Fe^{3+}) state, impairing its ability to carry and release oxygen. While typically presenting with cyanosis and oxygen-resistant hypoxia, severe cases can lead to seizures due to cerebral hypoxia and cardiovascular collapse. With increased access to industrial compounds online, sodium nitrite has emerged as a concerning agent in intentional poisonings, especially among adolescents. This case highlights a unique presentation of toxic methemoglobinemia in a teenager, masked as status epilepticus.

Case Presentation
A 16-year-old girl was found at home experiencing recurrent generalised tonic-clonic seizures (2–5 minutes each, no recovery between episodes) over a period of 25 - 30 minutes She had no known seizure history. Pre-Hospital ambulance service administered intravenous diazepam, but the seizures persisted during transport.

On arrival to the ED, she was actively seizing (GCS 7), profoundly cyanotic, and SpO_2 was 86% despite oxygen delivery through a non-rebreather mask at 15L/min. She was tachycardic (HR 118 bpm), with a BP of 92/58 mmHg.ICU team was called,bloods were taken along with VBG sample, followed by IV levieracetam infusion. Venous blood drawn for analysis appeared chocolate-brown.

Initial blood gas revealed a methemoglobin level of 38%, lactate of 6.8 mmol/L, and a normal PaO_2 of 23 kPa—suggesting severe functional hypoxia despite adequate oxygen delivery. Seizure activity was finally controlled after administration of intravenous IV methylene blue.

She showed rapid clinical improvement in mental status, colour, $SpO_2$and in biochemical status. Collateral history from mum showed that the compound had been purchased from abroad under the guise of a “needed for science experiment.”

The patient was admitted in ICU for monitoring and support due to low GCS. After full neurological recovery, patient was referred to CAMHS and safeguarding teams.

Discussion
Methemoglobinemia can mimic seizures and hypoxia. Recognition of key signs like chocolate-coloured blood is vital. Sodium nitrite ingestion is a growing concern among adolescents.

Conclusion
Early diagnosis and methylene blue administration are critical. Safeguarding and mental health support should be integral to managing intentional toxic ingestions in the emergency setting.

ID: 41
Cross-Border Emergency Response Systems: Case Studies from the EU and ASEAN

Authors
Jasmin Blake (Presenting), East Sussex NHS Trust, Sussex, United Kingdom

Abstract

Introduction
Disasters and mass casualty incidents frequently transcend national borders, particularly in regions with high mobility and shared geography. Coordinated cross-border emergency medical responses are essential for reducing morbidity and mortality. This study aims to examine and compare the operational frameworks, challenges, and outcomes of regional emergency response systems in the European Union (EU) and the Association of Southeast Asian Nations (ASEAN), offering insights for future policy development.

Methods
A qualitative comparative analysis was conducted using two recent case studies: the 2023 Türkiye-Syria earthquake (EU response) and Typhoon Rai/Odette in the Philippines (ASEAN response). Data sources included regional policy documents, response protocols, and 32 semi-structured interviews with emergency physicians, disaster coordinators, and policymakers from five countries within each region. Thematic analysis was used to identify patterns related to system readiness, inter-agency communication, deployment efficiency, and clinical outcomes.

Results
The EU Civil Protection Mechanism demonstrated robust logistical coordination and standardised training but encountered bureaucratic delays when engaging non-member border nations. Conversely, the ASEAN Coordinating Centre for Humanitarian Assistance (AHA Centre) enabled faster mobilisation within its member states, although hampered by heterogeneity in emergency medical capabilities and inconsistent documentation standards. Both systems highlighted recurring challenges, including language barriers, credential recognition, and limited real-time health data integration.

Conclusion
Cross-border emergency response in both the EU and ASEAN regions benefits from established regional frameworks, yet substantial gaps persist in interoperability, real-time coordination, and clinical protocol standardisation. Enhancing digital infrastructure, harmonising credentialing processes, and promoting multinational joint training exercises are recommended to optimise future responses to transnational emergencies.

ID: 42

Assessment of Laboratory Turnaround Time for Hematology and Biochemistry Results at Cork University Hospital Emergency Department, Ireland

Authors
Abbas Tayyab Syed (Presenting), Cork University Hospital, Cork, Ireland
Dr. Mohsin Tahir
Supervision: Dr. Philip Rowburrey (ED Consultant)

Abstract

Background
Laboratory turnaround time (TAT) is a key performance indicator in emergency medicine, directly impacting clinical decision-making and patient outcomes. The Royal College of Emergency Medicine recommends that emergency department (ED) laboratory results be available within 60–120 minutes. Delays can lead to prolonged patient stays, delayed treatments, and compromised patient care.

Aim & Objectives
This audit aimed to assess compliance with the recommended TAT for hematology and biochemistry results in the ED, with an ultimate goal of achieving 100% adherence. The objectives were to:

Evaluate the TAT for hematology and biochemistry results over a one-week period.
Assess the impact of different time periods (day vs. night shifts) on delays.

Methodology
A retrospective audit was conducted over one week (21–28 August 2024) at Cork University Hospital ED. Data from 162 randomly selected patients (1 per hour) were analyzed from the hospital's Integrated Clinical Management (ICM) system. Results were categorized into three shifts:

Overnight (12 AM – 8 AM)
Daytime (8 AM – 4 PM)
Evening (4 PM – 12 AM)
TAT compliance was evaluated for hematology and biochemistry separately.

Results
Hematology: 69.1% of results were within the 120-minute target, while 30.9% were delayed. The highest delay rate was observed overnight (50%), compared to the daytime (19.6%) and evening (25%).

Biochemistry: Only 56.2% of results met the TAT, with 43.8% exceeding 120 minutes. The highest delay rate was during the daytime (48%), followed by overnight (44%) and evening (39.2%).

Conclusion & Recommendations
Significant delays were identified, particularly in biochemistry and overnight shifts. Factors such as staffing levels, sample transport efficiency, and lab prioritization of urgent tests likely contributed. To improve TAT, we recommend:

Increasing staff during peak hours.
Introducing point-of-care testing (POCT) for critical biochemistry tests.
Optimizing lab workflow to reduce bottlenecks.
Conducting follow-up audits to assess improvements.
By implementing these measures, the ED can enhance efficiency, reduce patient wait times, and align with best practice guidelines.

ID: 43

Use of Ultrasound-Guided IV Access for Difficult Intravenous Access (DIVA) in the Emergency Department at CUH.

Authors
Abbas Tayyab Syed (Presenting), Cork University Hospital, Cork, Ireland
Dr Aniqa Bano
Dr Iomhar O'Sullivan
Dr Abdul Safras

Abstract

Introduction
Peripheral intravenous catheter (PIVC) insertion is a common but often challenging procedure in Emergency Departments (ED), with up to one-third of patients presenting with difficult intravenous access (DIVA), resulting in delays and discomfort[1][2]. Ultrasound (US)-guided IV access significantly improves first-attempt success rates in such cases but is underutilized due to barriers such as limited training, lack of sign-off, and equipment availability[3][4].

Aim & Objectives
To evaluate current practice, comfort, and frequency of US-guided IV access in the ED at CUH, identify barriers, and assess staff interest in further training. Previous studies have shown that US-guided IV access improves time to access, analgesia administration, and reduces ED length of stay. A structured DIVA pathway resulted in a 93% first-attempt success rate and lower median pain scores compared to standard methods[5].

Methods
A survey of 20 ED clinicians assessed demographics, US IV access training, comfort levels (scale 1–10), frequency of use, barriers, and interest in further training. Data were analysed using descriptive statistics.

Results
Staff Grades: 65% SHOs, 35% Registrars

US Training: 65% trained, but only 20% signed off

Frequency of Use: 80% use US rarely or never

Barriers Identified: Lack of training (40%), sign-off (25%), equipment (20%), time (20%)

After 2 failed attempts: 60% escalate to US, 30% call physician

Comfort Level (mean): 5.1

Willingness to Use if Signed Off (mean): 8.8

Interest in Further Training: 95%

Conclusion
Despite training, US-guided IV access is underutilized due to limited sign-off and resources. High interest in further training and strong willingness to use US if signed off indicate the need for structured US training and implementation of a DIVA pathway. A post-intervention re-audit is recommended.

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ID: 44
Driving Advice Post Myocardial Infarction: Are We Meeting DVLA Standards?

Authors
Jayalekshmi Leena (Presenting), Medway Maritime Hospital, Kent, United Kingdom
Vamshi Krishna Talakonukula, Medway Maritime Hospital, Kent, United Kingdom
Thaw Myintthu, Medway Maritime Hospital, Kent, United Kingdom
Mecaelan Sardar, Medway Maritime Hospital, Kent, United Kingdom

Abstract

Introduction
Coronary heart disease (CHD) is the leading cause of myocardial infarction (MI) and the single biggest cause of premature death in the UK. Over 1.9 million people in England live with CHD, and more than 1.4 million have survived an MI. Around 100,000 MI-related hospital admissions occur annually — approximately one every 5 minutes. Evidence shows an elevated risk of road traffic accidents in the days following acute coronary syndrome (ACS), with sudden cardiac events accounting for 2–5% of medically caused crashes. DVLA guidelines recommend temporary driving restrictions post-MI, but local concerns suggested poor documentation of this advice at discharge.

Methods
A retrospective audit was conducted at Medway Maritime Hospital, reviewing 113 discharge summaries from cardiology inpatients between October and December 2024. Inclusion criteria were confirmed for acute coronary syndrome (ACS) or those who underwent coronary angiography. Patients transferred to other hospitals (n=12) were excluded from the final analysis. Documentation of driving advice was evaluated, and subgroup analysis included STEMI vs NSTEMI, PCI status, and ejection fraction (<40% vs >40%).

Results
Of the 101 eligible patients, only 7 (6.9%) had documented DVLA driving advice in their discharge summaries. A total of 92 (91.1%) had no documented advice. The results highlighted a significant gap in adherence to legal standards.

Conclusion
The majority of patients admitted with MI or undergoing coronary angiography were discharged without documented driving advice, in breach of DVLA guidance. To address this, we introduced:

Teaching sessions for junior doctors on DVLA rules during cardiology induction;
Posters summarising guidance displayed in clinical areas;
Emphasis on documentation during discharge planning.
A re-audit is planned to assess the impact of these interventions. Standardising this process is essential to ensure legal compliance and safe patient care.

ID: 48
CLINICAL AUDIT ON HYPERKALEMIA TREATMENT COMPLIANCE

Authors
ROHITH KEEZHATH (Presenting), Medway Maritime Hospital, Medway NHS Foundation Trust, Gillingham, United Kingdom
NANDAKUMAR POONTHOTTAM, Medway Maritime Hospital, Medway NHS Foundation Trust, Gillingham, United Kingdom
TOUKIR AHMED, Medway Maritime Hospital, Medway NHS Foundation Trust, Gillingham, United Kingdom
OGIE DERICK AGHIMIEN, Medway Maritime Hospital, Medway NHS Foundation Trust, Gillingham, United Kingdom
JYOTHIS SAJAN, Medway Maritime Hospital, Medway NHS Foundation Trust, Gillingham, United Kingdom

Abstract

Introduction
Hyperkalemia (K^+ >5.5 mmol/L) is a life-threatening condition associated with arrhythmias, muscle weakness, and paralysis. It is common in patients with CKD, diabetes, heart failure, or those on potassium-retaining drugs. Following the UK Renal Association alert (Feb 2024), our Trust updated its management policy. This audit evaluates clinical compliance with the revised guidelines.

Methods
Design: Retrospective audit
Period: March–May 2024
Sample: 30 inpatients treated post-guideline update

Audit Criteria
ECG performed and findings documented
Correct indication and dose of calcium gluconate
Blood glucose (BM) checked before insulin
Dextrose administered if BM <7 mmol/L
Regular BM monitoring
Use of potassium binders (Calcium Resonium, Sodium Zirconium Cyclosilicate, Patiromer)
Post-treatment Potassium recheck
Salbutamol nebulisers used where indicated
Escalation for refractory cases (HDU/ITU referral)

Results
Documentation:
83.3% lacked classification of hyperkalemia severity

Monitoring:
ECG performed in 41.7% of relevant cases
BM monitored regularly in only 36% of patients

Treatment Compliance:
Calcium gluconate given in 100% of indicated cases
Correct dose in 94.1%
Inappropriately given in 8/30 cases
Salbutamol correctly administered in 76.5%
Only 33.3% of patients with BM <7 received 5% dextrose
Potassium normalized within 24 hours in 46%

Outcomes:
53% mortality among audited patients

Conclusion
Significant gaps in Hyperkalemia management were identified, especially in documentation, ECG use, and glucose monitoring. Despite good compliance with calcium gluconate, inappropriate use occurred. Staff training and electronic prompts are needed. A repeat audit is planned to assess improvements.

ID: 53

Boosting Stroke Care At The Front Door: Improving Adherence to NICE Guidelines in the Management of Acute Ischaemic Stroke in the Emergency Department: A Two-Cycle Quality Improvement Project

Authors
Siraj Benbarka (Presenting), Royal Hampshire County Hospital, Winchester, United Kingdom
Mohammad Badawi, Royal Hampshire County Hospital, Winchester, United Kingdom
Matthew Simpson, Royal Hampshire County Hospital, Winchester, United Kingdom

Abstract

Introduction
Effective secondary prevention in acute ischaemic stroke and TIA is vital to reduce morbidity, mortality, and recurrence. NICE guidelines recommend early statin therapy, cholesterol and LDL measurement, and provision of lifestyle advice. A local audit was conducted at Royal Hampshire County Hospital (RHCH) to assess compliance with these guidelines and implement specific enhancements to improve the local stroke unit service.

Methods
This retrospective audit included patients admitted with ischaemic stroke or TIA from February to May 2024 (Cycle 1) and a re-audit in May 2025 (Cycle 2). Electronic patient records were reviewed for cholesterol and LDL measurements, statin prescriptions, and documentation of lifestyle advice. Interventions between cycles included updating the ED triage blood bundle on the electronic request system (ICE system), implementing a discharge summary template, and staff education on providing lifestyle advice to stroke patients.

Results
Cycle 1 included 99 patients. Cycle 2 included 94.

Statin prescription: With the exclusion of documented contraindications, statin prescribing remained high at 90% in Cycle 2, reflecting close adherence to NICE guidelines.

Lifestyle advice documentation: Improved from 57% to 77% following the implementation of a discharge summary template and staff education.

Total Cholesterol testing: Increased from 85% to 89%.

LDL testing: Significantly improved from 43% to 85% after modification of the ED stroke triage bundle to include an LDL analysis.

Although the 90% targets for lifestyle advice and lipid testing were not fully achieved, substantial improvements illustrate the effectiveness of implemented changes.

Conclusion
This audit highlights how focused, multidisciplinary interventions can improve guideline adherence in acute stroke management. Statin prescribing remains high and consistent, and improvements in lifestyle documentation and LDL testing emphasize the value of systematic improvements and staff engagement. Continued efforts in staff education, IT integration and development, and re-audit cycles are crucial to maintaining and enhancing adherence to national standards.

ID: 54
Needles and Need-to-Knows: A Closer Look at Managing Needle Stick Injuries in ED

Authors
Disha Hayagreev (Presenting), Basingstoke and North Hampshire Hospitals, Basingstoke, United Kingdom

Abstract

Introduction
Needle stick injuries (NSIs) are a common occupational hazard for healthcare workers, where exposure to blood-borne pathogens such as HIV, hepatitis B (HBV), and hepatitis C (HCV) is a concern. The management of NSIs requires prompt first aid and post-exposure prophylaxis (PEP), depending on the type of exposure. Out of hours NSIs are managed by ED, hence it is prudent that ED staff have uptodate knowledge about trust guidelines for management.

Aims
The primary aim of this audit was to ascertain the level of understanding ED staff have regarding the management of NSIs. Additionally, the audit sought to determine how staff confidence in managing NSIs could be improved through targeted interventions and to identify any gaps in training.

Methodology
This is a single centre prospective cohort study. A questionnaire was distributed to all staff working in the Basingstoke ED. The inclusion criteria was current employees. A total of 63 responses were received. The questionnaire covered various aspects of NSI management, including staff familiarity with Trust protocols, and level of induction received.

Results
The audit revealed that while 81.8% of staff were aware about trust protocol, only 47.6% had received adequate induction. 74.6% of staff were aware about where to find trust guidelines. In terms of confidence, 46% of staff felt capable of managing an NSI independently. 66.7% staff were aware about risk assessment forms, however only 54% were aware of the exposure stratification. 95.2% of staff knew their vaccination status, but only 63.5% knew its impact on PEP. Additionally, 50.8% of staff indicated they would feel more confident managing an NSI if they had easier access to the protocol.

Conclusion
The audit highlighted significant gaps in staff knowledge regarding the management of needle stick injuries and staff induction. Based on staff feedback, it was recommended that an easy-to-access flowchart be created and displayed in the ED. It was also agreed to introduce NSIs as an induction for incoming FY1s as a trial. A follow-up questionnaire will be conducted to assess the impact of these changes and determine whether a mandatory induction session be introduced in all staff training.

ID:55

A Rare Cause of Internal Jugular Vein Obstruction: Tumour Infiltration from Advanced Lung Cancer

Authors
Nirbhik Lodh (Presenting), Hampshire Hospitals NHS Foundation Trust, Winchester, United Kingdom
Jayanti Saren, Hampshire Hospitals NHS Foundation Trust, Winchester, United Kingdom

Introduction
Internal jugular vein (IJV) obstruction due to tumour infiltration is a rare complication of advanced thoracic malignancies. Most associated with mediastinal involvement, such presentations pose diagnostic and therapeutic challenges due to their infrequency and the absence of formal guidelines.

Case Presentation
An elderly woman in her late 80s with a 50 pack-year smoking history presented to the Emergency Department with acute shortness of breath and progressive right neck and forearm swelling, pain, and erythema developing over 24 hours. Clinical examination revealed mild wheeze on chest auscultation and tenderness in the right anterior neck triangle. The patient was haemodynamically stable but required 1–2 L/min of supplemental oxygen.

Chest radiography demonstrated large homogeneous opacities in the right upper and left lower lung zones. CT thorax revealed a large left lower lobe lung mass infiltrating the hilum and a separate right upper lobe mass invading the mediastinum. Critically, the right mass was seen infiltrating the right IJV, associated with a partially occlusive thrombus extending cranially to the level of the sphenoid sinus.

The patient was commenced on corticosteroid therapy. A CT of the chest, abdomen, and pelvis (CT CAP) was requested for staging. Radiotherapy was deferred pending histological confirmation. Anticoagulation was withheld as the thrombus was considered non-migratory due to tumour-related venous occlusion. IJV stenting was not pursued, as there was no indication for decompression and no expected benefit in symptom relief.

Discussion
While superior vena cava (SVC) syndrome often warrants urgent intervention, IJV obstruction due to tumour infiltration is less commonly encountered and may not benefit from the same approach. In this case, management focused on symptom control, diagnostic clarification, and minimising procedural risks. Stenting the IJV is not standard practice and remains a rare, palliative option without proven benefit in relieving dyspnoea or improving outcomes.

Conclusion
This case underscores the importance of considering IJV obstruction in patients with thoracic malignancy presenting with neck swelling and venous congestion. Due to the absence of consensus guidelines, multidisciplinary, individualised approaches are essential for optimal management.

ID: 56

Blinded by the Brain? A Case of Acute Angle-Closure Glaucoma Masquerading as Subarachnoid Haemorrhage in the Emergency Department

Authors
Syeda Safa Sadiya (Presenting), BHRUT NHS TRUST, ROMFORD, United Kingdom
Aemon Fatima, BHRUT NHS TRUST, Romford, United Kingdom
Sri Amarnath Mathiyalagan, BHRUT NHS TRUST, Romford, United Kingdom

Abstract

Introduction
Acute angle-closure glaucoma (AACG) is an ophthalmologic emergency that can mimic central neurological pathology. It often presents with non-specific systemic symptoms such as severe headache, nausea, and vomiting—features that overlap with life-threatening conditions like subarachnoid haemorrhage (SAH). Prompt recognition is essential, as delayed diagnosis can result in permanent vision loss.

Case Presentation
A 66-year-old female presented to the Emergency Department with a sudden-onset, severe right-sided headache associated with vomiting and dizziness. The headache was described as throbbing and pressure-like, centred around the right eye. She denied photophobia, neck stiffness, or recent trauma. Past medical history included hypertension, type 2 diabetes mellitus, migraine, and a right retinal detachment in 1990.

On examination, her right pupil was 4mm, fixed and non-reactive, with only light perception. The left pupil was 3mm, reactive, and visual acuity was preserved. There were no focal neurological deficits or signs of meningism. Her family suggested that the right eye changes might be longstanding, complicating the assessment.

Given the severity and sudden onset of headache, SAH was initially suspected. A CT head and CT angiogram were performed, both of which were unremarkable. Upon further questioning, the patient described a “curtain-like” visual disturbance in the right eye over the preceding week, which had worsened on the day of presentation.

With neurovascular pathology excluded, ophthalmology was consulted. Differential diagnoses included AACG and anterior ischaemic optic neuropathy (AION). Urgent outpatient follow-up was arranged, with consideration for earlier review prior to the weekend.

Discussion
This case illustrates the diagnostic challenge posed by AACG in the ED. The absence of classic ocular findings such as conjunctival injection and eye pain, coupled with a complex ocular history, contributed to delayed recognition. A fixed dilated pupil with visual loss should prompt consideration of acute ophthalmic causes, particularly when neuroimaging is normal.

Conclusion
AACG is a vision-threatening condition that can masquerade as a neurological emergency. ED clinicians should maintain a broad differential in acute headache presentations, especially when visual symptoms are present, to ensure timely ophthalmologic evaluation and prevent permanent vision loss.

ID: 57
Beyond the Bruise: Unmasking DIC in Alcohol-Related Presentations

Authors
Sri Amarnath Mathiyalagan (Presenting), Barking Havering and Redbridge University Hospitals NHS Trust, London, United Kingdom
Aemon Fatima, Barking Havering and Redbridge University Hospitals NHS Trust, London, United Kingdom
Syeda Safa Sadiya, Barking Havering and Redbridge University Hospitals NHS Trust, London, United Kingdom
Lunik Sarder, Barking Havering and Redbridge University Hospitals NHS Trust, London, United Kingdom

Abstract

Introduction
Disseminated Intravascular Coagulation (DIC) is an uncommon but critical diagnosis in emergency medicine. It involves systemic activation of coagulation pathways, leading to microvascular thrombosis and consumption of clotting factors, with a risk of life-threatening bleeding and multi-organ failure. In alcohol-related presentations, DIC may be overlooked, with symptoms misattributed to trauma or alcohol-induced coagulopathy. This diagnostic delay can significantly worsen outcomes.

Case Presentation
A 39-year-old female presented to Emergency Department (ED) with minor head trauma and left groin pain while under the influence of alcohol. Multiple forearm bruises raised concerns about domestic violence. Her background included alcoholic liver disease and autoimmune hepatitis.

On clinical reassessment after sobriety, she denied trauma and domestic violence. Examination revealed widespread ecchymoses, pallor, icterus, and a bleeding groin mass. She was given one unit of Packed Red Blood Cells, three units of fresh frozen plasma, and one unit of cryoprecipitate, targeting a fibrinogen level >1.5 g/L. Decompensated liver disease was suspected as a possible precipitating factor for DIC.

Key laboratory findings on admission
Haemoglobin: 67 g/L (115–155)
Platelets: 50 × 10^9/L (150–400)
PT: 38.2 seconds (9–13)
APTT: 51.2 seconds (20–33)
Fibrinogen (Clauss): 0.30 g/L (1.5–4.0)
D-dimer: 19.69 mg/L FEU (<0.50)
Total bilirubin: 122 µmol/L (1–21)

Discussion
This case underscores the importance of distinguishing between trauma-related bruising and systemic coagulopathy such as DIC, particularly in patients with alcohol-related liver disease. Alcohol misuse is a common ED presentation, often accompanied by liver dysfunction and baseline coagulopathy. When combined with systemic stressors (e.g. infection, liver decompensation), such patients are at risk of developing DIC.

Given the overlap in clinical features—such as bruising, bleeding, and low platelets—DIC may be under-recognised unless clinicians maintain a high index of suspicion. Early recognition, laboratory evaluation (including PT, APTT, fibrinogen, D-dimer), and prompt haematological input are crucial for appropriate management.

Conclusion
Not all bruises in alcohol-related presentations stem from trauma. In patients with liver dysfunction, falling haemoglobin and abnormal clotting parameters should raise concern for DIC. Vigilance, early investigation, and multidisciplinary collaboration can significantly improve outcomes.

ID: 58
The dangers of under investigating pregnant women

Authors
Blessing Okoli (Presenting), Oxford University Hospital, Oxford, United Kingdom

Abstract

Introduction
One of the dangers of under investigating pregnant women is the potential to miss very important diagnosis. A chest x-ray during pregnancy is generally considered to be safe due to the low radiation dose, and it can be useful in identifying common causes of chest pain.

Case
A 30-year-old woman who was 30 weeks pregnant presented to the Emergency department with a 6-week history of cough. For the last couple of weeks, she had developed right sided pleuritic chest pain, shortness of breath, and multiple tender lymph nodes on her neck.

Associated night sweats but no obvious fever. She was unsure whether she had weight loss given she was pregnant.

She was fully immunised, had no contact with anyone who had tuberculosis, and had no significant past medical history.

She received 2 courses of antibiotics in the community for presumed pneumonia, but no improvement in her symptoms.

Presentation
On review, she had fast heart rate and tender enlarged anterior neck lymph nodes

Blood result showed normal white cell count, low lymphocytes, raised CRP, and slightly raised D-dimer

Chest XR: Abnormally enlarged mediastinum centrally, a mass in the right upper zone of the chest was noted

CT PA: Large mediastinal mass, bulky lymphadenopathy and right pleural nodule most in keeping with lymphoma.

MRI Abdomen/ pelvis: No abdominopelvic lymphadenopathy and no bone lesion.

Full screening lymphoma blood was done; HSV 1&2 and EBV were positive, others were negative

She was subsequently referred to the Acute Oncology team for further management

Discussion
The patient received 2 courses of antibiotics over a period of 6 weeks of her symptoms, but no imaging was done due to concerns of potential risk of chest x-ray in pregnancy. Consequently, this crucial diagnosis was missed earlier.

Serious ailments can occur in pregnancy; hence it is important to properly investigate especially when the clinical suspicion is high, and the risk versus the benefit should always be considered.

Conclusion
Chest x-ray is generally safe in pregnancy and should be done if indicated because it can pick up various causes of chest pain in pregnancy.

ID: 59
Caught in the BRASH Loop: A Case Report on Multisystem Decompensation and Recovery

Authors
Aemon Fatima (Presenting), BHRUT, Romford, United Kingdom
Syeda Safa Sadiya, BHRUT, Romford, United Kingdom
Sri Amarnath, BHRUT, Romford, United Kingdom

Abstract

Introduction
BRASH syndrome (bradycardia, renal failure, AV-block, shock, and hyperkalemia) is a rare but potentially life-threatening condition commonly seen in elderly patients with chronic kidney disease (CKD) and those on medications like beta-blockers, ACE inhibitors, and potassium-sparing diuretics. The syndrome often manifests with symptoms such as bradycardia, hypotension, and hyperkalemia, which can be exacerbated by medication interactions. Early recognition and timely management are crucial for preventing severe complications.

Case Presentation
An 80-year-old male with a medical history of hypertension, type 2 diabetes mellitus, monoclonal gammopathy of undetermined significance (MGUS), stage 3 chronic kidney disease (CKD), and a prosthetic valve repair presented to the emergency department with increased shortness of breath and dizziness. Upon admission, he was found to have sustained bradycardia (heart rate 36 bpm), hypotension (blood pressure 95/60 mm Hg), and hyperkalemia (serum potassium 7.9 mg/dL). An ECG revealed sinus bradycardia with flat P waves and a junctional escape rhythm, and a chest X-ray showed cardiomegaly. Based on the clinical and laboratory findings, a differential diagnosis of BRASH syndrome was considered.

Discussion
BRASH syndrome is characterized by the interaction of multiple factors, including bradycardia (often caused by beta-blockers), hyperkalemia, renal insufficiency, and hypotension, typically in patients with CKD. In this patient, the initial management focused on aggressive fluid resuscitation, correction of hyperkalemia, and discontinuation of medications that could contribute to the condition (e.g., losartan and spironolactone). Despite initial challenges with maintaining blood pressure, the patient's condition improved with appropriate therapy, including the use of calcium gluconate, hydrocortisone, bicarbonate, and insulin for hyperkalemia. Within 3 days, the patient stabilized, with the heart rate returning to normal sinus rhythm and creatinine levels improving.

Conclusion
BRASH syndrome is a rare but critical condition that requires high clinical suspicion in elderly patients with multiple comorbidities, particularly those on medications affecting renal function or electrolyte balance. Early recognition, discontinuation of offending agents, and aggressive treatment to correct hyperkalemia and hypotension are essential in reversing the condition. In this case, the patient's rapid recovery following targeted management emphasizes the importance of timely intervention and close monitoring, particularly in the ICU setting and after discharge.

ID: 60
I'm in two hearts about this diagnosis!

Authors
M Usama Saud Bin Nasir (Presenting), Royal Free London NHS Trust, London, United Kingdom
M Saad Bin Nasir, Princess Alexandra Hospital NHS Trust, London, United Kingdom
Christian Solomonides, Royal Free London NHS Trust, London, United Kingdom

Abstract

61 year old male patient presented to ED by ambulance following two syncopal episodes. Ambulance crew reported abnormal ECG findings. The patient had felt hot, sweaty and clammy with palpitations preceding both syncopal events. He had chest and epigastric pain in the past 24 hours. Syncopal events were witnessed by partner who reported a grey and clammy appearance of the patient. During A&E review, the patient reported ongoing chest discomfort with no associated symptoms. Previous medical history included heterotropic heart transplant for myocarditis and long term oral amiodarone therapy. Examination findings: Pulse: 90bpm Blood pressure: 120/94 SpO2: 98% RA RR: 18/min Apex beat palpated on the right precordium Chest : bilaterally clear with no difficulty in breathing. ECG findings: Sinus rhythm from the transplanted heart was seen in the right sided leads. Ventricular tachycardia/fibrillation was being picked up from the native heart on the left lateral leads. There is however an overlap of these rhythms seen on the ECG. Chest XRay showed dual cardiac shadows. A Point of Care Echocardiogram showed the native heart to be in Ventricular tachycardia/fibrillation with severe systolic dysfuntion and the donor heart in sinus rhythm with good systolic function. Diagnosis was considered to be syncope secondary to Electrical Storm generated from native heart. The arrhythmia was being propagated from native to donor heart. Patient was started on amiodarone infusion and later transferred to ITU.A Transoesophegeal echocardiogram guided direct current cardioversion was attempted. After 2 unsuccessful attempts, a lidocaine infusion was started and one further attempt of DCCV proved successful in restoring sinus rhythm. Patient was later discharged clinically and hemodynamically stable with oral sotalol and mexiletine. This rare and complex case highlights the importance of ECG interpretation in diagnosing arrhythmias in post-transplant patients.

ID: 61
Fish, Seaweed and a Racing Heart - A Case of Iodine-Induced Thyrotoxicosis

Authors
Swathi Gurusamy (Presenting), Royal Hampshire County Hospital, Winchester, United Kingdom
Meenakshi Parsad, Royal Hampshire County Hospital, Winchester, United Kingdom

Abstract

A 38-year-old woman from an iodine-deficient country moved to the UK in 2023. Over the following year, she significantly increased her intake of iodine-rich foods, including daily consumption of fish and seaweed snacks. She presented to the Emergency Department with intermittent left-sided chest pain, palpitations, dizziness, and symptoms of thyrotoxicosis, including heat intolerance, anxiety, weight loss, poor concentration, and loose stools. Examination revealed moist palms and a fine tremor but no visible goitre. Initial thyroid function tests revealed suppressed TSH (0.015 mU/L) and elevated free T4 (26 pmol/L). TRAb was negative. ECG showed sinus rhythm. She was started on carbimazole 15 mg once daily and propranolol 10 mg once daily. On endocrine follow-up, a thyroid uptake scan showed smooth, homogeneous uptake with no nodularity. Her thyroid function stabilised on treatment, and she continued a tapering dose of carbimazole.

Discussion
This case highlights how essential it is to consider iodine-induced thyrotoxicosis, especially in patients who have recently moved from regions with low iodine availability. The absence of thyroid antibodies and the diffuse uptake pattern on scan supported a non-autoimmune aetiology. A very detailed dietary history was crucial for diagnosis. Identifying the dietary trigger early helped avoid more invasive treatments and allowed for resolution with just medical therapy.

Conclusion
Iodine-induced thyrotoxicosis should be considered in patients from iodine-deficient backgrounds presenting with thyrotoxic symptoms after dietary changes. Asking the right questions, running the right tests, and starting treatment early can make all the difference.

ID: 62
From Gut Feeling to Diagnosis – A Case of Jejunal Adenocarcinoma

Authors
Laiba Nabeel (Presenting), Dudley group NHS, Dudley, United Kingdom
Hasan Jan, Dudley group NHS, Dudley, United Kingdom
Areeba Asghar, Dudley group NHS, Dudley, United Kingdom
Jazba Yousaf, Dudley group NHS, Dudley, United Kingdom

Abstract

Introduction
Jejunal adenocarcinoma, a rare and often elusive malignancy of the small intestine, poses significant diagnostic challenges due to nonspecific gastrointestinal symptoms and its low incidence rate. Early detection is uncommon, contributing to high morbidity and poor overall survival. This case highlights the complexity of diagnosing and managing small bowel adenocarcinoma in a patient with multiple comorbidities and atypical presentation.

Case Presentation
A 69-year-old male with a background of hypertension, type II diabetes, and atrial fibrillation presented with a 2-week history of lower abdominal pain, nausea, and bilious vomiting. Initial examination and labs were inconclusive, and a working diagnosis of gastroparesis was made following an OGD revealing delayed gastric emptying and H. pylori infection. Despite eradication therapy and supportive measures, the patient experienced worsening symptoms, including weight loss of 38 kg in two months, malnutrition, and bowel motility issues. Imaging revealed progressive gastric and proximal small bowel distension with a transition point in the proximal jejunum. A diagnostic laparoscopy identified a tight benign-appearing jejunal stricture. Histopathology confirmed a poorly differentiated adenocarcinoma (pT4N2V1R0, microsatellite stable). The patient was referred for adjuvant FOLFOX chemotherapy due to high-risk stage III disease.

Discussion:
This case underscores the diagnostic difficulty posed by small bowel malignancies, especially in patients with overlapping functional GI disorders and comorbidities like diabetes. The late-stage diagnosis was the result of subtle and evolving radiologic signs, compounded by nonspecific clinical features. Management required a multidisciplinary approach involving gastroenterology, surgery, nutrition, and oncology teams. Histopathological analysis and MMR status testing were crucial in guiding prognosis and therapy. The patient's case illustrates the importance of considering small bowel neoplasia in unexplained gastric outlet-like syndromes and highlights the need for a structured diagnostic algorithm in such scenarios.

Conclusion:
Jejunal adenocarcinoma, although rare, should be considered in patients with persistent upper gastrointestinal symptoms unresponsive to standard therapy. Timely multidisciplinary collaboration, advanced imaging, surgical intervention, and histopathological confirmation are critical for diagnosis and optimal management.

ID: 64

Atlantoaxial Osteomyelitis Mimicking Neurological Disease: A Diagnostic Challenge in the Elderly

Authors

Areeba Asghar (Presenting), Dudley group NHS trust, Dudley, United Kingdom
Jazba Yousaf, Dudley group NHS trust, Dudley, United Kingdom
Laiba Nabeel, Dudley group NHS trust, Dudley, United Kingdom
Hasan Jan, Dudley group NHS trust, Dudley, United Kingdom

Abstract

Introduction
Persistent neck pain in elderly patients, especially when accompanied by systemic inflammation and non-specific neurological symptoms, can pose a significant diagnostic challenge. Early diagnosis is critical to prevent complications, yet initial presentations often mimic more common conditions such as meningitis or stroke. This case highlights the importance of considering rare causes, such as vertebral osteomyelitis at the C1-C2 level, in patients with atypical presentations.

Case Presentation
A 75-year-old independent woman presented with confusion, slurred speech for 2 days , low-grade fevers, and progressive neck pain for 2 weeks. Examination revealed grossly reduced neck mobility without meningeal signs. Initial investigations, including CT head, carotid doppler, and lumbar puncture, ruled out stroke and CNS infection. Despite initial antibiotic treatment for suspected meningitis, inflammatory markers (CRP and WBC) initially improved but later spiked again. Imaging revealed basal consolidation and pleural effusion, and antibiotics for community-acquired pneumonia were commenced. MRI of the cervical spine ultimately revealed bone marrow edema and enhancement at C1/C2, raising suspicion of osteomyelitis. Microbiology recommended treatment with IV flucloxacillin and rifampicin, later escalated to teicoplanin and sodium fusidate due to rising inflammatory markers. The patient responded well to medical management and was discharged on a 6-week antibiotic course, remaining asymptomatic on follow-up.

Discussion
Native vertebral osteomyelitis at the atlantoaxial joint is exceedingly rare and may present with subtle, non-specific features. In this case, the diagnosis was delayed due to overlapping symptoms with more common neurological and infectious diseases. Repeated imaging and multidisciplinary input from rheumatology, neurology, musculoskeletal radiology, microbiology, and spinal surgery were crucial. MRI proved pivotal in identifying the infective process when other investigations remained inconclusive. The decision to avoid biopsy or surgical intervention was made considering the anatomical risks and good response to medical therapy.

Conclusion
This case underscores the diagnostic complexity of vertebral osteomyelitis at C1-C2, particularly when initial tests are non-revealing. High clinical suspicion, early use of MRI, and collaborative multidisciplinary management are key to timely diagnosis and favorable outcomes. Persistent neck pain in elderly patients with systemic inflammation warrants thorough evaluation to avoid missed or delayed diagnoses.

ID: 65

Bilateral Thalamic Infarction Due to Artery of Percheron Occlusion: A Rare Stroke Presentation

Authors
Ayesha Farooq (Presenting), Sir Gangaram hospital, Lahore, Pakistan

Abstract

Introduction
Bilateral thalamic infarction is a rare stroke subtype that can present with non-specific neurological symptoms, making early diagnosis challenging. One uncommon cause is occlusion of the artery of Percheron, a single arterial variant supplying the paramedian thalami. Recognition of this pattern is important for timely diagnosis and management.

Case Presentation
A 62-year-old male with a history of hypertension and type 2 diabetes mellitus presented with sudden-onset confusion, drowsiness, and reduced responsiveness. On examination, his Glasgow Coma Scale (GCS) was 10. He exhibited vertical gaze palsy and mild dysarthria, with no motor or sensory deficits. An initial non-contrast CT brain was unremarkable. MRI of the brain showed bilateral paramedian thalamic infarcts. MR angiography revealed occlusion of the artery of Percheron. The patient was treated with antiplatelet therapy, statins, and supportive care. His level of consciousness and cognitive function gradually improved over the course of his hospital stay, and he was discharged with a follow-up plan for neurorehabilitation.

Discussion
The artery of Percheron is a rare anatomical variant that, when occluded, can lead to bilateral thalamic infarction. Clinical features may include altered mental status, memory impairment, and ocular movement abnormalities. These features can mimic other neurological or systemic conditions. CT scans may appear normal in the early stages, so MRI is the preferred imaging modality for diagnosis. Recognizing this stroke subtype is important, as early diagnosis can affect clinical management and rehabilitation planning.

Conclusion
This case highlights a rare but important cause of bilateral thalamic infarction. In patients presenting with unexplained decreased consciousness and normal CT findings, clinicians should consider vascular causes such as artery of Percheron infarction. Early use of MRI can facilitate diagnosis, guide treatment decisions, and improve patient’s outcomes

ID: 67
AUDIT on Using Experience-Based Design to Improve Patient Care

Authors
Zeeshan Arfeen, Royal Hampshire County hospital, Winchester, United Kingdom
Tehreem Sikander (Presenting), Royal Hampshire County hospital, Winchester, United Kingdom
Ajayi Oluwafehmi, Royal Hampshire County hospital, Winchester, United Kingdom
Mohammad Kabir, Royal Hampshire County hospital, Winchester, United Kingdom

Abstract

Introduction
In 2018, an experience-based design approach was used to explore the emotional journey of patients admitted to the frailty unit. The aim was to identify emotional touchpoints during admission and implement targeted changes to improve patient experience on elderly care wards.

The proposed changes included:

* Role redesign: Introduction of new roles such as housekeepers and volunteers to provide one-to-one companionship for patients. This aimed to reduce boredom, enhance patient activity, and support overall care delivery.

* Human factors training for staff: To improve communication and ensure patients remain well-informed and engaged in their care.

* Environmental redesign and improved night-time arrangements on the wards.

* Enhancing mealtime experience through the implementation of protected mealtimes.

Aim
To audit the impact of these implemented changes on patient experience, identify ongoing concerns, and improve overall patient satisfaction and service delivery.

Methodology
This was a retrospective study using an experience-based design framework to explore patients' expectations and emotional experiences during their hospital stay. Data were collected at multiple touchpoints using a survey designed for patients aged over 80 years who had been discharged from elderly care wards. Staff working on the same wards were also surveyed about their emotional experience at similar touchpoints.

Results
A total of 60 participants, including both patients and staff members, were enrolled. Emotional mapping was used at key touchpoints to compare and analyse experiences throughout the admission journey.

Patient emotional mapping showed a marked reduction in negative emotions at key stages:

* On admission: 7% unhappy, 70% happy

* During first assessment: 3.7% unhappy, 74% happy

* In communication: 3.7% unhappy, 70% happy

A significant improvement was noted in patients' feelings toward their treatment, with 85% expressing happiness and the remaining 15% expressing neutral emotions, rather than negative ones.

Among staff, the majority reported a positive working atmosphere. Notably, international medical graduates felt well supported by their colleagues and within the NHS environment.

Conclusions
The experience-based design approach made a meaningful contribution to improving the patient experience in elderly care wards. Implementation of targeted interventions led to measurable emotional improvements among patients.

ID: 69

ASSOCIATION OF HIGH BODY MASS INDEX AND FAMILY HISTORY WITH RAISED SERUM GLUCOSE IN POLYCYSTIC OVARIAN SYNDROME PATIENTS.

Authors
Momna Ahsan (Presenting), University Hospitals Birmingham, Birmingham, United Kingdom

Abstract

Introduction
This study aimed to evaluate the prevalence of hyperglycaemia among PCOS patients and its association with obesity and family history. Polycystic ovarian syndrome (PCOS) is a prevalent endocrine disorder in women of reproductive age, often associated with metabolic disturbances such as insulin resistance and hyperglycaemia. Obesity and genetic predisposition are considered contributing risk factors. Early detection of these metabolic abnormalities is crucial to prevent long-term complications such as type 2 diabetes mellitus (T2DM). This study aimed to evaluate the prevalence of hyperglycaemia among PCOS patients and its association with obesity and family history.

Methods
A descriptive cross-sectional study was conducted over six months (January–June 2017) in the Gynaecology Department of Government Sardar Begum Teaching Hospital, Sialkot, Pakistan. A total of 289 female patients aged 13–35 years with confirmed PCOS and a body mass index (BMI) greater than 23 were included. Patients with known diabetes, thyroid disorders, or other endocrine conditions were excluded. Data on age, BMI, fasting blood glucose levels, and family history of PCOS were collected. Descriptive statistics were used to analyze frequencies and percentages of relevant variables.

Results
The mean age of participants was 22.4 ± 4.2 years. The majority (n = 153; 52.9%) were in the 13–20 years age group. Hyperglycemia was identified in 86 patients (29.7%), with increasing prevalence observed in older age groups. Among the youngest group (13–20 years), 19 patients (12.4%) were hyperglycemic. Obesity was present in 167 participants (57.9%), and a positive family history of PCOS was reported by 119 (41.1%). Hyperglycemia was more prevalent among obese patients and those with a positive family history, suggesting a notable association.

Conclusion
Hyperglycaemia is a common metabolic complication among women with PCOS, particularly in those with obesity and a family history of the condition. These findings support the need for routine metabolic screening in PCOS patients, regardless of age. Early intervention through lifestyle modifications and appropriate medical management is essential to prevent progression to diabetes and other related complications.

ID: 71

Atypical Thunderclap Headache in a Young Adult: Early Recognition of Cerebral Venous Sinus Thrombosis in the Emergency Department

Authors
Pascal Ezekoye (Presenting), Epsom and St Helier Hospital, Carshalton, United Kingdom

Abstract

Introduction
Sudden-onset headaches in young adults presenting to the ED pose a diagnostic challenge, often mimicking benign conditions like migraines or cluster headaches. However, severe headaches with neurological signs warrant urgent evaluation for life-threatening conditions such as CVST. Timely recognition and diagnosis are essential to reduce morbidity and mortality. This case highlights the importance of clinical vigilance in assessing atypical headaches, even in young patients, and the role of timely imaging in managing such presentations.

Case Presentation
A 25-year-old male, Jack, presented to ED triage with a one-day history of sudden-onset, severe thunderclap headache, associated with ataxia, vomiting, photophobia, and blurred vision. Earlier he experienced milder, self-resolving headaches and had participated in a non-contact rugby game. PMH included SVT and ADHD, with no known thrombotic risk factors. Examination revealed significant distress with elevated blood pressure (153/100 mmHg), positive Romberg's test, and cerebellar signs. Initial management included analgesia, antiemetic, and an urgent non-contrast CT head, which revealed high attenuation and slight expansion of the straight sinus, suggestive of venous sinus thrombosis (VST). A subsequent CT venogram confirmed acute thrombus in the straight sinus, extending to the proximal transverse sinus. Despite challenges contacting the regional stroke team, thrombolysis was initiated after consultation with a stroke consultant, and the patient was transferred to a tertiary center for further management.

Discussion
This case underscores the diagnostic challenge in differentiating primary headache disorders from life-threatening secondary causes such as CVST, especially in young patients. The patient's initial presentation could have been misattributed to migraine, especially without trauma or risk factors. However, the triage nurse's concern and neurological findings prompted urgent imaging, pivotal in identifying VST. Delays in accessing stroke team support highlight systemic challenges in managing rare neurological emergencies in non-specialized centers. Early thrombolysis, guided by remote consultation, likely mitigated complications, emphasizing rapid decision-making in VST.

Conclusion
CVST should be considered in young patients with sudden, severe headaches and neurological deficits. Prompt clinical assessment, imaging, and multidisciplinary consultation are crucial for timely intervention. This case illustrates the importance of trusting clinical instincts and advocating for urgent evaluation in atypical presentations to optimize patient outcomes.

ID: 73

"Moving with no beating heart": - CPR-Induced Consciousness Awareness : An audit among LMIC Emergency Staff & a Case Series.

Authors
Nilanka Mudithakumara (Presenting), Post Graduate Institute of Medicine, University of Colombo, Colombo, Sri Lanka
WMCJB Wijayarathna, National Hospital Galle, Galle, Sri Lanka

Abstract

Introduction
Cardiopulmonary resuscitation (CPR) induced consciousness (CIC), is a rarely described phenomenon of some level of awareness & purposeful movements in patients undergoing high-quality chest compressions, hypothesized to involve cerebral perfusion. This presentation combines an audit of knowledge, attitudes, and practices (KAP) among emergency doctors and nurses in Sri Lanka with a case series of three unique instances of CIC occurring in middle-aged women.

Case Series Presentation
We present three cases of middle-aged women (aged 52, 55, and 62 years) who presented to the Emergency Department with VT cardiac arrest. The histories were suggesting acute myocardial infarction as the underlying causes, with other reversible causes of cardiac arrest been excluded. During active chest compressions, all patients exhibited clear signs of consciousness, including opening eyes, attempting to grasp with hands & fingers, purposeful upper limb and lower limb movements and head movements despite ongoing cardiac arrest. These movements were typically terminated with ceasing of CPR for the rhythm check. This transient consciousness prompted adjustments in resuscitation strategy to minimize patient distress.

Audit Methods
Audit data was gathered by a face-to-face interview of the emergency doctors and nurses in several teaching hospitals' Accident & Emergency departments in Sri Lanka to assess their KAP regarding CIC and analyzed with MS-EXCEL.

Results
Preliminary audit results (n=75 respondents) revealed that a majority (80%) were unaware of the concept of CPR-IC, and only 11% were capable of confident identification. Only 4% considered specific management strategies as considering analgesia/ sedation, beyond basic verbal reassurance. A majority of the candidates (60%) expressed anxiety about managing CIC and a desire for more training. Misconceptions included mistaking CIC for return of spontaneous circulation (ROSC) or considering it an indication to stop CPR.

Discussion
CPR induced consciousness in these three cases, particularly in VT cardiac arrest likely due to MI, offers valuable evidence in a resource limited context. This reinforces the rare but impactful phenomenon and the importance of recognizing CIC during resuscitation.

Conclusion
Critical balance between effective resuscitation & patient comfort and analgesia/ sedation and the deficiency of knowledge of the Emergency staff warrants further research.

ID: 74

A Case Report on BRASH Syndrome triggered by Hypovolaemia: A Challenging Diagnosis

Authors
Tamanna Jahan (Presenting), Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom
Chukwunonso Egwim, Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom
Rafat Shehata, Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom
Hesham Ibrahim, Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom

Abstract

Introduction
BRASH syndrome (Bradycardia, Renal failure, AV nodal blockade, Shock, and Hyperkalaemia) is a life-threatening but under-recognized clinical entity first described in 2016. It commonly affects elderly patients with multiple comorbidities—especially those on AV nodal-blocking medications (e.g., beta-blockers, ACE inhibitors, calcium channel blockers) and with underlying renal impairment. The syndrome is driven by a vicious, synergistic cycle where reduced renal perfusion leads to accumulation of AV nodal-blockers and potassium, causing worsening bradycardia and further renal failure.

Case presentation
An illustrative case involves an 85-year-old woman with chronic heart failure, diabetes, and kidney disease who presented with diarrhoea and vomiting. Her blood gas analysis showed severe high anion gap metabolic acidosis and her ECG confirmed bradycardia with atrial fibrillation. Her regular medications, including bisoprolol, lisinopril, and eplerenone, contributed to severe hypotension, metabolic acidosis, bradycardia, and renal failure. Despite aggressive treatment—including fluid resuscitation, drug discontinuation, antibiotics, and cardiac support—she died within 24 hours.

Discussion:
BRASH syndrome differs from isolated drug toxicity or hyperkalemia. Patients typically present with only moderate hyperkalemia but severe bradycardia due to the synergistic effect of AV nodal blockade and renal dysfunction. Dehydration or minor illness can trigger the cascade, especially in those with borderline kidney function.

Diagnosis is challenging due to its overlap with other conditions like sepsis, drug overdose, and electrolyte imbalances. Prompt recognition is critical, particularly in elderly patients presenting with disproportionate bradycardia.

Effective treatment requires a multifaceted approach: stopping AV nodal-blockers, correcting hyperkalemia (e.g., insulin/glucose, beta-agonists, dialysis), stabilizing cardiac membranes with IV calcium, managing acidosis with bicarbonate, and improving renal perfusion through fluid resuscitation. Bradycardia may require atropine, isoprenaline, or pacing. Early involvement of cardiology and nephrology is recommended.

Conclusion
With increasing prevalence due to aging and polypharmacy, awareness and early intervention are key to improving outcomes in BRASH syndrome.

ID: 76

Effectiveness of O-EDShOT in measuring clinical competency of Emergency Department residents in running Emergency Department shifts

Authors
Adeeb Alshammari (Presenting), King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia

Abstract

Objective
To assess the effectiveness of the Ottawa Emergency Department Shift Observation Tool (O-EDShOT) in evaluating emergency medicine (EM) residents' competence in managing ED shifts, compared to a traditional daily evaluation form (DEF).

Methods
This prospective observational study was conducted at King Faisal Specialist Hospital, Saudi Arabia, from August 2024 to February 2025. Emergency medicine residents were evaluated using either the O-EDShOT or the DEF, based on an odd/even calendar date schedule. Supervising consultants provided assessments and narrative feedback on resident strengths, areas for improvement, and professional behavior. Data analysis was performed using SPSS v26.0. The Mann-Whitney test and Common Language Effect Size were used to compare performance scores, with $p < 0.05$ considered statistically significant.

Results
The O-EDShOT tool showed that many residents required supervision in key domains, including patient assessment (40.2%), management (45.5%), documentation (43.4%), and departmental workflow (46.3%). However, 45.5% communicated effectively without supervision, and 95.8% demonstrated self-awareness of their clinical limits. Only 25.9% were deemed capable of independently managing a full ED shift. Positive feedback emphasized clinical skills (37.2%) and attitude (23.3%), while suggested improvements focused on medical knowledge (40.4%) and communication (35.6%).

The DEF yielded higher ratings overall: 73.7% of residents exceeded expectations in Medical Expert skills, and 87.5% received excellent scores for team communication. Senior residents showed strong leadership (79.0%), with a higher average DEF score (76.08) compared to O-EDShOT (69.30, $p < 0.001$). While consultants valued the structure of O-EDShOT, time constraints limited its widespread use. Among residents who used O-EDShOT, 47% received consultant feedback; of these, 39% gained insights, 33% addressed weaknesses, and 17% reported improved clinical practice.

Conclusion
Both tools are effective in assessing EM residents. O-EDShOT provides detailed, structured feedback but is less practical due to time demands. The DEF is easier to administer but may inflate performance ratings. Simplifying O-EDShOT and providing faculty training may improve its integration into daily ED practice

ID: 79

Improving Clinical Documentation in the Emergency Department: A Two-Cycle Quality Improvement Project

Authors

Maya Cuhls (Presenting), Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Mahmoud Alkhadragy, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Sarah Prince, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom
Andrew Brett, Dorset County Hospital NHS Foundation Trust, Dorchester, United Kingdom

Abstract

Introduction

Accurate and comprehensive clinical documentation is essential in emergency medicine where patients are often managed by multiple clinicians over a short period of time. It acts as direct communication with all team members and aids informed decision-making and legal protection. Concerns regarding traceability of events prompted us to evaluate and improve the documentation standard in the Emergency Department at Dorset County Hospital (UK).

Methods

A retrospective review of 30 randomised emergency department attendances over a six-week period (April–May 2024) was conducted. For the analysis we developed an assessment template with 23 documentation points across history, examination, and management. Items were scored as either present or rated on a scale from 1 (poor) to 5 (excellent). We implemented two Plan-Do-Study-Act intervention cycles. Cycle 1 (August- September 2024) involved sharing results and providing verbal guidance at our departmental clinical governance meeting and resident doctor teaching. Cycle 2 (April–May 2025) introduced visual reminders encouraging regular management updates and a documentation guide circulated via email. Post-intervention analysis included 30 and 40 randomised attendances for cycles 1 and 2, respectively.

Results

The documentation of core elements such as history and examination was consistently satisfactory throughout all three assessment rounds with all related subcategories scoring above 3 (adequate). An exception remained the social history which was documented in less than 50% of attendances throughout. This also applied to investigation results and treatments given with a mean average score of below 3 in each assessment round. The most significant change was observed in the documentation of updated management plans following the initial documentation. The average score in this category increased from 2.8 at baseline to above 3.8 following each consecutive cycle. Allergy documentation also improved notably, increasing from less than 50% at baseline to above 85% for the consequent assessments.

Conclusion

This project provided valuable insight into documentation practices in our department, confirming a strong baseline performance in history and examination with room for improvement particularly in the continued documentation. The interventions implemented led to measurable improvement in this area and ultimately traceability of events. Further work is needed to address the remaining gaps.

ID: 80
Haemophagocytic Lymphohistiocytosis- a case report

Authors
Tarek Raad (Presenting), HHFT, Winchester, United Kingdom

Abstract

Introduction
Haemophagocytic Lymphohistiocytosis (HLH) is a rare and severe hyperinflammation secondary to an uncontrolled overactivation of the immune system. It can be primary (hereditary) or secondary, acquired through bacterial or viral infections, malignancies or autoimmune conditions.

HLH is a life-threatening inflammatory syndrome where the immune system overactivations leads to pancytopenia and eventually multiorgan failure and death.

Clinical presentation can vary with a combination of pyrexia of unknown origin, organomegaly, anaemia, leukopenia, thrombocytopaenia, pancytopenia, raised inflammatory markers and extremely raised ferritin.

Case presentation
A 39 years old man previously fit and well, presented to A&E with three weeks history of fever and lethargy. He was found to have a high white cell count on admission with an elevated CRP of 300.

He was admitted and treated for pyrexia of unknown origin with intravenous antibiotics and fluids. No cause for his pyrexia was found. His HLH probability score was calculated, and he scored 210- very high probability for HLH. His ferritin was above 170,000. He was treated for HLH with steroids and chemotherapy. A bone marrow biopsy demonstrated evidence of haemophagocytosis.

Discussion
Early diagnosis of HLH is challenging due to its nonspecific presentation, often mimicking severe infections or sepsis. Hallmark laboratory findings include high ferritin, hypertriglyceridemia, hypofibrinogenemia, and hemophagocytosis in bone marrow or other tissues. The HScore and HLH-2004 criteria aid in diagnosis but are not definitive. Treatment focuses on immunosuppression (e.g., dexamethasone, etoposide) and addressing underlying triggers. Delay in therapy can lead to multiorgan failure and high mortality.

Conclusion
HLH requires a high index of suspicion, especially in patients with persistent fever and cytopenias unresponsive to antibiotics. Prompt recognition and intervention are essential to improve survival. Further research is needed to refine diagnostic criteria and optimize targeted therapies.