



Poster Presentations

Name	Hospital	Title
Dr. Neil Kearney	SUH (Sligo)	An audit of discharge prescriptions in Sligo University Hospital (SUH) Emergency Department
Dr Jennifer Bevan	UHW (Waterford)	An Acute Presentation to the Emergency Department of Staphylococcal Scalded Skin Syndrome in a Young Child.
Dr. Waslat Bakhshi	SUH (Sligo)	Covid on the brain?
Dr. Mairead Reidy	UHG (Galway)	Discussing patients with seniors: How good are we?
Dr. Mairead Reidy	UHG (Galway)	Documentation of the Fascia Iliaca Block in the Emergency Department
Dr. Enda Hession	CHI (Crumlin)	When an off form toddler is something more!
Dr. Cathal de Buitleur	TUH (Dublin)	A Rare Case of Low Velocity Penetrating Brain Injury



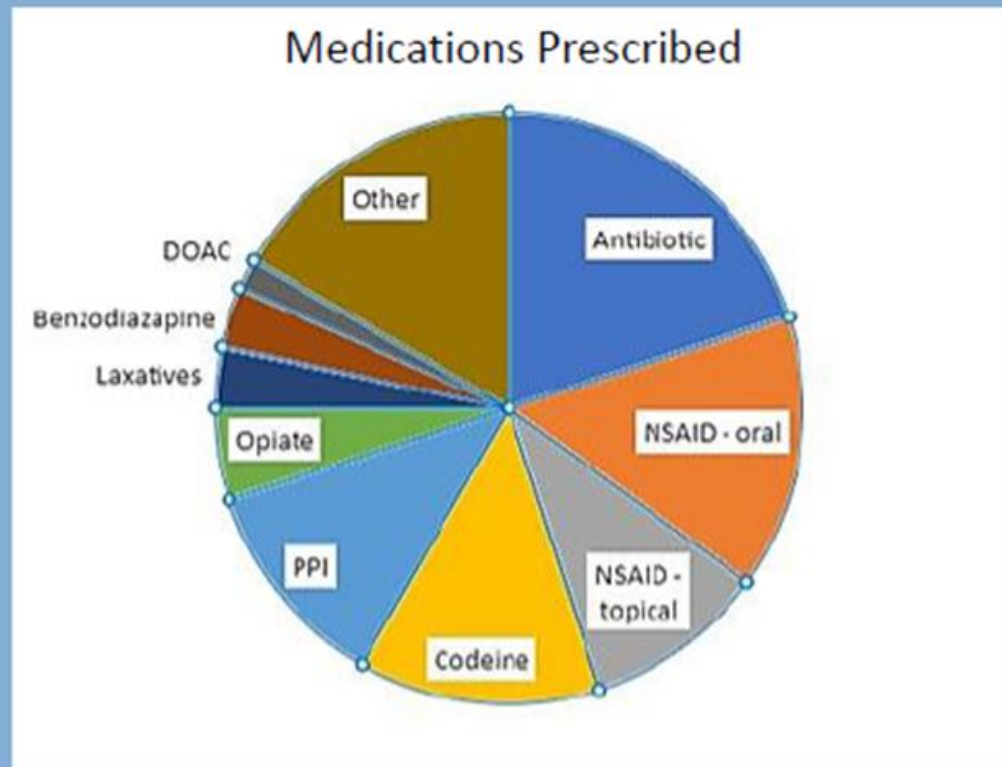
Discharge Prescriptions for Elderly Patients in ED

A 2-Week Audit of Discharge Prescriptions in Sligo University Hospital (SUH) Emergency Department

Due to Ireland's aging population, increasingly large numbers of elderly patients are presenting to emergency departments. Prescribing medication to these patients is challenging due to increased co-morbidities and polypharmacy risk. This audit aims to quantify the number of patients discharged; the amount that were prescribed medications and the medications prescribed. This could further facilitate an analysis of whether the prescriptions were appropriate and identify areas for improvement.

Methods

All patients presented to SUH Emergency Department and seen by an Emergency Medicine Doctor/ANP within a two-week period were identified using iPMS. The discharge letters and electronic discharge prescription record were analysed to identify those patients that received a prescription and what medications they were prescribed.



Results

A total of 344 patients over the age of 65 were identified. 129 patients (37.5%) were discharged after review by an Emergency Department staff member. 43 patients had a discharge prescription (33%), with a total of 64 medications prescribed. The majority of prescriptions were for antibiotics or analgesia.

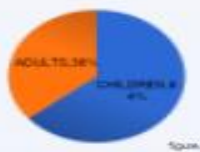
Dr. Neil Kearney, Dr. Mohamed Qotb

Discussion

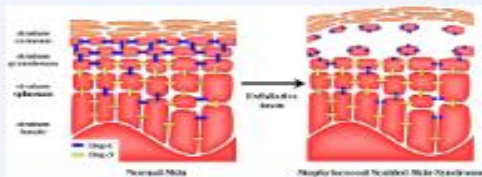
A significant number of patients over 65 are given prescriptions on discharge from SUH Emergency Department. Antibiotics and analgesia make up the majority of the prescriptions. The use of NSAID and opiates in particular can be associated with harm in patients in this age group and therefore careful utilisation of these medications is important in minimizing adverse events. There are ways of mitigating some of these side effects – and perhaps greater care going forward could prevent. Examples include co-prescribing laxatives with opiates, a reduced use of weak opiates and minimal NSAID prescriptions with PPI cover as appropriate.

Background

SSSS (staphylococcal scalded skin syndrome) is a relatively uncommon but potentially life threatening illness. Complications can result in superimposed bacterial infection, hypothermia, hyponatraemia, dehydration and sepsis requiring PICU input. **64% of cases are in children** (fig.1) and 62% of those are under 2yrs old. Figures vary but one large US database found 7.67 cases per million children. Mortality in this group is 1-5% but in adults is 40-60%.



SSSS is caused by circulating exfoliative toxins produced by certain strains of staphylococcus aureus. **They break down desmoglein 1**, which is a desmosomal cadherin that binds skin cells to one another (fig.2). Denudation of the skin occurs resulting in a peeling then scalded appearance to the skin.



The toxins spread hematogenously resulting in desquamation at sites distant to the infectious site. They are excreted via the kidneys, therefore neonates, with developing kidney function and adults with kidney disease report a higher incidence of SSSS.

Higher incidence in children is also linked to the fact that they have not developed antibodies against staphylococcal toxins. 91% of adults older than 40 years have antibodies against ETA (exfoliative toxin A). 50% of those over the age of 10 have already developed these antibodies.

15-40% of healthy humans are asymptomatic carriers of staphylococcus aureus but only 5% of these isolates produce exfoliative toxins.



Figure 3

Children present with vague symptoms like irritability, malaise and rash. **Faint erythematous patches** appear on the skin which demarcate, and coalesce. A positive Nikolsky's sign can be demonstrated (fig.3). **Bullae develop then rupture** leaving the skin appearing scalded (fig.4&5). This process continues for 24-48 hrs after the circulating exfoliative toxins have been excreted or neutralised. Within 24hrs of initial exfoliation the skin dries, crusts (fig.6) and generally heals within 14 days without scarring.



Figure 4



Figure 5



Figure 6

Case

A febrile, tachycardic and mildly hypotensive 19 month old attended the Emergency Department with what were triaged as burns. There was initial concern due to a somewhat inconclusive story that they may have been burns due to NAI. It was however soon realised that this was likely a case of rapidly progressing SSSS that needed urgent treatment and inpatient management. The child required fluid resuscitation and under the guidance of Dermatology received intravenous clindamycin and cefazolin along with particular wound dressings and close monitoring. The child required a six-day inpatient stay and further antibiotic treatment in the home, along with decolonization of the entire family, before making a full recovery by day 20.

Diagnose

- Clinically
- Histologically - skin biopsy isolating staphylococcus aureus from the patient + demonstrating exfoliative toxin production
- Note: blood cultures will generally be sterile in children and positive in adults
- Note: swabs from distant bullae will be sterile

Treat

- Start antibiotics as early as possible -> penicillinase-resistant penicillins
- Severe cases -> tertiary burns unit for care in a critical care environment
- Corticosteroids + NSAIDs contraindicated
- Mepitel, paraffin impregnated gauze
- Systemically unwell children -> dose of fresh frozen plasma
- 5-day course of intravenous immunoglobulin
- Temperature control, analgesia, fluids

Differentials



Room for Error

Several cases in the literature document **misdiagnoses** of SSSS on initial and subsequent presentations to healthcare settings. This has led to incorrect and delayed management.

SSSS may be confused with non-accidental burns in the setting of NAI. Of note, burns and scalds represent **6-20% of child abuse cases**, but is often under-recognised and under-reported.

There is diagnostic value in **keeping the evolution of skin lesions under close observation**, with particular reference to the development of new ones. Daily examination + descriptions + photos of all lesions is useful.

Burns are mimicked by skin conditions such as bullous impetigo and SSSS.

Conclusions

SSSS is uncommon but potentially life threatening especially in the paediatric population.

It may be misdiagnosed at first, second, and even third episode of clinical contact.

SSSS may be mistaken for NAI and can have serious implications for families involved in such cases.

Once diagnosed involve Dermatology early for advice.

Penicillinase-resistant penicillins (generally flucloxacillin or if MRSA+ then vancomycin).

Prompt recognition and management is of utmost importance.

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COVID-19 ON THE BRAIN?



Dr. Waslat Bakhshi
Dr. Dara Gallagher



INTRODUCTION

A 9-week-old female presented to the Emergency Department accompanied by her Mum generally unwell. Mum reported that less than 24 hours ago, the baby was "not herself" with decreased feeds, decreased urinary output and lethargy.



PATIENT BACKGROUND

Patient had a background of 37-week gestation, with no NICU admissions. APGAR scores of 9 & 10 at delivery.



Mom & Dad
COVID-19 positive



Patient
positive
antigen test



PATIENT EXAMINATION



HR 172 | RR 36
Temp 37.6°C
O2Sat. 99%
CRT 4-5 seconds
GCS 14



Severely
Irritable



Severe
mottling to skin



Lungs clear



Heart sounds
normal



Abdomen
appeared
distended, but
soft non-tender



DIAGNOSIS & TREATMENT

Differential included COVID-19 vs. Meningitis/Sepsis.

Patient was commenced on treatment for presumed meningitis with IV cefotaxime and received three IV fluid boluses in the Emergency Department.

Further investigations as an inpatient included an US abdomen and a lumbar puncture which showed WCC 45, glucose 3.0, protein 0.49, normal gram smear, lymphocytes 86 %, polymorphs 14 %. Bacterial and enterovirus PCR results came back negative. She completed 14/7 of IV anti-biotics.



LEARNING POINTS

Meningitis and septicaemia can kill and disable in hours. Suspected meningitis/sepsis in young babies is an emergency and requires prompt treatment and management.



CONCLUSION

The impression for this patient was COVID-19 meningitis. There have not been any reported cases of COVID-19 meningitis in Ireland to date and it will be interesting to see cases of babies with COVID-19 with a similar presentation in the coming years.



Discussing patients with seniors: How good are we?

Dr. Mairead Reidy, SHO in EM, UHG
 Dr. Mishal Tariq Khan, Registrar in EM, UHG

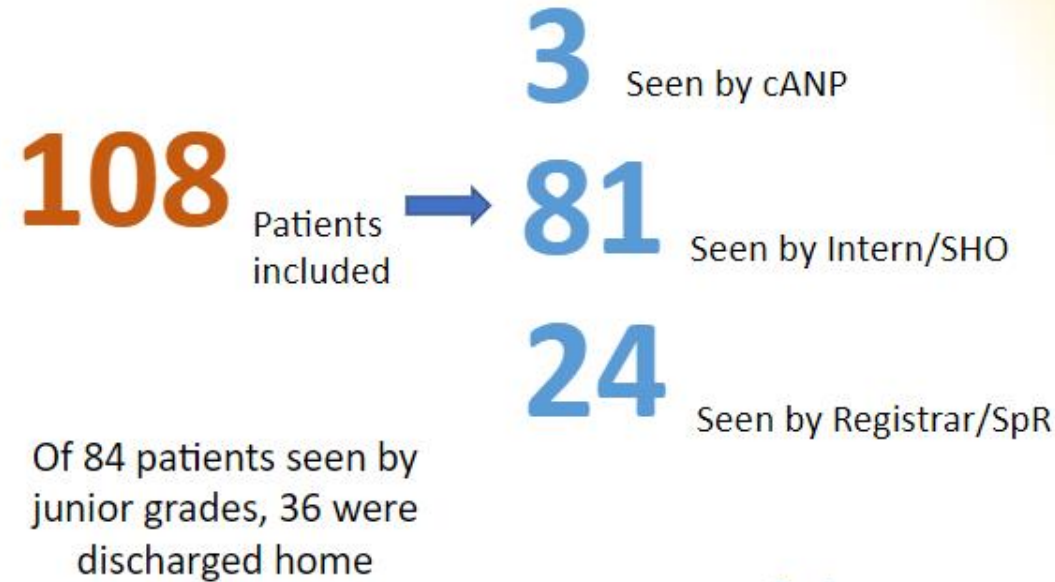
Introduction

The Royal College of Emergency Medicine sets clinical standards for Emergency Departments. One such standard surrounds 'consultant sign-off'. This is where high risk patient groups should be reviewed by a consultant or senior trainee in Emergency Medicine prior to discharge.

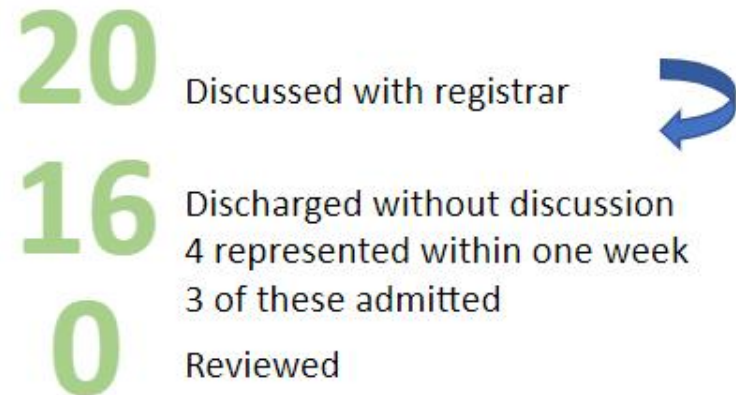
One of these high-risk groups is patients over the age of 70 who present with abdominal pain.

Method

- Retrospective audit
- Scanned ED notes from September-December 2021
- Patients over the age of 70
- Main triage complaint of abdominal pain
- Looking at documentation of discussion or a review of patient by senior doctor



How many of these were discussed or reviewed?



Conclusion

Improvements could be made on rate of discussion with seniors as it may help with reattendance rates. Encouragement of reviews is also needed. We plan on undertaking a teaching session with NCHDs and re-auditing in the future

Documentation of the Fascia Iliaca Block in the Emergency Department

Dr. Mairead Reidy, SHO in Emergency Medicine
 Dr. Muhammad Habib Khan, Senior Registrar in Emergency Medicine

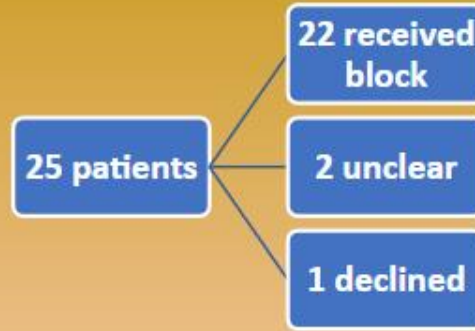
Introduction

The fascia iliaca compartment block (FIB) is a commonly performed procedure for analgesia in patients with hip fractures. The Irish Association of Emergency Medicine (IAEM) published a guideline in 2018 outlining how the FIB should be carried out & documentation needed. Recommendations include: use of levobupivacaine only, use of ultrasound and pre/post procedure pain scores.

We carried out an audit in the ED in UHG looking at our documentation for FIBs.

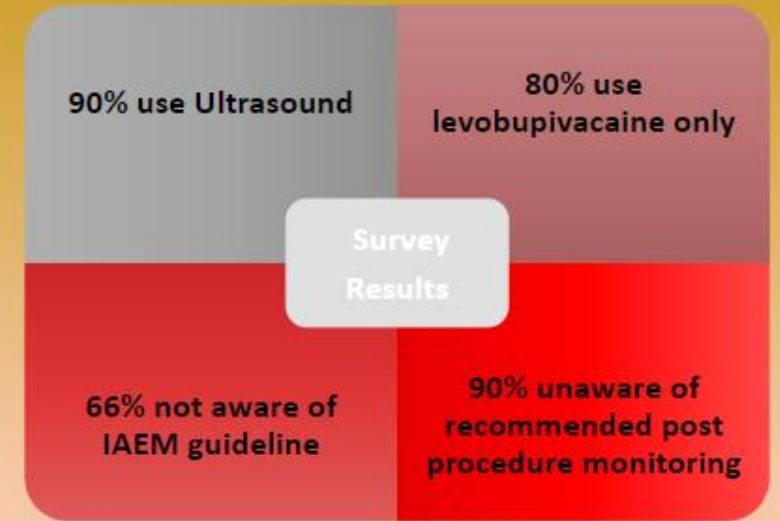
Method

- Retrospective audit
- 25 hip fractures between Dec 21-Feb 22
- No proforma in our pathway for the FIB
- Documentation looked at: time of block, side, type of medication, dose, pre & post pain score, post procedure observations
- Survey of ED staff on how they perform their FIBs – 11 respondents



Documentation

Name of person giving block	14/22 (63%)
Side of block	12/22 (54%)
Medication name & dose	9/22 (40%)
Pre/Post Pain score	0/22 (0%)
Observations @ 5mins	3/22 (13%)



Conclusion

- Large variations in what is documented between individuals
- Need for a streamlined approach to documentation of the FIB in the ED
- Plan on the introduction of a proforma for documentation and re-auditing after this

Presentation

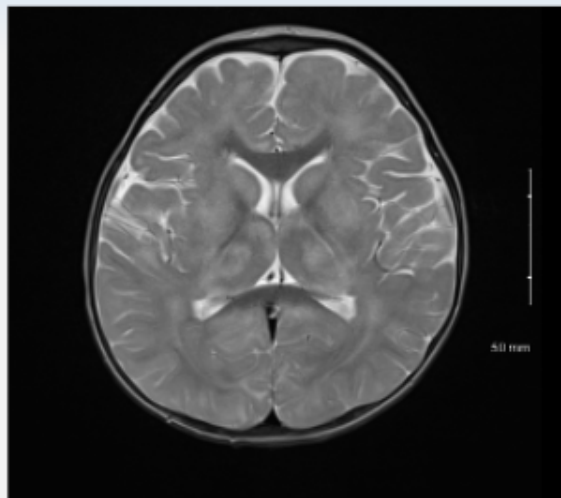
- Presented to ED with five day history of illness – off form, poor feeding, vomiting, fevers, impaired balance.
- On initial examination, noted to be irritable and lethargic. Normal vital signs. Unremarkable ENT, cardio-respiratory, gastrointestinal and neurological exam.
- Admission bloods unremarkable and urinalysis normal. Rehydration commenced. Referred to medical team for admission and further workup.

Inpatient Course

- Significant deterioration in neurological examination on first morning post admission. Developed decreased responsiveness, distant staring, no visual tracking or following, rigidity in all limbs, hyperreflexia, ankle clonus, bilateral upgoing plantar response.
- Admitted to paediatric ICU. Commenced on leviteracetam for seizure-like activity and covered with cefotaxime and acyclovir for possible meningoencephalitis.
- Consult by neurology – differential of ADEM (acute demyelinating encephalomyelitis), post-viral encephalopathy and autoimmune encephalopathy considered. Addition of IV methylprednisolone and IVIG to treatment. Widespread changes on MRI brain typical for MOG (myelin oligodendrocyte glycoprotein) antibody associated ADEM-like disease. Lumbar puncture performed with CSF sent for anti-MOG.
- Discharged to ward post five day PICU admission. Gradual, continued improvement noted on daily reviews by both neurology and MDT. Significant improvement in visual response and limb movement. Full oral feeding resumed. Discharged home four weeks post admission to hospital.

Discussion

- Acute demyelinating encephalomyelitis is a demyelinating disease of the central nervous system that typically presents with multifocal neurological symptoms and encephalopathy
- Affects 0.2-0.5 per 100,000 children
- Most cases are typically post exanthematous infection or vaccination and presentation can be abrupt or evolve over a period of a few days
- Clinical features
 - Encephalopathy
 - Early neurological deterioration
 - Severe phase typical for two to four weeks
- Diagnostic challenge requiring high clinical suspicion
- MRI imaging- multifocal lesions throughout the brain, brainstem and spinal cord
- Treatment
 - Immunotherapy (high dose glucocorticoids, IV immune globulin [IVIG] or plasma exchange)
 - Clinical parameters used to monitor response
- Prognosis
 - 60-90% make a full recovery
 - Most cases monophasic
 - One or more additional demyelinating events in up to 36% of cases



Introduction

- Penetrating traumatic brain injury (pTBI) is a major cause of death in trauma patients.
- Injuries can be classed as high velocity: e.g. gunshot, or low velocity: e.g. knife or other sharp implement.
- Approximately 35,000 deaths occur in the US annually due to pTBI, with 24 reported cases of injury in 2018 in Ireland, according to Garda records.
- At present no Irish national guideline exists for the management of pTBI. We therefore present this case as a guide to the management of patients who present with similar injuries.



Case Report

- A 17yo male presented with a 10-inch kitchen knife embedded in the skull.
- Vital signs and GCS were normal.
- The blade appeared superficially embedded in the frontal bone and the patients pain score was 1/10. The blade was stabilised using a ring pad to prevent movement/further penetration.
- IV antimicrobials and tetanus prophylaxis were administered.
- A non-contrast CT brain was performed which demonstrated a 5mm penetration depth through the left frontal bone deep to the inner table of the skull vault.
- The patient was transferred to the neurosurgical centre for definitive removal. This was successful and the patient was discharged home with no residual neurological deficit.