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### **Key Words**

Heat stroke, sauna, multi-organ failure, liver failure, DIC

### **Abstract**

Sauna bathing is often considered safe and beneficial for health; however, it may pose risks, particularly in high-risk individuals. We report a rare case of heat stroke in a previously healthy 69-year-old male following prolonged sauna exposure. Emergency services found the patient comatose with a core temperature of 41°C, hypotension, tachycardia, and tachypnoea. Despite aggressive resuscitation and intensive care, he developed multiorgan failure, including acute liver failure, disseminated intravascular coagulation (DIC), and refractory shock, and passed away on day four of ICU admission. This case highlights the severe consequences of non-exertional heat stroke and the importance of caution for high-risk individuals.

#### Introduction

Sauna bathing, while therapeutic for many, can be dangerous for individuals with cardiovascular or renal conditions. Heat stroke is a severe condition caused by prolonged exposure to high temperatures, leading to systemic dysfunction. The diagnosis is clinical, with core temperature exceeding 40.5°C and signs of central nervous system impairment. Early cooling and hydration are critical, but severe cases may result in multi-organ failure and death.

### Therapeutic Relaxation with Potentially Fatal Consequences: A Case of Non-Exertional Heat Stroke in a Sauna

, Yasir Bangash, Zeenat Khuda Bakhsh , Azhar Ali Anesthesia Department, St James Hospital Dublin

#### Results

A 69-year-old male with no significant medical history was found unconscious in a sauna, with a GCS score of 7/15 and a core temperature of 41°C. Despite initial resuscitation and cooling, he remained comatose upon ED arrival. Laboratory tests revealed acute kidney injury, myocardial injury, and severe coagulopathy. He was admitted to ICU, where liver failure and DIC developed, despite intensive care. The patient succumbed to multiorgan failure on day four.

### Discussion

Heat stroke is a life-threatening condition that requires prompt treatment. Sauna-induced heat stroke can lead to severe complications, including liver failure and DIC. The prognosis depends on early intervention, and in this case, aggressive management could not prevent death.





### Summary of cases of heat stroke due to sauna from the literature review

Year	Authors	Diagnosis	Management	Outcome
2012	E Erarslan et al [3]	MOD due to non- exertional heat stroke due to sauna	Supportive management	Death
2014	KJ Chen et al [2]	Acute liver failure due to non-exertional heat stroke due to sauna	Supportive management with high-volume plasma exchange.	Survived without complications
2017	Yan Zhuang et al [4]	Multiple organ dysfunction due to heat stroke after sauna: Case report and review of literature	Supportive management	Survived without complications
2017	Sandra Coenen et al [5]	Liver Transplantation for non-exertional heat stroke-related acute liver failure	Liver Transplantation	Survived without complications
2018	Martins, Paulo N.A. et al [6]	Heat stroke as a cause of liver failure and evaluation of Liver transplant	Liver Transplantation     Supportive management	Survived without complications
2023	Nothnagel AM et al [7]	Death after Sauna Visit Case Report of Heat Stroke Associated with COVID-19	Supportive management	Death

### Conclusion

Sauna bathing, while generally safe, poses a significant risk to vulnerable individuals, such as the elderly and those with cardiovascular risk factors. Awareness of these risks is critical to prevent fatal outcomes.

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### **IEMTA Annual Scientific Meeting, 2025**



## Motorcycle Accident Resulting in a Kaleidoscope of Neurological Disorders Culminating in a Post-Traumatic Guillain-Barré Syndrome: A Case Report.

Lait E, Al Attas W, Judge G, Comer C, Mullane G, Llamas Y, O'Connor G, Phillips L.

#### Introduction

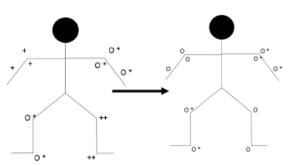
Guillain-Barré Syndrome (GBS) is an acute, rapidly progressing polyneuropathy affecting the peripheral nervous system, often triggered by infection. It can cause muscle weakness, sensory abnormalities, and respiratory failure. Trauma and surgery are rare triggers. This report presents a case of post-traumatic GBS.

#### **Case Presentation**

A 26-year-old male, post-motorcycle accident, sustained multiple injuries including a left-sided brachial plexus injury and upper limb nerve contusions. Eleven days post-injury he developed upper limb weakness and bulbar signs. Imaging revealed a left internal carotid artery dissection.

Fourteen days post-injury, he exhibited bilateral ascending paralysis with absent reflexes, necessitating intubation and ICU admission. MRI showed enhancement of the cauda equina nerve roots, and cerebrospinal fluid analysis was consistent with GBS. He was treated with intravenous immunoglobulin (IVIG) and plasma exchange.

### Clinical Deterioration Picture e



MRI Lumbar spine showing enhancement of CES nerve roots



#### Outcome

The patient responded well to treatment. Following one failed extubation attempt, he was successfully weaned off mechanical ventilation and regained neurological strength.

### **Learning Points**

- Trauma management is complex and benefits from a multidisciplinary team (MDT) approach.
- New weakness post-trauma and carotid artery dissection should prompt comprehensive assessment, ruling out spinal cord injury and vascular causes.
- Post traumatic GBS is increasingly recognised in the case of acute trauma (including surgery)
- Diagnosis can be frequently delayed in the acute ICU setting
- · Differentiating post-traumatic from post-surgical GBS is difficult due to overlapping timelines.
- Earlier recognition and MDT inpurt can lead to prompt treatment and better patient outcomes

#### Conclusion

Timely recognition and treatment of post-traumatic complications, including neurological disorders, are key to favorable outcomes. Although rare, post-traumatic GBS is treatable, and MDT involvement is critical for early detection and effective management.

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### **Necrotising Fasciitis in Blunt Trauma**

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### Introduction

Necrotising fasciitis describes a progressive, fulminant bacterial infection of subcutaneous tissue, that spreads rapidly through the fascial planes and causes extensive tissue necrosis and destruction<sup>1</sup>. Presentation of soft tissue infection and tenderness beyond the erythematous border, pain out of proportion, and crepitus should raise suspicion. Patients progress rapidly and quickly develop systemic septic signs<sup>2</sup>. Despite improved recognition, morbidity remains high and mortality rates range between 30-70% <sup>3</sup>.

### Case Report

A 43-year-old female presented three days after a Road Traffic Collision with severe right elbow pain and vomiting. She appeared systemically unwell - with tachycardia and pyrexia (P:140, Temp:38°C) although blood pressure was maintained (BP125/92). Her right elbow was swollen, erythematous with positive calor but no visible wounds were noted. Xray showed no gas formation. Infective markers were elevated (WCC:18.05, CRP:185), and she was admitted for IV antibiotics. Blood cultures flagged positive at <1 day and subsequently grew Streptococcus pyogenes (Group A), sensitive to penicillin. She underwent debridement the next day after admission and tissue cultures from the forearm and the triceps grew Group A Streptococcus (GAS) within one day.

### Discussion

Necrotising fasciitis often develops from Group A Streptococcus, but it can be classified into four different types<sup>4</sup>.

Туре	Microrganism	Assocoiations
1	Polymicrobial	Immunocompromise, Diabetes, Peripheral vascular disease
11	Monomicrobial - Group A streptococcus	History of trauma or surgery
III	Vibrio Vulnificus	Marine exposure
IV	Fungal	Immunocompromise

Table1: Classification of Necrotising Fascitiis

#### Discussion

The Laboratory Risk Indicator for Necrotizing Fasciitis (LRINEC) is a tool to help distinguish necrotising fasciitis from other soft tissue infections and uses laboratory tests e.g. CRP, white cell count, creatinine, haemoglobin, sodium and glucose. The six criteria are then scored from 0 - 4. The maximum score is 13 and scores are classified into three groups - low risk <5 (<50% risk of necrotising fasciitis), moderate risk 6-7 (50-75% risk of necrotising fasciitis) and high risk (>75% risk of necrotising fasciitis)<sup>5</sup>.

A score of  $\geq$ 6 has a positive predictive value of 34.9%, where the negative predictive value is  $89.99\%^{6}$ . This means that the LRINEC is better at ruling out necrotising fasciitis than it is at ruling it in. The LRINEC score is still used to aid diagnosis; however, it does not supersede clinical judgement, and it is important to note patients may present early and may not have systemically deranged laboratory values yet<sup>4</sup> - as in this case the LRINEC score was 5 - indicating low risk.

In 2018, 136 cases of invasive Group A Streptococcal disease was notified to the Health Protection Surveillance Centre in Ireland - 80% were isolated from blood cultures, 7% from joint fluid, 7% from bone and soft tissue and 6% from abscesses<sup>7</sup>. In patients without a site of entry, as in this case, it is postulated that GAS is likely spread via transient bacteraemia from the oropharynx to the site of trauma<sup>3,8</sup>. The molecular mechanism for this may be explained by the upregulation of vimentin after severe blunt trauma, which is the primary skeletal-muscle surface protein that binds to GAS<sup>3</sup>.

### Conclusion

The mainstay of management remains aggressive surgical debridement and antibiotics. In septic shock, surgery postponed for more than 14 hours after diagnosis increases the risk of mortality by a factor of 34<sup>9</sup>. After clearance, muscle and skin grafts, vacuum-assisted closure, and hyperbaric oxygen therapy may be considered<sup>9</sup>.





### Stump Appendicitis

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### Introduction

Stump appendicitis is recurrent inflammation of residual appendiceal tissue after removal. It is a rare complication with an occurrence rate of 0.15%1. Presentation is similar to appendicitis with symptoms including right iliac fossa pain, fever, anorexia, nausea and vomiting but occasionally, presentation may be atypical. It may occur any time from 9 weeks to 50 years post appendicectomy<sup>2</sup>.

### Case Report

A 78-year-old female presented with right lower abdominal pain, which was a dull ache and intermittent in nature. She had two episodes of loose stool and reported no nausea or vomiting. She had an appendicectomy 11 years prior which was complicated by a peri-caecal collection. She also has a past medical history of haemolytic anaemia. Her abdomen was soft with right iliac fossa tenderness, but no guarding was present. She had an Alvarado score of 2 and her bloods were within normal range (except for the explained anaemia) and urine dipstick was negative.

wcc	7.30
Neut	4.53
НВ	9.5
PLT	297
CRP	8.60
Amylase	61

Table 1: Blood Results

RLQ tenderness	2
Elevated Temperature	0
Rebound Tenderness	0
Migration of pain	0
Abnorexia	0
Nausea/ vomiting	0
Leukocytosis	0
Leukocyte shift	0

Table 2: Alvarado Score

Her subsequent CT showed a blind-ending tubular structure arising from the caecal pole which demonstrates circumferential mural thickening and oedema. Surrounding mild fat stranding and trace free fluid. No drainable collection. This was in keeping with acute stump appendicitis.

She was admitted for IV Co-amoxiclav and was discharged home after three days.

#### Discussion

There have only been a total of 60 cases of stump appendicitis in literature<sup>3</sup>. The most frequent obstacle is a delay in diagnosis. This leads to complications such as perforation, peritonitis and stump gangrene. Causes for stump appendicitis include the position of the appendix - retrocaecal or subserosa, inadequate dissection during removal for fear of caecal injury and poor visualization of the appendiceal base due to inflammation.

#### Discussion

There is also a notion that laparoscopic removal increases the risk of a remaining stump, but a literature review reported that 66% of stump appendicitis cases were after open removal<sup>4</sup>.

The delay in diagnosis may be attributed to decreased awareness or a disregard for the probability of stump appendicitis. Patients have a history of previous appendicectomy and therefore other diagnoses are usually ruled out first. They may also present atypically<sup>5</sup> and there may be a lack of confidence in the diagnosis because of its rare occurrence.

Imaging plays an important role in assisting diagnosis, ultrasound and CT can be utilized. With ultrasound, the remnant appendix is detected as a tube extending from the right iliac fossa or retrocaecal region to the caecum. In an abdominal CT, there is inflammation in the peri-caecal region, abscesses, thickening of the caecum and terminal ileum and free fluid at the peri-caecal and paracolic region<sup>6</sup>.

Treatment can be divided into conservative which involves antibiotics only and invasive, which includes antibiotics and surgery, either open or laparoscopic - which is the definitive treatment.

### Conclusion

To avoid related morbidity and mortality, it is important to consider stump appendicitis as part of the differential diagnosis, to remember clinical examination is paramount and to utilize adjuncts such as radiology.

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# Pregnancy testing in women of child-bearing age presenting with abdominal pain to the Emergency Department

Midland Regional Hospital Tullamore

Buskes J, McMackin E.

### Introduction

Abdominal pain is a common complaint in the Emergency Department and there are many differential diagnoses. Adjuncts to the clinical examination are there to assist and to narrow down the possibilities which includes a point of care urine pregnancy test.

Prior knowledge of whether a patient is pregnant can minimize the possibilities of acute abdominal pain and allow focus on potentially life-threatening causes, such as a ruptured ectopic pregnancy<sup>1</sup>. It also prevents harm from administration of teratogenic drugs and unnecessary radiation exposure. Menstrual dates are inadequate to rule out pregnancy and some who present with non-specific abdominal pain may not be aware of their pregnancy<sup>2</sup>.

NICE Guidelines state women of child-bearing age that present with abdominal pain should have a pregnancy test performed<sup>3</sup>.

### Objectives

The aim of this audit is to determine whether a pregnancy test is being performed in every woman of child-bearing age who presents to Midlands Regional Hospital Tullamore Emergency Department with abdominal pain.

### Methodology

This audit was performed in September 2023 and included a sample of fifty women of different child- bearing ages. A reaudit was done in January 2024. Child- bearing age was taken as 13 - 55 years old. A sample of fifty patients were randomly chosen from a list generated by the IPIMS system where the presenting complaint was abdominal pain, and the notes were retrospectively evaluated to determine whether a pregnancy test was performed. A PowerPoint presentation was utilized, and placards placed in triage, doctors' area and at every urine dipstick station to increase awareness.

### Results

The results illustrate 60% and 70% of patients were tested for pregnancy in the audit and reaudit respectively. There was a 10% improvement.

### Discussion

The ability to fulfil such a simple guideline is often impeded by external factors including - busy emergency departments, lack of staff, having to wait for a urine sample and having a preconceived diagnosis before having all the results. It is important to remember the repercussions for misdiagnosing a ruptured ectopic pregnancy can include litigation, negligence claims, and most importantly loss of life.

During this audit, a major barrier was that the urine dipstick and βhCG machines were not in the same location. It is easier to do both tests together when the machines are located next to one another, it saves time and effort. Placards and verbal communication are easy and effective ways to remind staff of this point of care test.

### Conclusions

βhCG is an important test in women of child- bearing age presenting with abdominal pain, with continuous education and awareness training we can improve our compliance for the safety of our patients.

# Abdominal pain? Age 13 – 55 woman? THINK Urine dipstick AND Urine hCG

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### When Exercise Turns Deadly: A Case of Spontanous Coronary Artery Dissection in the setting of intense exercise

<sup>1</sup>Fitzpatrick L., <sup>1</sup>Kelly M., <sup>1</sup>Gorman, Á., <sup>1</sup>Mohammad, A., <sup>1</sup>O'Rourke K.P. <sup>1</sup>Department of Rheumatology and General Internal Medicine, Midland Regional Hospital, Tullamore, Co. Offaly, Ireland.

#### Background:

Spontaneous coronary artery dissection (SCAD) is a rare but critical cause of acute coronary syndrome (ACS), with an incidence of 0.1–4%.1 Approximately 75% SCAD cases are diagnosed postmortem, highlighting its associated nature.<sup>2</sup> SCAD is commonly associated with fibromuscular dysplasia, peripartum states. inflammatory/connective tissue disorders.3 Intense exercise is a rare but recognised trigger,4 even rarer in an individual without known cardiovascular risk factors.5

This case report describes a 51-year-old gentleman with a history of non-erosive psoriatic arthritis and no prior cardiovascular risk factors other than an elevated BMI (36.5 kg/m²), who suffered a SCAD associated with intense exercise

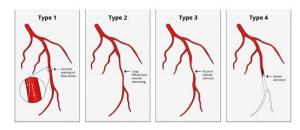


Figure 1: Classification of coronary artery dissections (Types 1–4) based on angiographic appearance. Type 1 shows contrast staining of a false lumen; Type 2 presents with long, smooth, diffuse narrowing; Type 3 mimics focal or tubular stenosis; Type 4 demonstrates complete vessel occlusion.

### Aims/Objectives:

To highlight the association between SCAD and intense physical exercise, and emphasise the importance of recognising SCAD as a potential cause of exercise-related ACS, even in younger individuals without prior cardiovascular disease

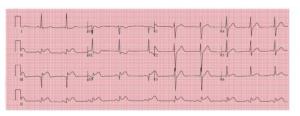


Figure 2: Figure 2: ECG demonstrating ST-segment elevation in the inferior leads (II, III, aVF), consistent with an acute inferior myocardial infarction—reflecting the presentation seen in this case."

#### Methods:

Previously sedentary with no intensive exercise, the patient began high-intensity interval training (HIIT), and attended six classes prior to the event. During a stretching exercise involving left shoulder hyperextension, he developed sudden, severe left shoulder pain radiating to the left jaw. His systolic blood pressure was recorded at >170 mmHg. He was advised by an out-of-hours GP to attend the emergency department, leading to referral for urgent coronary angiography.

#### Results:

ECG showed 1mm inferior ST elevation with reciprocal anterior ST depression. Troponin levels rising from 26 to 2045. Coronary angiogram revealed diffuse, non-obstructive, moderate RCA disease with mid-paravalvular leak and funneling consistent with SCAD. The patient was managed conservatively according to standard protocol.

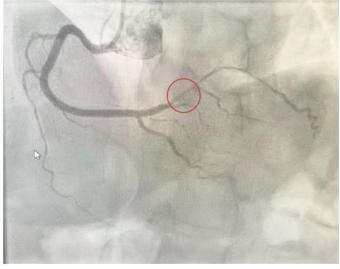


Figure 3: Coronary angiogram from the patient in this case, demonstrating diffuse, non-obstructive moderate right coronary artery (RCA) disease with midparavalvular leak and vessel funneling—angiographic features consistent with spontaneous coronary artery dissection (SCAD).

#### Conclusion:

This case underscores the importance of considering SCAD in ACS presentations, particularly related to exercise. The 2020 ESC sports cardiology guideline highlight SCAD as a cause of exercise-related myocardial infarction and sudden cardiac death,<sup>6</sup> reinforcing the need for heightened awareness and appropriate management for these individuals.

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### THE MATER A rare case of Odontoid pseudotumour and brainstem trauma

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Trauma Service and Trauma General Surgery, Mater Misericordiae University Hospital



### Introduction

IEMTA ASM, 10th May 2025

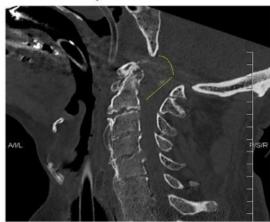
An Odontoid pseudotumor or pannus is a posterior mass seen in inflammatory and non-inflammatory conditions causing atlanto-axial instability (1)

- The atlanto-axial instability causes chronic mechanical stress and degeneration on the transverse ligament which leads to reactive fibrocartilaginous tissue to form, resulting in a pseudotumor(2-4).
- The incidence is unknown, with an 11- year retrospective cohort study of atlanto-axial instability fixation, reporting a 23% incidence of Odontoid Pseudotumour (5).

Trauma is the most common cause of spinal cord haemorrhage, spontaneous causes include anti-coagulation, bleeding or arteriovenous malformation(6). Both conditions present with myelopathy and there have been a few cases where these two conditions coincide (7).

### Fig 1 CT Findings:

CT showing odontoid mass and degeneration with posterior pseudotumour



### Case report

A 78-year-old male was brought in by ambulance to the Emergency Department after an unwitnessed collapse and fall down an unknown number of stairs. He was found in a cardiac arrest, received prehospital cardiopulmonary resuscitation (CPR) resulting in sustained Return of Spontaneous Circulation (ROSC) in under 10 minutes.

His past medical history included: Atrial fibrillation on Apixaban, Mitral and Tricuspid valve repair, Sick Sinus syndrome with Permanent Pacemaker (PPM), and increased frequency of falls in last 1- 2 years.

Examination on arrival to the Emergency Department:

- Airway and breathing: Apnoeic, requiring emergent intubation
- Circulation: Bradycardia with intermittent pacing from appropriately functional PPM, and hypotensive requiring vasopressors to maintain neuroprotective Mean arterial pressure (MAP).
- Initial CT trauma series imaging revealed a small acute right intraventricular haemorrhage, degenerative change at the atlantoaxial joint, reduced arch-dens interval and an ill-defined mass lesion posterior to the odontoid process, likely representing a pseudotumor (Figure 1).

His Apixaban was reversed, and he was admitted to the Intensive Care Unit, with ongoing neuroprotective measures, awaiting an MRI. Re-examination 16 hours post injury, showed complete motor and sensory deficit of all limbs with no cough reflex, but intact pupil reaction. Relevant MRI imaging is shown in Figure 2.

### Conclusion

- ullet Falls are the second leading cause of unintentional injury deaths worldwide (8).
- Identifying the cause of falls in older adults requires multidisciplinary input and may be multifactorial.
- Broader knowledge of Odontoid pseudotumours, their symptoms and potential traumatic sequelae will help healthcare professionals involved in their care.

References:

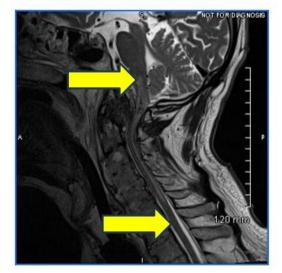


### Discussion

- The simultaneous presentation of an odontoid pseudotumor in the context of trauma, complicated by intramedullary hematoma is exceeding rare.
- The intramedullary hemorrhage and brainstem compression were caused by a combination of his injury, pre-existing odontoid pannus, and concurrent anticoagulation therapy.
- Following multidisciplinary input and discussion with his family members and consistent with his pre-expressed wishes, life sustaining therapy was withdrawn.

### Fig 2 MRI Findings:

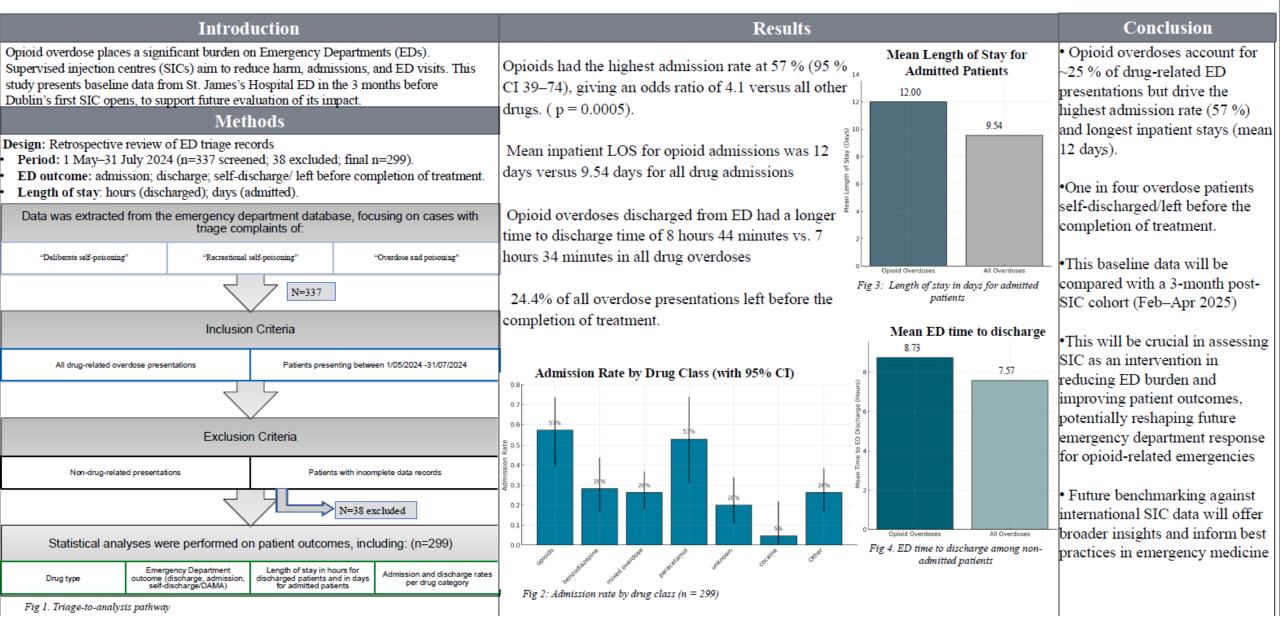
Cranio-cervical injury with disruption of the apical and tectal ligaments at the cranio-cervical junction, resulting in severe brainstem compression. Intraparenchymal haemorrhage present within the medulla, extending from the level of the pons to C6 (as shown)



### Opioid Overdose Presentations to St. James's Hospital ED: A Baseline Study Prior to the Opening of Dublin's Supervised Injection Centre

Authors: Dr. Michelle O'Dwyer, Dr. Tom Brennan

Affiliation: Emergency Department, St James's Hospital, Dublin, Ireland



### Retrospective review and Cost-Based Analysis of Electric scooter (e-scooter) injuries presenting to an Irish Hospital

Thomas Suttie<sup>1</sup>, Oisín Tyrrell<sup>1</sup>, Aoife O'Halloran<sup>2</sup>, Andrew Ngaditono<sup>1</sup>, Ciara Fox<sup>2</sup>

- 1 Department of Emergency Medicine, Connolly Hospital Blanchardstown, Dublin, Ireland
- 2 Department of Trauma and Orthopaedics, Connolly Hospital Blanchardstown, Dublin, Ireland

#### **Aims**

Electric scooter (E-Scooter) usage in Ireland has accelerated significantly in the last several years, and legislation allowing easier access to its usage has accelerated this growth.3,8 Our research group first published the number of presentations to our suburban emergency department relating to E-Scooter trauma in 2021 and recently published an update with these figures having more than tripled in a two-year period. 4,5 This research sought to investigate the financial impact of these presentations to our hospital, and the health service 4,5

#### Methods

Our research group in a 407-bed, Model III, suburban hospital in County Dublin has published two analyses for the years 2021 and 2023 and has seen over triple the number of e-scooter injuries (22 in 2021 to 76 in 2023) presenting to the emergency department.

Using the previously conducted retrospective analysis from the period 2023, we gathered data on the cost of emergency department attendances, admissions to an acute care hospital, radiologic investigations, theatre operating costs, and outpatient attendances. We compiled this data and compared our group of 76 patients against these costs to determine in a singular year what these presentations cost the health service.

#### Results

This analysis saw 76 emergency department attendances relating to e-scooter injuries over a 12month period at an inclusive cost of €464, meaning the total cost of emergency department attendances was €35,264.18

Whilst in the emergency department 29 patients required joint/limb immobilisation with requiring 14 patients requiring backslab application. 14 patients required wound closure of which 8 required suturing. 4 patients required procedural sedation in the emergency department which requires at least two doctors (one senior) and at least one nurse. Even if the patients went on to be discharged following that attendance the number of procedures undertaken by emergency medicine doctors was onerous.

34 of the 76 patients presenting to ED with e-scooter related trauma sustained a fracture which required orthopaedic follow-up. The average cost of a HSE outpatient appointment is €220.18 There were 93 appointments with the total cost of these at €17,380.18

Of the 13 patients who required orthopedic admission for surgical intervention for e-scooter related trauma, the length of stay ranged from 1 bed day - 23 bed days in hospital with a mean length of stay as 2 bed days. The average inclusive cost of an inpatient bed is cited as €1,260 meaning there was an average cost of admission of €2,520 per patient, and a total cost of €75,600 for admission of all patients. 18



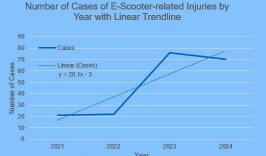
#### Discussion

The inclusive total cost for e-scooter injuries presenting to a Model III, Dublin City hospital in 2023 was over €125,000. If these injuries continue to increase year on year, the economic costs of treating e-scooter-related trauma will also increase. Our figures likely represent only a small fraction of all the e-scooter related trauma presenting to Dublin area hospitals. Within Dublin, there are five Model IV hospitals included, three of which receive trauma patients from the city center directly and would have an increased patient volume in comparison to our Model III hospital. A recent study from a Dublin City, Model IV hospital found 105 patients in a one-year period presenting with e-scooter injuries. With this figure it could be projected that Dublin County hospitals incur over €1,000,000 annually if each patient presentation on average costs €1,726.17

Thirteen patients (17%) of our cohort required hospital admission. Over sixty bed days for one year were used to care for patients with e-scooter injuries.<sup>19</sup> Bed availability is a finite resource in each hospital. This is an additional burden to the health service as a result of e-scooter-related injuries

#### Conclusion

The average cost per patient to the Irish health system presenting with an e-scooter related injury was €1,726. This figure sits around the same as previous studies in the United Kingdom around £1,000/episode (Ahluwalia et al) and £3347/patient undergoing operative intervention (Antonik et al). 15,16



The cost overall both in monetary value as well as resource expenditure remains high and due to the growing incidence of e-scooter injuries and the burden placed on secondary and tertiary care will likely remain high. The risk and frequency of serious injury with e-scooter injuries is low, however the injuries that do happen often require treatment in secondary care. 15

Despite legislation existing in Ireland surrounding the usage of e-scooters, their usage remains largely unregulated and with no formal requirements in place for safety equipment to be used remains a grave danger.4,5,8

E-scooters, despite attempts worldwide to cull their numbers, are likely here to stay and mitigation of risk and healthcare costs likely represents the best way forward. Injuries as a result of e-scooter use represent a significant economic burden on the health service. Preventative measures such as requirement of helmet usage, and enforcement of speed limits will all help to decrease the incidence of injuries and the cost on the health system.3

### Roig-Costa O. Miralles-Guasch C. Marquet O. Disrupte

 Examining adaptation strategies to public fer bans in Barcelona. International Journal of 8. Ahlu le Transportation. 2024;18(12):1072-85. PS, et al. The e-scooter pandemic at a UK Major Trauma Centre: A cost-based cohort a

Rigney B, Mahony R, Quinlan JF, McGoldrick N. A one year ysis of e-scooter injuries: more than half require specialist 1 follow-up. Ir Med J. 2024 Nov-Dec;117(10):1050. O'Halloran A. Tyrell O. Correia P. Fox C. An analysis of e-

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### Massive Intra-Peritoneal Haemorrhagic Free-Fluid Manifesting as Rectangular Pseudo-Bladder on eFAST



IEMTA ASM, 2025

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- 1. Emergency Department, Mater University Hospital
- 2. Inpatient Trauma Service, Mater University Hospital

### Introduction

Focused Assessment with Sonography in Trauma (FAST) is widely accepted as first-line in detecting intra-abdominal free fluid secondary to trauma and therefore helps prioritise management. The conventional areas observed to detect intraperitoneal free fluid following trauma include the hepato-renal interface (Morison's pouch), peri-splenic space, pericardium, and the pelvis. In the context of abdominal trauma, fluid or blood is indicated by the presence of black anechoic collections.

We report a case where high grade splenic and liver lacerations resulted in pelvic free-fluid that initially had the appearance of a standard transverse view of axial bladder.

### **Case Presentation**

A 16-year-old lady presented with blunt trauma to the torso. She was a restrained rear-seat occupant in a high-speed motor-vehicle accident. On presentation, her haemodynamic vital signs were indicative of early haemorrhagic shock. She exhibited congruent tenderness to her torso. Interventions included copious blood product resuscitation as well as urinary catheterisation.

On initial transverse imaging of the pelvis (Fig. 1), fluid was seen in a pattern consistent with a rectangular bladder. Transition to longitudinal sagittal images clarified that this was, in fact, free fluid sitting atop a catheterised empty bladder (Fig. 2). CT imaging demonstrated copious free fluid.

### **Imaging**

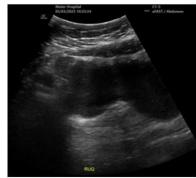


Fig. 1: Transverse View of bladder



Fig. 2: Longitudinal View of bladder

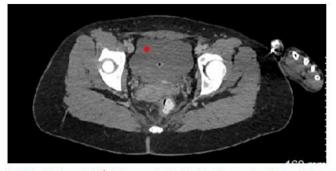


Fig. 3: Axial CT with free fluid\*sitting cephalad to bladder and catheter balloon visible



Fig. 4: Axial CT with urine flow in to catheterized bladder contrasted posterior to free fluid

### **Discussion**

Sonographic haemoperitoneum is a well-recognised sentinel finding in eFAST. This confounder of pelvic free fluid manifesting as a rectangular collection sitting cephalad to a catheterised bladder has not been described previously.

This highlights the importance of obtaining multiple views and fanning through pelvic structures (Fig 5).

### Conclusion

As trauma systems and knowledge evolve, more nuanced decision-making will become more mainstream regarding the management of complex cases such as this. Multiple information inputs will potentially contribute in such cases of non-compressible torso haemorrhage.



### Subxiphoid Pericardial Window Obscured by Grade 3 Hepatic Laceration in Segment 2



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Emergency Department, Mater Misericordiae University Hospital.

IEMTA Annual Scientific Meeting, 2025

### Background

- Focused Assessment with Sonography in Trauma (FAST) is widely used as a critical adjunct in the management of major trauma.
- Standard imaging includes the hepatorenal interface (Morison's pouch), Perisplenic space, Pericardium, and Pelvis, with extended FAST (eFAST) incorporating lung views.
- Increasingly in modern practice, more experienced operators supplement FAST subxiphoid cardiac views (Figure 1) with parasternal long axis (PLAX), parasternal short axis (PSAX), and apical four chamber views (A4C) (Figure 2).

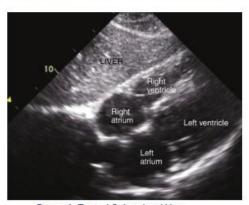


Figure 1: Typical Subxiphoid View

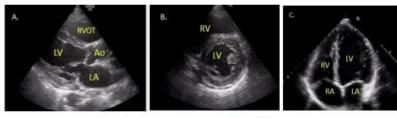


Figure 2: Supplemental cardiac ECHO views

### Case

- Following a high-speed motor vehicle accident with a rapid acceleration deceleration component, a 16-year-old lady presented with haemorrhagic shock consequent to blunt torso trauma.
- Her injury pattern included a Grade 3 Liver laceration to Segment 2 – see Figure 3 for illustrative purposes.
- This Liver laceration prevented or obscured conventional FAST cardiac visualisation with a subxiphoid approach (Figure 4).

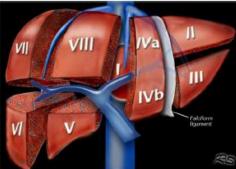


Figure 3 - Illustrative view of Segments of Liver



Figure 4 – Subxiphoid View with pericardial window obscured

### **Investigation Findings**

- When two experienced operators (GOC & CC) were unable to secure conventional views, alternate views (PLAX and PSAX) were immediately expedited (and excluded a haemodynamically significant pericardial injury).
- Abdominal CT and a gated CT aortogram were prioritised.
- Combination of Grade 4 splenic laceration and Grade 3 hepatic laceration (see Fig. 5) were ultimately managed non-operatively.

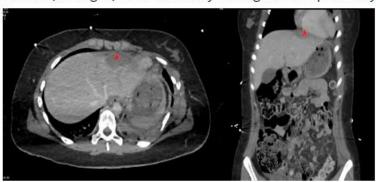


Figure 5 – Computed Tomography Axial and Coronal views demonstrating Grade 3 hepatic laceration in Segment 2 \*

### Importance of Alternatives to Subxiphoid Views

- This demonstrates importance of adapting sonographic techniques in trauma to optimize clinical decision-making.
- Expanding this knowledge base is essential for improving trauma care.

### Conclusion

Flexible and expert sonographic techniques are key in major trauma management.

Comprehensive ultrasound training for key members of the trauma team facilitates informed decision-making in time critical situations.

### Audit of Glasgow-Blatchford score in evaluation of UGI bleeds in the Emergency Department

Dr Arnav Singh, Dr Thomas Moore, St James Hospital

Upper GI bleeds present with varying treatment needs, from urgent interventions to outpatient management. Appropriate evaluation, including the Glasgow-Blatchford Score (GBS), is essential for risk mitigation. This audit evaluates the documentation and use of GBS as per NICE guidelines in St James' Emergency Department.

### Acute upper gastrointestinal bleeding in over 16s: management

1.1.1

Use the following formal risk assessment scores for all patients with acute upper gastrointestinal bleeding:

the Blatchford score at first assessment 1.1.2

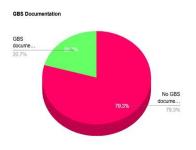
Consider early discharge for patients with a pre-endoscopy Blatchford score of 0.

1.3.1

Offer endoscopy to unstable patients with severe acute upper gastrointestinal bleeding immediately after resuscitation.

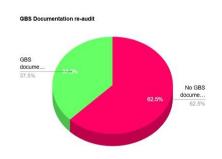
1.3.2

Offer endoscopy within 24 hours of admission to all other patients with upper gastrointestinal bleeding.



#### Method

Patient records from 1/3/24 - 15/4/24 and 28/07/2024 - 28/08/2024 were collected for those triaged with upper GI bleed, melena, or coffee ground vomiting. Records were manually validated through St James' Hospital Electronic Patient Records. Exclusions included patients for whom UGIB was not part of the differential diagnosis. The audit assessed whether GBS was calculated, if patients were admitted, if endoscopy was performed, and if it was done within 24 hours. An educational program for EM staff was conducted prior to re-audit.



### Results:

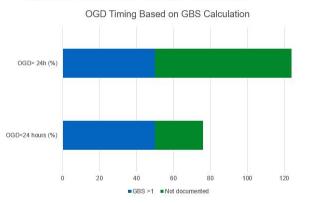
Out of the records, 20.6% documented GBS calculation. Of those with GBS >1, 50% had an OGD within 24 hours. In contrast, 74% of those without GBS waited over 24 hours. 80% of patients discharged without an inpatient team review lacked GBS documentation. The re-audit showed a 87% improvement in GBS documentation, with only 20% of patients discharged directly from EM lacking GBS documentation.

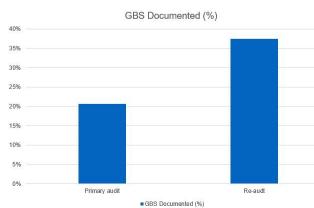
### Conclusion:

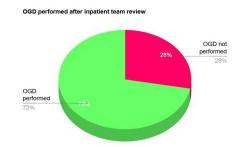
Documentation of GBS for UGIB patients is suboptimal, affecting discharge decisions and timing of endoscopic investigations. This may lead to inappropriate inpatient referrals when outpatient management could be more suitable.

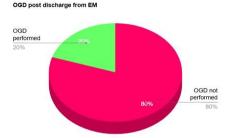
### **Recommendations:**

Ongoing educational programs, feedback surveys, and further evaluation of barriers to GBS usage are recommended to improve documentation and clinical outcomes.









### **Key Takeaway**

Patients discharged directly from EM tend not to have endoscopic investigations as outpatients due to waiting lists, lack of follow up from patients or not appearing for these investigations over the period of 1 year monitored in the first audit cycle.

Risk stratification through evidence based tools such as GBS is Important to safely discharge patients

And vice versa, patients who require endoscopic investigations due to risk factors or examination findings, would be more appropriate for arrangement via the inpatient teams as these are more likely to be followed through.

**ICEMT, RCSI May 2025** 

### Limited utility of plain film Xray in detecting upper aerodigestive tract foreign bodies.

### A case and evidence-based assessment

Browne, T., O'Leary, A., Breslin, D.



### Introduction

Foreign body aspiration poses significant diagnostic challenges in the emergency setting. Plain film X-rays frequently fail to guide management, even when the clinical history is strongly suggestive of foreign body presence. We present a case where a significant foreign body was poorly visualised on plain film.

### **Case Presentation**

A 52 year old man presented out of hours following described aspiration of a piece of chicken.

Initially assessed in resus by an EM SpR, who found the patient to be vitally stable but in obvious significant discomfort.

An initial chest XR did not show any abnormalities. A plain film neck XR was ordered. This showed a fine line of free air in prevertebral tissue suggestive of oropharyngo-oesophageal perforation.

### **Clinical Implications**

Plain film detection of potential a foreign body can be useful however, it inadequately characterises complications.

Delay in diagnosis can lead to significant morbidity, particularly in high-risk populations.

Advanced imaging (CT) or direct endoscopic evaluation should be the preferred diagnostic tools.

### **Clinical Urgency**

ENT registrar on call was asked to urgently attend. Senior anaesthesia registrar also asked to attend.

Quick clinical deterioration was noted though remained haemodynamically stable, with 100% Sp02, normal HR and RR.

Surgical emphysema to lateral aspect of neck became apparent.

A CT was performed which showed: 'Localised FB from oropharynx to piriform sinus, evolving surgical emphysema from suspected oropharyngeal wall perforation.'

### Resus-based temporising treatment

Stridor followed soon after performance of CT. IV dexamethasone and nebulised adrenaline were administered.



Fig. A. Free air in prevertebral soft tissue

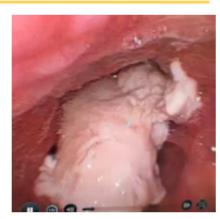


Fig. B. Entire chicken wing overlying glottis visualised

### **Evidence Summary**

Retrospective review of 24 patients with a fish/chicken bone aspiration or bolus.

Plain film Xray:

Sensitivity: 15%

· Specificity: 0%

Qureshi et al. (2017). Effectiveness of plain X-ray in detecting foreign bodies in the upper aerodigestive tract. \*JPMA, 67\*(4),

### Conclusions

Theatre - based oesophagoscopy revealed an impacted chicken bone foreign body with hypopharyngeal perforation, of which was managed conservatively. The patient remained in ICU care with prolonged intubation, and made a favorable clinical recovery.

This case underscores the diagnostic insufficiency of plain radiography for aerodigestive tract foreign bodies. Expedited transition to cross-sectional imaging (CT) or endoscopic evaluation represents the current standard of evidence-based practice, optimizing therapeutic timeliness and mitigating complications.



### Introduction

The Glasgow Coma Scale (GCS) is widely used to assess consciousness in the emergency department but can be challenging to accurately and quickly calculate.

### What were our aims?

- · Assess staff confidence, speed and accuracy at calculating GCS with and without visual aids.
- · If adding quick-reference GCS posters to resus could improve these.

### Methods

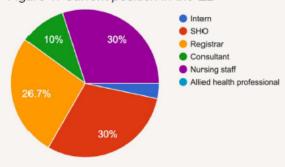
- ED staff survey:
  - How often they calculate GCS
  - If they normally use a visual aid
  - Self-estimated time to calculate GCS
  - Confidence in calculating GCS
- ED staff interviews:
  - Calculate GCS of 10 test cases both with & without a visual aid
  - Time & accuracy were recorded
- Intervention:
  - Quick-reference GCS posters were placed in resus
  - Staff were provided with GCS resources
- 4. PDSA Cycles:
  - 2 cycles were completed in resus. 1 week apart, with the reviewer blinded to the original GCS

### Don't Guess the GCS

Cian Broderick<sup>1</sup>. Enda Hession<sup>2</sup>. James Folev<sup>2</sup> <sup>1</sup>School of Medicine, University of Galway; <sup>2</sup>Emergency Department, University Hospital Galway

#### Results Survey Interviews 30 staff responded 20 staff were interviewed 44 secs 24% 47% 80% Average time Calculate GCS daily Do not use a visual aid Without a visual aid WITHOUT A VISUAL AID: WITH A VISUAL AID: 48% 33 secs 77% 93% Correct answers Average time Confidence in accurate Confidence in accurate results results With a visual aid

Figure 1: Current position in the ED



The largest errors were made in calculating motor scores between 2-5, even when using visual aids.

Rating	Score		
Obeys commands	6		
Localising	S		
Normal flexion	4		
Abnormal flexion	3		
Extension	2		
None	1		
Non testable	NT		
from glasgowcomascale.org			

Figure 2: Best Motor Response

### PDSA Cycles

- Resus patients
- Reviewer blinded to original GCS
- 1 week apart

#### CYCLE 1:



### CYCLE 2:



### Correct GCS

### Conclusions

Using GCS visual aids increased accuracy and speed of GCS calculations in interviews. Despite high reported confidence at calculating GCS without visual aids, accuracy and speed were worse without using visual aids. During the PDSA cycles we found providing staff resources and guick-reference GCS posters in resus improved accuracy.

### **Key Points**

- Staff are more confident, accurate and quicker when using visual aids.
- Large errors were made calculating motor scores between 2-5 even with visual aids
- Our PDSA cycles showed accuracy improved with staff resources & guickreference posters.

GCS resources we used with ED staff



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### A Critical Cascade: Diabetic Ketoacidosis, Pulmonary Embolism, and Multisystem Failure in Type I Diabetes.

Musaddiq Durrani, Pradipta Bhakta, Mohan Mugawar. Department of Anaesthesiology and Intensive Care, Midland Regional Hospital Tullamore.



Background: DKA is characterised by a biochemical triad of hyperglycaemia, ketonaemia, and metabolic acidosis, with rapid onset of haemodynamic imbalance. Sometimes it can lead to fluid loss induced hyperviscosity syndrome presenting as pulmonary embolism. We present a case of delayed presentation or detection of PE in a case of Acute life threatening DKA.

Case History: A 44-Year-Old woman (BMI 33.4) was admitted to our ED with severe agitation and restlessness. O/E: She was tachypnoeic (RR 32/min), hypoxic (90-93% on oxygen FiO<sub>2</sub> of 1.0) with altered mentation (GCS score 13/15). She was known to be type 1 DM and was being managed with a subcutaneous implanted insulin pump. investigations: Her initial ABG revealed severe metabolic acidosis with compensated respiratory alkalosis (pH 7.1, Lactate 9.2, AG 35, Ketones 5.6) (Table 1). She was diagnosed to have LRTI based on CXR (Fig 1) and CT scan (basal atelectasis and pleural effusion). She also presented with shock and AKI. Management: She was managed according to DKA protocol in ED and also required invasive mechanical ventilation and noradrenaline. Patient was stabilised haemodynamically and metabolically after 36 hours. Subsequently, she was weaned from ventilation and extubated. Few minutes afterwards, she complained of chest pain and was noted to have new changes in ECG (Fig 3). She underwent CTPA and was detected to have right sided sub segmental PE (Fig 2). She was successfully treated with anticoagulation. Finally she was discharged home uneventfully after 10 days.

**Discussion:** In this case DKA was precipitated by failure of insulin pump and LRTI, which resulted in a hypercoagulable state. This prothrombotic state predisposed to PE. Dehydration→ Haemoconcentration→ Acidosis→ Inflammatory Response → Hypercoagulable state → PE. A scoring system is developed to detect the risk of development of PE in patients presenting with DKA (Table 2). Our patient scored 7 which is highly indicative of PE.

Conclusion: While management of DKA takes precedence, a high index of suspicion should be kept for PE in patients who present with severe form of DKA with multisystem failure as timely management can be life saving. Using combination of clinical signs, lab parameters and risk scores can help early detection and timely management.

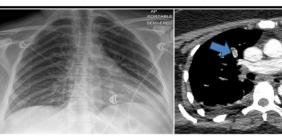


Fig 1. CXR at admission

Fig 1: CXR a	Fig 2: CTPA Slice showing segmental PE					
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Fig 3: ECG showing ST and Q wave changes.

Table1: Laboratory Parameters								
Parameters	D,	D,	D <sub>3</sub>	D <sub>4</sub>	D <sub>s</sub>	D <sub>6</sub>	D <sub>7</sub>	D <sub>s</sub>
BS	>41.6	12.2-	6.5-	6.7	9.3	6.3	7.2	9.0
		13.1	8.0					
Ketone	5.6	0.6	0-0.1	0	0	0	0	0
pН	7.1	7.36	7.38	7.45	7.56	7.47		
PaCO <sub>2</sub>	1.9	3.5	4.1	5.3	4.7	5.0		
Bicarbonate (C)	3.5	18.2	22.3	27.8	25.1	26.9		
BE (B)	-25.8	-7.0	-3.4	3.5	3.8	3.2		
Lactate	9.2	0.9	0.7	0.6	1.2	0.7		
Hb	13.7	10.7	10.5	10.5	11.2	12.3		12.3
НСТ	0.44	0.32	0.31	0.31	0.33	0.36		0.35
WBC	30.02	29.7	8.95	7.96	6.95	6.55		7.40
CRP	59.0	46.9	34.8	30.4	29.8	20.0	12.6	8.9
BU	10.9	6.6	4.0	3.2	2.7	2.4	2.2	2.5
Cr	158	120	102	87	75	74	71	71
Na	128	134	136	138	137	140	136	134
K	7.4	4.1	4.3	4.2	4.1	4.1	3.8	4.2
PT	13.3	11.8	12.0	11.9	11.9	11.4	11.4	13.0
INR	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.1
APTT	23.8	24.5	32.9	33.0	31.9	34.6	35.9	30.2
D-Dimer		2045	1882					
Trop T		24	17					
Nt-proBNP		2073						

Table 2: Risk Scoring System to predict risk of PE in DKA.

Parameter	Value	Score
Age	>40Year	2
вмі	>30	1
HbA <sub>1</sub> C	>7.5%	2
O <sub>2</sub> Requirement	>5L	2
Gender	Female	1
Hypertension	Yes	1
HRT/OCPs	Yes	1
DVT/CHF/CRF	Yes	2

#### References:

Kitabchi AE, et al. Hyperglycemic crises in adult patients with diabetes. Diabete Care. 2009;32(7):1335-43.

Scordi-Bello I et al. Fatal Pulmonary Thromboembolism in Patients with Diabetic

A Seven-Case Series and Review of the Literature. Acad Forensic Pathol. 2016;6(2):198-205.



### A case of May Thurner syndrome presenting as Phlegmasia Dolens

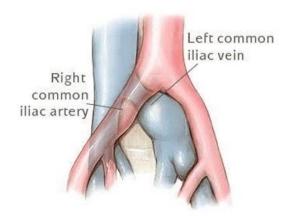
M Tahchiev, A Iyengar, E Umana, F O Keeffe



### Introduction

May-Thurner syndrome is an anatomical anomaly wherein the left common iliac vein is compressed by the right common iliac artery as it crosses above the vein. This promotes DVT formation via direct compression and venous inflammation caused by closely transmitted arterial pulsations. It often presents in women between their **3rd and 5th decades** of life, typically affecting the **left side**.

We report a case of extensive left lower limb DVT formation with obstructed venous outflow (Phlegmasia Cerulea Dolens) caused by an underlying May-Thurner syndrome.



### Case report

- A 43-year-old female presented to the Emergency department with sudden onset extensive left lower limb pain, swelling and purple discoloration. Her symptoms began shortly after taking a shower. On initial assessment she was noted to have easily palpable peripheral pulses and triphasic waveforms on handheld US doppler and her peripheral capillary refill time was <2 seconds.
- Diagnosis was aided by point-of-care ultrasound testing which confirmed thrombosis of the left femoral vein. She received early analgesia and anticoagulation prior to further investigation.

### Conclusion/Outcomes

- Lower limb DVT is a commonly diagnosed condition in Emergency Medicine. May-Thurner syndrome however is often underdiagnosed as ultrasound is often insufficient as a standalone imaging modality. Early diagnosis of extensive DVT and venous flow obstruction is vital in preventing post-thrombotic syndrome.
- Management planning should involve Vascular,
   Haematology and Interventional Radiology teams.
   Treatment options may go beyond simple
   anticoagulation and include catheter-based
   thrombolysis, thrombectomy or venous angioplasty and
   stenting.

### Results

CT Venogram confirmed an extensive DVT of the left common iliac vein and moderate compression of the left common iliac vein by the right common iliac artery, consistent with May-Thurner syndrome.

Point of Care US
Showing a thrombosed CFV



### THE MATER Pain Management in Sickle Cell Crisis: An Audit of Practices in MMUH ED

UCD DUBLIN

Jonah L, Belot Z, Onwusoro A, Syahirah N, Tivnan E, Gilmore R

### Introduction

- Sickle Cell Disease (SCD), once rare in Ireland, is becoming increasingly common due to migration.
- Patients are now presenting with sickle cell crises across hospitals, including MMUH, though St. James's remains the national centre.
- Pain crises require urgent and effective analgesia to prevent complications and reduce patient suffering.
- However, limited familiarity with SCD among healthcare providers can result in delays and inconsistent management, leading to unnecessary distress and morbidity.

### **Aims and Objectives**

To evaluate pain management for sickle cell crises in MMUH ED and assess adherence to NICE guidelines.

- Determining if analgesia was administered within 30 minutes.
- 2. Evaluate opioid use matching pain severity.
- 3. Assess documentation of pre-existing analgesia.
- 4. Ensure individualized care plans are followed.

### Methods

A retrospective review of patients presenting to MMUH ED with acute sickle cell crises between November 2023 and November 2024 was conducted.

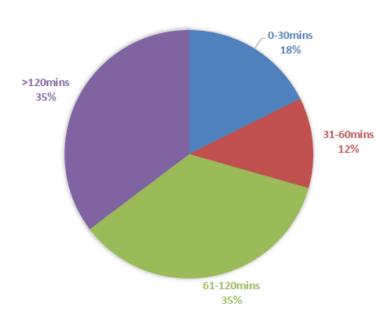
- Inclusion Criteria: All patients diagnosed with an acute sickle cell crisis.
- · Exclusion Criteria: Patients with incomplete data.
- Data Collection:
  - · Data were extracted from electronic patient records.
  - MMUH Clinical Audit & Effectiveness Committee (CAEC) approval obtained.
- Standards:
- Data were assessed against NICE guidelines for sickle cell crisis pain management.

### Conclusion

- Delays identified in timely administration of analgesia for sickle cell crises.
- Inconsistencies noted in opioid use and absence of individualised care plans.
- Key interventions include:
  - · Implementation of standardised protocols.
  - · Targeted staff training.
  - Routine re-audits.
- These measures can improve adherence to best practice and enhance patient care.

### Results

### TIME TO ANALGESIA



Only **1 in 6 patients** received analgesia within the recommended 30 minutes.

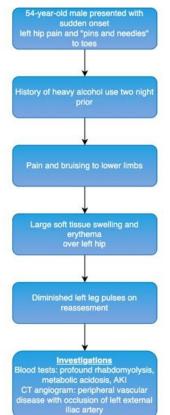
Over **70% experienced significant delays**, underscoring the urgent need to improve pain management protocols for sickle cell crises.

### A case of suspected low velocity Morel-Lavallée lesion complicated by rhabdomyolysis and acute kidney injury.

Dr M. Leonard, Dr L. Kenny, Dr C. Rice, Dr Í. O'Sullivan Emergency Department, Cork University Hospital, Cork, Ireland, February 2025

#### Introduction:

A Morel-Lavallée Lesion (MLL) is an uncommon diagnosis, usually seen in the context of high velocity trauma. It is an under-recognised condition. and currently no quideline or consensus on treatment exists for the management of MLL. We explore a rare case of a suspected low velocity trauma MLL with significant associated metabolic complications presenting to an Irish Major Trauma Centre.





Laboratory bloods		Venous Blood Gas	
wcc	23.6 10^9/L	pH	7.30
Neutrophils	20.47 10^9/L	pCO2	5.00 kPa
Hgb	14.7 g/dL	HCO3-	17.8 mmol/L
Platelets	284 10^9/L	Base Excess	-8.0 mmol/L
Creatinine	232 umol/L	Glucose	14.1 mmol/L
Urea	16.2 mmoVL	Lactate	4.05 mmol/L
eGFR	25 mL/min/1.73m <sup>2</sup>		
Potassium	6.5 mmol/L		
Sodium	119 mmol/L		
CK	42024 U/L		
CRP	58 mg/L		

#### Figure 2. Departmental blood and venous blood gas results.

PMC11290411.

- 1. Yang Y, Tang TT. The Morel-Lavallée Lesion: Review and Update on Diagnosis and Management. Orthop Surg. 2023 Oct;15(10):2485-2491. doi: 10.1111/os.13826. Epub 2023 Aug 1. PMID: 27526135; PMCID: PMC10549858. 2. Diviti S, Gupta N, Hooda K, Sharma K, Lo L. Morel-Lavallee Lesions-Review of Pathophysiology, Clinical Findings, Imaging Findings and Management. J Clin Diagn Res. 2017 Apr. 11(4):TE01-TE04. doi: 10.7860/JCDR/2017/25479.9689.
- 3. Lamichhane S, Devkota S, K.C.S, Sarmast AH. Morel-Lavallée lesion of the lumbosacral region: A rare case report and comprehensive review of the literature. Clin Case Rep. 2024; 12:e8674. doi:10.1002/ccr3.8674 4. Hu Minhua , Chen Junbang , Ma Luyao , Huang Feng , Cai Qunbin: The treatment of a Morel-Lavallée lesion of the thigh with incision and drainage along with tissue debridement and a surgically placed drain: A case report and literature review. Frontiers in Surgery, Volume 9, 2023. Doi:10.3389/fsurg.2022.1071421
- 5.David K Rodgers, Philip Castafieda, Cecil J Simmons, Brandon M Carius, More Than a Bruise: Two Cases of Morel-Lavallée Lesions in Active Duty Soldiers, Military Medicine, Volume 189, Issue 5-6, May/June 2024, Pages e932e936, https://doi.org/10.1093/milmed/usad423
- 6 Moune, M.Y., Djoubairou, B.O., Mboka, F. et al. Lumbar Morel-Lavallée lesion: a case report and review of the literature. J Med Case Reports 17, 198 (2023). https://doi.org/10.1186/s13256-023-03922-0 7. Joseph U, Thangayah JR. What lies beneath: A case report of Morel-Lavallée lesion. Proceedings of Singapore Healthcare. 2029;32. doi:10.1177/20101058231152046 8 Mudiganti VNKS, Singam AP, Kakara S, Iswarya MRSJ, Jain A. Morel-Lavallee Lesion Associated With Fihabdomyolysis in Polytrauma. Cureus. 2024 Jun 30;18(8):e83536. doi: 10.7759/cureus.83536. PMID: 39086784; PMCID:







After incision to the area of swelling, turbid fluid was collected, which showed no growth on culture. The iliotibial tract was decompressed though no collection or pus was found. There was no evidence of myonecrosis. The area was washed out and skin was tacked. Broad spectrum antibiotic coverage was commenced and re-look surgery booked, which was subsequently also unremarkable.

#### Outcome:

The patient continued to improve and was discharged 8 days after presentation, with follow up in the dressing clinic. He continued to improve on IV antibiotics and fluid support, with complete resolution of his metabolic derangement. He made good progress with physio therapy and was mobilising well.

#### Discussion:

Atypical mechanism: Unlike most reported cases, this LL followed a low-velocity mechanism (seldom describe

History was unclear: Distracting findings of incidental severe peripheral vascular disease

Subtle clues to trauma: Scattered bruising on lower mbs, Carpet-burn-like erythema over the hip, History o

#### RHABDOMYOLYSIS & AKI

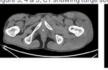
Only one case of a poly trauma patient with subsequer abdomyolysis and acute kidney injury has been reporte

excess: -8.0

me, though without sustained hypotension shock

ntributions to the patient's metabolic state were als or MLL, the multidisciplinary teams approach including

In light of the new findings on reassessment, an urgent CT angiogram of his lower limbs was performed which showed extensive peripheral vascular disease, with short segment complete occlusion of the proximal left external iliac artery, with distal 3 vessel run-off. It also reported extensive oedema in the musculature of the left thigh and pelvis, with unusual pattern of fluid surrounding the left vastus lateralis and hamstring musculature, possibly suggesting a degree of possible



myonecrosis.





Initial differential diagnosis was broad, including limb schaemia, myositis, septic arthritis, traumatic soft tissu fasciitis. The CT angiogram aided in refining the

#### Management:

He was transferred to the resuscitation room, intravenous fluids and standard electrolyte corrective treatment were commenced. Broad spectrum antibiotics were given. A transurethral catheter was placed which drained 500mls of tea coloured urine in the first 15 minutes.

His case was reviewed by the vascular surgical team and was deemed to have adequate perfusion via collaterals and the patient's symptom complex unlikely to be related to a vascular cause. He was reviewed by the Orthopaedic team also and intraarticular left hip involvement was clinically ruled out.

> Figure 3. Pre-exploration plan markings outlining areas of erythema and extent of the swelling



**IEMTA 2025** 

### POCUS in the Detection of IVC Thrombus and Rapid Diagnosis of THE MATER Pulmonary Embolism in the Emergency Department: A Case Report



Belot Z, Jonah L, Judge G, Breslin D, Mc Dermott

### Introduction

Pulmonary Embolism (PE) is a potentially fatal diagnosis, often difficult to confirm rapidly in unstable older patients. Point-of-Care Ultrasound (POCUS) enables rapid. bedside detection of signs of PE and related complications.

This case demonstrates the role of POCUS in identifying bilateral PEs and an Inferior Vena Cava (IVC) thrombus not identified on CT

### Case Presentation

A 73-year-old woman with a history of dementia presented to the ED with sudden dyspnoea and worsening confusion. She exhibited signs of respiratory distress, hypoxia, bilateral inspiratory crackles, and no obvious signs of right heart failure. POCUS, including cardiac, IVC, and lung ultrasound, was performed.

### Investigations and POCUS Findings

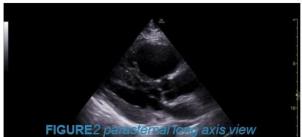
### POCUS:

- Dilated RV with D-sign
- IVC thrombus
- Non-collapsible IVC
- Bilateral B-lines

### CTPA:

- Bilateral PEs
- Possible RA thrombus
- Elevated RV:LV ratio
- Pulmonary infarct





### Conclusion/Outcomes

In unstable older patients, traditional imaging may be delayed. This case underscores POCUS's role in rapid bedside diagnosis, haemodynamic assessment, and expediting the initiation of anticoagulation, ultimately improving outcomes



### Management

These findings prompted immediate anticoagulation with Enoxaparin and emergent CTPA.

POCUS findings also prompted a "hot-read" on the table by the radiologist.

CT confirmed the presence of acute occlusive bilateral PEs, possible right atrial thrombus, significant right heart strain (elevated RV:LV ratio), and early pulmonary infarct.

Following Pulmonary Embolism Response Team (PERT) consultation, the patient was commenced on a heparin infusion and later received thrombolysis in the Intensive Care Unit (ICU).



### Overview of a novel Sports and Exercise Medicine (SEM) review clinic:

Dr. Joseph Slowey (1), Dr. Claire Bright (2), Dr. Alex Trimble (3), Prof John Ryan (1)

### Introduction:

- Sports and Exercise Medicine (SEM)
   Review clinic in the Local Injury Unit
   (LIU) at St Colmcille's Hospital
   Loughlinstown (SCH)
- Proposed and established in July 2022 as a satellite clinic to St. Vincent's University Hospital (SVUH) Emergency Department (ED)

### Aims:

- Provide a follow up service to patients who have sustained a joint or soft tissue injury due to participation in sport
- Return the patient to their baseline function and sporting activities
- Reduce the burden of reattenders to the IU or ED with musculoskeletal complaints

### Goals:

- Review Sports Injuries not followed up elsewhere
- Clinical review in a timely manner
  - Return patients safely to their sporting activites

### Inclusion Criteria:

- Acute knee injuries
- Stress fractures
- Degenerative meniscus injuries
- Acute shoulder injuries
  - > Tendinopathies
  - Acute ankle injuries

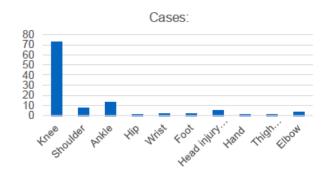
### **Exclusion Criteria:**

- > Chronic conditions
- Fractures requiring Orthopaedic review
- Non sports or exercise related injuries



### Review of activity July 2022 – July 2024:

- ➤ 110 Patients seen
- > Only 23 Patients required a follow up visit
- ➤ 46% of patients discharged to Physiotherapy
- > 28% Discharged home without follow up
  - ➤ 21% Referred to Orthopaedics
  - 3% Referred back to their GP
  - ➤ 1% Referred to hand therapy
  - ➤ 1% Referred to Rheumatology OPD



### Services offered:

- Musculoskeletal assessment
- Diagnostic imaging including Musculoskeletal Ultrasound and MRI
- > Bespoke exercise prescription
- Individualized injury education
  - Joint aspiration
  - Joint injection
- Referral to specialist services where appropriate





### **IEMTA National Trainee Survey Report 2024**

### Dr Emma-May Curran, Dr Conor O'Gara, Dr Mohammed Hamza, Dr Una Kennedy



### Introduction

Emergency Medicine NCHDs play a crucial role in delivering care in our EDs in Ireland. Given the current strains on Irish EDs it is imperative to understand NCHD's perspectives on the effectiveness of their training and the challenges they face to ensure that EM training meets the evolving needs of NCHDs. The aim of this national survey was to gather insights from EM NCHDs to identify areas for improvement in NCHD training and wellbeing with the aim of contributing to the ongoing development of training programs and improving retention of EM NCHDs in Irish EDs.

### **Methods**

A descriptive cross-sectional survey was conducted over a one month period in 2024. 178 NCHDs working in Irish EDs responded with 11 responses being excluded due to missing data. Responses were collected and analysed via the online platform Qualtrics. All responses were anonymous.

### Results

### **Demographics**

- Average age of NCHD was 33 years
- 100 Males: 73 females
- 8.5% of NCHDs identify as a member of the LGBTIQ+ community
- 4.2% of NCHDs are availing of less than full-time training

### Results

### **CSTEM**

- 74% of CSTEM trainees responded to the survey
- 81% plan to continue to ASTEM
- 83% agree that their post is preparing the to work as a registrar in EM
- 48% agree that their non-EM posts is meeting their training needs

### **CSTEM** days

- 90% agree that simulation days are beneficial to training
- 86% agree that the workshops are beneficial to training
- 80% agree that human factor days are beneficial to training
- 72% agree that level one ultrasound training is beneficial

### **ASTEM**

- 83.5% of ASTEM trainees responded to the survey
- 43% plan to apply for a consultant post after completion of ASTEM
- 46% plan to apply for fellowship after completion of ASTEM
- 20% have an availed of the ASTEM mentor program with 36% of these finding the program beneficial
- Simulation days and ultrasound sign off were rated the most beneficial of the ASTEM training days

### NCHDs not on a training scheme

- 39.5% and 9.3% plan to apply for CSTEM and ASTEM respectively
- 32% plan to pursue the alternative training program

### Results

### **EM Training**

- 80% of trainees have a consultant mentor
- 78% of trainees agree that their current post is meeting their training needs
- 63% of trainees report that service provision requirements limit access to training
- 35% would recommend EM training in Ireland to a colleague

### Wellbeing

- 52% of trainees agree that their work negatively impacts their mental health
- 16.5% of trainees have had a suicidal thought in the past year
- 54.5% of trainees agree that they are burnt out from work
- 33.5% agree that their department takes positive action on health and wellbeing
- 32% of trainees know where to get support if their mental health is being affected

### **Discussion**

This survey highlights the strengths and opportunities for improvement in the training of NCHDs in Irish Emergency departments. The results of this survey provide feedback which can be used to improve trainees experience of CSTEM and ASTEM which ultimately will improve retention of trainees.

It is clear that trainees mental health is being impacted by their work and the results from this survey show there is opportunity for better education around improving mental health and wellbeing among trainees.

### Improving Time of Injury Documentation in Major Trauma: A Retrospective Audit

### Amad Abro (EM Registrar), Emily O'Conor (EM Consultant) Emergency Department Connolly Hospital, Blanchardstown, Dublin



### **Background:**

Time of injury (TOI) is an important parameter in trauma management. It provides context for physiological derangements, helps estimate the window for life saving interventions, and guides time sensitive decisions such as imaging, surgery or transfer to definitive care. Timely documentation of TOI has been associated with improved patient outcomes, reduced delays in critical interventions and enhanced decision-making, particularly in major trauma cases. The Trauma Audit and Reseach Network (TARN), a national clinical audit system, emphasizes the importance of accurate TOI data to enhance the quality of trauma care. Despite its importance, TOI is often under documented, limiting both real time care and retrospective analysis

### Methods:

Design: Retrospective audit of major trauma cases.

Data collected with the help of Symphony (Electronic ED notes), including the Trauma Doc has been reviwed and data was analysed using Microsoft Excel.

Phases: Pre-intervention (May-July 2024), Post-intervention (Oct-Dec 2024).

Intervention: Clinician education, regular teaching during handovers and teaching with our nursing colleagues.

Focus: Rate of TOI documentation

### **Results:**

TOI increased from 48%to77% post intervention

### **Discussion:**

Improved documentation linked to targeted interventions.

Highlight importance of system awareness+data quality.

### **Conclusion:**

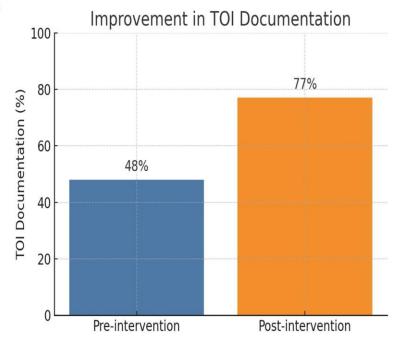
TOI documentation is important for effective trauma care.

Structured audits and small interventions can have big impacts.

Recommend exploring digital tools for automated TOI capture.

### **Learning Points:**

- TOI is vital for triage and treatment
- Local audits identify gaps
- Education creates lasting change



### **Acknowledgement:**

We would like to express our gratitude to our Trauma Audit Co-ordinator Margueritte, who helped us in gathering the data.



### ADMINISTRATION OF ANALGESIA IN ACUTE ABDOMINAL PAIN



Dr I. Mohamad, Dr A Rafeeque

### Principles & Guidelines

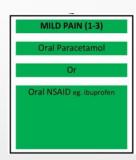
The RCEM, UK has established guidelines for usage of appropriate analgesia for pain management among patients in the emergency department (ED), summarized as follows:

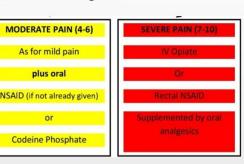
- 1. Pain recognition should be a priority when treating patients. This process should start at triage, be monitored during their time in the ED and continue through to admission or discharge.
- 2. Ensure patients with moderate/severe pain receive adequate analgesia within 15 minutes of arrival according to recent RCEM guidelines.
- 3. Ensure patients in severe pain have the effectiveness of their analgesia re-evaluated within 15 minutes of receiving the first dose of analgesia.

### Methods

The first cycle conducted over a 1 month period (5807 patients attended ED).

- 678 of them presented with abdominal pain.
- All patients were further divided according to the severity of pain using pain scale of 1 to 10.
- Pain score 1-3 (44%)
- Pain score 4-6 (36%)
- Pain score 7-10 (20%)





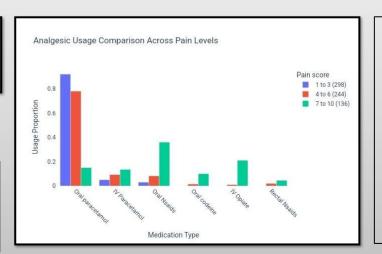
The appropriate analgesia suggested by RCEM guideline to be given in the first 15 minutes of arrival.

### Results & Conclusion

Table1						
Pain score	■ Oral paracetamol	IV Paracetamol	Oral Nsaids	Oral codeine	IV Opiate	Rectal Nsaids
1 to 3 (298)	92.00%	5.00%	3.00%	0.00%	0.00%	0.00%
4 to 6 (244)	78.00%	9.30%	8.20%	1.50%	1.00%	2.00%
7 to 10 (136)	15.00%	13.50%	36.00%	10.00%	21.00%	4.50%

Tabulated data (in %) according to analgesia given for each pain score given within 15 minutes of arrival.

Our result showed 100% of patients of pain score 1-3 received appropriate analgesia within 15 minutes of arrival. 97% of the patients of pain score 4-6 received analgesia within the recommended time period. However, only 25.5% received appropriate analgesia within the time period as recommended by RCEM guidelines.



Comparison of usage of analgesia across all pain levels.

In conclusion, this audit cycle has shown that we are adhering to RCEM guidelines in managing patients coming into the emergency department with a pain score of 6 or less.

However, further education and training is required for all staff members on the importance of providing timely analgesia in patients presented to the emergency department with abdominal pain and pain score of 7 and above.

Reference: RCEM Guideline for pain management in adults, https://rcem.ac.uk/wp-content/uploads/2021/10/RCEM BPC Management of Pain in Adults 300621.pdf



### COGNITIVE BIAS IN EMERGENCY MEDICINE: A CASE OF DIAGNOSTIC OVERSHADOWING

# Emergency Department

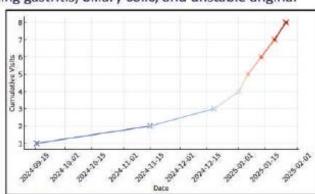
### Hafiz Muhammad Naseer

### Introduction

Patients who frequently present to the Emergency Department are often perceived as having non-serious or recurrent complaints. This can lead to cognitive bias. Fixating on prior diagnoses and triage fatigue can delay critical decision-making, leading to severe complications. This case illustrates the consequences of such biases in a 67-year-old female with multiple ED visits for epigastric pain, ultimately diagnosed with an incarcerated hiatus hernia and gastric infarction. This life-threatening condition was initially overlooked.

### Methodology

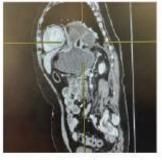
A retrospective review of a 67-year-old female patient who presented to the ED eight times between September 2024 and January 2025 with epigastric pain, vomiting, and chest pain. Despite multiple assessments by ED physicians and surgical teams, she was discharged each time with diagnoses including gastritis, biliary colic, and unstable angina.



Graph 1.1 Cumulative ED visits over time

In January 2025, she visited the ED five times with worsening symptoms. On her final visit, she was triaged as category 3 due to her frequent presentations, leading to a prolonged wait time. On assessment, she appeared pale, with severe abdominal pain, guarding, and a lactate of 2.85 mmol/L. Blood tests showed leukocytosis (WBC 15.81, neutrophils 13.83). A CT scan revealed an incarcerated large hiatus hernia with probable venous ischemia and infarction of the wall of much of the body of the stomach, with intramural and intraperitoneal gas. She was urgently transferred to a tertiary center for surgical intervention.

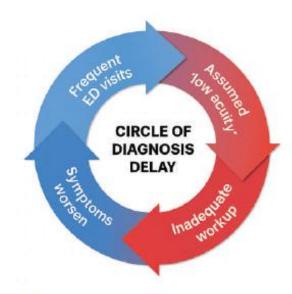




CT showing incarcerated hiatus hernia with gastric ischemia and intramural gas

### Results

The delayed diagnosis resulted in significant morbidity, as the patient developed gastric ischemia, a condition that could have been mitigated with earlier intervention. Contributing factors included cognitive anchoring on prior benign diagnoses, triage bias, and systemic delays in reassessment despite high-risk clinical features. The case underscores the importance of maintaining clinical vigilance regardless of prior ED visits.



### Conclusion

Frequent ED attendance should not lead to diagnostic bias. Each ED visit must be evaluated independently, with a low threshold for advanced imaging in cases of recurrent or worsening symptoms. Improved awareness and structured triage protocols are necessary to prevent delays in critical diagnoses.

### Source

This case study is based on Emergency Department records from Sligo University Hospital, including clinical notes, laboratory results, and imaging reports from the patient's visits between September 2024 and January 2025.

### **Traumatic Pituitary Hemorrhage - A Perplexing Apoplexy**

Dr Cillian Casey, Mr Asim Rafeeque, Our Lady of Lourdes Drogheda Emergency Dept.

#### Introduction:

Pituitary apoplexy is rare a condition resulting from hemorrhagic or non-hemorrhagic necrosis of the pituitary gland. An apoplexy precipitated by trauma is a an even more rare event, with 80% of all apoplexies occurring in the context of a pituitary adenoma, more commonly in the latter decades of life<sup>(1),(3)</sup>

The pathophysiology is not fully understood with compression of the hypophyseal artery/branches within the pituitary gland a leading theory, in cases without adenoma. (2)

### Common presentation:

Headache behind eyes, reduced visual acuity, diplopia, ptosis, vomiting, reduced GCS.

80% of cases having a reduction in one of the anterior pituitary hormones with ACTH reduction in secretion, leading to adrenal crisis the most common hormonal change.

### Treatment/management:

Hemodynamic stability, fluid & electrolyte balance, treatment with corticosteroids regardless of symptoms. CT and MRI imaging. Endocrine, ophthalmology and neurosurgical expertise.

#### References:

- Billeci, D., Marton, E. and Giordan, E. (2017) 'Post-traumatic pituitary apoplexy: Case presentation and review of literature', *Interdisciplinary Neurosurgery*, 7, pp. 4–8. doi:10.1016/j.inat.2016.10.006.
- (2) Valle, M.M.D. (2023) Pituitary apoplexy, StatPearls [Internet]. Available at: https://www.ncbi.nlm.nih.gov/books/NBK559222/ (Accessed: 08 May 2025). (3) Jang, H.J. and Jwa, C.S. (2012) 'Atypical presentation of acute pituitary Ap
- (3) Jang, H.J. and Jwa, C.S. (2012) 'Atypical presentation of acute pituitary Apoplex following mild head injury', Korean Journal of Neurotrauma, 8(1), p. 55. doi:10.13004/kjnt.2012.8.1.55.

#### Case Presentation:

We present the case of a 17 y/o male, involved in a high speed cycling collision with other competitors in a race. A background medical history of testosterone supplementation use post previous juvenile testicular torsion.

This male BIBA to the resuscitation room of the emergency dept. as a Major Trauma. Trauma CT scans were performed, with the pituitary hemorrhage and a clavicle fracture noted.

#### On exam:

NII neurological deficit, no vision changes, GCS 15. Cranial nerves intact.

The presentation was discussed with on-call neurosurgeons and patient was admitted as inpatient for further investigation and monitoring. Subsequent, imaging with MRI were performed, ophthalmologic and endocrine consultations and investigations were undertaken as an in-patient with nil abnormalities. Post inpatient investigation and observation the patient was discharged home with follow up as an outpatient to endocrine OPD.

### Investigations:

### Imaging:

Initial CT Brain, angiogram and later MRI revealed a 1.5x1.6x1.6cm haemorrhage within the pituitary fossa.

Bloods:(N = normal)

TFTs (N), FSH (N), LH (N), IGF-1 (N), Cortisol (N), ACTH (N), Testosterone (N).

Prolactin 560 (Initially high)  $\rightarrow$  115 (Next day - normal)

#### **Discussion & Conclusion:**

Pituitary apoplexy is a life threatening condition if left undetected. It is uncommon, traumatic pituitary apoplexy even more so especially in the case of an otherwise fit and healthy young male. Visual symptoms improve after both conservative and surgical management, with improvement in nerve injury ranging from 3-6 months<sup>(1)</sup>. Consideration of yearly MRI for following 5 years. Patients with known haemorrhage should be counseled in the possibility of apoplexy <sup>(2)</sup>.

With the low total documented number of cases of post-traumatic pituitary apoplexy and none below the age of 30, this case highlights the need for early specialist intervention in a rare presentation with prompt access to diagnostic imaging.

It also postulates the link between

It also postulates the link between testosterone supplementation and a pituitary haemorrhage.

Since this presentation, the patient is back cycling and training.

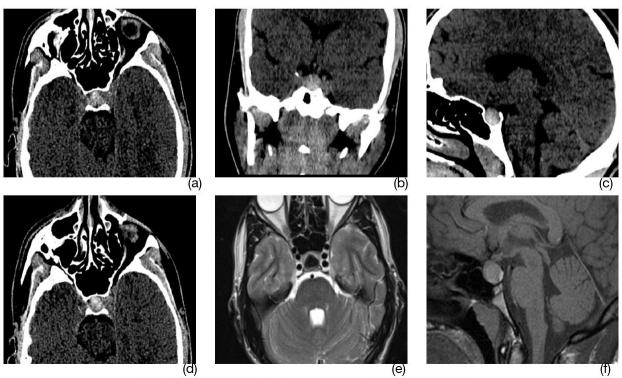


Fig 1: Post head trauma CT scan (a, b, c, d), MRI brain 48 hours post trauma (e, f)

### Assessing Awareness of Severe Hyperkalaemia Management Practices in Adults

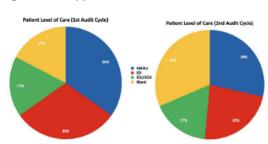
Dr Bianca van der Linde, Dr Tarné Leng; St. Luke's General Hospital, Kilkenny

#### Introduction:

Severe hyperkalaemia (potassium>6.5 mmol/L) is a life-threatening condition requiring urgent intervention. Clinical suboptimal observations revealed adherence to updated management protocols, raising concerns about patient safety, particularly the underdosing of calcium gluconate. The UK Kidney Association's 2023 Guidelines and NHS Safety Alerts highlight the need for structured treatment strategies. This audit evaluates awareness of protocols to enhance treatment timeliness and appropriateness.

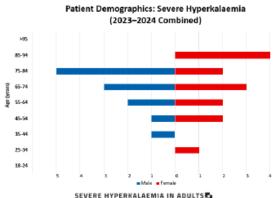
#### Methods:

A cross-sectional, observational study was conducted in an acute general hospital, identifying adult patients diagnosed with severe hyperkalaemia over two 8-month periods via laboratory records. Patients from the Emergency Department (ED), Intensive Care Unit (ICU/CCU) and medical/surgical wards were included, excluding maternity. Clinical records were reviewed to assess treatment interventions and potassium rechecks, while an online survey evaluated provider knowledge and guideline application.

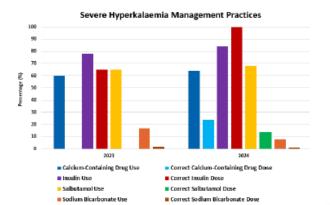


#### Results:

A total of 62 severe hyperkalaemia episodes were identified initially, followed by 81 postintervention. Treatment administration improved: calcium-containing drug use rose from 60% to 64%, although correct dosing remained low, improving from 0% to 24%. Insulin use improved from 78% to 84%, with correct dosing rising from 65% to 100%. Salbutamol use increased slightly from 65% to 68%, with correct dosing improving from 0% to 14%. Sodium bicarbonate use decreased from 17% to 8%. Repeat potassium checks improved from 69% to 100%, yet rechecking was delayed, with average time increasing from 160-280 minutes. Pre-intervention surveys highlighted limited awareness of updated guidelines.







Interventions implemented included displaying treatment algorithm posters, introducing a 'hyperkalaemia kit' in the resuscitation area, and updating hospital digital resources (MEG Guidelines App). Education sessions conducted at grand rounds to reinforce protocol adherence.







#### Conclusions:

hyperkalaemia Optimising severe management in high-stress environments like ED is vital for patient safety. Structured interventions enhance timely, evidence-based decision-making while decreasing cognitive education load. Continued and interdepartmental collaboration are key to sustaining improvements and improving patient outcomes



#### TREATMENT OF ACUTE HYPERKALAEMIA IN ADULTS

IN ADULTS





Sincere gratitude to Dr David Maritz and Dr Chloë Karappian for their support and contributions to this project.













### Emergency Department Presentation of Viral Respiratory Illness in Older Adults

Dr Michael Dover<sup>1</sup>, Dr Niamh Mitchell<sup>1</sup>, Dr Rosa McNamara<sup>1</sup>

<sup>1</sup>St. Vincents University Hospital

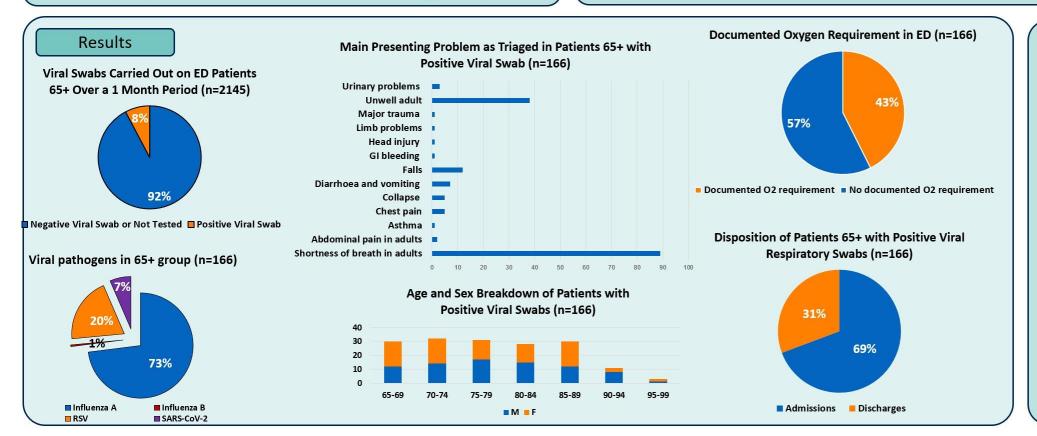


### Introduction

Each winter brings with it many presentations of Viral Respiratory Tract Infections (RTI) to our Emergency Departments (ED). In younger cohorts with a viral RTI, hypoxia necessitating supplemental oxygen is the most common indication for hospital admission. However, in older adults, the presentations and indication for admission is more heterogeneous. We aimed to determine the landscape of presentations of RTI in older adults in a busy Tertiary ED.

### Methods

A retrospective chart review of all patients aged 65 and up presenting to a Model 4 University Teaching Hospital ED over a one month period over the winter was conducted. Inclusion criteria for consideration were: a patient aged 65 and above on day of presentation, who had a positive GeneXpert viral swab carried out while in ED (SARS-CoV-2, Flu A, Flu B and RSV, all PCR confirmed). Data gathered included patient demographics, presenting issues, disposition, and whether an oxygen requirement was documented while in ED.



### Conclusion

This study has enabled us to categorise the presentations of Older Adults who later have a positive viral swab for an upper respiratory pathogen (SARS-CoV-2, Flu A, Flu B and RSV) while in ED. The majority of patients did not have a documented oxygen requirement while in the ED. Falls and confusion came out as a large proportion of the admissions that were not due to a documented oxygen requirement. Going forward, further data collection and analysis aims to explore this more.

### Assessing the Need for Emergency Medicine in the Medical Curriculum at RCSI

E Coughlan<sup>1</sup>, M King <sup>2</sup>, B Mackinnon <sup>2</sup>, N Sayani <sup>2</sup>, I Orban <sup>3</sup>

1 Second year Graduate Entry Medicine Student, RCSI; 2 Third year Graduate Entry Medicine Student, RCSI; 3 Clinical lecturer in Emergency Medicine, Connolly Hospital, RCSI



### Introduction

Emergency Medicine (EM) provides an excellent learning environment for medical students to develop essential skills such as:

- · critical thinking
- · problem-solving
- · decision-making

These are key competencies for managing undifferentiated patients and essential across all medical specialties (IFEM). Currently, RCSI lacks a dedicated undergraduate EM curriculum and offers limited exposure in this field.

### Study Aims

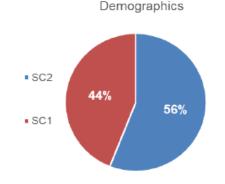
- Assess Senior Cycle 1 and 2 students' opinions on the need for an EM curriculum.
- Assess Senior Cycle 1 and 2 students' selfreported competence in performing core EM tasks.
- This project is a needs assessment analysis to the development of an EM curriculum at RCSI.

### Methods

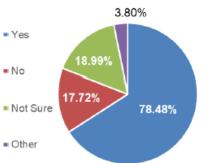
- A cross-sectional mixed-methods study was conducted using an anonymous seven-question online survey administered via the SurveyMonkey platform. Participants included fourth- and final-year medical students, some of whom had completed their studies.
- The survey was distributed by the QEO to 776 students on March 21st.
- Duration of the study: 10 weeks. This is an ongoing study. Preliminary results based on the data received on Week 7 are presented.

### Results

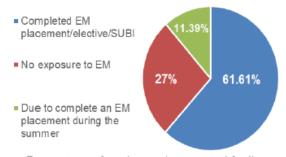
A total of 97 responses were submitted at the end of week 7. Incomplete responses were excluded, resulting in 79 valid responses for analysis, representing a response rate of 10.18%.



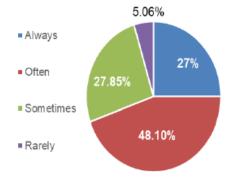
Did the lack of a formal EM curriculum affect your professional development?



Exposure to clinical Emergency Medicine



Percentage of students who reported feeling "unprepared" to respond to an acute emergency



"I think students should get a formal 4-6 weeks of Emergency Medicine teaching along with dedicated lectures and tutorials, and an OSCE in Emergency Medicine as part of their curriculum."

"I believe Emergency Medicine should be a core pillar in our final years of medicine as it vital that all medical students can respond to emergent medical situations".

### Discussion

Preliminary results suggest a strong student desire for formal EM education at RCSI. The qualitative data underwent descriptive content analysis, which revealed the following themes:

- Strong demand for a structured, faculty-led EM undergraduate curriculum
- Need for core (mandatory) EM clinical exposure, ideally a 2–4-week rotation
- Increased use of simulation-based EM education
- Call for curriculum restructuring students proposed allocating time for EM within the curriculum and highlighted a disconnect between the current structure and the practical needs of clinical training.

The next steps for this project include applying for Level 2 funding through the RCSI StEP Programme to engage with stakeholders and relevant experts in developing a formal EM curriculum.

### Acknowledgements

Special thanks to the:

- RCSI Student Engagement and Partnership (StEP) programme
- Quality Enhancement Office (QEO)
- Prof. Fiona Kent for their valuable support and contributions to this project.



### Assessing the Need for a Homeless Healthcare Curriculum at the Royal College of Surgeons in Ireland

J Adams<sup>1</sup>, D Roth<sup>1</sup>, K Antonyshyn<sup>1</sup>, M O'Donnell<sup>1</sup>, S Chard<sup>2</sup>, L Telesford<sup>3</sup>, J Ugburo-Shanomi<sup>4</sup>, N Govender<sup>3</sup>, M Jain<sup>5</sup>, V Khurana<sup>4</sup>, F Manocchio<sup>2</sup>, M Linvill<sup>2</sup>, I Orban<sup>6</sup>

1 GEM 2 student; 2 GEM 3 student; 3 Year 3 student; 4 Year 2 student; 5 Year 1 student, RCSI; 6 Clinical lecturer in Emergency Medicine, Connolly Hospital, RCSI



#### Introduction

- People experiencing homelessness (PEH) face complex health and social challenges, along with significant barriers to care [1].
- o In Ireland, rising housing insecurity [2] contributes to high comorbidity and strains the healthcare system [3], particularly in Emergency Departments where clinicians are often the first point of contact. Yet, medical education rarely prepares students for this reality.
- This RCSI Street Medicine Coalition project explores student attitudes and preparedness to inform a dedicated Homeless Healthcare curriculum. Currently, RCSI lacks a dedicated Homeless Healthcare curriculum.

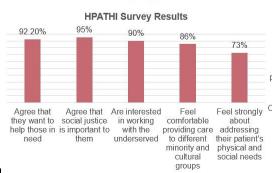
#### Methods

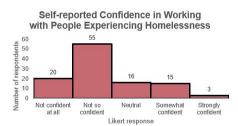
- A cross-sectional mixed methods study, supported by RCSI Student Engagement and Partnership programme (StEP).
- An online survey was administered using the validated Health Professional's Attitudes Towards the Homeless Inventory (HPATHI) [4] along with 11 additional questions developed by the research team, hosted on SurveyMonkey.
- o The survey used convenience sampling, targeting undergraduate students who are likely to care for PEH. 2647 eligible students from the School of Medicine, Pharmacy, Physiotherapy and Physician Associates programmes were contacted by the Quality Enhancement Office (QEO).
- This is an ongoing study which runs for 10 weeks. Preliminary results based on the week 2 data are presented.

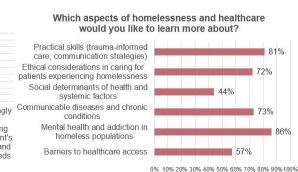
### Results

A total of 122 responses were submitted during the second week of the survey. Incomplete data were excluded, resulting in 109 valid responses, representing a response rate of 4.11%. Of the respondents, 70.6% were from the School of medicine, 24.7% from the School of Pharmacy and 4.58% from the Physiotherapy. 94% of respondents reported having no formal education on homelessness and healthcare, while 29.35% already had clinical exposure to PEH. A strong preference for interprofessional learning (78%) emerged, with most students suggesting a two-week module (41.3%) on homeless health, alongside a clear interest in advocacy and service-based initiatives (67%) and case-based learning (57%).

#### **Exposure to People Experiencing** Homelessness Have you had any clinical exposure to patients experiencing homelessness? Have you had any formal education on homelessness and healthcare in your. 60 80 100 120 ■Yes ■No







### **Discussion / Conclusion**

- Preliminary findings reveal a significant gap in students' education and preparedness to care for PEH but also indicate an overall positive and empathetic attitude toward homelessness among respondents.
- These insights strongly support the development of a dedicated Homeless Healthcare curriculum at RCSI.
- The next steps for this project include applying for Level 2 funding through the RCSI StEP Programme to engage with stakeholders and relevant experts in developing a formal EM curriculum.

"More focus on patients who aren't the 'standard,' people experiencing poverty or homelessness whose literal last resort is going to ED should be treated with the same dignity as everyone else."

"I think short interactive modules within courses would be beneficial, especially in raising awareness in the differences between typical hospital-based care and care involving the homeless."

"Engage with homeless services and reduce the fear associated with treating homeless people."

### **Acknowledgements**

- o RCSI Student Engagement and Partnership (StEP) programme
- Quality Enhancement Office (QEO)
- o Prof. Fiona Kent for their valuable support and contributions to this project.

- 1.) Ingram C. Buggy C. Elabbasy D. Perrotta C. Homelessness and health-related outcomes in the Republic of Ireland: a systematic review, meta-analysis and evidence map. Journal of Public Health, 2024;32(10):1855-76. 2.) Lima V. Rory H. and Murphy MP. Housing financialisation and the creation of homelessness in Ireland. Housing Studies, 2023;38(9):1695-718.
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### Emergency Clinicians' Knowledge and Perception of Training, Education, and Resources in Eating Disorders

Dr. Aileen McCabe<sup>1</sup>; Aljawharah Albanumay<sup>2\*</sup>; Parinita Arora<sup>2</sup>; 1 Tallaght University Hospital 2 School of Medicine, Trinity College Dublin \* Authors contributed equally to this work



#### Introduction:

- The prevalence of eating disorders (EDs) is increasing in Ireland.
- Emergency clinicians have an important role in the recognition, assessment, and management of patients with EDs.
- Little is known on emergency clinicians' knowledge and training of EDs.

### Purpose:

Explore the knowledge and perception of training, education and resources in EDs amongst clinicians' in Ireland, including doctors and nurses.

### Methods:

- Investigator-developed survey
- Distributed to emergency room clinicians in Tallaght University Hospital

### Participants:

- 40 doctors and 90 nurses working in the ER were contacted by email to fill in the survey
- · 49 clinicians completed the survey
- 61.2% of respondents were female (n=30)
- 47% (n=23) of the respondents were doctors

#### Outcomes:

Adequate

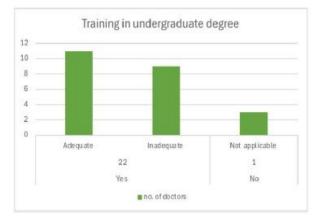
**Primary outcome:** Assess the education and training of clinicians and nurses on EDs in their undergraduate or postgraduate education

Inadequate

no, of nurses



Not applicable



### Results:

95.6%

60.9% (n=14) doctors that they were not familiar with the UK Royal College of Psychiatrists' Medical emergencies in EDs (MEED).

78.2%

100%

Secondary outcome(s): Assess investigations,

risk assessments, suggested criteria for

referrals, treatment options in EDs. Evaluate the

56.5% (n=13) of doctors were also not familiar with the Irish Association for Emergency Medicine (IAEM) Guideline for the Assessment and Management of Patients with Suspected or Confirmed Eating Disorders in the Emergency.

#### **Future Directions**

86% (n=31) of clinicians strongly agreed or agreed that additional education and training in EDs would be useful to them to apply to patients that they may see in the ED.

A majority of doctors strongly agreed or agreed collaboration with other healthcare professions and further training would be helpful in discharge planning and management of EDs.

### Conclusion

86% (n=31) of clinicians strongly agreed or agreed that additional education and training in EDs would be useful to them to apply to patients that they may see in the ED.

A majority of doctors strongly agreed or agreed collaboration with other healthcare professions and further training would be helpful in discharge planning and management of EDs.



# "Traumatic Cerebral Infarction with Normal Initial Imaging: A Rare Case Report of Acute Traumatic Infarction Detected on MRI"

Authors: - Dr.Ankit Singhania , Dr.John Mulholland , Our Lady Of Lourde's, Drogheda .

Introduction: - A 69-year-old male was pre-alerted to ED at 1AM as "FAST positive" after being hit on the head with a table in a bar. He had speech disturbance and right sided arm and leg weakness. He was seen initially by the EM and Medical Registrars as a stroke/FAST call. A CT Brain and angiogram of aortic arch, carotids and intracranial were nil acute, only showing existing 70% stenosis of left ICA. The medical team "handed back" his case to ED as it was a traumatic injury and recommended surgical admission, but the surgical team were concerned that he had features of an ischaemic stroke. His neurological deficits persisted and in the morning the EM Consultant undertook an MRI Brain which showed acute ischaemia in the left posterior MCA territory. He was admitted under the stroke team for further management

Background: - This is a very rare event with few cases of post traumatic infarct reported in children and infants, but no cases reported in adults. There are studies which showed infarction due to arterial dissection but no case reports describing infarct post-acute trauma.

The aim of this case report is to highlight the importance of early recognition of this rare event by undertaking MRI if initial CT and Angiograms are normal as this may change management and inpatient team disposal

**Patient progression:**Due to early detection, the patient fully recovered by the time of discharge.

**Conclusion**: More emphasis should be placed on early consideration of MRI brain for detection of infarct post-acute TBI for patients with reduced GCS or neurological deficits with normal initial imaging.

### Urgent Virtual Care (UVC): Enhancing Access to Acute Care at Cork University Hospital Right care, Right place, Right time

Mathews D, Underwood S, O'Connor M, O'Riordan A, Wycherly J, Deasy C. Cork University Hospital





#### Introduction

Cork University Hospital's Emergency Department (ED), in collaboration with the

regional health authority, launched the Urgent Virtual Care (UVC) Centre in November 2024. This initiative was designed to help address the increasing complexity for patients and GPs to navigate secondary care by offering real-time virtual consultations for patients referred by general practitioners (GPs) and paramedics.

Senior emergency medicine doctors and/or geriatricians assess each case and direct patients to appropriate care pathways, aiming to get the patient to the right care at the right time.

June 24

Identified as key

Priority Of REO

July 24

#### Methods

The UVC Centre operates as a telemedicine hub, where experienced emergency

physicians receive referrals from community-based clinicians. Depending on clinical

assessment, patients can be facilitated to multiple to services including same-day advanced diagnostics, integrated care of the elderly team review, or the National Ambulance

Service's Alternative Care Pathways amongst others. Data was prospectively collected on the first 2000 patients referred to UVC between November 2024 and March 2025, focusing on outcomes and diagnostic and treatment pathways used.

### Monday 4th Nov 24 August 24 Sept/October Scoping of Work Focused Planning GO Live Go Live

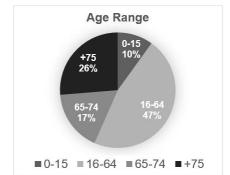


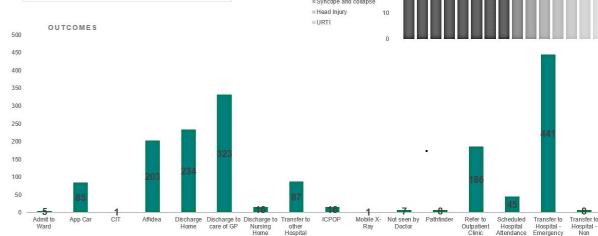
Workshops.

#### Results

During the first four months of this pilot 1666 patients were assessed by the UVC. 73% of those had alternative care plans put in place that did not require attendance at their local ED.

Month	Total ED Presentations	UVC	UVC percentage overall
Nov-24	7077	410	5.7%
Dec-24	7778	405	4.9%
Jan-25	7107	442	5.8%
Feb-25	6496	409	5.9%

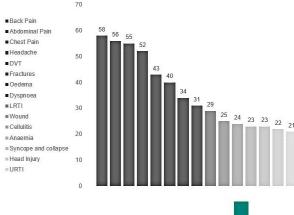




#### Conclusion

The UVC represents a dynamic, responsive and sustainable approach to healthcare. It offers a platform on which to develop a robust integrated urgent care network that can be measured and monitored for safety, quality and efficiencies across the entire Health network. With the right framework of alternate care pathways and capacity in the Acute care services this presents a viable alternative to the current system which has become increasingly dependent on the Emergency Department to deliver this care

#### TOP 15 PRESENTING COMPLAINT



### Impact of an Out of Catchment Ambulance Hyperacute FAST+ Bypass Pathways on an Irish University Emergency Department

Logan Perry, Reilly Riordon, Shane Mooney, David Irwin, Dan Ryan, Aileen McCabe

#### Introduction

Stroke is a leading cause of death and disability, with outcomes closely tied to timely intervention, as thrombolysis is most effective within 4.5 hours of symptom onset.

In March 2024, the Dublin Midland
Hospital Group and the National
Ambulance Service introduced a
Hyperacute FAST+ ambulance bypass
protocol for patients who would typically
attend Naas General Hospital or Midland
Regional Hospital, Portlaoise, in the
Leinster region of Ireland. Under this
protocol, paramedics transport
hyperacute FAST+ patients directly to
Tallaght University Hospital (TUH), an
academic tertiary hospital, to expedite
specialist stroke care. The regional
hospitals are located 28 km and 76 km
from TUH.

This study evaluates the impact of the FAST+ protocol on prehospital timelines, emergency department burden, and patient outcomes.

# Tallaght University Hospital Ospidéal Ollscoile Thamhlachta An Academic Partner of Trinity College Dublir

#### Methods

This single-center retrospective chart review analyzed all Hyperacute FAST+ patient presentations to TUH ED between March 1, 2024, and February 28, 2025, using data from the ED Information System, Symphony. Journey times and distances were obtained via Google Maps.

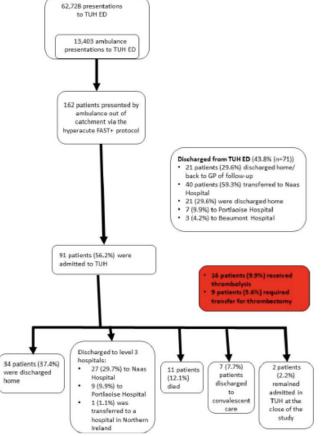


Figure 1. Study Population.

#### Results

TUH ED recorded 62,728 attendances during the study period, including 13,403 ambulance arrivals. Of these, 1.2% (n=162) were Hyperacute FAST+ patients. The mean patient age was 68 years (93 males, 69 females).

- Mean distance traveled was 55.9 km
- Estimated average travel time of 44.0 minutes

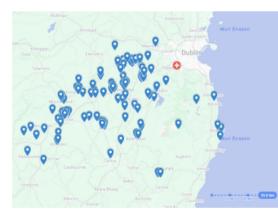


Figure 2. Map showing ambulance pickup locations (blue) compared to TUH location (red).

- The ED patient experience time was 5.1 hours
- · 9.9% of patients received thrombolysis
- 5.6% of patients received a thrombectomy

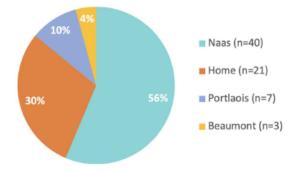


Figure 3. Discharge locations of patients (n=71) not admitted to TUH.

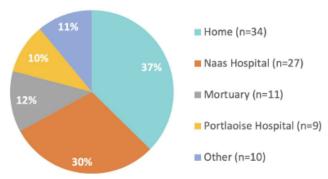


Figure 4. Discharge locations of patients (n=91) admitted to TUH.

 Average length of stay for admitted patients was 13.6 days

#### Conclusion

The Hyperacute FAST+ bypass protocol resulted in high admission rates and prolonged hospital stays. Long ambulance journey times underscore the need for efficient imaging and consultant-level decision-making. The evolving stroke care model in Ireland will be shaped by geography, workforce capacity, and ambulance resources, with ongoing research guiding improvements.

### latrogenic broken peripheral intravenous cannula- A case report

Ambreen Rana and Art McCorristine Emergency Department, Our Lady of Lourdes Hospital Drogheda

### INTRODUCTION

Peripheral Iv cannulation is performed in approx. 60 % of hospitalized patients. Though Routine, complications include:

- •Infiltration
- Thrombophelibitis
  - Hematoma
- Catheter associated bloodstream infections
  - ·Rarely, Catheter fracture

The incidence of catheter fracture is underreported, with limited case documentation.





### CASE REPORT:

### Patient:

25-year-old female, 4 days postpartum

### **Chief Complaint:**

Foreign body sensation in right forearm

### History:

PIVC inserted in right antecubital fossa during hospital stay

### **Examination:**

- Mild tenderness
- ·Palpable firm structure along vein
- ·No infection or systemic signs

### Investigation:

- ·Bedside Ultrasound showed a linear echogenic foreign body within the vein
  - Appearnace consistent with retained IV cannula fragment

### DISCUSSION

Retained IV cannula fragmentrs are rare but a significant compliaction of IV cannulation. Can present days after removal with non-specific symptoms

Risk Factors may include:

- Improper cannula removal
- Excessive manipulation
- ·Cannula damage during insertion/removal

### CONCLUSION

- Always inspect IV Cannulas after removal
- Bedside ultrasound is a valuable diagnostic tool for detecting iatrogenic intravascular foreign bodies
- Early recognition and specialits referral are essential to prevent compliactions
- This case emphasizes the importance of vigilence and thorough technique in IV device management.

### Case Report: Atypical Facial Pain- An Emergency Medicine Case of Malignant SVCO

Authors: Dr Michelle O'Dwyer, Dr Avril Compton, Dr Anne-Marie Kennedy, Dr Barry Keane

Affiliation: Emergency Department, St James's Hospital, Dublin, Ireland

### Introduction

Superior-vena-cava obstruction (SVCO) is a timecritical oncological emergency, > 70 % due to smallcell-lung-cancer (SCLC).

Classical signs are oedema and venous distension; isolated jaw pain is not recognised presentation.

### Case Report

Presenting Complaint: 5 weeks of right-sided jaw pain radiating to mid-face.

### History of Presenting Complaint:

- Pain dull, constant; minimal response to NSAIDs, opioids and two antibiotic courses (GP & dentist).
- New periorbital oedema, neck swelling, chest-wall telangiectasia over 2 weeks.
- Reports "pressure" in head/chest on lying supine.
- No fever, weight loss, cough, dyspnoea or hoarseness.

### Past Medical History/ Social History:

- Hypertension, dyslipidaemia, hypothyroidism.
- Ex-smoker of 11 years, 25 pack-years.

### Vitals:

HR 99 bpm BP 139/84 mmHg RR 16 SpO<sub>2</sub> 97 % RA Temp 36.5 °C GCS 15/15

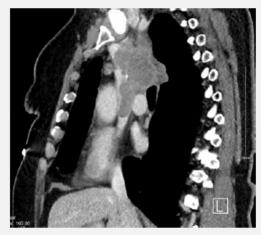
### On Examination:

- Marked periorbital swelling and facial plethora.
- Palpable, non-tender submandibular & cervical nodes.
- Telangiectasia & venous distension across anterior/left chest wall
- No stridor; lungs clear; Pemberton sign negative.

### **Imaging**



CXR: widening of the mediastinum with a mass projected over the right paratracheal region measuring approx. 10 cm craniocaudally



CT venogram: 4.5×6.2×8.6 cm mediastinal mass invading SVC; near-complete luminal obstruction. Tumour thrombus extending into the brachiocephalic and azygos veins.

### **Management in ED**

- Dexamethasone 8mg IV to reduce intracranial pressure sensations
- Therapeutic LMWH given the tumour-thrombus extension.
- Medical admission
- On admission- systemic chemotherapy, urgent radiotherapy and endovascular stenting

### Discussion

Literature search revealed no malignant SVCO that began with isolated jaw pain; a single catheter-related episode is the only precedent.

Mislabelling the symptom as dental or TMJ disease risks delay while cerebral oedema or airway compromise evolves.

Contrast-enhanced chest CT confirms obstruction and distinguishes compression from tumour thrombus.

Our case broadens the symptom spectrum of SVCO and reinforces the diagnostic value of a structured systems review in 'benign' facial pain.

### Conclusion

- ED is pivotal in identifying occult oncological emergencies.
- Always consider malignancy in patients with significant smoking histories.
- Persistent facial pain after appropriate therapy warrants reconsideration of vascular or neoplastic causes, particularly in smokers. Prompt chest CT and multidisciplinary therapy are essential.

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### When the Wearable Becomes Unbearable: A case report of a compressive neuropathy caused by a smart watch

**Patrick Clear, Adrian Moughty Mater Misercordiae University Hospital** 



### Introduction

Wartenberg's syndrome is an uncommon compressive neuropathy of the superficial radial nerve (SRN), typically presenting with pain and paraesthesia to the dorsum of the hand. Here we present a case of a young woman who presented to the emergency department with a case of Wartenberg's syndrome caused by continual usage of a smart watch.



Further reading

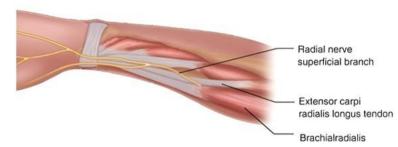
Case



A 33-year-old woman presented to the emergency department with isolated pain and paraesthesia to the left hand. Physical exam revealed reduced sensation in the distribution of the radial nerve in addition to a positive Tinel's sign over the dorsolateral wrist. There was no motor weakness. Following a focussed literature review, a diagnosis of Wartenberg's syndrome was made. Further history revealed that she had been wearing a smart watch on her left wrist on a near continual basis for the preceding weeks. She was discharged home with reassurance and advised to curtail her use of the smart watch. The symptoms were completely resolved six weeks later.

### Discussion

Wartenberg's syndrome is a neuropathy of the SRN caused by compression as it passes between brachioradialis and the tendons of extensor carpi radialis longus. As the SRN is a purely cutaneous nerve it is not associated with motor deficits. It typically presents in the context of circumferential compression of the wrist (Wrist bands, handcuffs, wristwatches). As the usage of smart watches expands from simply during exercise to continual monitoring of parameters such as heart rate and sleep quality, the wearing of these devices for prolonged periods of time may be expected to increase. This may lead to increased presentations of Wartenberg's or similar neuropathies to the emergency department.



Cutaneous innervation of SRN

### Blood culture contamination: why does it happen and why does it matter?

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#### Introduction

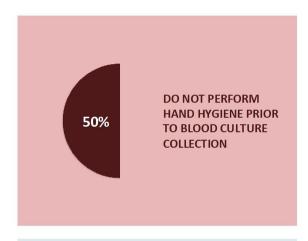
Blood cultures are a common diagnostic tool emergency medicine healthcare providers use in the course of their assessment and treatment of patients. Contamination leading to a false positive result is an anticipated occurrence. National guidance confers an acceptable rate of blood culture contamination below 3%. The implications of a contamination rate above this threshold are many; a false positive blood culture complicates the delivery of appropriate patient care, impedes the practice of antimicrobial stewardship and is assoicated with increased costs of up to £5000. A review of the contamination rate of blood culture samples collected from the Emergency Department in Sligo University Hospital in January 2025 demonstrated a contamination rate of over 7%.

#### Methods

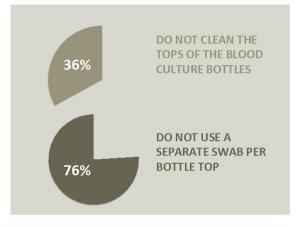
To better understand blood culture collection practice in the emergency department, staff were asked to complete an annonymous dichotomous survey of eight questions, based on the recommendations set out in the national HSE guideline for blood culture sampling.

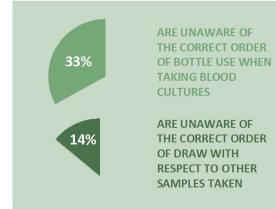
#### Results

42 nurses and doctors of a Model 3 Emergency Department were surveyed.









#### Conclusions

A knowledge deficit exists amongst emergency staff with regard to the optimum technique for blood culture collection and is likely contributing to a higher than acceptable blood culture contamination rate. Further education is required to promote compliance with best practice technique and prevent the unwanted consequences of a false positive blood culture result.

- 1. Irish Society of Clinical Microbiologists Blood Culture Guideline Development Group. "Irish Guideline for the Investigation of Blood Culture Samples". Oct 2021, CDIO15/2021. Version 3
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### Massive Spontaneous Thigh Haematoma Causing Haemorrhagic Shock

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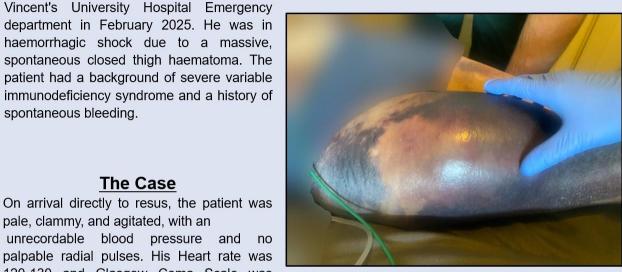


### Outcome

The patient was admitted to ICU for ongoing resuscitation with blood products and supportive care.

Interventional radiology was not viable in this case and surgical intervention was not considered to be of benefit.

leg haematoma was managed conservatively with surgical packing and dressings. Unfortunately, he developed a worsening pneumonia with progressive respiratory failure and died two weeks after admission.



### The Case

Introduction

We present an unusual case of a 44 year old

man brought by ambulance, critically ill, to St

On arrival directly to resus, the patient was pale, clammy, and agitated, with an unrecordable blood pressure and no palpable radial pulses. His Heart rate was 120-130 and Glasgow Coma Scale was 10/15. Examination revealed a massive closed haematoma of the entire anterior right thigh. This haematoma continued to expand while in the ED, with the skin becoming increasingly tense, though distal pulses intact. He had reportedly remained complained of increasing leg pain over several days before being found unresponsive beside his bed that morning. There was no history of trauma.

Initial investigations revealed:

Haemoglobin 1.3.

spontaneous bleeding.

- VBG: pH 7.1, glucose 2.3, Lactate 9.7
- INR 8.6, platelets 20, fibrinogen < 0.5.

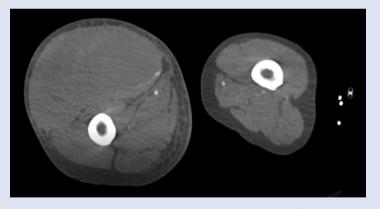
### **Spontaneous Muscle Haematomas**

Spontaneous muscle haematomas are uncommon and typically occur in anticoagulated patients. In this case, contributing factors likely included coagulopathy from decompensated liver disease and immune-mediated angiopathy secondary to heparin.

paucity of evidence to guide There is a interventional but radiology management embolization of the culprit vessels appears to offer better outcomes where possible then open surgery. Supportive medical care and reversal of anticoagulation are also essential.

### Management

- MTP (Warmed, 2:1:1 ratio)
- IV Tranexamic Acid
- IV fibrinogen + IV Calcium prn
- Empiric IV vitamin K followed by protamine sulphate to reverse therapeutic enoxaparin
- Broad spectrum IV antibiotics
- CT angiogram lower limbs
- MDT Input: Interventional radiology, ICU & multiple surgical specialities





### Conclusion

This case is a stark reminder of the volume of blood loss and life-threatening shock that can occur from bleeding into the thigh, even without trauma. This is particularly challenging in the setting of therapeutic anticoagulation and decompensated liver disease as in this case.

It also highlights the added complexity of managing critically ill patients with complex rare diseases such as severe variable immunodeficiency syndrome.



### Prevalance of Eating Disorders in the ED & Its Correlations

Yi Kuok, May Lyster, Aisling O'Neill, Pauline Boyle, Mariel Campion, John Kelly, Aileen McCabe

#### 01. Introduction

- Individuals with eating disorders (EDs) are 1.6x more likely to visit the emergency department (ED), and 43% of frequent ED attenders screen positive for an ED, regardless of their presenting complaint (McCabe, 2023).
- EDs frequently co-occur with substance use disorders (SUDs) notably, 27% of anorexia nervosa (AN) patients meet criteria for SUDs, especially in binge/purge-type AN and bulimia nervosa (BN) (Rittenhouse, 2021).
- · EDs remain heavily stigmatised, which can hinder timely diagnosis and intervention.
- Correlations between EDs, alcohol, and drug use often go unrecognised in emergency settings.
- The ED may serve as a crucial point of contact for patients with undiagnosed EDs, making it a strategic site for early identification and referral
- Failure to recognize EDs can delay treatment, worsen prognosis, and increase healthcare costs due to recurrent presentations.

### 02. Objective

This study examines the prevalence of eating disorders in adult patients presenting to the ED and explores potential relationships with alcohol and substance use disorders.

### 03. Methodology

#### Study Design & Setting

- Cross-sectional screening study
   Emergency Department, Tallaght University Hospital
- Dates: March 18–24, 2025
- . Ethics: Approved by TUH/St. James's Joint Research Ethics Committee

#### Participants

- Inclusion: Patients aged ≥16 presenting to ED
- - Acute psychiatric conditions (e.g., psychosis, suicidal ideation)
  - Medical instability (EWS ≥3)
  - Inability to consent (language, cognition, mental status)
  - Repeat participation

#### Recruitment Process

- · Verbal approach in waiting/treatment areas
- Written informed consent obtained
- 5-minute anonymous survey completed

#### Statistical Analysis

- Bivariate: t-test, chi-squared
- Multinomial logistic regression: To identify variables independently associated with ED screening positivity

### 04. Study Measures

- · Demographics: Self-reported age, gender, ethnicity
- BMI: Self-reported height & weight (categorized per WHO standards: Underweight-Obese)
- Eating Disorders: Modified SCOFF Questionnaire (mSCOFF): ≥2 "yes" responses suggest probable ED (AN/BN)
- · Substance Use: ASSIST-Lite: Alcohol, tobacco, and illicit/prescription drug use in the past 3 months

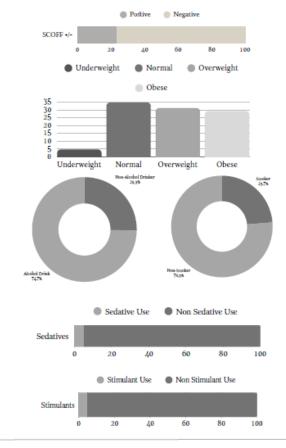
#### **SCOFF Questionnaire**

Do you ever make yourself throw up (or use laxatives, water pills or exercise) because you feel uncomfortably full?	Yes 🗆	No 🗆	
Do you worry you have lost control over how much you eat?	Yes 🗆	No 🗆	
Have you recently lost or gained more than One stone (14 pounds or 6.35 kg) in a 3- month period?	Yes 🗆	No 🗆	
Do you believe yourself to be fat when others say you are too thin?	Yes 🗆	No □	
Do thoughts and fears about food and weight dominate your life?	Yes 🗆	No □	

### Discussion

- Prevalence of EDs: 23.8% of ED patients screened positive for an eating disorder, significantly higher than general population rates (8.6% in females, 4.1% in males).
- · First Irish ED Study: This study is the first in an Irish ED to investigate ED prevalence, filling a research gap and showing that the SCOFF questionnaire may have higher sensitivity than previous tools.
- BMI Findings: 60% of participants were overweight or obese (BMI ≥25), suggesting that eating disorders can occur beyond the underweight category. This highlights the risk of bias and missed diagnoses when relying on body size alone.
- . Substance Use: A significant portion of patients reported recent use of alcohol (74.7%), tobacco (23.6%), and cannabis (11.9%), reinforcing the comorbidity between substance use and eating disorders. These findings mirror literature linking EDs with substance misuse as coping mechanisms, especially in relation to body image and emotional distress.
- · Lack of Awareness: In the U.S., only 5% of ED physicians were familiar with key ED management guidelines, highlighting the need for better awareness, training, and protocols in EDs.

### 04. Results/Findings



#### 06. Conclusion

This Irish ED study indicates that the prevalence of eating disorders is high in our population. Given the significant morbidity and mortality associated with eating disorders targeted screening may be warranted. This study identified a prevalence of substance use disorders which may correlate with eating disorders in this population.