

Medicine 2026 – poster competition

In-person category



Royal College
of Physicians

 **MED26**



The Potential Role of Lanreotide in Prostate Cancer Treatment

Dr Alexander Green Foundation Year 1 Doctor, Dr Cathryn Woodward Consultant in Clinical Oncology

Background and Case	Results	Discussion
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- Prostate cancer is the most common cancer in men in the UK

- Progression of prostate cancer can eventually cause resistance to androgen-lowering therapy, with limited pharmacological options at this stage.

- Lanreotide is a somatostatin analogue used to treat intestinal neuroendocrine tumours and acromegaly.

2022-2024 PSA steadily rises from 2.50 to 7.14 - No treatment	2024 <u>Lanreotide</u> injections started for NET
2011 Prostate Cancer TURP + RT PSA 22 -> 0.34	2020 <u>Neuroendocrine tumour</u> of GI Tract

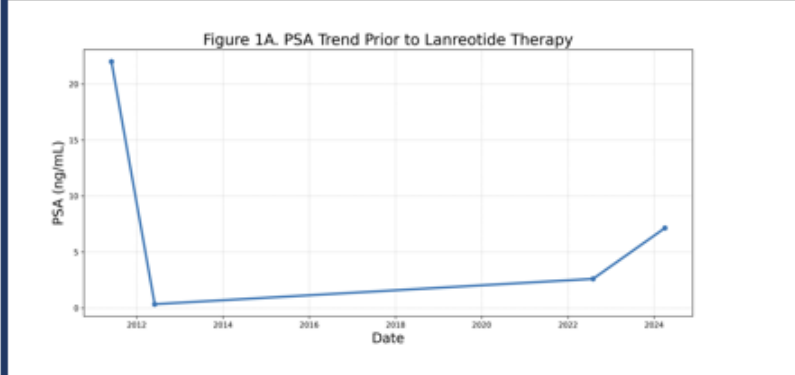


Figure 1A: The trend in PSA over time before starting lanreotide injections is shown. The graph shows the initial drop in PSA from 22 to 0.34 following radical treatment. The PSA gradually increases up to 2.50 and 7.14 in 2024.

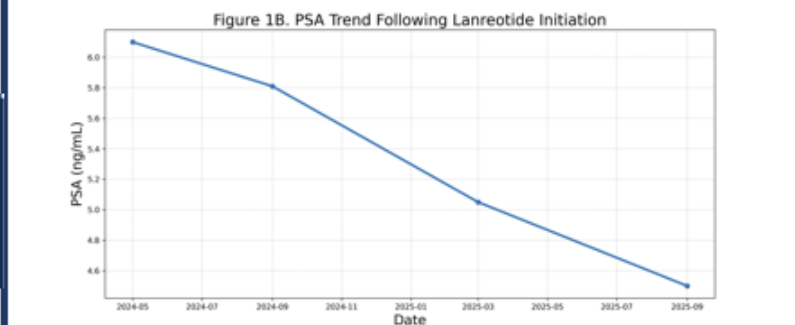


Figure 1B: The trend in PSA over time after starting lanreotide injections is shown. The graph shows a regular drop in PSA from 7.14 in April 2024, 6.10 in May, 5.81 in September, 5.05 in March 2025, and 4.50 in September 2025.

Phase I-II Trial

- 30 patients with advanced prostate cancer were given 30mg lanreotide intramuscular injections, the 1-year global survival rate was 72%

Somatostatin Receptors in Prostate Cancer

- Prostate cancer expresses more somatostatin receptors as it become more resistant to androgen-lowering therapy
- Binding of somatostatin analogues to these receptors can have a direct anti-proliferative and pro-apoptotic effect
- This may be due to advanced prostate-cancer developing features of a neuroendocrine-like tumour, which are known to express somatostatin receptors

Lanreotide and Growth Factor Signalling

- Elevated levels of IGF-1 are associated with more aggressive disease and poorer prognosis
- In acromegaly, where IGF-1 is a known driver of disease, long-acting lanreotide has been shown to lower IGF-1 levels and stabilise tumour growth

Side Effects

- CLARINET study showed most common side effect was transient diarrhoea, most prominent when starting treatment. Increased risk of gallstones

Combined Clinical Frailty Score and Performance Status as Predictors of Survival in Upper GI Malignancies

Dr Alexander Green F1, Dr Dan Patterson Consultant Medical Oncologist | West Suffolk Hospital NHS Trust

INTRODUCTION

- Clinical frailty scores and performance status are designed to assess patient fitness
- Combined scores predict survival in lung cancer patients from a previous quality improvement project
- **Aim: Evaluate the use of PS and CFS and a combined score in upper gastrointestinal (GI) malignancies to see if it has any prognostic value**

METHODS

- Prospective database of upper GI patients (2020–2024) from West Suffolk Hospital
- Palliative UGI cancers
- Based on lung cancer study a combined score ≥ 6 was 'poor' and a score < 6 was 'good'
- Kaplan–Meier analysis was performed

RESULTS

- **n = 62** (age 60–85) • Median PS: 2 | CFS: 4
- **35% good score (< 6), 65% bad score (≥ 6)**

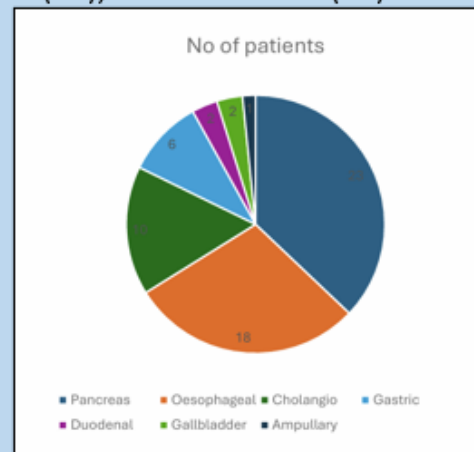


Figure (1): Breakdown of the types of upper GI malignancies in the study



Figure (2): Overall survival in days from date of diagnosis to death for patients with a 'good' score and a 'bad' score

RESULTS

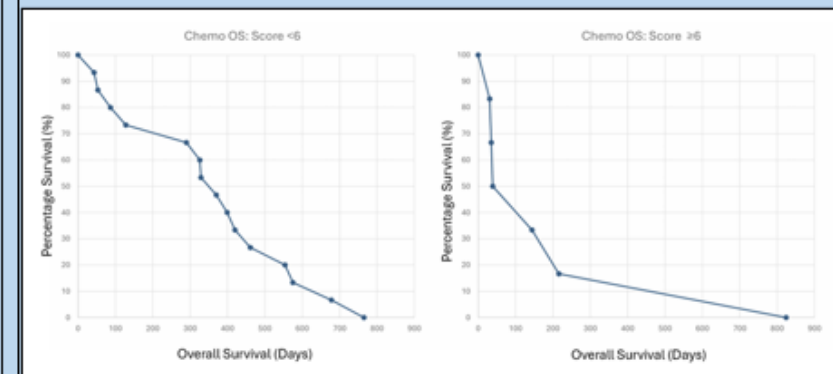


Figure (3): Comparison of days of survival following chemotherapy with a 'good' score ($n=15$) and a 'bad' score ($n=6$)

CONCLUSION

The study demonstrates that, as per the lung cancer patients, a combined CFS and PS score has a predictive and prognostic value for upper GI malignancies.

Combining the score may help to determine whether a patient with upper GI malignancy would benefit from chemotherapy treatment.

Can We Predict Death After Inpatient Hypoglycaemia?

A Multicentre Prognostic Model



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1. Introduction/ Background

Hypoglycaemia



2. Research Question

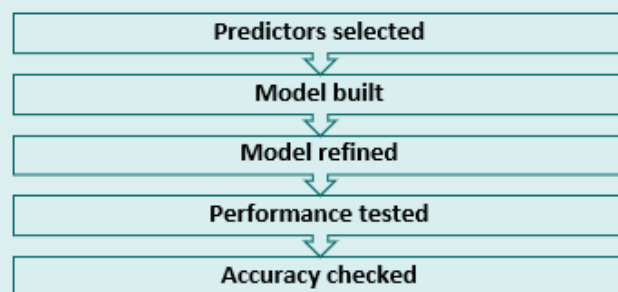
- Predict **early mortality** after inpatient hypoglycaemia
- Using **routine clinical data**

3. Study Design

- Retrospective cohort, 11 hospitals (2023-2024)
- Ethical approval and data permissions obtained at all sites.
- Inpatients with diabetes + hypoglycaemia (<4.0 mmol/L)



4. Model Development



5. Study Population + Mortality Predictors

2,160 episodes → 151 deaths (7.0% mortality)

Predictor	Mortality Association
T2DM vs T1DM	OR 2.01
Higher CCI	OR 1.10 per unit
IHSG level 2	OR 4.09
IHSG level 3	OR 8.91
Fasting/ missed meals	OR 1.95
Multiple precipitating factors	OR 2.02

Table 1

6. Model Variables

- Diabetes types
- Charlson Comorbidity Index (CCI)
- Hypoglycaemia severity (IHSG level)
- Precipitating factors

Model Performance

- AUROC: 0.74
- Validated AUROC: 0.73
- Good calibration

7. Why This Matters?

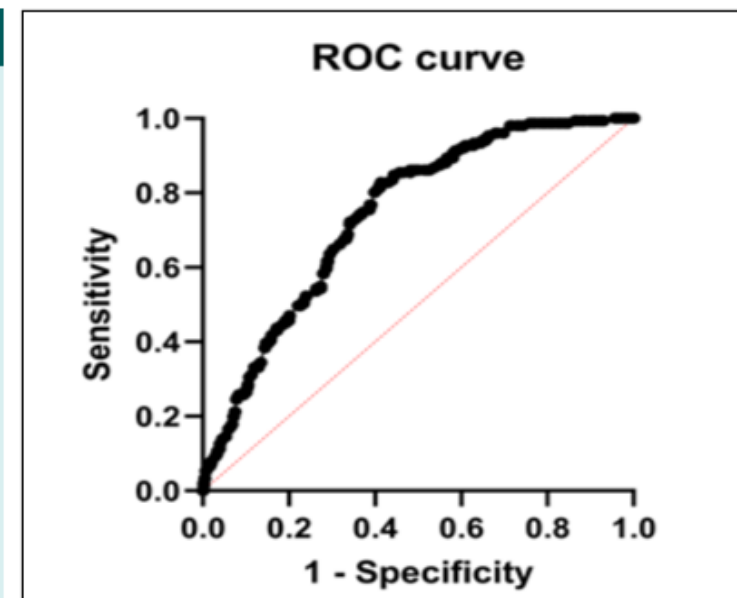
- Identify high-risk patients early
- Improve monitoring
- Support clinical decisions
- Reduce mortality

8. Conclusion

- **4-variable model developed**
- Predict early mortality
- Use routine data to stratify mortality risk and guide post-episode management
- Ready for external validation

9. References

1. Cruz P. *J Diabetes Sci Technol* 2020. 2. Amiel SA. *Diabetologia* 2021



Quality Improvement Project: Enhancing 4AT (Dementia and Delirium) Screening on the Acute Medical Unit at St Helier Hospital

Background

- Delirium is a medical emergency characterised by an acute change in mental status. It is associated with significantly increased mortality, morbidity, and prolonged hospital stays¹.
- The National Institute for Health and Care Excellence (NICE) highlights that delirium remains frequently under-diagnosed in acute settings, leading to suboptimal clinical outcomes¹.
- Within the Epsom and St Helier University Hospitals NHS Trust, delirium screening was historically fragmented across paper-based records and multiple electronic platforms, leading to unreliable compliance monitoring and potential delays in identifying vulnerable patients. 4AT (i.e. the 4 A Test²) and AMTS (i.e. the Abbreviated Mental Test Score³) are the screening tools routinely utilised.

Aim

To improve clinical safety and facilitate early delirium identification for patients aged ≥65 admitted to the Acute Medical Unit (AMU) by:

1. Transitioning from fragmented records to a unified, electronic 4AT tool.
2. Implementing the tool directly onto the iCM platform, the Trust's Electronic Patient Record (see Figure 1).
3. Improving compliance by increasing the percentage of completed screenings at the point of admission to ensure early intervention.



Figure 1.

Methods

The project employed the PDSA (Plan-Do-Study-Act) framework:

- **Baseline Assessment** (December 2024): A retrospective review of 30 patient records was performed to establish baseline screening rates within 72 hours of admission. This identified significant fragmentation across paper-based and disparate electronic systems.
- **The Intervention** (January–February 2025) and **System Integration**: The 4AT tool was formally integrated into the iCM platform (Electronic Patient Record) to centralise documentation and replace fragmented systems.
 - MDT Engagement: Led by a Dementia and Delirium Clinical Nurse Specialist, targeted ward-based educational sessions were delivered to nursing staff, physiotherapists, and occupational therapists.
 - Cultural Shift: The strategy focused on "shared ownership," empowering the wider MDT to conduct screenings rather than relying solely on medical staff.
- **Post-Intervention Re-Audit** (March 2025): A follow-up evaluation of 30 patient records was conducted to measure the impact of standardisation and MDT engagement on screening compliance.

Results

- The baseline assessment demonstrated a 66% (n=20/30) documentation rate, which was predominantly doctor-led; nursing staff accounted for only 13% of these screenings.
- While the overall documentation rate did not improve following the intervention, remaining comparable at 60% (n=18/30), the data revealed a significant qualitative success in multidisciplinary engagement.
- The proportion of assessments completed by nursing staff increased substantially from 13% to 46%, representing a fundamental shift in clinical ownership. This marks a successful transition toward a collaborative, shared-responsibility approach, which is a critical step in embedding delirium screening within the permanent multidisciplinary workflow of the Acute Medical Unit (see Figure 2).

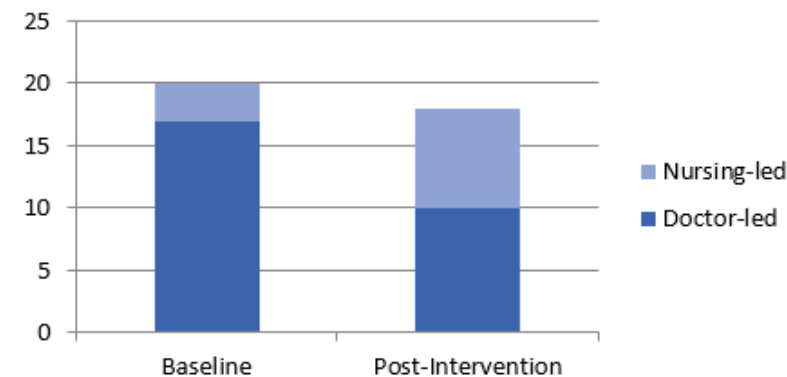


Figure 2: Transition to a shared-responsibility model: Successful redistribution of delirium screening workload across the multidisciplinary team.

Conclusions and Reflection

- Although the overall screening rate remained stable, the project achieved an improvement in multidisciplinary engagement. Nursing-led assessments rose significantly from 13% to 46%, representing a fundamental shift in clinical ownership from a doctor-centric model toward shared responsibility. This aligns with GMC standards on professional collaboration, demonstrating how varied healthcare roles contribute to essential safety screenings.
- To ensure sustainability and meet GMC standards for accurate clinical record-keeping, future cycles may propose systems-based solutions, such as automated prompts within the Electronic Patient Record, ultimately enhancing patient safety through earlier recognition of delirium.

References

1. NICE. Delirium: prevention, diagnosis and management. Clinical Guideline [CG103]. 2010 (Updated 2023).
2. Bellelli G, Morandi A, Davis DH, et al. "Validation of the 4AT, a new instrument for rapid delirium screening: a study in 234 hospitalised older people." *Age and Ageing*. 2014; 43(4): 496–502.
3. Hodkinson, H. M. (1972). "Evaluation of a mental test score for assessment of mental impairment in the elderly." *Age and Ageing*, 1(4), 233-238.

Optimising Community Acquired Pneumonia Management: A Two-Cycle Quality Improvement Project on the use of the CURB-65 scoring system and Antibiotic Stewardship

Background

- Pneumonia remains a leading cause of emergency hospital admission in the UK, with mortality rates for hospitalised patients ranging 5%-14%¹.
- The CURB-65 score is a 6 points scoring system that assesses pneumonia severity and advises if admission is required. It also guides antibiotic therapy².

Aims

To evaluate and improve the management of pneumonia within the St Mary's Hospital Emergency Department by:

1. Assessing clinician compliance with CURB-65 documentation.
2. Ensuring antibiotic prescriptions align with Trust antimicrobial guidelines³.
3. Designing and implementing targeted interventions to address any identified gaps in adherence.

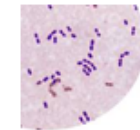
Methods

The project utilised a two-cycle PDSA (Plan-Do-Study-Act) framework:

- **Baseline Audit** (January 2023): A 14-day retrospective review of patients admitted with pneumonia to establish current practice.
- **Cycle 1** (January 2023): Focused on "cultural" interventions, including daily morning huddle presentations (see Figure 1) and board round discussions to champion Trust guidelines.
- **Cycle 2** (September 2023): A formal educational phase involving dedicated teaching sessions for resident doctors and distribution of pocket-sized "cognitive aids" (memory cards) to support point-of-care scoring.
- **Data Analysis**: Notes were re-audited after each cycle to track documentation rates and prescribing accuracy.

Results

- The **baseline audit** reviewed the notes of 153 patients attending with shortness of breath, 36 were diagnosed with pneumonia. Data analysis demonstrated significant room for improvement: only 22% (n=8) of these patients had a documented CURB-65 score, and only 37% (n=13) received antibiotics in accordance with Trust guidelines.
- Following **Cycle 1** (n=23), CURB-65 documentation remained stagnant at 21%, though antibiotic prescribing according to Trust Guidelines saw a positive shift to 52%.



"Think CURB-65!" Audit

- CURB-65 is a scoring system to assess the severity of pneumonia.
- Important to document in patients' notes as it informs on mortality risk, ABX choice and IP vs. OP treatment.
- It is the best practice advised by NICE (NICE CG191).

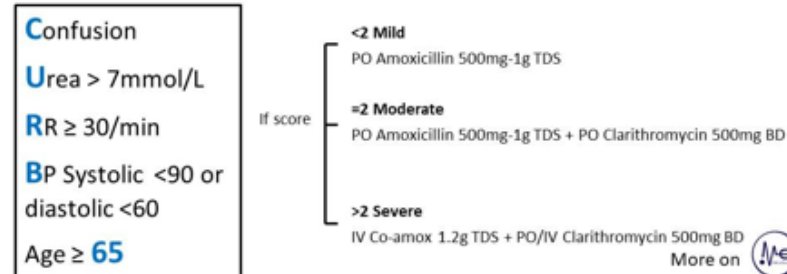


Figure 1, Slide used for the morning huddle.

- After **Cycle 2** (n=22), CURB-65 documentation unexpectedly dropped to 10% (n=2), while antibiotic adherence was maintained at 50%. This divergence suggested that while prescribing habits were influenced by the intervention, documentation of severity remained a secondary priority for clinicians under pressure (see Figure 2).

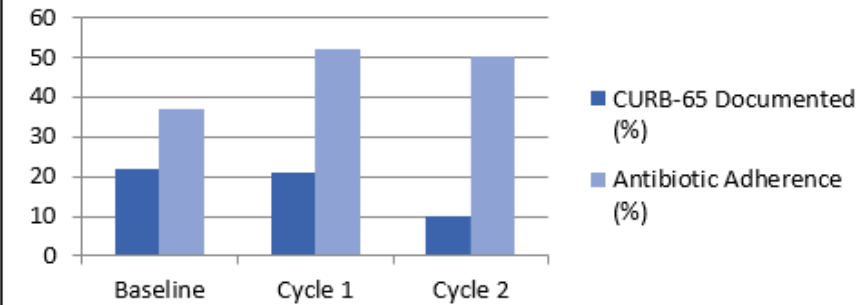


Figure 2, Comparison of CURB-65 documentation rates and antibiotic prescribing adherence across baseline and two PDSA cycles.

Conclusions and Reflection

- The project highlights the complexity of changing clinician behaviour in an acute setting. While the educational interventions successfully improved antibiotic stewardship, they failed to increase the documentation of clinical scoring.
- This highlights a **human factors** issue: in high-acuity environments, clinicians may perform internal assessments without formal documentation.
- To ensure sustainability and align with GMC professional standards for clinical record-keeping, future cycles may wish to propose the integration of a compulsory CURB-65 form within the Electronic Patient Record, thus **reducing cognitive load**.

References

1. NICE Clinical Guidelines 191: Pneumonia in adults: diagnosis and management. Published: 3rd December 2014. Accessed on 1st January 2023. Available on: <https://www.nice.org.uk/guidance/cg191>.
2. Lim WS, van der Eerden MM, Laing R, et al. (2003). "Defining community acquired pneumonia severity on presentation to hospital: an international derivation and validation study". Thorax. 58 (5): 377-82.
3. Imperial College Health NHS Foundation Trust Guides; Community Acquired Pneumonia (CAP). Accessed on 1st January 2023. Available on: <https://viewer.microguide.global>.

IVCM-Insight: Automated Interactive Interpretation of In Vivo Confocal Microscopy



University College London Hospitals
NHS Foundation Trust

Junqi Liang^{1,2}, Zijun Zhang¹, Shangyang Jiang¹, Zhiqun Wang¹, Qingfeng Liang¹

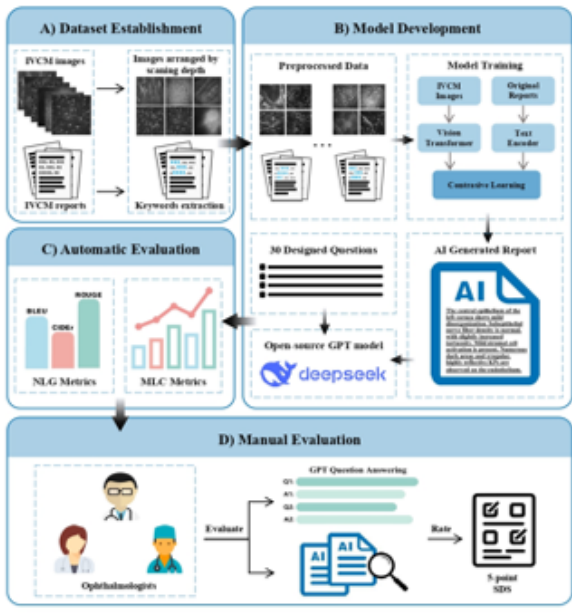
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Background

IVCM provides high-resolution corneal detail, but interpretation is time-consuming and expertise-dependent. Existing IVCM AI has mainly focused on narrow classification tasks rather than comprehensive report generation. We developed a dedicated AI system for structured report generation and interactive question answering and evaluated it in a retrospective single-center study with 3-step quality control and an 8:1:1 training/validation/test split.

4,155 patients **30,368** images **4,155** paired reports **8:1:1** split

Study workflow



Results

IVCM-Insight interface showing a chat window with an image of a cornea and an AI-generated report. The report includes an examination result, condition, and a Q&A section.

Examination Result: In the right eye, the corneal epithelial cells show essentially normal size and morphology. The subbasal nerves appear partially thinned. Some stromal keratocytes are activated. The endothelial cells exhibit abnormal size and morphology, with numerous guttata structures observed.

Condition: Stromal cell activation, Endothelial cell enlargement, Endothelial cell morphological abnormalities, Guttata

Q: What corneal abnormalities were identified in my IVCM examination?

A: Your IVCM examination of the right eye showed thinning of the subbasal nerves, activation of some stromal cells, and abnormalities in the endothelial layer. The endothelial cells were irregular in size and shape with many guttata structures. These changes indicate endothelial dysfunction and ongoing corneal stress or damage.

Q: What do the "guttata structures" in the report represent?

A: The "guttata structures" in your report are abnormal outgrowths of Descemet's membrane from diseased endothelial cells. They indicate chronic and progressive endothelial dysfunction. Over time, guttata can compromise corneal clarity and cause edema with vision loss.

Automatic performance metrics

Metric	Score
BLEU-1 / 2 / 3 / 4	0.69 / 0.58 / 0.47 / 0.41
ROUGE-L	0.67
CIDeR	1.85
METEOR	0.66
Avg. accuracy	0.96
Avg. F1 score	0.80

Condition-level F1 score

Selected high-performing extracted conditions

Inflammatory cells	██████████
Epithelial defect	██████████
Stromal activation	██████████
Nerve density	██████████

Mean specialist ratings (1-5 scale)

Report quality	QA performance
Accuracy ██████████ 4.17	Accuracy ██████████ 4.33
Completeness ██████████ 4.19	Completeness ██████████ 4.21
Coherence ██████████ 4.70	Relevance ██████████ 4.54
Diagnostic support ██████████ 4.06	Non-harmfulness ██████████ 4.81

ICC ranged from 0.71 to 0.92, indicating substantial to excellent inter-rater reliability.

Representative clinical application

Case 1: Cytomegalovirus keratitis

Original report: Result: In the left eye, the corneal epithelium is intact. The subepithelial nerve fibers appear slightly thinned. The central stromal architecture is generally preserved. Keratic precipitates are observed in the inferonasal cornea, and "owl's eye"-like endothelial cells are present in the central-inferonasal region.

AI-generated report: Examination Result: In the left eye, the corneal epithelium remains intact. The subepithelial nerve fibers appear mildly thinned. The central stromal architecture is largely preserved. KPs are noted in the inferonasal cornea, and "owl's eye"-like endothelial cells are observed. Condition: KP, Owl's-eye-like cells.

Q&A: Q: What do the "owl's-eye-like cells" in the report represent? A: The "owl's-eye-like cells" in your IVCM report represent corneal endothelial cells with abnormal morphology, characterized by a bright central nucleus and halo. They may occur with chronic inflammation, infection, endothelial dystrophies, or postoperative damage. Unlike normal hexagonal cells, these changes reflect disruption of the endothelial mosaic and impaired function, which, if progressive, can lead to corneal edema and visual loss.

Case 2: Fungal keratitis

Original report: Result: Swollen epithelial cells with partial loss are observed, along with highly reflective, segmental fungal hyphae and inflammatory cell infiltration. Numerous fungal hyphae are present within the stromal layer, extending to a depth of 132 μm, while the remaining lesion area cannot be visualized due to opacity. Endothelial cells appear markedly swollen with indistinct borders.

AI-generated report: Examination Result: Swelling of epithelial cells with areas of partial loss is noted. Segmental, highly reflective fungal hyphae are detected, accompanied by inflammatory cell infiltration. Within the stromal layer, abundant fungal hyphae are identified, with penetration measured up to 132 μm. The endothelial layer demonstrates marked swelling of cells with poorly defined borders. Condition: Epithelial cell edema, Epithelial defect, Inflammatory cell infiltration, Hyphae, Endothelial polymegathism.

Q&A: Q: What do the "hyphae" in the report represent? A: The "hyphae" described in your report represent filamentous structures of fungi that have invaded the corneal tissue. On IVCM, they typically appear as highly reflective, branching or segmental lines. Their presence confirms fungal keratitis and indicates active fungal growth within the cornea, with the depth of penetration helping to assess the severity of infection and guide treatment decisions.

Case 3: Acanthamoeba keratitis

Original report: Result: In the left eye, epithelial cells are absent in the central-nasal lesion area. Numerous highly reflective cyst-like structures are observed, arranged in clusters and chains, extending to a depth of approximately 324 μm. Marked activation of stromal cells is present, while visualization of the remaining lesion area is obscured.

AI-generated report: Examination Result: In the left eye, defect of epithelial cells are noted. Multiple highly reflective cyst-like structures are detected, arranged in clusters and chains, with penetration measured up to approximately 324 μm. Prominent activation of stromal cells is identified. Condition: Epithelial defect, Cyst, Stromal cell activation.

Q&A: Q: What do the "cyst" in the report represent? A: The "cysts" described in your report refer specifically to *Acanthamoeba* cysts within the corneal tissue. On IVCM, they typically appear as highly reflective, round or polygonal, double-walled structures, often seen singly, in clusters, or arranged in chains. These cysts represent the dormant, highly resistant form of *Acanthamoeba*, enabling the organism to survive under adverse conditions and making the infection more difficult to eradicate. Their presence is a hallmark of *Acanthamoeba* keratitis, confirming active infection and indicating the need for targeted anti-amoebic therapy.

- CMV: KP + owl's-eye-like endothelial cells
- Fungal: hyphae + inflammatory infiltration (to 132 μm)
- Acanthamoeba: epithelial defect + cysts + stromal activation

Conclusion

- IVCM-Insight showed strong performance in report generation and question answering
- It expands IVCM AI beyond narrow classification toward comprehensive corneal image interpretation
- It improves efficiency, consistency, and access to expert support

ANCA vasculitis in a Down syndrome patient with learning disability: the ethical dilemmas of investigation and treatment

Mica Schofield, Colchester hospital, East Suffolk and North Essex Foundation Trust

Initial presentation

A man in his fifties presented with a three-month history of **reduced oral intake, weight loss and behavioural changes** (new aggression).

Significant reduction in oral intake in preceding two weeks.

Background

Past medical history

Down syndrome, learning disability (minimally verbal), hypothyroidism, pre-diabetes, uveitis and bilateral cataracts

Social history

Non-smoker, non-drinker
Recently moved to residential home following death of his mother

Family history

Sarcoidosis, Non-Hodgkin's lymphoma, renal malignancy

Investigations

Haemoglobin	89 (g/L)
White cell count	4.1X10 ⁹ /L
C reactive protein	85mg/L
Creatinine	250µmol/L
Estimated glomerular filtration rate (eGFR)	25ml/min/1.73m ²

Ultrasound of renal tract

Bilateral loss of corticomedullary differentiation

Small kidneys (8.1cm and 9.1cm)

Glomerulonephritis screen

Proteinase-3 anti-nuclear cytoplasm antibody (**PR3 ANCA strongly positive** at 128.9IU/L (reference range 0 – 0.9 IU/L))

Granulomatosis with polyangiitis (GPA)

Clinical considerations

Thought to be acute kidney injury due to poor oral intake from grief reaction.

Intrinsic renal pathology was not expected despite signs of chronic disease on ultrasound and months of declining renal function (Figure 1)

Renal biopsy

- Would need to be done under general anaesthesia due to behaviour
 - Significant risks** due to small kidneys

Medication administration

- Probable distress if 4-6 hour rituximab infusion
 - Could only tolerate dissolvable/crushed medications – avacopan not an option

Treated **without tissue diagnosis** with IV methylprednisolone, followed by weaning oral **prednisolone and mycophenolate**

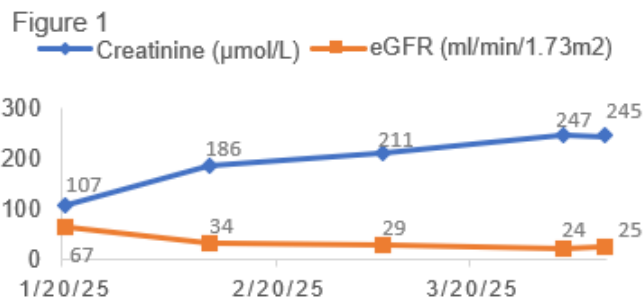
Discussion

This case illustrates **diagnostic overshadowing** in adults with Down syndrome, where behavioural changes and weight loss were initially attributed to psychosocial causes.

People with Down syndrome are **more prone to autoimmune conditions**². This is due to immune dysregulation linked to trisomy 21, including abnormal interferon signalling and autoantibody production, which may lead to atypical or under-recognised inflammatory presentations^{2,3}.

It also highlights **ethical challenges**. Investigating complex but treatable conditions in individuals with significant learning disability requires balancing diagnostic benefit against distress and treatment burden.

Decisions about renal biopsy, imaging and dialysis required **best-interest discussions** with family, emphasising the need to balance beneficence ("doing good") against non-maleficence ("doing no harm") while preserving overall quality of life.



Standard management of GPA¹

- Biopsy** for histological confirmation
- 50-75mg OD **oral prednisolone** initially, weaned to 5mg OD over 4-5 months
- Rituximab or cyclophosphamide** for life/organ threatening disease
- Rituximab, methotrexate or mycophenolate for non-life/organ threatening disease
 - Avacopan** for 6-12 months
 - Rituximab maintenance therapy

Permission to collect and share data granted by patient's next of kin

References

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Cardiac arrest from undiagnosed Tuberculous myocarditis: A silent threat

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BACKGROUND

Tuberculosis remains a common global multisystem infection. Although the United Kingdom is a low-incidence setting, rates have risen to 7.8 per 100,000 (2021). Tuberculous myocarditis is a rare (<2%) but serious manifestation, ranging from asymptomatic disease to life-threatening arrhythmias and cardiac arrest. Increasing migration highlights the need to consider atypical and extrapulmonary TB presentations ; particularly in patients from endemic regions.

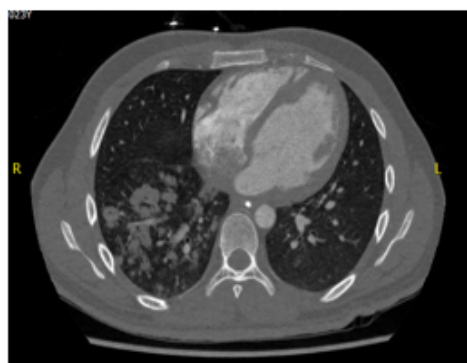
RESULTS

ECG	Atrial tachycardia with RBBB
Echocardiogram	LVEF < 40 %
CT thorax	Widespread nodularity with areas of cavitation and reactive right hilar and subcarinal lymphadenopathy
Cardiac MRI	Septal thinning, akinesis, myocardial oedema and hyperenhancement → suggestive of myocarditis/infiltration
QuantiFERON-TB Gold Plus	Positive
Other investigations	CT Head normal, CTPA negative, blood cultures & viral PCR negative

CASE PRESENTATION

We present the case of a young male in his early 20s, a foreign student from a tuberculosis-endemic Southeast Asian country, who presented with out-of-hospital cardiac arrest due to ventricular fibrillation. His medical history included type 1 diabetes mellitus, pancreatitis, and prior supraventricular tachycardia. Following successful resuscitation, he developed hypoxic brain injury and required prolonged ICU and CCU admission.

During his CCU stay, he experienced recurrent non-sustained ventricular tachycardia and persistent pyrexia of unknown origin, unresponsive to antibiotics, with unremarkable initial investigations. Further evaluation confirmed Tuberculous myocarditis. He was treated with six months of anti-tuberculous therapy under a multidisciplinary team, which led to clinical and radiological improvement. Additionally, an implantable cardioverter-defibrillator (ICD) was inserted for secondary prevention, and he underwent prolonged neuro-rehabilitation for recovery from hypoxic brain injury



Pre TB treatment CT Thorax



Post TB treatment CT Thorax

REFERENCES

- I. **Vennamaneni V et al. (2022)** – *Clinical presentation of a patient with tuberculous myocarditis: case report and literature review.*
- II. **Michira BN et al. (2015)** – *Patterns and clinical manifestations of tuberculous myocarditis: a systematic review of cases*
- III. **Khurana R et al. — Nature Clinical Practice Cardiovascular Medicine**

LEARNING POINTS

- TB Myocarditis is rare, life-threatening cause of cardiac arrest.
- Suspect in young patients from endemic region with unexplained arrhythmia, heart failure or arrest
- Cardiac MRI guides diagnosis
- Differentials include Sarcoidosis
- Early diagnosis and treatment can prevent mortality and morbidity highlighting the need for more awareness.

CONCLUSION

This case highlights the importance of maintaining a high index of suspicion in at-risk populations, particularly in the context of increasing migration. Early multimodal imaging and prompt anti-TB therapy can significantly improve outcomes.

Olivia Paes¹, Rajesh Patnaik Thonangi¹, Ana Martins¹, Shveta Monga¹, Alaaeldin Amin¹
Great Western Hospitals NHS Foundation Trust

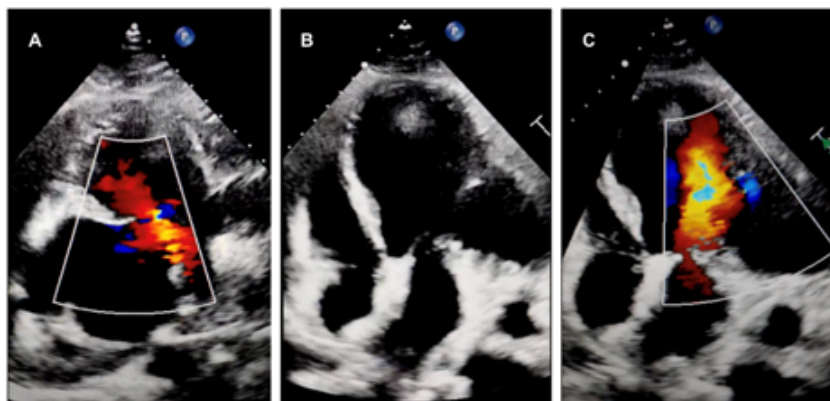
Background

Left ventricular (LV) pseudoaneurysm is a rare but life-threatening **mechanical complication** of acute myocardial infarction (MI) with an incidence of <0.5%.¹

It arises from **contained ventricular free-wall rupture**. Fragmentation of the mural thrombus can produce systemic emboli, with sequelae such as neurological deficits.²

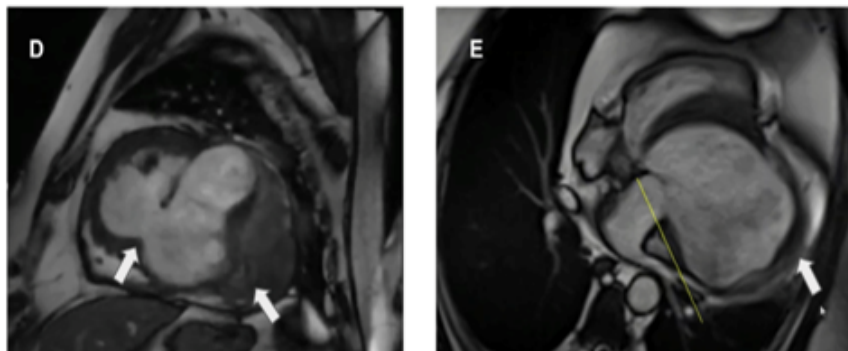
Clinical Presentation

- **57-year-old man** with hypertension and prior inferior STEMI (RCA stent)
- **Presentation:** one day history of chest pain, then sudden unresponsiveness and decorticate posturing (NIHSS 26)
- **Elevated troponin:** 8342 → 9491 ng/L
- **Rapid neurological improvement** → residual mild left-sided weakness (NIHSS 5)
- **CT cerebral angiography:** no intracranial pathology
- **Brain MRI:** multiple bilateral diffusion-restricted lesions, consistent with cardioembolic infarcts
- **Transthoracic echo (TTE):** large LV aneurysmal cavity with suspected intracavitary thrombus
- **Coronary angiography:** unobstructed epicardial coronaries, patent RCA stent
- **Cardiac MRI (CMR):** 10 cm inferolateral LV pseudoaneurysm with broad neck (~5 cm), extensive thrombus and transmural infarction, **reduced LVEF:** 34%



A - TTE view PLAX: large pseudoaneurysm of the basal inferolateral wall

B, C - TTE A4C view: Large pseudoaneurysm of the basal anterolateral wall



D - CMR still image showing large inferolateral LV pseudoaneurysm (~10 cm) which communicated with the LV via a wide neck (~5 cm) and contained extensive mural thrombus.

E - Late gadolinium enhancement demonstrated transmural infarction of the inferolateral wall.

References

- 1.Reeder GS, et al. *Mayo Clin Proc.* 1981;56:77-81.
- 2.Csapo K, Voith L, Szuk T, et al. *Clin Cardiol.* 1997;20:898-903.

Management and Outcome

The patient deteriorated into cardiogenic shock, surgery was deemed high-risk, and he was instead managed conservatively with long-term anticoagulation.

CMR at one-year showed **persistent pseudoaneurysm** with stable thrombus and **improved LV function**. The patient remains stable and living independently.

Discussion

Overlapping presentations; neurological and cardiac, pose a significant **diagnostic challenge**. LV pseudoaneurysm is an important differential in patients with prior MI presenting with **embolic phenomena**, even some time after the index event.

This case illustrates the viability of medical management in patients for whom cardiothoracic surgery may be limited. As the patient population ages and comorbidities accumulate, conservative approaches may expand therapeutic options.

Learning Points

- LV pseudoaneurysm may present late after MI with **embolic stroke** rather than cardiac symptoms
- Elevated troponin does not always indicate acute coronary occlusion
- **Multimodal imaging** (TTE and CMR) is essential for diagnosis
- High embolic risk necessitates **long-term anticoagulation** if surgery is not feasible
- Management requires individualised multidisciplinary team decision-making due to high operative risk

ARTIFICIAL INTELLIGENCE IN CLINICAL DOCUMENTATION

A SYSTEMATIC REVIEW AND META-ANALYSIS OF ACCURACY AND QUALITY

Authors: Shriya Karlapudi¹, Khalid Khan²

¹GKT School of Medical Education, Faculty of Life Sciences and Medicine, King's College London; ²Parkside Group Practice, South Croydon, London

BACKGROUND

Clinicians currently face increasing workloads driven by rising administrative demands, contributing to burnout.

Ambient artificial intelligence (AI) scribes generate clinical notes in real-time and have emerged as a potential solution to this documentation burden. AI scribes are already being adopted internationally, **often ahead of robust evaluation**.

This has led to concerns regarding accuracy and safety, with multiple healthcare systems emphasising the need for clinician oversight. Furthermore, their integration into clinical environments raises questions about **trainees' skill acquisition** and **documentation competencies**.

This review aimed to quantify error rates and assess the documentation quality of AI scribes used in real-time during live clinical consultations. Based on this, **recommendations for clinical practice** were made.

METHODS

- PRISMA-compliant systematic review of multiple databases
- **Real-time analysis of error rates and subtypes** in AI-generated notes
- Assessment of documentation **quality** via three-level meta-analysis of Physician Documentation Quality Instrument-9 (PDQI-9) scores
- Comparison of **AI-generated vs physician-generated** notes

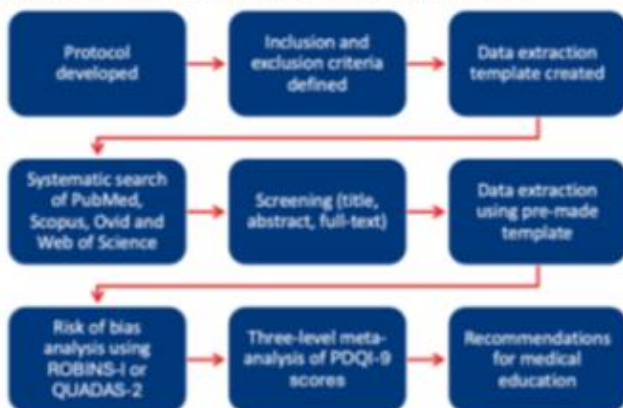


Fig.1: Summary of methodology

Error rates and subtypes



Fig.2: Overall error rate¹⁻¹³

Overall error rate was substantial at 47% across different AI models

Omission errors:

- Failure to include correct information
- 86% across AI models in this review



Fig 3.1: Omission errors

Commission errors:

- Inclusion of incorrect information
- 7% across AI models in this review



Fig 3.2: Commission errors

AI hallucinations:

- Information added by the AI that was not present anywhere in the source material or clinical encounter
- 2% across AI models in this review



Fig 3.3: AI hallucinations

Non-lexical conversational cues



Fig.4: Non-lexical cues¹²

These were associated with a high error rate, particularly omissions

Physician preferences¹⁻¹³

AI-generated notes preferred	Physician-generated notes preferred
General practice	Paediatrics
Cardiology	Obstetrics
Orthopaedics	Gynaecology

OUTCOMES

Quantitative analysis of documentation quality

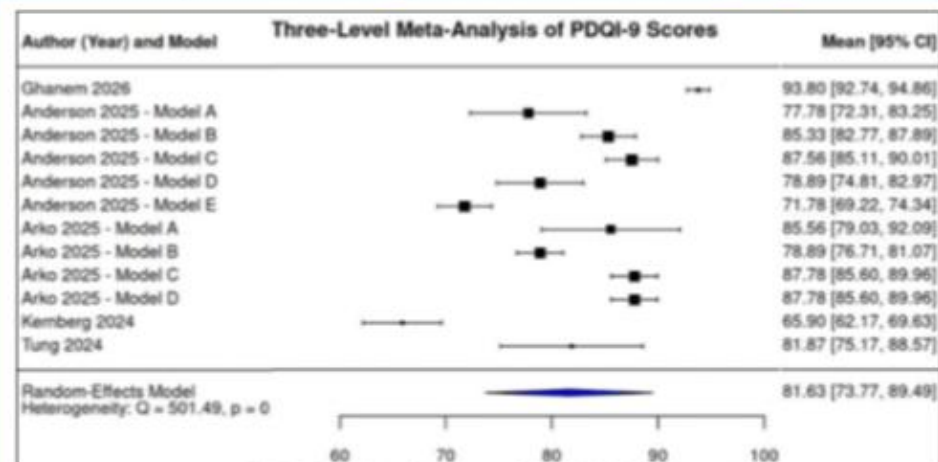


Fig.7: Three-level meta-analysis of PDQI-9 scores

- Generally **high AI-generated documentation quality** with a pooled PDQI-9 score of 81.63% (95% CI: 73.77-89.49%)¹⁻⁵
- However, significant heterogeneity (Q=501.49) indicated variations between AI models and prompt optimisation

RECOMMENDATIONS FOR CLINICAL PRACTICE

<p>Integration of AI literacy into the training curriculum</p>	<p>Education on limitations and risks of AI scribes</p>	<p>Critical appraisal of AI-generated notes</p>
<p>Preservation of core documentation skills</p>	<p>Oversight and accountability</p>	<p>Medico-legal and ethical awareness</p>

Scan for references



REDEFINING NORMAL: NATIONAL HAEMATOLOGICAL REFERENCE INTERVALS FOR HEALTHY INDIAN ADULTS A SYSTEMATIC REVIEW AND META-ANALYSIS

Author: Shriya Karlapudi

Affiliation: GKT School of Medical Education, Faculty of Life Sciences and Medicine, King's College London

BACKGROUND

Reference intervals (RIs) are usually established based on global data. An example is the World Health Organisation (WHO) RIs for anaemia and the NHS haematological RIs.^{1,2}

This may not reflect the ethnic, nutritional and environmental diversity of the Indian population, resulting in diagnostic inaccuracy.

This review aimed to establish nationwide, region-specific and gender-specific haematological reference ranges for healthy Indians.

METHOD

- PRISMA-compliant systematic review of PubMed, Ovid, Scopus, Web of Science and Cochrane CENTRAL³⁻²⁹

- Health was defined in accordance with the Clinical and Laboratory Standards Institute and healthy Indian adults were included

- Primary outcome:
 - Establish separate **pooled RIs for each haematological parameter**:
 - Bivariate random-effects meta-analyses of reported 2.5th and 97.5th percentiles

- Secondary outcomes:
 - Establish separate **haemoglobin RIs for males and females**:
 - Bivariate random-effects meta-analyses for males and females
 - Visualise **haemoglobin distribution across geographical regions**:
 - Random-effects meta-analysis of reported haemoglobin means

- All meta-analyses were performed on RStudio

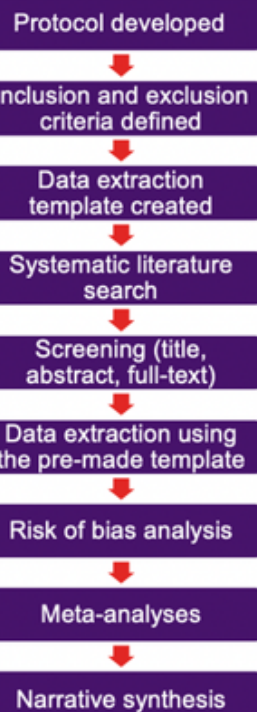


Fig.1. Summary of methods

OUTCOME

Pooled RIs

Bivariate random-effects meta-analyses of the 2.5th and 97.5th percentiles demonstrated variation from NHS RIs across nearly all parameters. Separate meta-analyses were conducted for each parameter. Results are presented as visual summaries for the purpose of this poster.

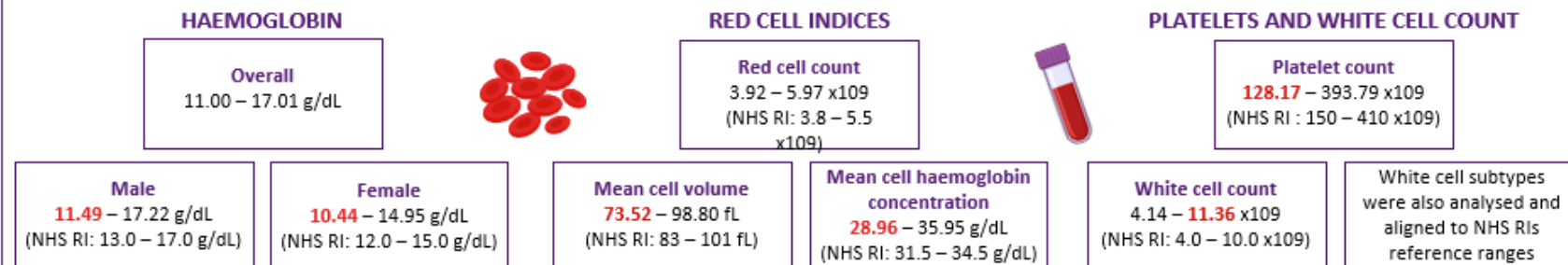


Fig.1.1: Pooled haemoglobin RIs

Fig.1.2: Pooled red cell indices

Fig.1.3: Pooled platelet and white cell count

Regional Variations in Haemoglobin

The mean haemoglobin varied among Indians from different geographical regions.

- North:
 - 14.41 g/dL [95% CI: 12.96 – 15.86]
- South:
 - 13.60 g/dL [95% CI: 13.12 – 14.00]
- East:
 - 14.19 g/dL [95% CI: 13.12 – 15.27]
- West:
 - Only reported by one study
 - Requires further research

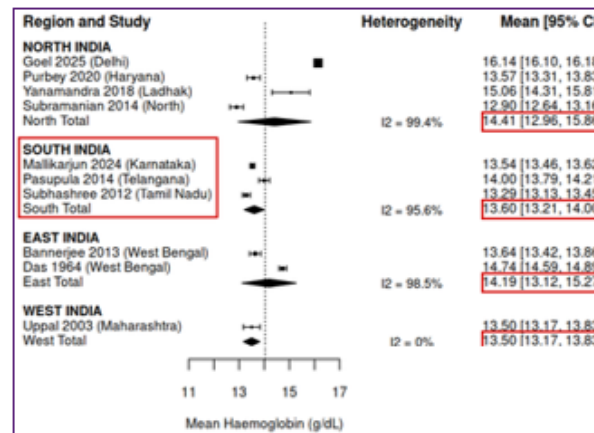


Fig.2: Geographic stratification of mean haemoglobin

Implications and Future Research

- This project established the **first** pooled haematological RIs for healthy Indian adults
- Existing RIs may **systematically misclassify** Indian patients, resulting in unnecessary investigations and increased health anxiety
- Reliance on the standard thresholds can systematically exclude Indian patients from **clinical trials and research studies that use blood counts as eligibility criteria**
- Future studies with prospective cohorts, standardised methodology and harmonised reporting are needed to integrate Indian haematological RIs into **international clinical guidelines**

Scan for references



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Delayed ARDS After Cemented Bilateral Total Knee Arthroplasty

Basheer, Thahaseen¹; Valsalan, Praveen¹

¹Aster Medcity, Kochi, India



INTRODUCTION

- **ARDS** after orthopaedic surgery is rare but carries significant morbidity and mortality.
- **Bone Cement Implantation Syndrome**- classically presents peri-implantation¹; reported "delayed" cases still manifest in the early postoperative period². Severe respiratory failure developing days later represents an atypical and underrecognised temporal pattern.
- We report **fulminant ARDS** on Day 5 post bilateral cemented TKR.

MATERIALS AND METHODS

- **72M, T2DM, elective bilateral cemented TKR** under spinal anaesthesia.
- Uneventful immediate postoperative course.
- Exertional dyspnoea developed **Day 3**, worsened post-discharge during physiotherapy.
- **Re-presented Day 5**: SpO₂ 50% on air; PaO₂/FiO₂ <200 on ABG.
- **CTPA**: excluded PE; bilateral GGOs, septal thickening, traction bronchiectasis.
- **DVT** excluded on Doppler; BAL negative for bacterial, viral & mycobacterial pathogens; CTD screen unremarkable.
- **MDT differential**: acute interstitial pneumonia, fat embolism syndrome, delayed cement-associated inflammatory lung injury.

References:

1. Brokke KE et al. *Br J Anaesth.* 2025;135:1038–1050
2. Kumbasar U, Bonde P. *Turk Gogus Kalp Damar Cerrahisi Derg.* 2021;29:412–414.
3. Ukaj S et al. *Sci Rep.* 2025;15:40957.
4. Mao Y et al. *J Orthop Surg Res.* 2022;17:412.
5. León-Román F et al. *Medicina (Kaunas).* 2025;61:2097.

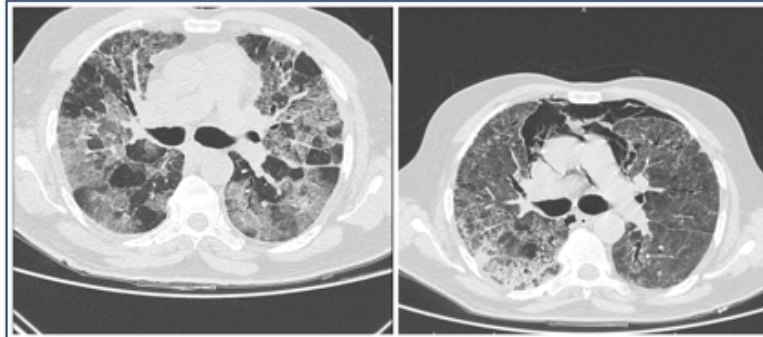


Figure 1. HRCT chest – inflammatory lung injury evolution. **Left:** Diffuse bilateral ground-glass opacities with septal thickening and traction bronchiectasis, consistent with severe ARDS. **Right:** Marked reduction in ground-glass and consolidative changes with improved aeration on follow-up.

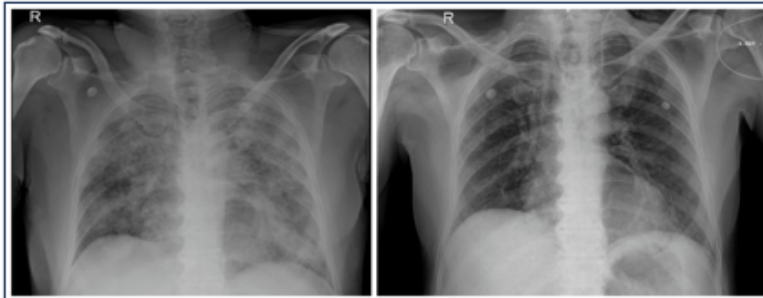


Figure 2. Serial chest radiographs – interval improvement. **Left:** Diffuse bilateral airspace opacification consistent with severe ARDS. **Right:** Significant interval resolution of bilateral infiltrates with improved lung aeration.

"Written informed consent was obtained from the patient for use of clinical data and images."

RESULTS AND DISCUSSION

- **Progressed to severe ARDS:** escalated from HFNO → NIV → invasive mechanical ventilation.
- Thromboembolic, cardiogenic and infectious causes systematically excluded.
- Pulse corticosteroids administered; gradual clinical and radiological improvement followed.
- Successfully extubated; serial imaging confirmed marked resolution of bilateral infiltrates.
- **BCIS** is classically a **peri-implantation phenomenon**¹ — prior "delayed" reports describe early postoperative deterioration, not Day 5 onset².
- This case extends the recognised temporal spectrum of cement-associated pulmonary complications.
- Cemented arthroplasty triggers measurable systemic inflammatory responses³ — plausible mechanism for a delayed exaggerated cascade in susceptible individuals; fat embolism syndrome⁴ and acute exacerbation of ILD⁵ were formally excluded.

CONCLUSION

- Severe ARDS several days post cemented bilateral TKR is an uncommon and diagnostically challenging presentation.
- When PE and infection are excluded, delayed inflammatory lung injury should be considered in the differential diagnosis.
- Early MDT assessment and prompt anti-inflammatory therapy may favourably influence outcome.

Streptococcal bacteraemia and missed connections: Assessing compliance with BHIVA recommendations on HIV testing at a District General Hospital

Dr Yewande Adegeye, Dr Aaron Tharakan, Ms. Amy Watts, Dr Basel Alouanti



Northampton General Hospital
NHS Trust

Background

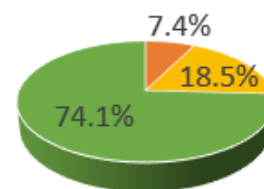
- ❖ Northamptonshire is a high HIV prevalence region (2-2.5 per 1,000).
- ❖ Community-acquired pneumonia is an HIV indicator condition with an undiagnosed prevalence of 0.76%.
- ❖ BHIVA recommends offering an HIV test to all patients with bacterial pneumonia.
- ❖ We assessed compliance in patients with *Streptococcus pneumoniae* bacteraemia before and after the implementation of the Trust-wide BBV opt-out testing.

Methods

- ❖ Retrospective review of all positive blood cultures for *Streptococcus pneumoniae*.
 - Pre-policy cohort: Dec 2019–Nov 2024
 - Post-policy cohort: Dec 2024–Nov 2025, after BBV opt-out implementation.
- ❖ Electronic records reviewed for demographics and HIV testing at presentation and/or at other times.
- ❖ Data analysed in Microsoft Excel.

Results

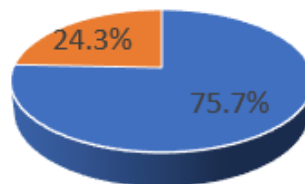
Pre-BBV opt-out (5 years)
81 patients | mean age 59 years | 58% male



■ Admission ■ Other times ■ Never

Figure 1. HIV testing before BBV opt-out

Post-BBV opt-out (1 year)
37 patients | mean age 62.3 years | 57% female



■ Tested ■ Not tested

Figure 2. HIV testing 1 year after BBV opt-out

Key findings

- ❖ HIV testing at presentation increased from 7.4% to 75.7%.
- ❖ Before policy introduction, 74.1% of patients had never been tested.
- ❖ No evidence to suggest microbiology advice was sought regarding HIV testing in the pre-policy period.

Why this matters

- ❖ Patients with bacterial pneumonia in high-prevalence regions should routinely receive HIV testing.
- ❖ This project highlights how a system-level BBV opt-out policy can close an important diagnostic gap.

Conclusion

- ❖ BBV opt-out testing markedly improved HIV testing rates in this high-prevalence setting, but around one quarter of post-policy patients still missed an opportunity for testing.
- ❖ Embedding the policy further should support earlier diagnosis and progress toward 2030 HIV targets.

Reduce 30-Day Hospital Readmissions from Skilled Nursing Facilities: A Systematic Review of Transitional Care

Mohamed, Almar; Khalifa, Alaa; Ali, Sondos; Mahmoud, Noura; Abdalla, Ayah; Bessassi, Rim; Ali, Hadeel; Abdelrahman, Nadir
Tele Geriatric Research fellowship, Okemos, Michigan, USA.



Introduction

Hospital readmissions from skilled nursing facilities (SNFs) significantly drive healthcare costs and patient morbidity. Often linked to fragmented care and medication discrepancies, these readmissions are frequently preventable. This systematic review evaluates multidisciplinary interventions designed to reduce 30-day readmissions and improve safety in post-acute settings.

Methods

Following PRISMA 2020 guidelines, we searched major databases (PubMed, Embase, CINAHL, Cochrane) through March 2026 for SNF-based clinical, telehealth, and policy interventions. Outcomes included 30-day readmissions, ED transfers, and cost. Study quality was assessed using Newcastle-Ottawa and Cochrane tools. Due to methodological heterogeneity across RCTs and quality improvement initiatives, results were synthesized narratively.

Results

Twenty-six studies published between 2017 and 2026 were included. Among the seventeen studies providing individual participant counts, the total sample size was 23,191 residents. The remaining nine studies reported data at the facility level, accounting for 119 SNFs. Implementation barriers emerged as a formal theme across the literature, specifically highlighting workforce capacity limitations and inconsistent protocol adoption as significant hurdles to success.

Within clinical models, pharmacist-led medication reconciliation produced a 29.8% relative reduction in readmissions. Additionally, nurse practitioner-led models showed reported reductions in readmission rates generally ranging from 5% to 15%.

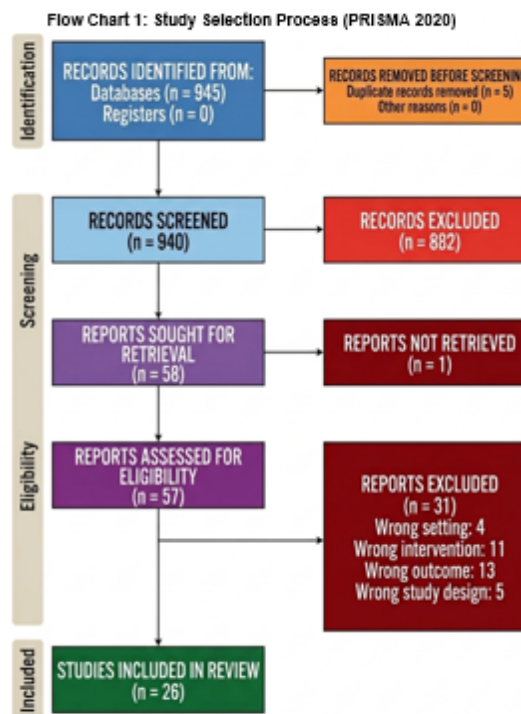
Table 1: Efficacy and Cost Outcomes of Highest-Impact Interventions

Intervention Model	Key Component	Effect on Readmissions	Cost Impact
Tele-MOD	Telehealth-supported care transitions	54.9% reduction (P<.001)	Saved \$45,538 per patient
REAP	Coordinated specialist geriatrician/NP	Two-thirds reduction (P=.03)	50% total cost reduction

Key Takeaway: > Telehealth-supported care transitions and coordinated specialist assessments represent the most effective interventions analyzed, drastically cutting both readmission rates and associated healthcare costs.

Conclusions

- **Impact:** Multidisciplinary transitional care significantly reduces 30-day readmissions and liberates acute-care bed capacity. Interventions integrating telehealth and early follow-up by advanced practice providers are the most effective.
- **Requirements:** Dedicated workforce capacity and structured communication systems are strictly essential for successful implementation.
- **Future Directions:** Healthcare systems must prioritize high-quality, scalable models to improve post-acute "Value" (Outcome/Cost) and patient safety.



Exploration into the adoption of the NHS app in a socio-economically deprived area: an observational study

Author: Abhinav Sathyamurthy

Background

The 10-year Health plan for England states the need to shift from an analogue to digital NHS, delivering a step change in the way the NHS cares for citizens.¹

By 2028 the NHS App will be the first point of access for patients, empowering them to book appointments, communicate with professionals, receive advice, draft or view their care plan, and self-refer to local tests and services.¹

However, in areas of higher social deprivation, practices have 25% less registration of the NHS app compared to more affluent areas.²

Aims

Evaluate the digital accessibility and adoption of the NHS app in an area of higher social deprivation.
Identify the factors that affect the use of the NHS app.

Methods

By opportunistic sampling, patients who attended for a GP consultation were interviewed about their digital accessibility and use of the NHS app. Their age, gender, ethnicity, smart phone access and use of social media platforms and the NHS app were collected. The patients were consented about the collection of data and the presentation of it in a conference. This study was conducted in a deep-end practice in Middlesbrough, serving a population of 7,000 patients.

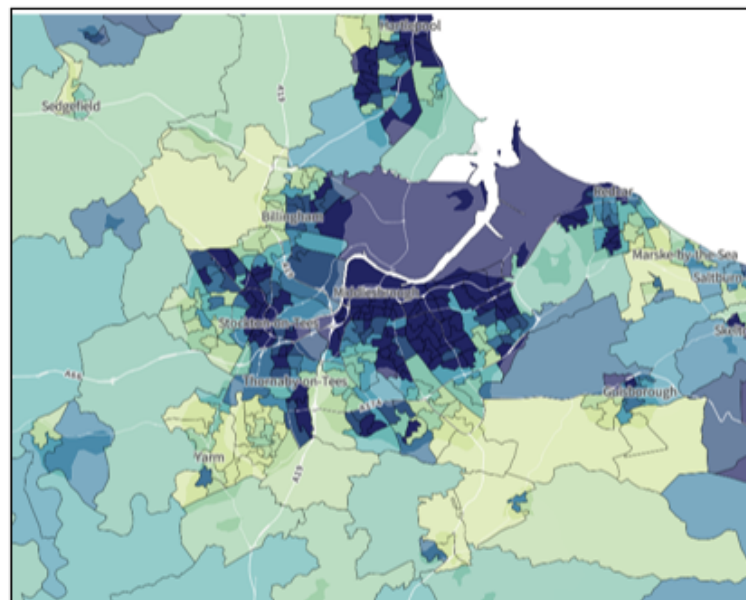
References:

1. Fit for the future: 10 Year Health Plan for England - executive summary www.gov.uk/government/publications/10-year-health-plan-for-england-fit-for-the-future/fit-for-the-future-10-year-health-plan-for-england-executive-summary [Accessed 27 February 2026]
2. Sukriti KC, Tewolde S, Laverty AA et al. Uptake and adoption of the NHS App in England: an observational study. *The British Journal of General Practice*. 2023 Oct 3;73(737):e932.

Results

50 Patients were interviewed [20M:30F; age range 18 – 85 (median 50.5)]. 45/50 people had access to a personal smart phone. Out of these, only 48% (22/45) of people had downloaded and registered onto the NHS app; 7/22 used the NHS App on a regular basis.

Out of the 23 people who did not use the NHS app: 2 had difficulty in registering; 14 were not interested in using it or preferred calling the GP practice; 11 did not know about its features and 2 used alternative resources. 7/14 people who were not interested did not know about the NHS app features. Significantly higher proportion 38/45 (84%) reported that they use social media apps on their phones.



Discussion

This study shows that in areas of higher social deprivation, 90% of patients have digital accessibility through their smartphones and are able to download and use the NHS app. In addition, 84% use social media platforms which shows that most people have the digital proficiency to use the app. Out of the 24 who downloaded the app, only 2 had difficulty in registering.

The main reason for the lack of adoption was the general disinterest because many of the patients were not completely aware of the functionalities of the NHS app: for example, many were unaware that they could request repeat prescriptions and book blood tests. Furthermore, GP practices and third-party companies have created alternative platforms which patients are already accustomed to.

Conclusion

To have a digital transformation of the NHS and empower patients to manage their health, there needs to be a focus on educating the public on the functionality of new digital products. In addition, discussion with stakeholders are needed for health services to promote the use of the NHS app over alternatives, thus reducing the choice burden for patients and create one uniform pathway to accessing the NHS.

Image reference: English Indices of Deprivation 2025
<https://deprivation.communities.gov.uk/maps?type=imd&geog=lsoa#8.42/54.368/-1.455> [Accessed 20th April 2026]

'About Time' : Improving use of the 6-hour Decompensated Cirrhosis Care Bundle

Á. Corry¹, S. Gilmour², H. Sheikh², R. O'Kane².

INTRODUCTION

The British Society of Gastroenterology (BSG)/British Association for the Study of the Liver (BASL) introduced the **Decompensated Cirrhosis Care Bundle (DCCB)** as a guideline for clinical assessment, investigation and management within the first 24 hours.

Usage of the bundle was 11.4% on a national audit which prompted the development of **minimum audit standards** alongside an **updated 6-hour bundle**, by the BSG, BASL and the Society for Acute Medicine in 2025.

Our **aim** was to establish if Altnagelvin Area Hospital was meeting these minimum audit standards and undertake a Quality Improvement Project to **improve our adherence with the new 6-hour bundle and audit standards**.

MATERIALS AND METHODS

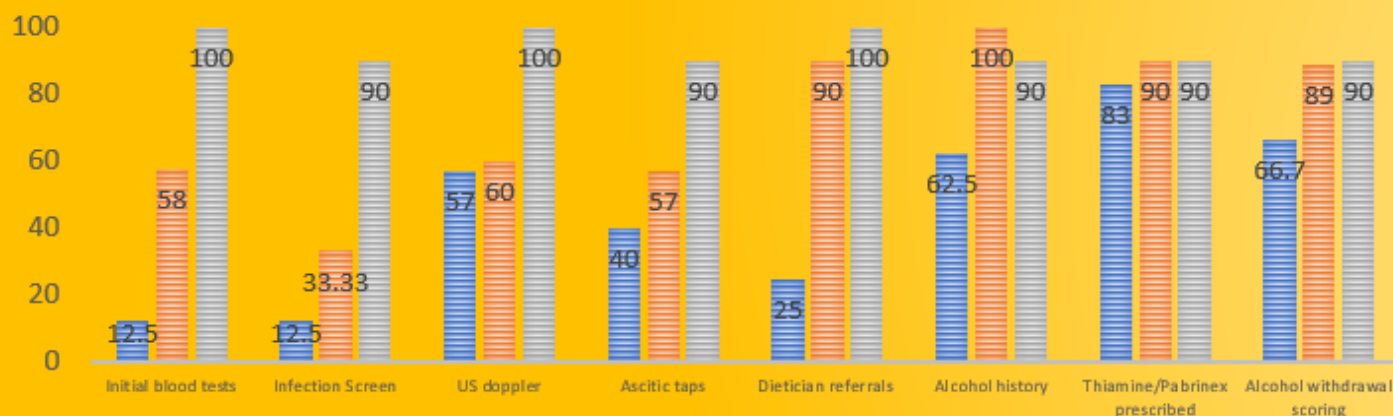
We audited **all admissions of acute decompensated cirrhosis from early May until the end of June 2025**.

We created laminated posters of the new 6-hour DCCB and displayed these around the Emergency Department. We sent communication regarding the new bundle and the required initial investigations and management to medical and emergency medicine colleagues.

Following this we **re-audited admissions during August and September**.

GRAPH 1- CHANGE IN ADHERENCE WITH MINIMUM AUDIT STANDARDS

■ May/June ■ Aug/Sept ■ Minimum audit standards



RESULTS, DISCUSSION AND CONCLUSION

We found a **number of areas where we were meeting audit standards**, including early specialist GI / Hepatology review and the initial management of acute kidney injury, upper gastrointestinal and variceal bleed, and spontaneous bacterial peritonitis.

As seen in Graph 1, while we **have improved the use of the 6-hour DCCB and compliance with minimum audit standards**, there remains **areas where we are not meeting these standards** particularly initial blood tests, infection screening, ascitic taps and US doppler requests.

We are **planning to complete a further intervention and then re-audit** with the hope that there will be a further and sustained improvement.

Enhancing Information Resources for Patients with Motor Neurone Disease and their Carers in a Specialist Respiratory Centre: A Multidisciplinary Quality Improvement Initiative

Alice Miller^{*1}, Jessica Appleby^{*1}, Joyce Oi Suet Cheng¹, Charlotte Ho^{2,3}, Julxie Playford¹, Arosha Gunasekera¹, Charlene Johnson¹, Sharon Loveday¹, Sarah Grove^{2,3} and Martina Mason¹

*Joint first authors

1: Respiratory Support and Sleep Centre (RSSC), Royal Papworth Hospital NHS Foundation Trust, Cambridge, UK,

2: Supportive and Palliative Care Service, Royal Papworth Hospital NHS Foundation Trust, Cambridge, UK

3: Arthur Rank Hospice Charity, Cambridge, UK

Background: The Respiratory Support and Sleep Service (RSSC) at Royal Papworth Hospital runs a dedicated motor neurone disease (MND) clinic that cares for 200-250 patients in the East of England who require assisted ventilation.

Multidisciplinary team (MDT) input is essential in providing effective care.^{1,2} Patient education is central to allowing for comprehension of complex information and shared decision making.³

Aim: To improve the information resources for carers and patients with MND through collaboration between respiratory, palliative care and nursing teams.

Method:

1. Baseline survey performed to identify patient/carers unmet education needs
2. Findings used by the MDT to design 4 new information leaflets:

- *A guide to your first MND appointment at the RSSC*
- *Breathing and respiratory support*
- *Carers Support*
- *Your Wishes*

3. Leaflets distributed to patients/carers and feedback gathered

THEMES HIGHLIGHTED BY PATIENTS AND CARERS



Carer Support

"Can be difficult as a carer to deal with the day to day caring"



Care and Disease Progression

"Will a nursing home become necessary, how will we cope at home (when) disability increases"



Breathing Support

More information requested on breathing aids and breathing techniques

Figure 1. Infographic summarising areas requiring further education

Results

Baseline Survey (n=21, 52% patients, 48% carers):

Three key areas identified where further education was needed (*Fig.1*).

Feedback post-intervention (n=23, 43% patients, 57% carers):

- Increased confidence in future planning, knowledge of respiratory management and support pathways (*Fig.2*).
- Leaflets were clear, accessible, and appropriately pitched (*Fig.3*).
- Most valued the sensitive approach to advanced care planning; however, 13% found it overwhelming, particularly those at earlier stages of diagnosis.

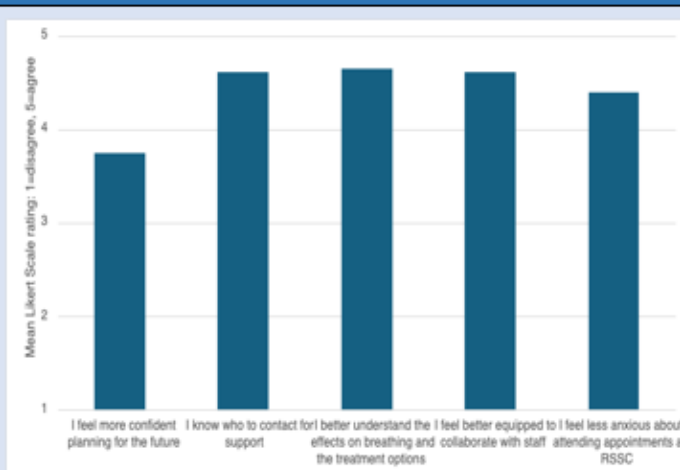


Figure 2. Perceived benefits following leaflet implementation

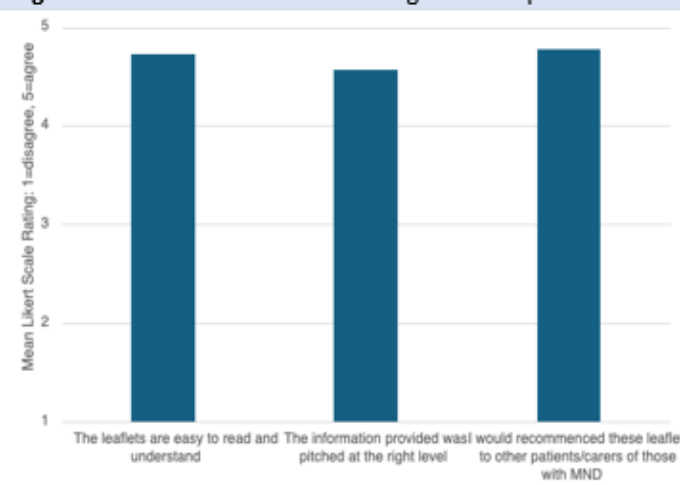


Figure 3. Perceived Usefulness and Clarity of Leaflets

Discussion: Multidisciplinary, co-designed information resources improved carer and patients' confidence, reduced anxiety, and enhanced their understanding of disease management and future planning. However, many patients and carers found the clinical information distressing, despite many others expressing a desire for more information on topics like palliative care and disease progression.

Future work includes gathering feedback from a larger patient-carer cohort and healthcare professionals as well as disseminating the leaflets via the hospital website and integrating their use into clinical pathways.

Conclusion: This quality improvement project emphasises the importance of providing disease specific information leaflets to patients with MND. It also highlights the diverse lived experiences and differing information needs of patients and carers. This low-cost intervention may be transferable to other chronic progressive neurological conditions managed within tertiary services.

Acknowledgements: We are grateful to all patients who participated in this survey and shared their experiences to help improve our service.

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A Multidisciplinary Approach to Steroid Safety in Rheumatology: Implementing a Novel 'Patient Steroid Safety Pack' in Southend Hospital

Amani Mokbel¹ (Presenting), Kapil Kumar Garg¹, Deepak Ramachandran¹, Madeline Whitlock¹, Salema Mahmood¹, Way Main Wong¹, Shyanthi Pattapola¹

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INTRODUCTION

Long-term glucocorticoids are key in managing many rheumatological conditions but require safe prescribing.

This QI project evaluated current practice, introduced a **Patient Steroid Safety Pack**, and aimed to improve documentation and safety processes.

METHODS

A retrospective audit at Southend University Hospital analyzed 52 patients with PMR, GCA, or LVV started on long-term glucocorticoids (Jan 2023–Sep 2025).

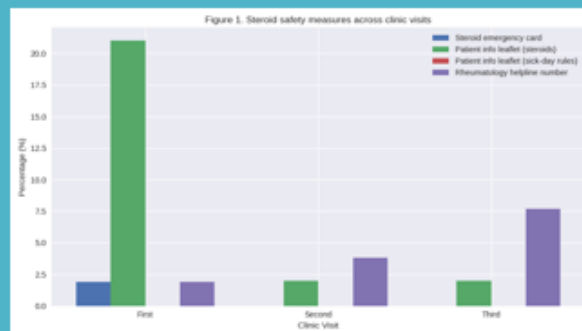
Electronic records from the first three clinic visits were reviewed to assess indications, use of steroid emergency cards, and documentation of safety measures for patients and GPs.

RESULTS

There was wide variation in glucocorticoid prescribing and very poor adherence to recommended steroid-safety practices, including providing emergency cards, leaflets, sick-day rules and helpline details.

Table 1: Audit results (total 52 patients)

Steroid Safety Measures	First visit (52 patients)	Second visit (52 patients)	Third visit (52 patients)	Cumulative for first three clinic visits
Reviewing Clinician Grade	Consultant 48 Registrar 4 Nurse Specialist 0	Consultant 41 Registrar 0 Nurse Specialist 11	Consultant 25 Registrar 1 Nurse Specialist 26	
Steroid emergency card	1.9% (1)	0%	0%	1.9% (1)
Patient information leaflet on steroids	21% (11)	2% (1)	2% (1)	25% (13)
Patient information leaflet on Sick-day rules	0%	0%	0%	0%
Rheumatology helpline number	1.9% (1)	3.8% (2)	7.7% (4)	13.5% (7)
Attendance at Nurse-led educational session	73.1% (38)			



References

Emergency Steroid Card [NetPSA/2020/005/NI/EP3]. Published August 13, 2020. Available at: https://www.england.nhs.uk/wp-content/uploads/2020/08/NetPSA-Emergency-Steroid-Card-FINAL_2.3.pdf

National Institute for Health and Care Excellence (NICE). Adrenal insufficiency: identification and management [NG243]. Published August 28, 2024.

British Society for Rheumatology (BSR). Steroid Emergency Cards and Sick Day Rules Guidance. Published December 6, 2022.

INTERVENTIONS

- Findings discussed in our rheumatology governance meeting
- A **'Patient Steroid Safety Pack'** created and now routinely provided to patients
- E-prescribing prompts for steroids
- A simple tick-box referral system has increased patient provision of nurse-led steroid education sessions
- Steroid safety measures included in doctors' induction
- Data to be re-audited in 6 months

Table 2: Steroid Safety Pack

Contents of pack	Source
Steroid emergency card	Relevant National guidance
Steroid information leaflet	Relevant National Society/Charity
Disease-specific information leaflet (GCA/PMR/LVV)	Relevant National Society/Charity
Sick-day rule leaflet	National Endocrinology Society guidance
Rheumatology helpline number	Local Departmental/Hospital
Other relevant information (blood test request forms, frequency of testing, phlebotomy booking details etc)	Local Departmental/Hospital

CONCLUSION

A standardized **'Patient Steroid Safety Pack'** can provide a practical solution to improve patient care.

Steroid Emergency Card (Adult) NHS

IMPORTANT MEDICAL INFORMATION FOR HEALTHCARE STAFF
THIS PATIENT IS PHYSICALLY DEPENDENT ON DAILY STEROID THERAPY as a critical medicine. It must be given/taken as prescribed and never omitted or discontinued. Missed doses, illness or surgery can cause adrenal crisis requiring emergency treatment.

Patients not on daily steroid therapy or with a history of steroid usage may also require emergency treatment.

Name: _____
Date of Birth: _____ NHS Number: _____
Why steroid prescribed: _____
Emergency Contact: _____

When calling 999 or 111, emphasise this is a likely adrenal insufficiency/Addison's/Addisonian crisis or emergency AND describe symptoms (vomiting, diarrhoea, dehydration, injury/shock).

Emergency treatment of adrenal crisis

- 1) Immediate 100mg Hydrocortisone i.v. or i.m. injection. Followed by 24 hr continuous i.v. infusion of 200mg Hydrocortisone in Glucose 5% OR 50mg Hydrocortisone i.v. or i.m. qds (100mg if severely obese).
- 2) Rapid rehydration with Sodium Chloride 0.9%.
- 3) Liaise with endocrinology team.



Management of constipation: improving efficacy and efficiency for the orthogeriatric patient population

Introduction

Constipation is commonly seen in the orthogeriatric patient population post-operatively.

Contributing factors:

- poor diet
- dehydration
- Immobility
- medications like opioids

Consequences:

- associated symptoms
- urinary retention
- delirium
- prolonged hospital stay

Method

- Orthogeriatric ward staff at University Hospital of North Tees completed a Google Forms survey surrounding:
 - experience with recognising and managing constipation
 - theoretical knowledge
 - awareness of the effect on patient health and admission
- A flowchart guideline was created on Microsoft Word using resources like NICE guidelines for reference
- Re-survey after 3 weeks to evaluate interaction with the guideline and identify any barriers to its use
- Constipation champions and pharmacy involvement implemented

Conclusion

This QIP was successful in addressing the recurrent issue of constipation in orthogeriatric patient care by introducing new guidelines for more efficient and effective management. This project was continually guided by collating the opinions and suggestions of the ward staff to ensure bespoke relevance guidance. It was received well on the ward with good effect for patients.

Results

A novel guideline was produced and displayed as a flowchart; it discussed:

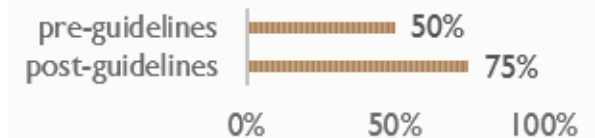
- proactive monitoring of bowels
- early non-pharmacological interventions with physiotherapists and dietician involvement
- prophylactic and therapeutic laxative options with appropriate indications
- information sections on learning points identified during the initial staff survey
 - common precipitating causes of constipation relevant to this patient demographic
 - associated symptoms that may warrant prompt escalation for medical review
 - mechanisms of action of pharmacological therapies
 - signs of over-use of laxatives
- The re-survey in a second cycle showed a measurable improvement with knowledge-based questions
- Positive interaction with the guideline and improvement in confidence with constipation care
- Second cycle identified a need for better promotion of the poster in order to improve adherence
- Action taken were to suggest nominating a dedicated 'constipation champion' staff member on the ward
- Suggested involvement of the pharmacy team to prompt prescription of as-required laxatives and suppositories from the point of admission
- Limitations of this QIP include: small sample size of staff surveyed, and the short timespan between the surveys

References:

- National Institute for Health and Care Excellence. Constipation [Internet]. NICE. 2022. Available from: <https://cks.nice.org.uk/topics/constipation/> [Accessed 08 Jul 2025]
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No patient data was included in this QIP

BAR CHART DISPLAYING STAFF CONFIDENCE WITH MANAGING CONSTIPATION BEFORE AND AFTER GUIDELINES



Aim

To assess and address challenges with preventing, identifying, and managing constipation on the orthogeriatric ward peri-operatively, by introducing a novel guideline for healthcare staff.

To evaluate the success and pitfalls of the novel guideline with a second cycle of the QIP.

Are Clinical Decision Support Tools effective in reducing Therapeutic Inertia in Antihypertensive use: Systematic Review and Meta-analysis

Amirah Hussain, Simon Parker, Sophie V Eastwood



Introduction

- Hypertension is the strongest modifiable risk factor for cardiovascular disease worldwide¹⁻².
- In the UK, ~15% of adults live with uncontrolled blood pressure³.
- Therapeutic inertia - the failure to escalate treatment - is widespread in UK general practice, with treatment not intensified in the majority of clinic visits where BP is uncontrolled⁴.
- Clinical decision support (CDS) tools offer a scalable solution by providing automated, electronic guideline-based prompts.
- They minimise therapeutic inertia by prompting clinicians to initiate timely management and optimise antihypertensive prescribing at the point of care.
- This systematic review and meta-analysis (SRMA) evaluates the effectiveness of CDS tools in reducing therapeutic inertia and improving blood pressure (BP) control in primary care.

Methods

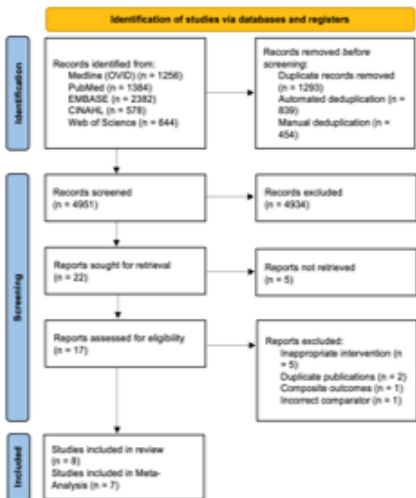


Figure 1: PRISMA flow diagram

- Five databases were searched for randomised controlled trials (RCTs) assessing the effectiveness of clinician-facing CDS interventions in hypertension management among adults in primary care
- Studies were screened, data extracted, and the risk of bias assessed using Cochrane guidelines.
- A random-effects meta-analysis was performed, with pre-specified subgroup analyses.

Results

Study, Year	Setting	Population	Primary Outcome: Change in Systolic Blood pressure
Heselmans <i>et al</i> , 2020	Belgium	3815	Intervention: -0.56 Control: -0.69
Peralta <i>et al</i> , 2020	United States	353	Intervention: -2.8 Control: -2.1
Song <i>et al</i> , 2024	China	12,137	Intervention: -1.5 Control: 0.3
Boston <i>et al</i> , 2023	United States	29,771	Intervention: 34.9%* Control: 33.7%*
Murphy <i>et al</i> , 2020	Ireland	134	Intervention: -5.3 Control: -9.3
Peiris <i>et al</i> , 2015	Australia	38,725	Intervention: -2.3 Control: -1.5
Dregan <i>et al</i> , 2014	United Kingdom	11,391	Intervention: -3.1 Control: -2.7
Anchala <i>et al</i> , 2015	India	1638	Intervention: -11.4 Control: -4.1

Table 1: Summary of key characteristics of each included trial¹⁻¹²
*Outcome reported is the rate of medication initiation

Meta-analyses

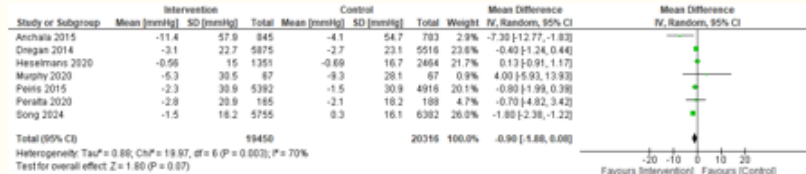


Figure 2: Forest Plot of Effect Estimates of the change in SBP

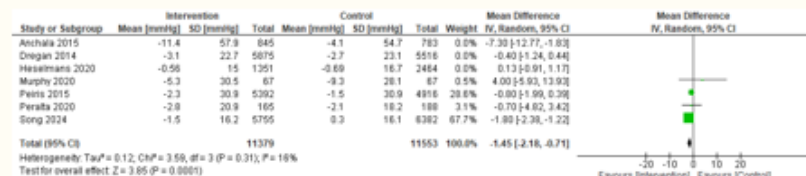


Figure 3: Subgroup analysis excluding studies with adjusted usual care comparator

Discussion

- Two subgroup analyses excluding methodologically heterogenous trials yielded a statistically significant SBP reduction.
- Methodological heterogeneity, poor uptake and implementation barriers were primary limiting factors.
- Trials with appropriate implementation and standardised study design proved strong benefit of CDS systems.
- CDS tools show potential to significantly reduce CVD risk at the population level, with proper implementation and use.



Ultimately, CDS was proven effective in optimising antihypertensive management when well implemented and actively used by clinicians.

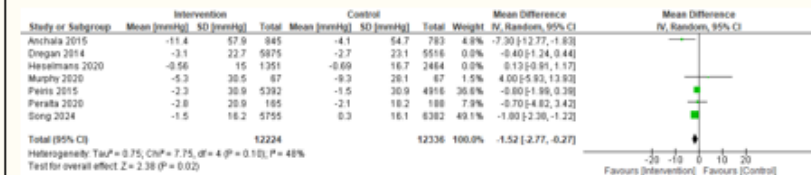


Figure 4: Subgroup analysis excluding studies with high attrition/low CDS uptake

Conclusion

- The overall effect appeared modest, but benefits became significant in studies with strong CDS uptake and appropriate usual-care comparator.
- This demonstrated that CDS systems work under real-world conditions when properly integrated
- CDS tools are a scalable and cost-effective solution to the increasing burden on primary care physicians and suboptimal management of hypertension.
- Methodological heterogeneity and implementation variability were the main limitations.
- Large-scale homogenous implementation research is needed to confirm the benefit of CDS tools on cardiovascular risk at population-level.

Post-infectious Cerebral Vasculitis with Multifocal Infarction following Pneumococcal Meningoencephalitis



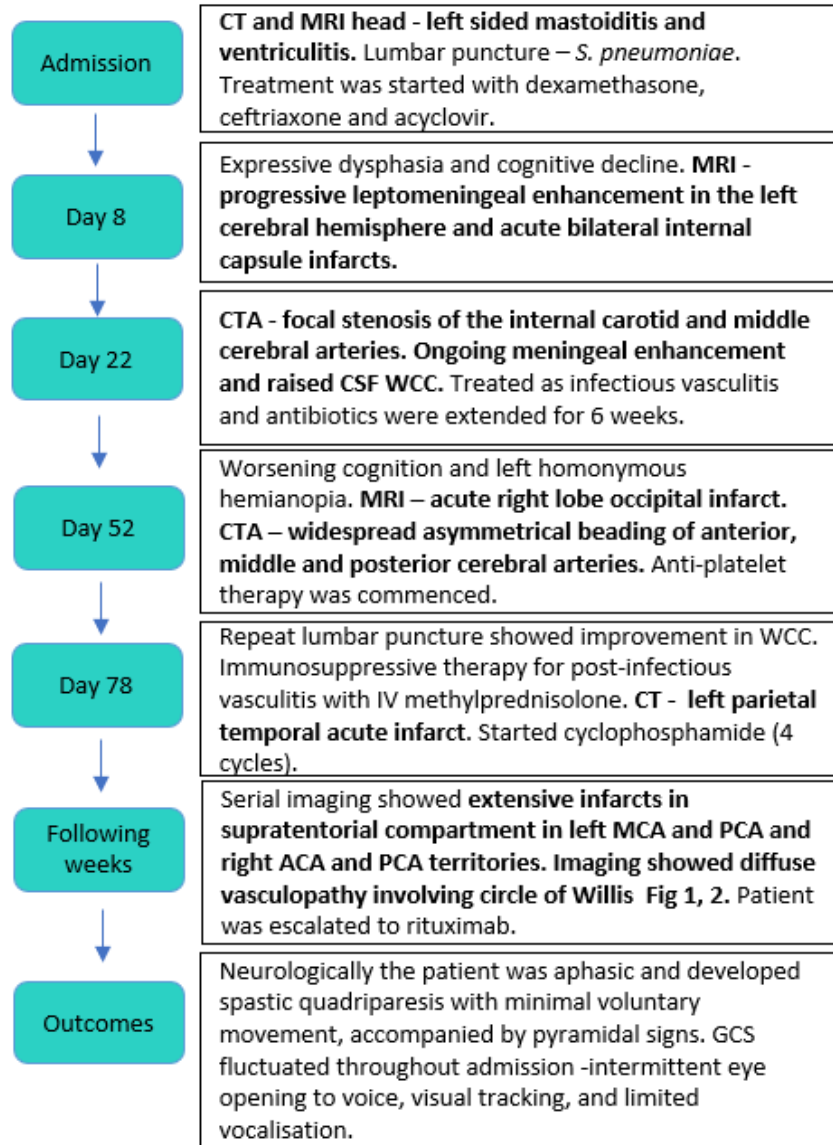
University Hospitals Birmingham
NHS Foundation Trust

Dr Anantha Pabathi, Dr Haris Shahzad, Dr Azizah Khan, Dr Faiyaz Ameer Farook

Background

- This case report describes a woman in her 50s with pneumococcal meningoencephalitis complicated by cerebral vasculitis with recurrent multifocal infarction.
- The patient had no past neurological or thrombotic history and current medications included risperidone and duloxetine. Prior to presentation the patient was independent with activities of daily living.
- Pneumococcal meningoencephalitis is a life-threatening central nervous system infection associated with high mortality and long-term neurological sequelae¹.
- Post-infectious cerebral vasculitis is a complication, which may occur following apparent microbiological clearance and clinical stabilisation².
- The patient presented with reduced consciousness, neck stiffness and left sided otalgia and was found to have mastoiditis and ventriculitis on imaging. The patient was also found to have pneumococcal meningoencephalitis.

Timeline



Discussion

Post-infectious cerebral vasculitis typically develops in a delayed manner, often after initial clinical improvement. It causes progressive neurological decline accompanied by evolving imaging findings. Early imaging may be normal, necessitating a high index of suspicion and repeated neuroimaging. Diagnosis requires exclusion of persistent infection, reversible cerebral vasoconstriction syndrome, and cardioembolic sources. Treatment guidelines are not well established, with current practice being derived from case reports and management of primary and secondary CNS vasculitides; high-dose corticosteroids remain first-line, with escalation to cyclophosphamide or rituximab reserved for refractory cases. The case demonstrated challenges with managing post-infectious vasculitis, with imaging abnormalities (widespread arterial beading) not seen until later on. A difficult balance needs to be established between early immunosuppression and the risk of worsening an ongoing infection. The refractory course seen shows that even maximal immunosuppression may be insufficient in aggressive disease.

Conclusion

This case demonstrates the high morbidity and mortality associated with pneumococcal meningoencephalitis and its sequelae. It also highlights the therapeutic challenges associated with cerebral vasculitis. The case reinforces the importance of early recognition, close imaging surveillance, and individualised management strategies.

References

1. Pugin D, Copin JC, Goodyear MC, Landis T, Gasche Y. Persisting vasculitis after pneumococcal meningitis. *Neurocritical Care* 2006;4:237–240
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- Appropriate consent was obtained throughout

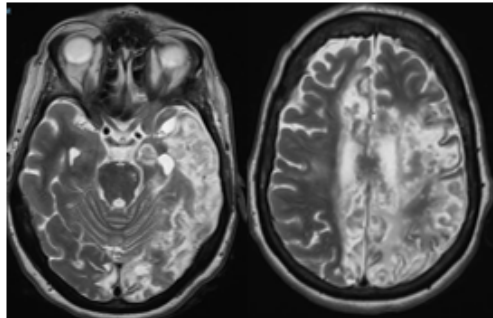


Figure 1 - The MRI image show Extensive large vessel vasculitis, involving vessels of circle of Willis, with extensive infarcts in supratentorial compartment in left MCA and PCA and right ACA and PCA territories.

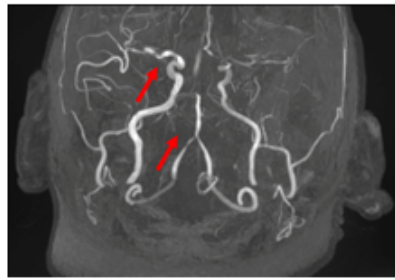


Figure 2 - MRA of the Circle of Willis showing beaded appearance of segments including basilar, ACA, MCA, and PCA branches in keeping with a progressive post-infectious vasculitis.

Improving Interprofessional Communication and Encouraging the Appropriate Use of Clinical Terminology in Secondary Care Practice in the United Kingdom (UK).

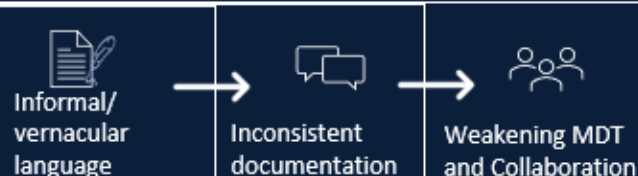
Dr Helen ADDINGTON

Introduction

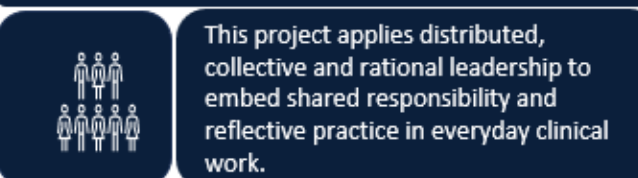
Between 2019 and 2023, gaps in the appropriate use of clinical terminologies were identified across NHS trusts in England, as well as in two hospitals in Northern Ireland. These inconsistencies have continued to create significant challenges during acute admissions.



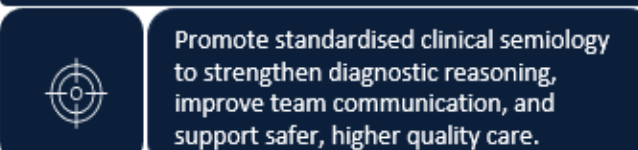
Challenges



Our Responses



Our Goal

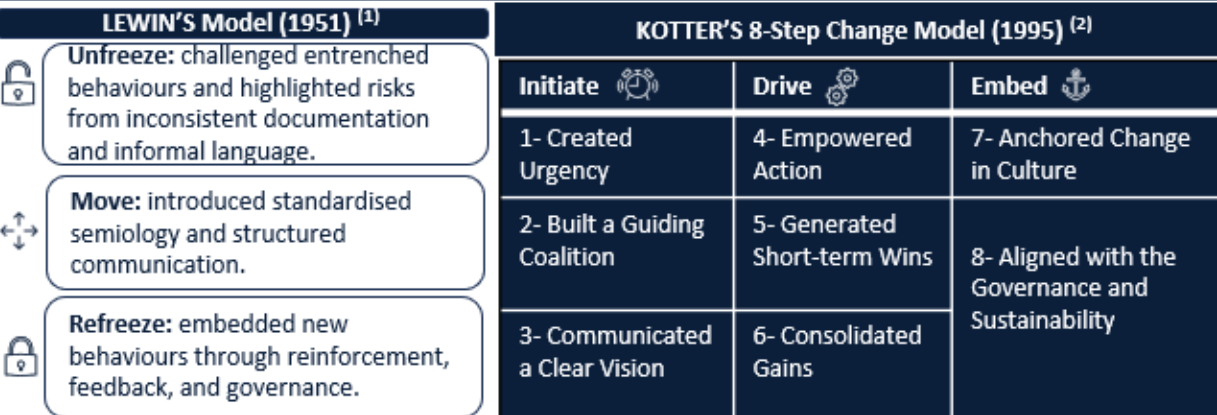


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Methodology

Multiple Layered Implementation Approach

Top Layer: Implementation Framework



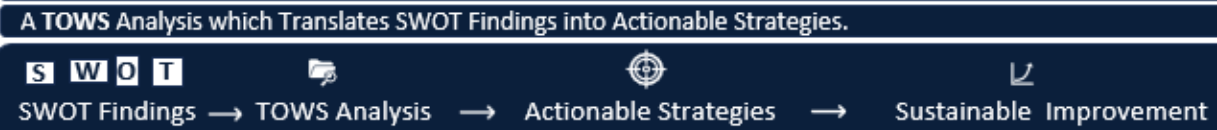
LAYER 2: Stakeholders Engagement



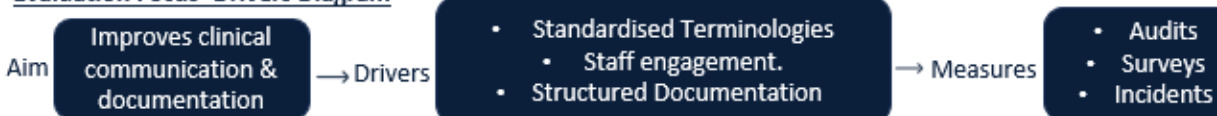
LAYER 3: Leadership Development



Layer 4: Strategic Planning



Evaluation Focus- Drivers Diagram



Discussion

DRIVING SUSTAINABLE HEALTHCARE CHANGES

- Leadership**
 Distributed, collective, relational: Cultivates **Trust** | Accountability
- Clinical Reasoning**
 Standardised semiology strengthens: **Accuracy** | Patient safety
- Frameworks enable changes**
 Lewin + Kotter: **Structured** implementation
- Sustaining Culture**
 Leadership development (Swanwick): **Long-term** cultural shift
- People Matter**

Inclusive engagement: **Equitable** | Practical | Adopted

Practice Impact

Standardising clinical terminology, supported by structured implementation frameworks and leadership engagement, has the potential to significantly enhance communication, clinical reasoning, and patient safety in the UK secondary care.

Disclaimer and Acknowledgement: The authors declare no competing interests. Patient informed consent was not required for data collection or presentation. Thank you to the University of Dundee module leaders for their support.



Patient consent was obtained for use of anonymised data and images in this case report and poster competition, in accordance with data protection legislation. [Scan here for case abstract & references](#)

Background

MINOCA (Myocardial Infarction with Non-Obstructive Coronary Arteries) encompasses myocarditis, vasospasm, embolic phenomena, and microvascular dysfunction.^{1,2} **SLE and APS** are recognised but under-diagnosed causes of MINOCA. MI as the **sole presentation of lupus** is exceedingly rare.^{3,4,5}

Early recognition is crucial — immunomodulation and anticoagulation may prevent recurrence.⁶

Case Report

Patient: 50-year-old man. History of pericarditis >10 yrs prior, non-specific positive autoimmune screen.

Presentation: Acute chest pain; ECG inferior ST-elevation; Troponin 88 → 547 ng/L.

Coronary Angiography: Normal unobstructed coronary arteries → MINOCA confirmed.^{1,2}

CMR (acute): Transmural inferior MI with microvascular obstruction (MVO).^{7,8}

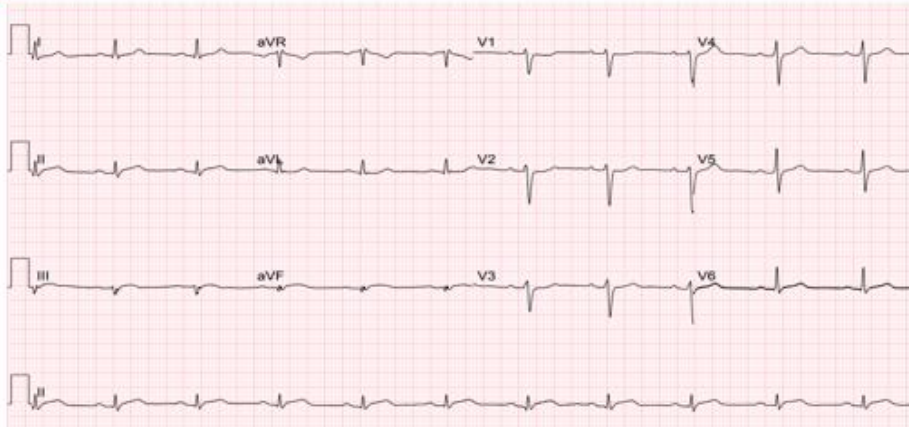
During admission: Recurrent pericarditic chest pain, CRP 188 mg/L.

Autoimmune Evaluation

- ANA 1:640
- Anti-dsDNA antibodies (high specificity)
- Lupus Anticoagulant (LA) positive

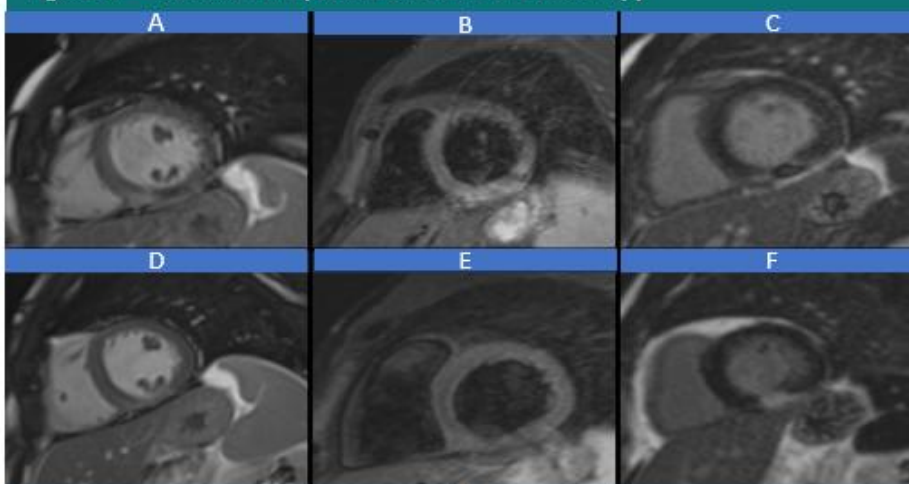
Discharge: Dual antiplatelet + colchicine. Outpatient rheumatology planned.

Figure 1 — ECG at Presentation



Inferior STEMI pattern in leads II, III, aVF and V4–V6.

Figure 2 — Cardiac MRI (Acute & 6-Month Follow-up)



At Presentation (A–C)

6-Month Follow-up (D–F)

A & D: bSSFP — inferior hypokinesia. B & E: T2-weighted — myocardial oedema (basal inferior wall). C: LGE — transmural MI in basal inferior wall with MVO, F: Transmural MI in basal inferior wall with MVO resolution

6-Month Follow-up

CMR: Chronic inferior MI with MVO resolution. No intracardiac shunt.

Holter Monitor: No evidence of arrhythmia.^{7,8}

LA persistently positive on two occasions >12 weeks apart; β2-GPI antibodies normal.⁶

→ **Warfarin initiated** per EULAR APS recommendations. Dual antiplatelet discontinued.⁶

2019 EULAR/ACR SLE Classification: Total Score = 14 ✓

- Serositis – pericarditis (6 pts)
 - Anti-dsDNA (6 pts)
 - Lupus anticoagulant (2 pts)
- ANA entry criterion met. **Hydroxychloroquine commenced.**

Discussion

This case demonstrates SLE presenting exclusively as myocardial infarction with no systematic involvement (rash, arthritis, cytopenias, or renal involvement).⁵

Coexistent pericarditis, anti-dsDNA positivity, and persistent lupus anticoagulant reframed a presumed MINOCA diagnosis as a thrombo-inflammatory manifestation of SLE complicated by APS.^{3,4}

CMR was essential — accurately phenotyping myocardial injury and guiding management (Class IB, 2020 esc Guidelines for ACS without ST elevation).^{7,8}

Key Learning Points

- 1 Lupus can present solely as MI, without any other systemic features.⁵
- 2 Persistent lupus anticoagulant should raise suspicion for APS-related thrombosis in MINOCA, even in the absence of systematic involvement.^{3,4}
- 3 CMR is essential to distinguish true MI from myocarditis or non-ischaemic injury.^{7,8}
- 4 Anti-dsDNA with pericarditis strongly suggests underlying SLE (serositis).⁹
- 5 Early autoimmune identification enables timely anticoagulation and immunomodulation.⁶

Blueprint to Debrief:

The development of a Simulation Design & Facilitation Workshop for Resident Doctors

Authors: Andrew Lacy, Bhavya Byreddy, Raphaella Price, Anya Chanda, Yoke Sin Hoh, Anohka Joseph

Department of Medical Education, North Middlesex University Hospital

Why?

The availability of simulation faculty is one of the fundamental barriers to the frequency of simulation training.

There are increasing demands on simulation providers to meet mandatory training changes in curricula.

There is high interest from traditional consultant faculty, but this translates to little increase in sessions due to availability.

Resident doctors can be valuable simulation facilitators and have fewer barriers to their availability.

How?

Training days were advertised to FY2 residents and above in the hospital and at the end of simulation sessions aimed at upskilling simulation novices.

Training content was based in ASPiH simulation standards & from challenges the authors personally experienced.

Eight novices attended the training sessions, with incentives offered to improve facilitation rates

The four pillars of faculty induction:



Simulation Pedagogy



Meet the Moulage

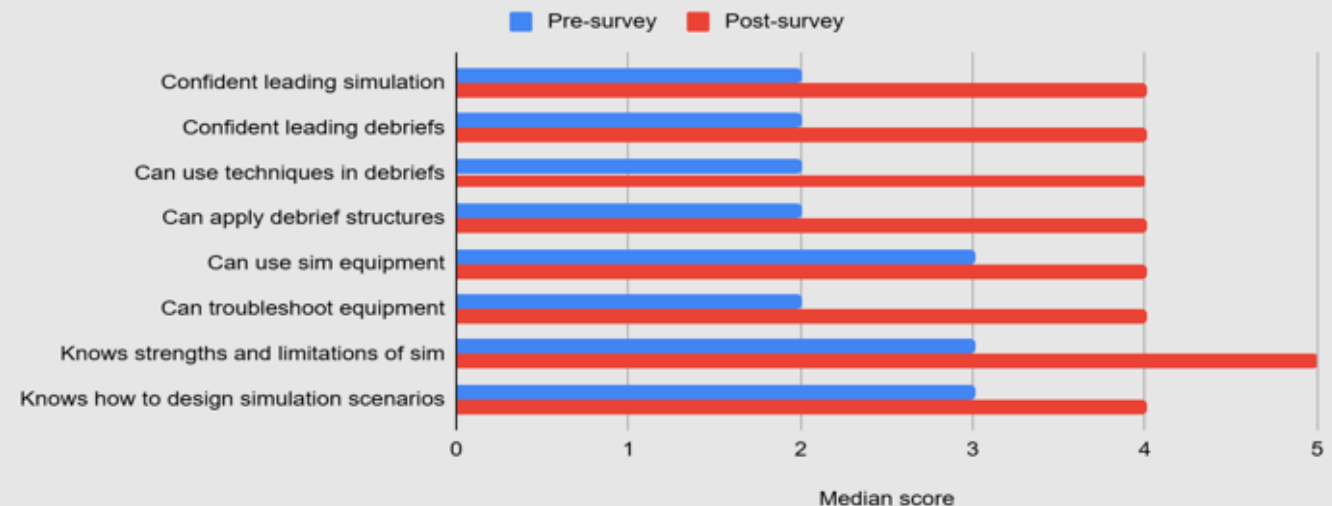


Decoding Debriefs



Scenario Design & Testing

Figure 1: median responses to pre- & post-questionnaire scores



Conclusion: Our pilot programme improved the confidence of novice simulation faculty to lead training sessions using minimal resources. There is demand for residents to create and deliver simulation programmes



Eosinophilic Myocarditis Managed Without Early Corticosteroids: Clinical Recovery Amid Diagnostic Uncertainty, and the Utility of EBUS

References and further images
Contact: andrew.morrish5@nhs.net

Dr Joseph Kettle* MBBS, BSc; Dr Andrew Morrish* MBBS, BSc (Hons); Dr Jessica Holmes MBBS (Dist), BSc (Hons); Dr Imran Sunderji MBBS, BSc, MRCP, PGDipMedEd *co-first authors

Introduction

EM is a rare inflammatory cardiomyopathy defined by eosinophilic myocardial infiltration causing necrosis, inflammation, and fibrosis.

Heterogeneous presentation (mild symptoms to acute heart failure/arrhythmias); diagnosis via **imaging ± peripheral eosinophilia**, confirmed on **histopathology**.

Case Presentation

56M: acute chest pain, palpitations, severe dyspnoea; **elevated troponin** (3500-7000), **eosinophilia** (6.58).

Severe LVSD (EF 27%); cardiac MRI consistent with **infiltrative myocarditis**. Differential EM vs cardiac sarcoidosis.

PET-CT for biopsy target; EMB deemed high risk. Opted for **EBUS + biopsy of hilar lymph nodes**.

Complete clinical recovery on standard heart failure therapy alone, prior to corticosteroids.

Biopsy: **Eosinophilic infiltration**, no granulomas.

Final diagnosis: **Idiopathic HES with EM.**

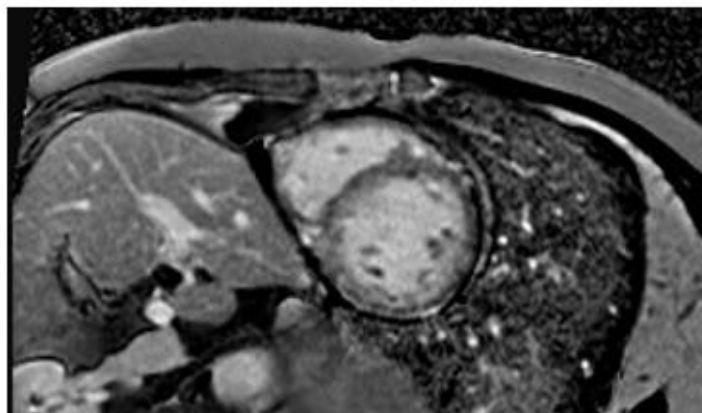


Fig 1. PSIR LGE SAX – Diffuse non-ischaemic LGE more apparent affecting the lateral wall.

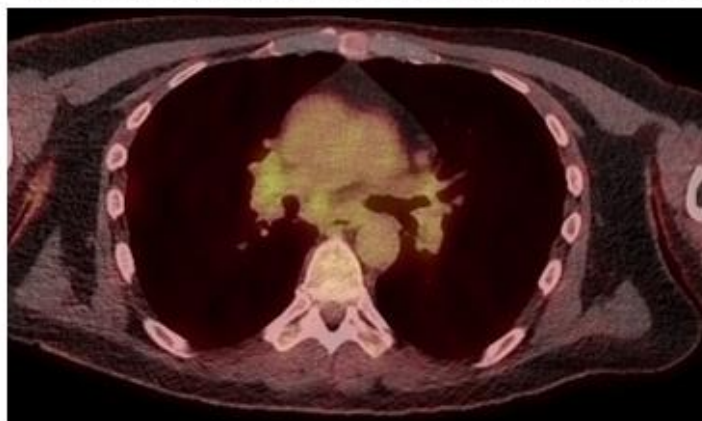


Fig 2. FDG PET – Bilateral hilar lymphadenopathy supporting systemic inflammatory disease.

Discussion

EM is **diagnostically challenging**¹. EBUS is safe and accessible^{2,3} and represents a possible alternative to EMB for tissue biopsy.

Clinical course may be self-limiting when normal cardiac physiology maintained. However, corticosteroids remain essential for patients with fulminant disease or critical arrhythmias.

Corticosteroids **may worsen acute heart failure** (fluid retention, metabolic effects) and **obscure diagnosis** so individualised use is required.

Management is heterogeneous, with no consensus on steroid timing, dose, or duration.⁴

Multidisciplinary input is essential in suspected EM.

Key Learning Points

Significant clinical improvement can occur with guideline-directed **heart failure therapy alone**, without corticosteroid initiation.

EBUS-guided biopsy provided a **valuable alternative tissue diagnostic modality** when endomyocardial biopsy is not feasible.

Evaluating the Utility of HAS-BLED and ORBIT Scores for Bleeding Risk in Patients on Anticoagulation: A Cross-Sectional Study on an Atrial Fibrillation Population in Pakistan

Aneeqa Ejaz¹, Hufriya Mondegarian², Arfa Fatima³, Syed Muhammad Hasan Naqavi², Jibraiel Malick Rehman², Rufaida Riaz Ali⁴, Ainan Arshad⁵

Affiliations: Russells Hall Hospital, The Dudley Group NHS Foundation Trust, England (1), Medical College, The Aga Khan University, Karachi, Pakistan (2), Department of Medicine, The Aga Khan University, Karachi, Pakistan (3), Department of Community Health Sciences, Aga Khan University, Karachi, Pakistan (4), Midland Metropolitan University, Sandwell and West

INTRODUCTION

Anticoagulation is the first-line treatment in the management of atrial fibrillation (AF) in order to prevent strokes,¹ but it accompanies serious bleeding risks as well.² This study aimed to compare the diagnostic accuracy of ORBIT and HAS-BLED tools in determining bleeding events among anticoagulated patients with AF.

METHOD

A cross-sectional study of 382 anticoagulated AF patients (mean age 68.5 ± 9.34 years) was conducted over two years at a tertiary care hospital in Karachi, Pakistan, with Ethics Research Committee approval at AKUH. Sensitivity, specificity, odds ratio, AUC, and calibration were assessed to compare HAS-BLED and ORBIT score performance using predefined^{3,4} and Youden index-derived cut-offs.

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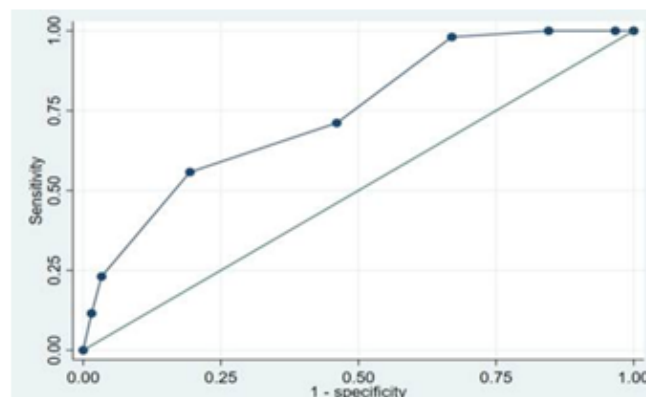


Figure 1A. ROC Curve for ORBIT Score in Predicting Bleeding Risk

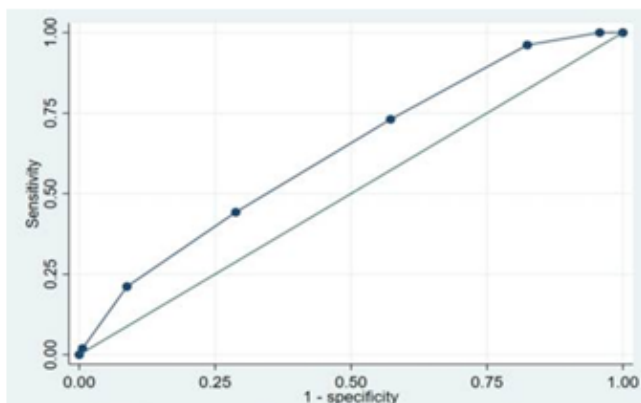


Figure 1B. ROC Curve for HAS-BLED Score in Predicting Bleeding Risk

RESULT

The ORBIT score demonstrated a better predictive performance as compared to HAS-BLED (AUC = 0.742 vs 0.628, $p < 0.001$). Using optimal cut-offs derived from literature and the Youden index (HAS-BLED ≥ 3 and ORBIT ≥ 4), ORBIT showed higher specificity (53.9% versus 42.7%) but lower sensitivity (71.2% versus 73.1%), and higher odds ratio (2.89 vs 2.02). Both scores showed good calibration on the Hosmer-Lemeshow test (HAS-BLED: $\chi^2 = 2.53$, $p = 0.639$; ORBIT: $\chi^2 = 11.90$, $p = 0.156$).

CONCLUSION

The ORBIT score outperformed HAS-BLED in predicting bleeding risk among anticoagulated AF patients. Given its independence from INR monitoring, ORBIT may be more practical for patients on direct oral anticoagulants (DOACs).

Improving the Documentation of Pleural Procedures using Electronic Patient Records across Two District General Hospitals

Dr Anjana Sirivella¹ · Dr Jade Man² · Dr Terry Lim How³

¹ Internal Medicine Trainee, ² ST4 Respiratory
Specialty Trainee, ³ Consultant Respiratory Physician

BACKGROUND

Chest drain insertion and pleural aspiration are associated with serious complications. An electronic proforma incorporating BTS guidelines and LocSSIPs was launched across all wards in both hospitals to improve procedural safety.^{1,2}

AIM

To improve the documentation of pleural procedures using an electronic proforma.

DOMAINS ASSESSED

Mandatory (cannot save proforma without)

A. Pre-Procedure Safety

- 1 Imaging Reviewed !
- 2 Platelet Count, INR & Anticoagulation Reviewed
- 3 Written Consent Given !

B. Procedural Details

- 4 Local Anaesthetic Quantity & % Recorded !
- 5 Ultrasound Guidance Used for Pleural Effusions !
- 6 Depth of Chest Drain Insertion Recorded

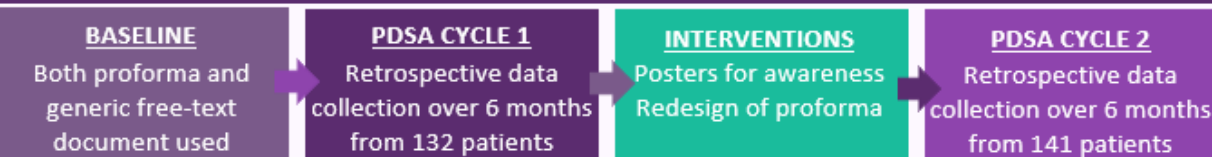
C. Post-Procedure Care

- 7 Chest X-Ray done Post-Drain Insertion !
- 8 Clamping Instructions Documented

REFERENCES

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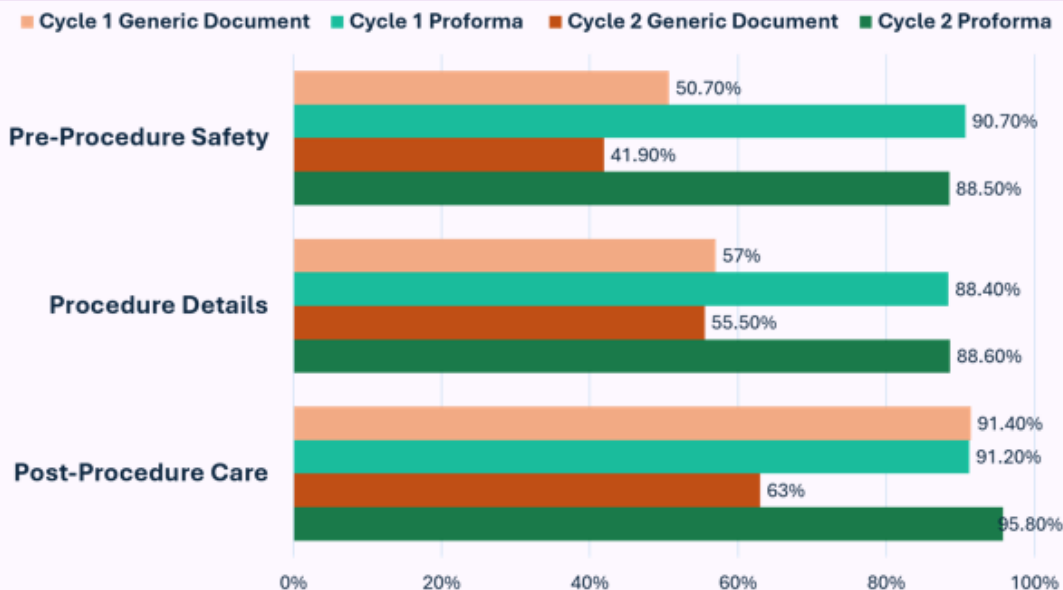
PDSA CYCLE METHODOLOGY



INTERVENTIONS BETWEEN CYCLES

- Proforma promoted during Clinical Governance meetings, Induction and Simulation days
- Pop-up banners added to proforma to provide real-time reminders when answers deviate from BTS guidelines/local policy
- Proforma updated so it cannot be saved until 5 mandatory fields are completed
- Posters placed in key medical areas where pleural procedures are commonly performed

RESULTS — DOCUMENTATION COMPLIANCE BY DOMAIN (%)



KEY STATISTICS

- +25%**
Relative increase in proforma usage after interventions
- +50%**
Relative increase in compliance with documentation practices when using proforma vs generic document
- 90%**
Average compliance with documentation practices over both cycles using the proforma
- 60%**
Average compliance with documentation practices over both cycles using the generic document
- 91%**
Compliance with documentation practices using proforma in Cycle 2 (improved from 90% in Cycle 1)

CONCLUSION

- ✓ Using a standardized proforma for pleural procedures **improves documentation practices.**
- ✓ The proforma can also **improve patient safety** by acting as a **safety check-list.**
- ✓ By **transforming the existing digital technologies** used within the trust, it is possible to **implement sustainable improvements** to procedural practices.
- ✓ This proforma can be **changed dynamically** to meet the future needs of clinicians.

Scan QR code to view Proforma



Post Stroke Recrudescence: The REACT Criteria - A Conceptual Framework for Diagnosing a Commonly Misunderstood Condition

Dr Annabel Hayes, Dr Paul Bolaji – Dorset County Hospital NHS Trust

Introduction

Post stroke recrudescence (PSR) denotes the acute, transient recurrence or worsening of focal neurological deficits in patients following a previous stroke.¹ Despite being recognised for over two decades, PSR remains poorly characterised within the current literature. Its true prevalence is unknown and likely underestimated due to the transient nature of symptoms and the absence of standardised diagnostic criteria.² This diagnostic uncertainty represents a major barrier to clinical recognition, appropriate management, and systematic research.

Materials and Methods

We synthesised the current literature on PSR; examining terminology, clinical features, common precipitants, proposed pathophysiology, differential diagnoses and management strategies. This information was integrated into a structured diagnostic framework to enable clear clinical recognition of PSR.

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1. Pu MJ, Yu JL, Hu X, et al. Incidence, characteristics and outcome of post-stroke recrudescence in the Chinese population: a singlecentre observational study. *BMJ Open* 2023;13(9):e068878.
2. Topcuoglu MA, Saka E, Silverman SB, Schwamm LH, Singhal AB. Recrudescence of Deficits After Stroke. *JAMA Neurology* 2017;74(9):1048.
3. Jun-O'connell AH, Henninger N, Moonis M, et al. Recrudescence of Old Stroke Deficits Among Transient Neurological Attacks. *The Neurohospitalist* 2019;9(4):183–9.
4. Lazar RM, Fitzsimmons BF, Marshall RS, et al. Reemergence of Stroke Deficits With Midazolam Challenge. *Stroke* 2002;33(1):283–5.

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The REACT Criteria for Post-Stroke Recrudescence

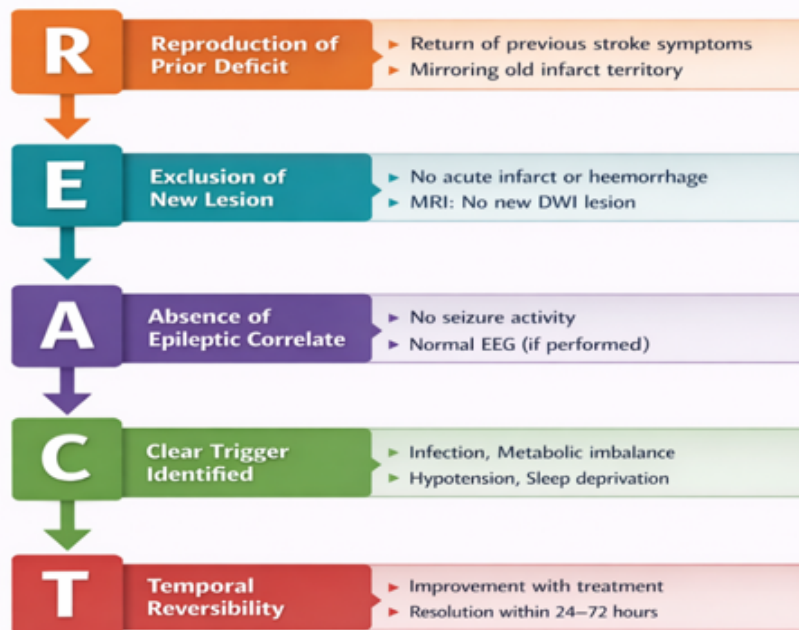


Figure 1: The REACT criteria: a novel, structured, diagnostic framework for PSR. REACT synthesises four core elements – Reproducible phenotype, Exclusion of new imaging lesion, Absence of epileptic correlate, Clear trigger and Temporal reversibility.

Results and Discussion

PSR typically presents as brief, self-limited re-emergence of prior stroke deficits (sensory disturbance, dysarthria, hemiparesis, gaze palsy) in patients with radiological evidence of chronic infarction and no new diffusion-weighted imaging (DWI) lesion.² Common triggers include systemic infection,¹ haemodynamic instability,² metabolic derangements,³ sedative exposure,⁴ and physiological stressors.⁵ Risk is greater after larger index strokes,² particularly middle cerebral artery territory and small-vessel disease, and in patients with more extensive white matter disease.¹ In practice, PSR is frequently misclassified as transient ischaemic attack, recurrent stroke, seizure, migraine, or functional neurological disorder, contributing to unnecessary investigations and interventions.^{2, 6-8}

Recurring themes within the literature were synthesised and we have proposed a novel, structured, diagnostic framework to standardise recognition of PSR: The REACT Criteria (Figure 1). Using this diagnostic tool, neuroimaging must first exclude new structural injury in patients presenting with a recurrence of previous stroke symptoms and no evidence of seizure activity. Once imaging is negative and deficit fidelity is established, clinicians should then actively evaluate for systemic precipitants. Resolution of symptoms following correction of an identifiable trigger strengthens diagnostic confidence.

Conclusion

To the best of our knowledge, this represents the first acronymic diagnostic framework for PSR. By distinguishing PSR from recurrent ischaemia and other mimics, REACT aims to reduce misclassification, avoid unnecessary thrombolysis or prolonged admissions, and provide clearer guidance for clinicians and reassurance for patients. By integrating these elements into a structured model, REACT aims to bridge the gap between research definitions and bedside decision-making.

A Medical Take Frenzy: Piloting a Gamified Medical Take Simulation to prepare Medical SHOs for the Medical Registrar Role

Dr. Apichaya Amrapala

Background

- The transition from Senior House Officer (SHO) to Medical registrar is challenging and overlooked¹
- Despite training, not all trainees feel ready for the role²
- Developing 'task readiness' for the new role is crucial³
- A local survey of medical SHOs revealed areas of highest concern and lowest task readiness were:
 - Managing the medical take
 - Providing medical advice to other specialties

Aims/Objectives

- Design and implement an educational intervention pilot for medical SHOs to improve task-readiness in managing the medical take
- Evaluate the feasibility, acceptability and impact of the intervention

Methods

Design

- Educational intervention designed as part of a Postgraduate Diploma in Medical Education Project (Figure 1)
- Stakeholder input and peer review
- Low-fidelity team-based simulation model with debrief chosen
- Focus on experiential learning, teamworking and development of reflective practice with underpinning social, constructivist and humanist educational theories⁴⁻⁵
- Gamification elements added to increase motivation and engagement, learning retention and skill development⁶

Implementation

- Stakeholder engagement and implementation into a pre-existing departmental teaching program (Endo and Diabetes)

Evaluation

- Questionnaires with likert scales and open-ended questions
- Peer observation and review by medical consultants
- Free-form responses analysed thematically (Figure 3)

MEDICAL TAKE FRENZY

An educational simulation game to prepare Medical SHOs for the Medical Registrar Role



3-8 PLAYERS (FY1 - MEDICAL REGISTRAR LEVEL)

Roles:

- Medical Registrar** - 1 player is the Medical Registrar managing the Medical Take
- Medical Juniors on the Take Team** - all other players play as themselves in their current training stage or the stage below (Medical SHOs or FY1)

INSTRUCTIONS - HOW TO PLAY:

- The aim of the game is to **obtain as many points as possible** by **completing action cards (1 point)** and **medical clerkings (3 points) within 40 minutes**
- This will be followed by **feedback and debrief (20 minutes)** with the facilitator who will guide reflective practice and case discussions.

Medical Registrar

- You start off with a 'Waiting to be Seen' pile of referral cards - review these referrals and delegate as you see fit to your team of clerking medical juniors
- Each time the bleep goes off, pick up an action card from the pile and complete the action
- Earn points for each action card completed and each referral clerked by your medical juniors
- Juniors must discuss all cases with you and form a safe + suitable management plan to earn points

ACTION CARDS:

- Referral**: A case referred from ED
- Advice**: Other specialties calling for medical advice
- Lab Call**: The lab calls with an abnormal blood result

Medical Juniors

- Help your team gain as many points as possible by completing clerkings!
- The Medical Registrar will delegate cases to you - pick up the corresponding information pack to your referral
 - As with a real clerking, produce a differentials list and management plan. You **MUST** discuss the case with your medical registrar. If you are concerned about the patient escalate promptly.
 - Agree a management plan with your registrar. The facilitator will award points if the plan is appropriate and safe

At the end of the game:

Points will be tallied up and any outstanding actions cards or referrals not cleared at the end of the game are deducted from the total score. **Rewards** are pre-agreed before starting the game.



Figure 1. Educational Intervention Pilot: Medical Take Frenzy

References

- Shannon E, Cantillon P. Preparedness for the transition to medical registrar from senior house officer-What's the problem? Clin Teach. 2024;21(2):e13712.
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Results

- SHO confidence increased in most medical tasks post-intervention (Figure 2)
- Intervention was engaging, interactive and fun
- Learners enjoyed the teamworking aspect, opportunities to practice handovers and be the med reg, realism of cases and case discussions
- To improve, simulation should run for longer with more cases and higher bleep intensity

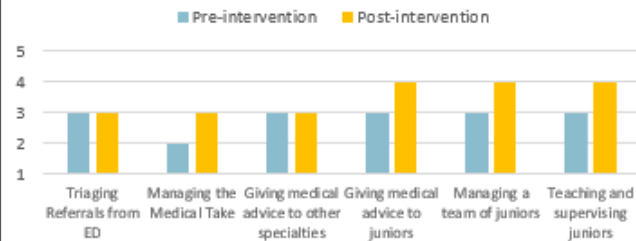


Figure 2. Medical SHO confidence in medical registrar tasks Pre- and Post-intervention (1 = low, 5 = high)

Conclusions

- The intervention was feasible, low-cost and highly scalable and adaptable
- Acceptable and enjoyable for key stakeholders
- Time-consuming preparation – more faculty needed, and further evaluation of intervention impact (including long-term outcomes) required
- Next steps: integration into trust IMT Teaching

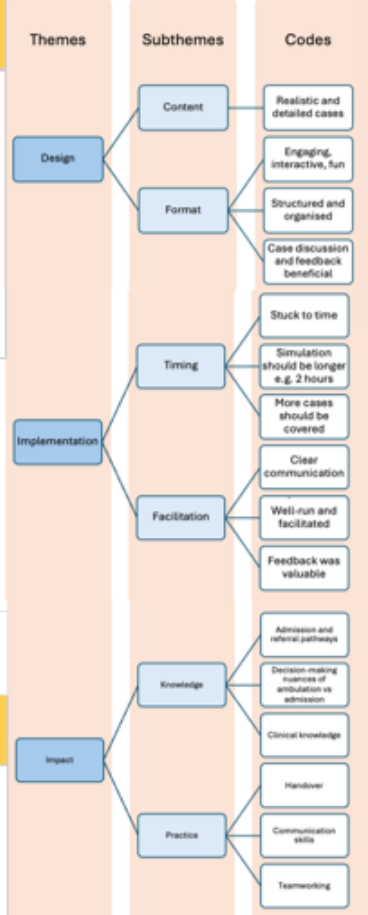


Figure 3. Thematic analysis of trainee feedback and consultant peer review

Out of Hospital Cardiac Arrest (OOHCA) and Primary PCI Pathway Outcomes: a single centre observational study with comparison to national benchmarks

Artemis Loukaidi¹, Mohammed Ahmed², Helen Routledge², Lal Mughal²

¹ Department of Cardiology, Homerton University Hospital, London

² Department of Cardiology, Worcestershire Acute Hospitals NHS Trust, Worcestershire

Introduction:

- OOHCA complicates a significant proportion of acute coronary syndromes (Collet et al., 2023)
- Limited data** exist (at a local and at a national) evaluating the performance of PPCI pathways and outcomes in this population (National Institute for Cardiovascular Outcomes Research [NICOR], 2024), (NICOR, 2023)

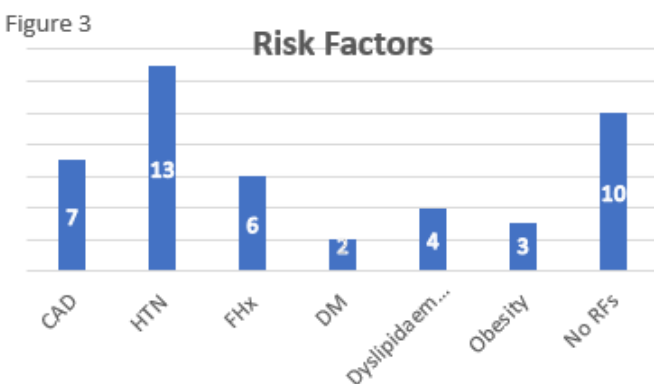
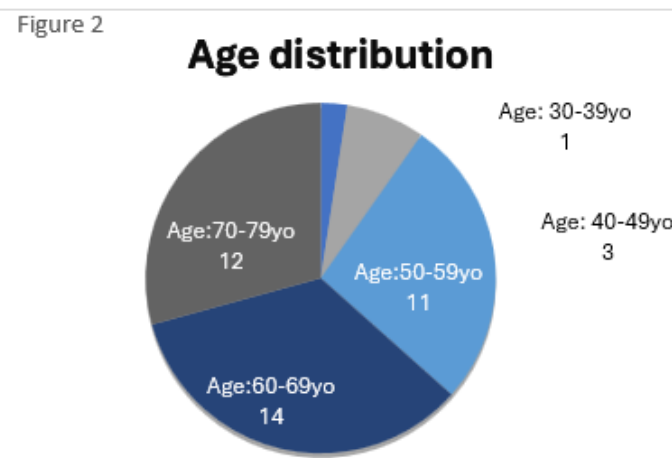
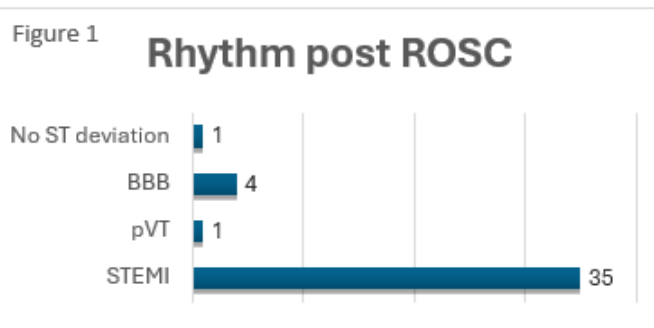
Are standard PPCI benchmarks fit for OOHCA patients?

Methods:

- Single-centre retrospective study
- 51 patients admitted after OOHCA and PPCI pathway activation
- Data collection: July 2017 - May 2019:
- What was collected?
 - Demographics, RFs for CAD, post-ROSC ECG, call to balloon (CTB) and door to balloon (DTB) times, in-hospital complications, mortality.
- Aim: Do local outcomes meet the national standards? Comparison with NICOR/MINAP benchmarks and outcomes

Results:

- 69% : post- ROSC ECG: showed STEMI (Figure 1)
- Majority: in their 60s (Figure 2)
- RFs: known CAD (n=7), HTN (n=13), +ve Family hx (n=6), T2DM (n=2), dyslipidaemia (n=4), obesity (n=3), no RFs (n=10) (Figure 3)
- DTB <90min in 95%** (NICOR benchmarks ~89%).
- CTB <150min in 68.3%** (NICOR benchmark ~75%).
- Mortality: 19%
- Complications: arrhythmias (n=6), cardiogenic shock (n=5), pneumonia (n=5), hypoxic brain injury (n=2), sepsis (n=1)



Limitations:

- Design: sample size / single centre => Possibly: selection bias / sampling error
- Risk stratification (e.g. NULL-PLEASE, MIRACLE2) was not feasible
- Limited data for OOHCA-specific PPCI outcomes (both on a local / national scale) (NICOR, 2023) (NICOR, 2024)

Conclusion:

- DTB performance > NICOR standards
- CTB < NICOR standards (? **additional complexity:** (airway management , haemodynamic stabilisation) + coronary reperfusion.
- Sparse data** for OOHCA-specific PPCI outcomes.
- Standard PPCI metrics** may **not** fully reflect **quality of care** in this complex population

Impact:

- Are standard PPCI metrics appropriate for OOHCA/PPCI subgroup? *Do they reflect quality of care?*
- Need for **dedicated care pathways**
- Need for dedicated protocols and **PPCI-shock teams**;
- PPCI shock teams:
 - guide fast and effective decisions (?mechanical circulatory support (e.g. Impella))
- Need for: **Larger multicentre studies** to establish meaningful benchmarks for this population
- Need for **dedicated research** vs direct comparison with PPCI cohorts.

Every lump has its "cyst"-ory

A. Amladi, R. Potluri, P. Ariyaratnam, K. Syred, S. Iacovides, S. Curtis, V. North, N. Manghat, M. Hamilton, C. Izgi, F. Apendurada, R. Mohiaddin, M. Marketou, E. Nakou

Presentation and initial investigations:

- 38-year-old lady, 26 weeks' gestation with progressive dyspnoea and central chest discomfort.
- Past medical history: Bicuspid aortic valve with mild ascending aortopathy.
- ECG and echocardiogram: Unremarkable
- X-ray chest: subtle left hilar prominence
- Cross-sectional imaging:

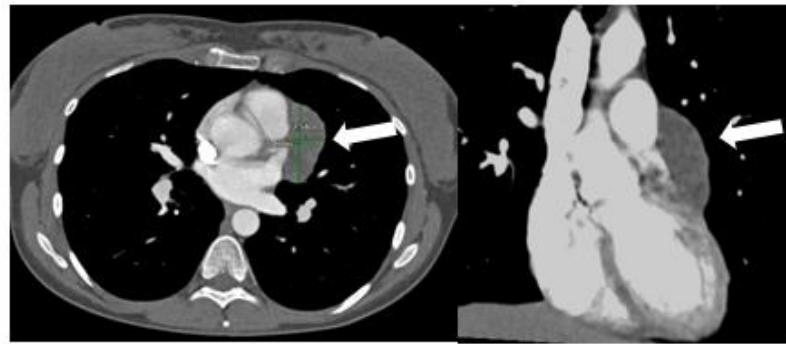
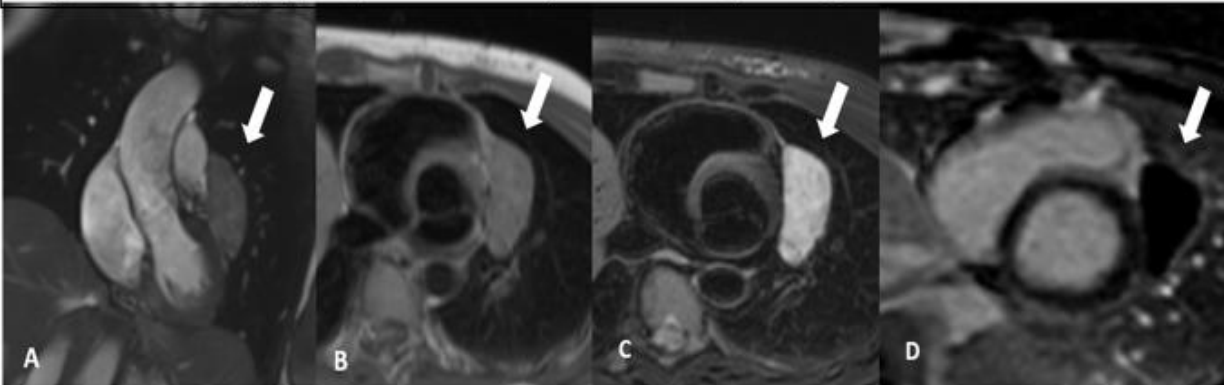


Figure 1: CT scan showing the mass with density 27 HU in keeping with slightly dense fluid, thought likely to be some form of pericardial cyst

Figure 2. Cardiac MRI A. b-SSFP B. T1 TSE showing intermediate signal C.T2 weighted sequence showing high signal D. LGE sequence showing low signal of the lesion



So what? CMR features were atypical for a simple pericardial cyst

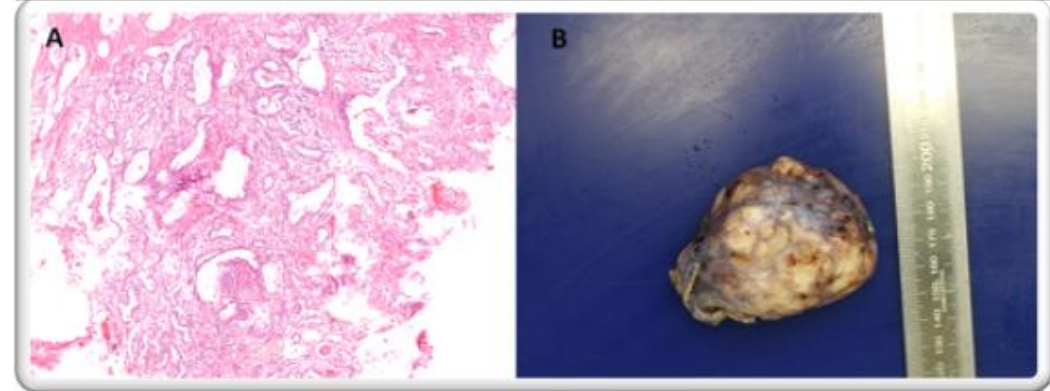
The Diagnostic/ Clinical Dilemma: Pregnancy + mediastinal mass!

- ? Benign pericardial cyst or malignant lesion
- ? Operate during pregnancy or wait

The MDT moment and clinical outcome:

- Multidisciplinary discussion balancing maternal risk, fetal safety, and diagnostic uncertainty. Conservative antenatal management was chosen due to clinical stability, absence of compressive features, and the non-urgent nature of the lesion
- Post-partum, the patient underwent VATS-assisted biopsy and complete excision.
- Intraoperative findings: An anterior mediastinal mass distinct from the pericardium.
- Histopathology: A completely excised cystic mediastinal teratoma.

Figure 3: Histology and macroscopic picture of the mass



Learning points: Why this case matters?

- This case emphasises diagnostic and management challenges posed by a cystic anterior mediastinal mass in pregnancy.
- Multimodality imaging, multidisciplinary expertise, and specialised maternal cardiology networks play a critical role in navigating this complex situation.

Multiple Cavernomas Syndrome: A Rare Culprit Behind Stroke in a Middle-Aged Patient

Presenting author: Dr Ashna Arif, FY2, MWL Trust

Supervising Consultant: Dr Fathalla Elnagi, Consultant Stroke Physician, MWL Trust



References

Case Presentation



- 48-year-old male
- 2h history of left arm weakness, perioral paresthesia, slurred speech, sudden onset after standing from sofa
 - Left facial droop + dysarthria
 - Reduced sensation (left side)
 - Motor power 3/5 (left UL & LL)
 - BP: 188/119 mmHg
 - Visual fields intact, no nystagmus



Investigations and Management



- Bloods: ↑ LDL (3.3 mmol/L)
- CT Brain: Right parietal hemorrhagic stroke
- MRI Brain:
 - Extensive cSVD
 - Multiple microhaemorrhages
 - Multiple cavernomas
- Immediate Mx: V labetalol → oral antihypertensives
- Diagnosis: **Multiple Cavernomas Syndrome**
- Referral to neuroradiology MDT

Discussion



- Rare: 0.4–0.8/100,000 (UK)
- 5–13% of vascular malformations
- Up to 40% symptomatic
 - seizures, deficits, hemorrhage
- MRI (SWI): “popcorn-like” lesions
- Familial (CCMI–3): multiple lesions, earlier onset
- This case: imaging consistent with **familial type**

Background & Past History

Uncontrolled hypertension
Type 2 diabetes
Dyslipidaemia
Asthma
Conversion disorder



No prior stroke; FHx: brain tumour

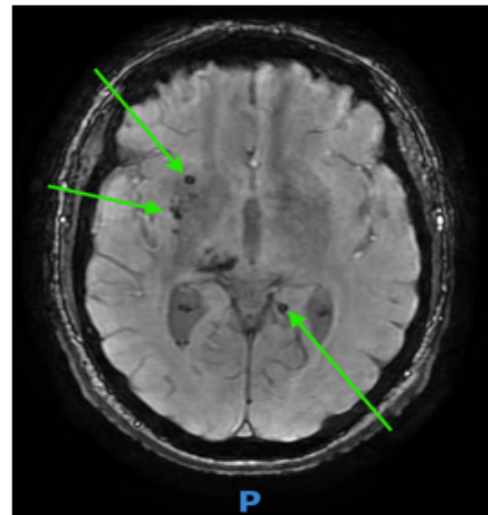


Fig.1 Axial SWI of MRI Brain. Presence of diffuse, bilateral multiple small foci of hemosiderin staining

Consent has been gained for the write up of this case report.

Conclusion



- Early imaging is crucial in atypical stroke presentations
- Consider MCS in hemorrhagic stroke with multiple lesions
- Role for MDT input and genetic evaluation
- Important for **family counselling + future risk stratification**

A Rare Infection, A Real Dilemma: Balancing Survival and Pancreatitis Risk in Acanthamoeba Meningoencephalitis Treatment

Dr. Athira Hansraj, Dr. Sandeep Padmanabhan
Department of Neuromedicine, Aster Medcity Kochi, India



WHY THIS CASE MATTERS

- Rare and often fatal CNS infection with high mortality
- Routine tests are frequently negative leading to diagnostic delay
- Treatment requires multidrug regimens with significant toxicities
- KEY DILEMMA:** Treat life-threatening infection vs. risk of severe drug toxicity

CASE TIMELINE

- Day 0**
Fever following recent swimming pool exposure during travel
- Day 3-5**
Headache and vomiting
- Day 6**
Worsening confusion and agitation
- On presentation**
Meningoencephalitis with altered sensorium → Intubated and managed in ICU
- CSF (Early)**
Lymphocytic pleocytosis (TC 150; 90% lymphocytes), Elevated protein (122 mg/dL), Normal glucose
- Definitive Diagnosis**
CSF wet mount: *Acanthamoeba* trophozoites detected
PCR confirmation: Positive

INVESTIGATIONS

Test	Finding
Blood culture	No growth
Routine labs	Unremarkable
CT / MRI Brain	Normal
CSF Analysis (Early)	Lymphocytic pleocytosis (TC 150; 90% lymphocytes), Elevated protein (122 mg/dL), Normal glucose
Routine meningitis / encephalitis panel	Negative
Bacterial, viral, TB PCR, Cryptococcal antigen	Negative
CSF Wet Mount	<i>Acanthamoeba</i> trophozoites detected PCR confirmation: Positive

TREATMENT COURSE

INITIAL EMPIRIC THERAPY	AFTER DIAGNOSIS CONFIRMED
<ul style="list-style-type: none"> Ceftriaxone Acyclovir Doxycycline 	<ul style="list-style-type: none"> Rifampicin Intravenous Trimethoprim-Sulfamethoxazole Fluconazole Dexamethasone

COMPLICATION - ACUTE PANCREATITIS

Amylase
540 U/L
Lipase - 848 U/L

CT Abdomen
Portal and splenic vein thrombosis,
Modified CT severity score: 6

Created a major therapeutic dilemma

THE CLINICAL DILEMMA

STOP DRUGS?	VS.	CONTINUE DRUGS?
<p>Risk of inadequate treatment of a life-threatening CNS infection</p>		<p>Risk of worsening pancreatic injury and complications</p>

OUR APPROACH

- Multidisciplinary team decision**
(Infectious disease, Neurology, Gastroenterology, Critical care)
- Conservative management of pancreatitis:**
Bowel rest, IV fluids, Analgesia, Anticoagulation
- Continued anti-amoebic therapy**
with close monitoring

OUTCOME

- Gradual neurological improvement
- Resolution of abdominal symptoms and pancreatitis
- Discharged in stable condition on Rifampicin and Posaconazole

DISCUSSION

- Acanthamoeba meningoencephalitis is rare and often missed due to non-specific presentation and negative routine tests.
- CSF microscopy and/or PCR are crucial for diagnosis.
- No standardized treatment guidelines; multidrug regimens are used based on case reports.
- Drug toxicities can complicate management, especially in patients with pre-existing conditions.
- Careful risk-benefit assessment and multidisciplinary management are essential.

TAKE-HOME MESSAGES

- Consider *Acanthamoeba* in unexplained meningoencephalitis, especially with relevant exposure.
- Negative routine meningitis panels do not exclude serious infections; targeted testing is essential.
- Drug-induced toxicities can create complex therapeutic dilemmas that require individualized care.
- Multidisciplinary approach and close monitoring are key to balancing risks and improving patient outcomes.

Impact of Rural-Urban Residence on Pelvic Fragility Fractures in Gwent (Wales) Population

Inderpal Singh, Avtar Singh, Rashpinder Kaur, Sophie Shah, Chris Edwards



Introduction

What we already Know?

Fragility fractures are common in older adults.

What are we trying to accomplish?

Determine the incidence of pelvic fragility fractures across Gwent and examine differences in outcomes between rural and urban populations.

Results

- ❑ Incidence: 36.7 per 100,000.
- ❑ Population Stratification: Rural: 16.6% (n=62) and Urban: 83.3% (n=310).
- ❑ Mean age Similar (~83 years)
- ❑ Female Predominance (Rural- 74.2%, Urban- 79.7%)
- ❑ Hospital Admission Rates higher in Urban (64.2% vs 56.1%)
- ❑ Previous fracture similar (>50%).

Treatment

Deemed unsuitable 23.1% (n=86) Rural=16.2% (n=10/62) Urban=24.5% (n=76/310)	Declined treatment 12.4% (n=46) Rural=9.7%; (n=6/62) Urban=12.9% (n=40/310)	Bone protection started: 46.5% (n=173) Rural=50%; (n=31/62) Urban=45.8% (n=142/310)
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Methods

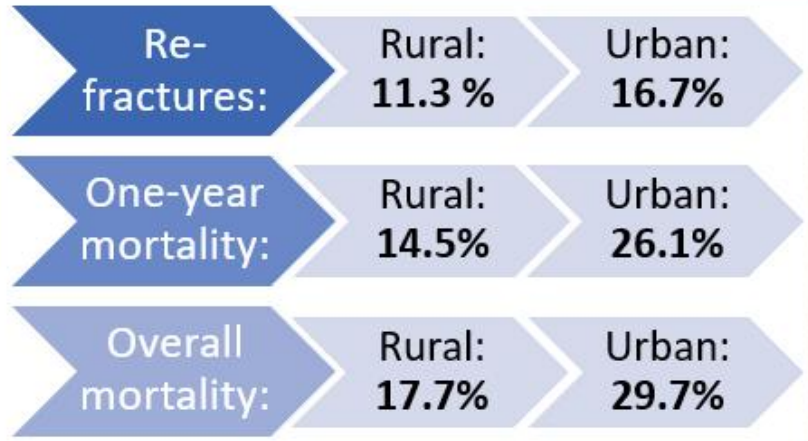
Retrospective analysis of Aneurin Bevan Fracture Liaison Service (AB-FLS)

Duration: 36 months (Jan 22 to Dec 2024)

Total= 6,786 patients → 373 Pelvic fracture

Data analysis: Rural-urban classification applied (372 included) → Re-fracture and one-year and Overall mortality

Follow-up completed until 31st Dec 2025



Conclusion

- ❖ Rural population is **underrepresented** in fracture pathways.
- Possible cause:-**
 - Underdiagnosis
 - Reduced healthcare access
 - Health-seeking behaviour differences

Limitations

- Single-centre study
- Small rural sample size

Future Work

- NHFD – Explore relation RUC / Deprivation
- Overcoming Health Inequalities

A proposal for coronary artery vasoreactivity assessment

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¹Department of Cardiology, Translational Cardiovascular Research Group, ⁵Department of Critical Care, Milton Keynes University Hospital NHS Foundation Trust, ² Faculty of Medicine and Health Sciences, University of Buckingham, ³ Faculty of Engineering and Applied Sciences, Cranfield University, ⁴Division of Cardiovascular Medicine University of Oxford, UK

Introduction

It is estimated that 30-50% of males and 50-70% of females with chest pain have non-occlusive coronary artery disease (CAD), defined as no or <50% stenosis of the epicardial coronary arteries, termed as ANOCA. It is believed that ANOCA is caused by coronary microvascular disease (CMD) and/or epicardial or microvascular coronary vasospasm and often in combination. Current methods to assess CMD is based on functional invasive angiography (FCA), or non-invasive PET-CT, Cardiac MRI scans or stress echocardiography. The coronary vasoreactivity assessment relies only on FCA using acetyl-choline intracoronary injection with its inherent risk of myocardial infarction, stroke, death, need for urgent CABG. In this study we developed a controlled hyperventilation test as a non-invasive physiological stimulus for provoking coronary vasospasm (by causing respiratory alkalosis, pH>7.50) as a method that can be implemented in the clinical scenario to assess patients with ANOCA in a non-invasive fashion. We developed a ventilation navigator application to deliver a controlled (tidal volume and respiratory rate modulated) hyperventilation and assessed its feasibility in healthy subjects during hypocapnia and related respiratory alkalosis.

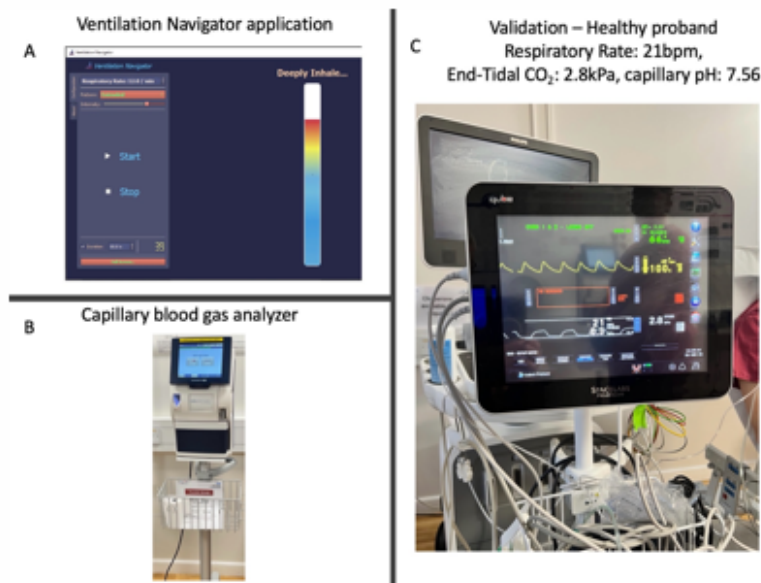


Figure 1. Validation of Hyperventilation related with Capillary Blood gas analysis.

Methods

We developed the Ventilation Navigator software using C++ and utilising high-precision timers as an advanced platform for respiratory guidance and control, incorporating adjustable breathing rate, and tidal volume, a session timer for automatic cessation.

We assessed the utility of controlled hyperventilation in 5 healthy probands using end-tidal CO₂ (ETCO₂) against capillary CO₂ and pH.

Results

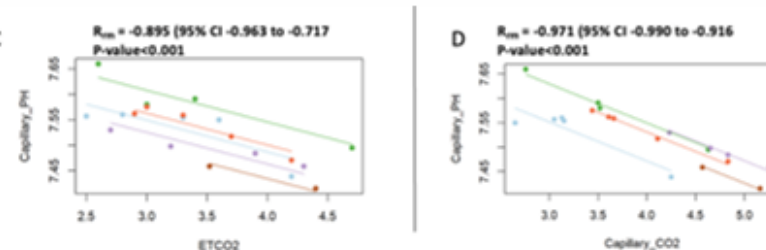


Figure 2. Relationship between ETCO₂ vs Capillary pH and Capillary CO₂ vs Capillary pH

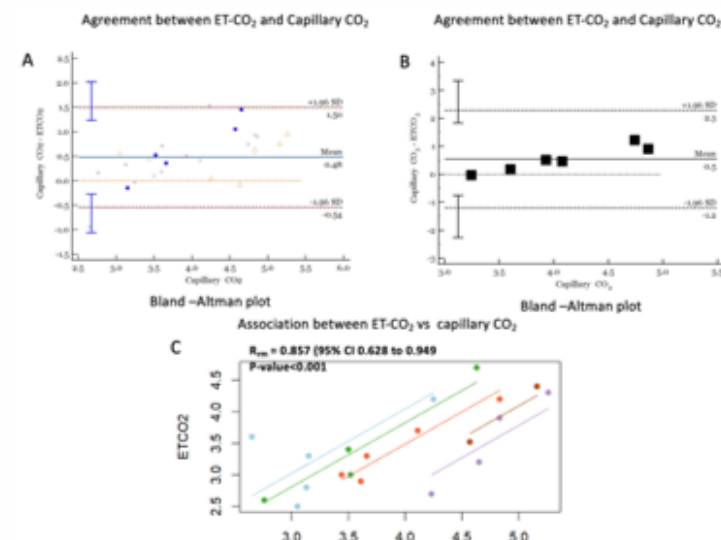


Figure 3. Relationship between ETCO₂ and Capillary CO₂

Discussion

To be able to develop an entirely non-invasive, echocardiography-based pathway to help to determine ANOCA endotypes we have developed a Ventilation Navigator software to aid to deliver controlled hyperventilation.

1. Using controlled hyperventilation, we found a moderate, clinically relevant agreement between ETCO₂ and capillary CO₂ with an offset of 0.48kPa.
2. Respiratory alkalosis could be achieved between 90%-70% of the baseline ETCO₂ of individuals with the help of the Ventilation Navigator.
3. ETCO₂ was significantly associated with capillary pH which makes it an important marker for clinical monitoring of respiratory alkalosis during controlled hyperventilation.

Conclusion

The developed system of controlled hyperventilation caused respiratory alkalosis that in turn could be used in the routine diagnostic workup to investigate coronary vasoreactivity in ANOCA patients after it has been validated in patients.

Evaluation of Remimazolam versus Midazolam for Procedural Sedation in Direct Current Cardioversion (DCCV)

Dr. Basant Kashyap | George Elliot Hospital NHS Trust, UK

Remimazolam nearly **halves** recovery times for DCCV without compromising safety.

Study Design

N=62 Adult Patients

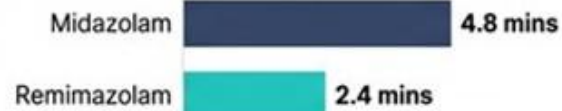
(Elective & Emergent DCCV)



- Hybrid retro-prospective review (Dec 2025 – Feb 2026)
- Cross-referenced clinical records with real-time procedural audits
- Post-procedural Likert scale evaluation for comfort, amnesia, and satisfaction

Sedation Efficacy Matrix

Induction Latency (Target Sedation Depth)



Recovery Profile (Discharge Criteria)



Hemodynamic Stability

Remimazolam demonstrated superior stability with a marked reduction in hypotensive episodes requiring vasopressor or fluid intervention.



Clinical Relevance & Patient Outcomes

92%

Reported superior mental clarity, lacking the residual grogginess of midazolam.

100%

Expressed a preference for the same agent in future procedures.

Faster offset & predictable recovery

Reduced constant nursing monitoring required

Superior CCU bed management and increased capacity

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Prostate Malignancy as a Confounding Factor: A Case of Sporadic Creutzfeldt-Jakob Disease

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BCP Medicine 2026

INTRODUCTION

Sporadic Creutzfeldt-Jakob disease (sCJD) is a rare, fatal neurodegenerative condition characterised by rapidly progressive dementia, ataxia, and myoclonus.

Diagnosing sCJD is frequently complicated by concurrent medical conditions, particularly active malignancy, which acts as a diagnostic confounder. 'Anchoring bias' often directs clinicians toward paraneoplastic neurological syndromes (PNS) or CNS metastases.

CASE PRESENTATION

A 56-year-old male presented with precipitous cognitive decline shortly after radical radiotherapy for prostate carcinoma. Initial symptoms of memory deficits and 'brain fog' were attributed to hormonal therapy.

He rapidly developed disorientation, gait ataxia, and florid visual misperceptions (pareidolia). On admission: asymmetric rigidity, bilateral grasp reflexes, and stimulus-sensitive myoclonus.

Active malignancy led the initial differential to prioritise paraneoplastic limbic encephalitis. However, MRI revealed bilateral restricted diffusion in the caudate nuclei and multifocal cortical ribboning (Figure 1) — highly specific for sCJD.

CSF was acellular; RT-QuIC assay was positive. Diagnosis validated by the National Prion Clinic. The patient transitioned to palliative care and passed away in December 2025.

CONCLUSION

Active malignancy should not preclude consideration of sCJD in rapid neurological decline.

Clinicians must remain vigilant against diagnostic anchoring. DWI-MRI and RT-QuIC are essential tools for rapid exclusion of treatable mimics.

DISCUSSION

The patient's visual symptoms suggested the Heidenhain variant of sCJD, yet the cancer history created an initial diagnostic anchor of PNS.

PNS typically manifests with medial temporal lobe hyperintensities, whereas sCJD presents with cortical ribboning and basal ganglia restriction (Table 1).

RT-QuIC achieves sensitivity 92–97% and specificity 99–100%. Early confirmation prevents futile immunosuppressive therapy and enables timely palliative care.

TABLE 1: sCJD vs. Paraneoplastic Syndrome

Feature	Sporadic CJD (sCJD)	Paraneoplastic Syndrome (PNS)
MRI	Cortical ribboning & basal ganglia restriction	Medial temporal lobe hyperintensities
CSF / Serology	Positive RT-QuIC (sens. 92–97%; spec. 99–100%)	Onconeural antibodies; Pleocytosis
Progression	Rapidly progressive dementia (weeks)	Subacute; fluctuates with tumour activity

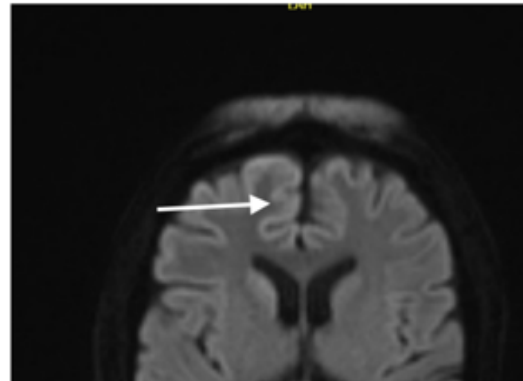


Figure 1: DWI-MRI: bilateral restricted diffusion in caudate nuclei and multifocal cortical ribboning (arrows) — characteristic of sCJD.

KEY LEARNING POINTS

1. Avoid Diagnostic Anchoring

Active malignancy should not lead clinicians to automatically assume a paraneoplastic aetiology in cases of rapid cognitive decline.

2. Utilise High-Specificity Investigations

RT-QuIC and DWI-MRI are critical for rapid exclusion of treatable mimics and confirmation of prion disease.

3. Facilitate Timely Palliative Care

Early and accurate diagnosis of sCJD prevents the administration of futile, potentially harmful immunosuppressive therapies and enables dignified end-of-life planning.

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Enhancing Patient Care: Capillary Blood Gas Sampling as Less Invasive Alternative to Arterial Sampling

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Lister Hospital, East and North Hertfordshire Trust

Background

- Arterial blood gas (ABG) sampling is an invasive and painful procedure
- Capillary blood gas (CBG) is as reliable for pH & CO₂ measurements as an ABG
- CBGs are widely used in paediatrics but there is limited adult uptake with implementation across the NHS remaining inconsistent

Aim:

To implement capillary blood gas sampling in appropriate adult respiratory patients to improve patient experience without compromising safety

Methods

- Design: Quality Improvement Project
- 2 PDSA cycles
- Data collection:
 - Staff questionnaires (n=50 per cycle)
 - Patient questionnaires (n=30 per cycle)
- Intervention: Structured teaching session which covered indications, limitations and the practical technique
- Outcomes measures
 - staff confidence
 - clinical relevance
 - patient discomfort and acceptability

Results

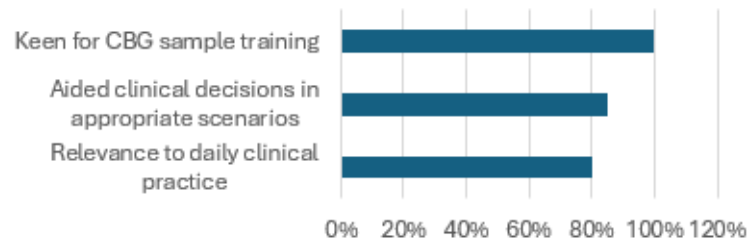
Staff Outcomes

100% agreed CBG improves patient experience
96% reported increased confidence post-training
80% strongly agreed relevance to daily practice

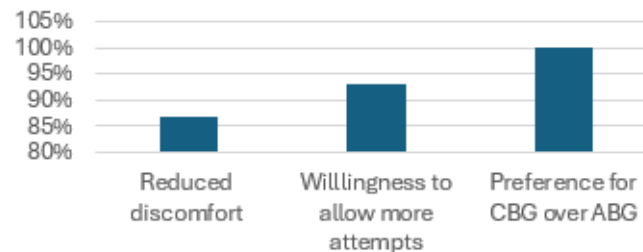
Patient Outcomes

87% reported **less discomfort** with CBG
93% preferred CBG for repeat sampling

Staff preference for CBG



Patient preference for CBG



Conclusion

- CBG sampling is acceptable to both staff and patients
- It is associated with
 - Improved patient experience
 - Increased staff confidence
- Safe implementation achieved through:
 - Structured education
 - Iterative PDSA cycles
- CBG represents a less invasive, patient-centred alternative to ABG in appropriate clinical scenarios

Impact/Why this matters:

Reduces patient pain and procedural burden
Supports evidence-based, patient-centred care
Easily scalable across NHS trusts
Potential to standardise practice nationally

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Optimising Troponin Requesting and Antiplatelet Stewardship in Acute Medical Receiving Units: A Quality Improvement Project

Dr Blair Smith¹, Dr Hannah Duthie¹, Dr Robert Clyde¹, Dr Eileen Peat¹
¹ Royal Alexandra Hospital, Paisley, Department of Cardiology

Introduction

High-sensitivity troponin assays are central to the assessment of suspected acute coronary syndrome (ACS).¹ However, troponin is a rule-in test requiring clinical context. Variation in requesting practice within the Acute Medical Unit (AMU) prompted review, with concern that testing outside clear clinical indications may contribute to diagnostic uncertainty and unnecessary treatment, including dual antiplatelet therapy (DAPT).^{2,3,4}

Background

Chest pain accounts for 5% of emergency admissions, with only a minority representing myocardial infarction.¹ Over-testing may contribute to: diagnostic anchoring, unnecessary referrals, iatrogenic harm, particularly in elderly patients^{2,3,4}

Aim

To reduce inappropriate troponin testing within acute medical receiving units over 4 months through education and improved decision support.

Methods

A prospective quality improvement project was conducted using a PDSA framework within the Acute Medical Unit and Medical Assessment Unit. 50 baseline patients and 44 post-intervention patients undergoing troponin testing were analysed. Data collected included clinical indication, ECG findings, adherence to serial troponin pathways, and DAPT prescribing. The primary outcome was the proportion of inappropriate troponin tests. Run chart methodology was used to assess variation over time, with baseline median calculated from weeks 1–8.

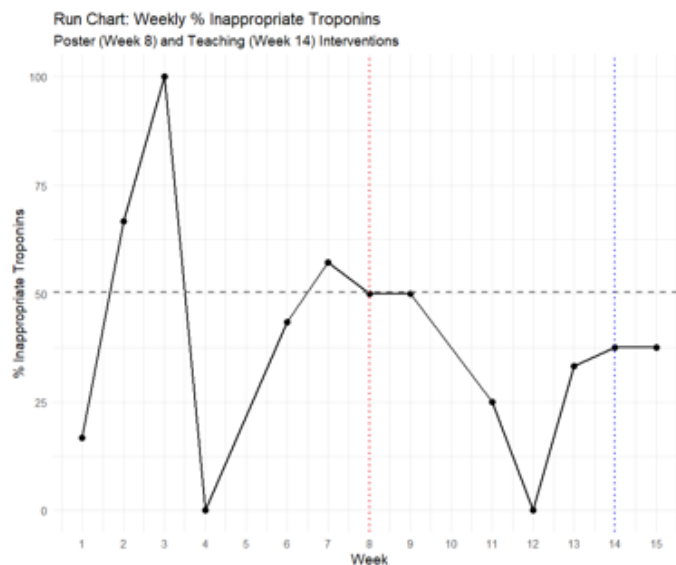
Baseline Results

Among 50 patients (mean age 67.7 years, 56% Male, Mean eGFR 54.8 mL/min/1.73m²) inappropriate troponin testing occurred in 44% of cases. Serial pathway adherence was 52%, and inappropriate DAPT prescribing occurred in 14%. This demonstrated that approximately one in two troponin tests were performed without clear clinical indication.

Post Intervention Results

Following introduction of an educational poster (week 8), inappropriate troponin testing remained similar at 42.9%, with reduced adherence to serial pathways. Following targeted teaching (week 14), inappropriate troponin testing reduced to 37.5%, with improved pathway adherence (56.3%). Inappropriate DAPT prescribing reduced to 6.3%.

Run Chart



Weekly analysis demonstrated a baseline median inappropriate rate of approximately 50%. No sustained improvement was observed following the poster intervention; however, a downward trend emerged following targeted teaching.

Intervention

Week 8: Poster
Week 14: Touchpoint teaching

Summary (Table 1)

Measure	Baseline	Poster	Teaching
Inappropriate Troponin	44%	42.9%	37.5%
Serial Troponin Adherence	52%	28.6%	56.3%
Inappropriate DAPT	14%	7.1%	6.3%

Conclusion

- Poster = Minimal impact
- Teaching = Improved practice
- Inappropriate DAPT prescribing was less frequent and improved early, suggesting clinical judgement was not solely driven by troponin results

Inappropriate troponin testing is common within acute medical receiving units and represents an upstream driver of potential harm. Passive interventions alone were insufficient, while targeted teaching demonstrated early improvement. Future work should focus on combining education with system-level decision support to improve sustainability and exploration of electronic decision-support within the requesting system.

Gemcitabine induced Haemolytic Uraemic Syndrome - a case report

Bridget Dence, Elise Maylor, William Pickles, Imogen Peterson
Royal Cornwall Hospital

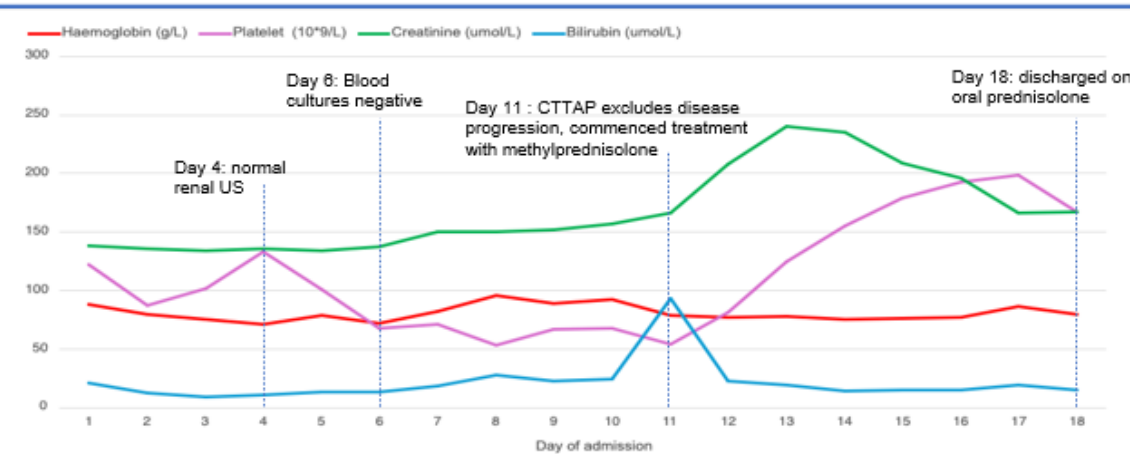
Introduction

- **Gemcitabine** is a nucleoside analogue drug commonly used in the treatment of **pancreas**, bladder, lung and breast cancers⁽¹⁾.
- A rare (estimated occurrence is between 0.015-5%) side effect of Gemcitabine is **haemolytic uraemic syndrome (HUS)**, a triad of **acute kidney injury, microangiopathic haemolytic anaemia and thrombocytopenia**.⁽²⁾
- The reported fatality associated with HUS varies but has been **reported as high as 70%**.⁽³⁾

Key investigations

- **Bloods prior to initiating chemotherapy: normal kidney function** eGFR 87 (creatinine 80), **Hb** 129 and **platelets** 231.
- **Initial admission bloods: acute kidney injury** (creatinine 138), **anaemia** (Hb 88) and **thrombocytopenia** (platelets 122).
- **Blood cultures:** negative
- **Renal US:** Structurally normal kidneys.
- **Blood film:** Anaemia secondary to haemolysis.
- **Haptoglobin:** <0.08, **LDH:** 906
- **ADAM TS13 assay:** 89.2
- **CTTAP:** stable appearances of the pancreatic malignancy, new pericardial and pleural effusions, and new ascites in the abdomen and pelvis.

Figure 1: Values of haemoglobin, platelet, bilirubin, and creatinine levels on daily blood tests and their correlation with key events of admission.



Case Summary

- A 70-year-old man with a background of **metastatic pancreatic adenocarcinoma** presented with non-specific symptoms 2 days post chemotherapy. Initially treated as a community acquired pneumonia.
- The patient's full blood count reflected worsening anaemia and thrombocytopenia, and his kidney function continued to deteriorate despite fluid resuscitation.
- A collaborative approach between the Oncology, Haematology and Renal teams led to a working diagnosis that the patient's clinical picture reflected an **atypical HUS secondary to Gemcitabine therapy**.
- The patient had no further Gemcitabine, **his antihypertensive medications were up-titrated**, and a **blood transfusion** provided some symptomatic improvement.
- High dose **methylprednisolone** was given for three days, before switching to 1mg/kg oral **prednisolone**. High dose steroids were well tolerated by the patient and correlated to an improvement in haemolysis.
- The patient's creatinine continued to increase, and further treatment with anti-complement agent **Ecuzimab** was considered, as was **plasma exchange**, however the patient's kidney function stabilised, and he was able to be discharged from hospital on oral steroids.

Discussion

- Haemolytic uraemic syndrome should be considered in patients who have received Gemcitabine and present with **acute kidney injury, anaemia and thrombocytopenia**.
- Diagnosis of HUS is challenging given, **myelosuppression is a common side effect of Gemcitabine**⁽³⁾, there is **no specific diagnostic test** for HUS, and the **clinical presentation may be non-specific**.
- It is important to also consider differential diagnoses such as **disease progression, infection, thrombotic thrombocytopenic purpura, or paraneoplastic syndrome**.
- Reports regarding the value of **steroids** in the management of HUS vary.⁽³⁻⁴⁾ This case demonstrated improvement in haemolysis following the commencement of high dose steroids, but there remains risk of relapse.
- This case report highlights the importance of a **collaborative approach** between different specialities, particularly in the context of clinical uncertainty.

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- Consent has been obtained for the use of patient data in this case report.*

Improving Timely Treatment Escalation Plan (TEP) Documentation: A Closed-Loop Audit

Dr Caitlin Lee¹, Dr Greta Economides¹, Dr Omar Mohammad¹

¹Affiliation: Queen Elizabeth Hospital, Lewisham and Greenwich NHS Trust

Background

TEP forms support patient's autonomy, and prevent inappropriate escalation. Trust guideline states this should be completed by PTWR or within 48 hours of admission.

Methodology

A closed-loop audit was undertaken of all adult emergency general surgery admissions over a 28-day period (115 patients in Cycle 1). We evaluated whether these patients had a documented TEP within 48 hours of admission or on post-take ward round. Data on age, gender, comorbidity burden, and pre-existing TEP status were collected. Following baseline analysis, two interventions were implemented: presentation of audit findings at departmental teaching to raise clinician awareness, and dissemination of reminder posters in clinical areas to prompt TEP consideration during admission. A repeat 28-day data collection (Cycle 2) was conducted post-intervention using identical methodology, which included 145 patients. Appropriate permission for collecting and disseminating this information was obtained.

Results:

Cycle 1: 29% of patients did not have a TEP completed

Educational Intervention Implemented

Cycle 2: 11% of patients did not have a TEP completed

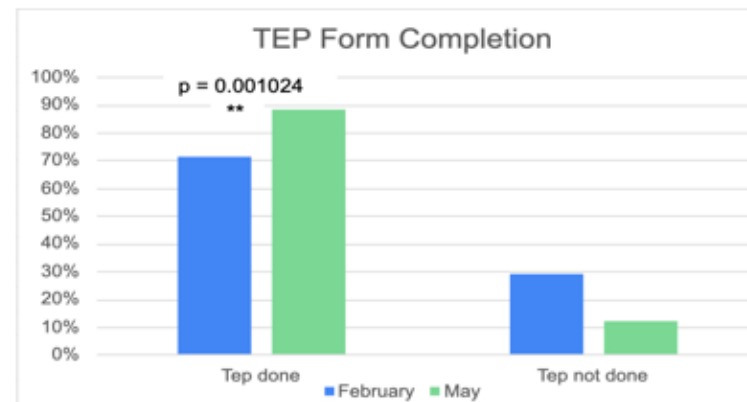


Figure 1: Graph Showing TEP completion Pre- and Post-Intervention

There was a statistically significant increase in TEP form completion in the second cycle of our audit following our interventions. Age, gender, comorbidity burden + pre-existing resuscitation status did not significantly affect TEP form completion in either cycle.

Discussion and Conclusion

- ❖ TEP forms, when utilised correctly, can ensure patients' autonomy is maximised, futile treatments are avoided, and that the MDT and different clinical groups are aware of appropriate escalation in emergency settings. Unfortunately, these can be overlooked in the patient journey.
- ❖ Low-cost initiatives can produce significant improvements, as we demonstrated above. Reassuringly, there was no statistically significant difference in TEP completion between demographic groups, which could indicate implicit bias.
- ❖ Though improvement was made, further work must be done, which can include integration of TEP reminders into EMR, appointed 'TEP champions' and continuous clinical governance in this area.



PULMONARY MALT LYMPHOMA MASQUERADING AS PRIMARY LUNG CANCER



Authors

Dr Catherine Edwards and Dr Waseem Athar

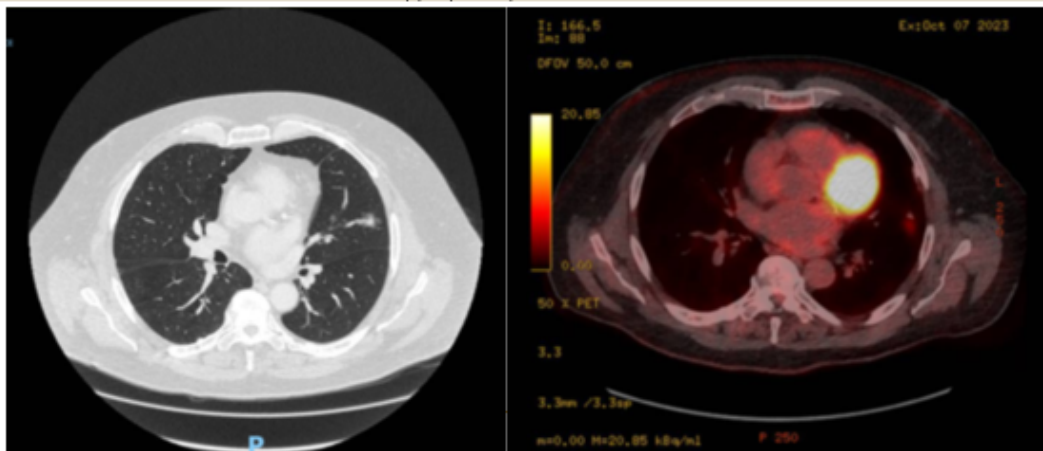
Please note appropriate patient consent has been obtained

Background

Primary pulmonary mucosa-associated lymphoid tissue (MALT) lymphoma is a rare subtype of non-Hodgkin lymphoma, accounting for approximately 7–8% of cases¹. It typically follows an indolent course with favourable prognosis, but diagnosis remains challenging due to its non-specific clinical and radiological presentation². It is associated with chronic antigen stimulation but no specific antigen has been identified yet³.

Case Presentation

- A patient in his sixties presented to the lung cancer clinic after a low dose CT identified a left sub-solid lung lesion. He was an ex-smoker, still working and past medical history was minimal - osteoarthritis, bilateral knee replacements and skin cancer. Overall, he was fit and well with no respiratory or systemic symptoms.
- He underwent the following investigations -
- CT thorax abdomen and pelvis, PET CT, OGD (due to having evidence of thickening of the oesophagus on CT) and fine needle aspiration (core biopsy was too high risk due to vasculature)
- Imaging confirmed staging was T1aN0M0, OGD showed oesophagitis and negative h pylori tests and biopsy was inconclusive.
- He was referred to cardiothoracics – watch and wait was agreed initially but he went on to have robotic assisted left upper lobe lobectomy after the lesion increased in size.



(Figure 1 – initial low dose CT scan showing 22mm sub-solid nodule) (Figure 2 – first PET CT showing moderately FDG avid 9mm solid component of a mixed density left upper lobe lingula opacity)

Discussion

Diagnosis of pulmonary MALT lymphoma is difficult and often requires multiple modes of investigation⁴. Radiologically, the majority present with airspace consolidation with air bronchograms, although other findings include multiple ill-defined nodules, solitary lung nodule, ground glass opacity or reticular lesions⁵. Other recent case reports in this area have reflected this finding, with solitary and multiple lung nodules and masses being the commonest finding^{6–7}. Given the overall rarity of pulmonary MALT lymphoma, studies are inconclusive over the best method of treatment⁸. For patients like the one in this case, the British Society of Haematology would usually recommend localised radiotherapy, with watch and wait approaches and chemotherapy also suggested depending on burden of disease⁹. This case underscores the difficulty in diagnosing pulmonary MALT lymphoma, as its presentation often overlaps with other pulmonary pathology. The subtlety of imaging findings and the absence of distinctive clinical symptoms can contribute to delayed or incorrect diagnosis. Consequently, pulmonary MALT lymphoma should remain an important differential consideration in patients with persistent, unexplained pulmonary abnormalities.

Outcome

Immunohistochemistry confirmed pulmonary MALT lymphoma and the patient was referred to haematology. Repeat PET CT showed no evidence of metastasis or recurrence and he was discharged. He continues to have pain around the surgical site due to nerve damage but has otherwise remained well.

Key Learning Points

- 1 Pulmonary MALT lymphoma has radiological findings that often mimic those of primary lung malignancy, particularly as the changes are non-specific.
- 2 Immunohistochemistry confirmation is essential for diagnosis prior to major surgical intervention.
- 3 Priority should be given to minimally invasive investigations including bronchoscopy, CT guided biopsy and potentially VATS wedge biopsy before resorting to surgery.
- 4 Early and prompt diagnosis allows patients to be treated with less invasive approaches than surgery, reducing the risk of intra and post-operative complications.

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The AMPRESS Study (Acute Medicine PREscribing Study): Improving patient safety - extended role of the Pharmacist

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INTRODUCTION

- Protocolised approaches
 - Admissions bundles
 - ✓ Oxygen
 - ✓ VTE Prophylaxis
- Despite this:
- Standards missed
 - Uptake of protocols = poor

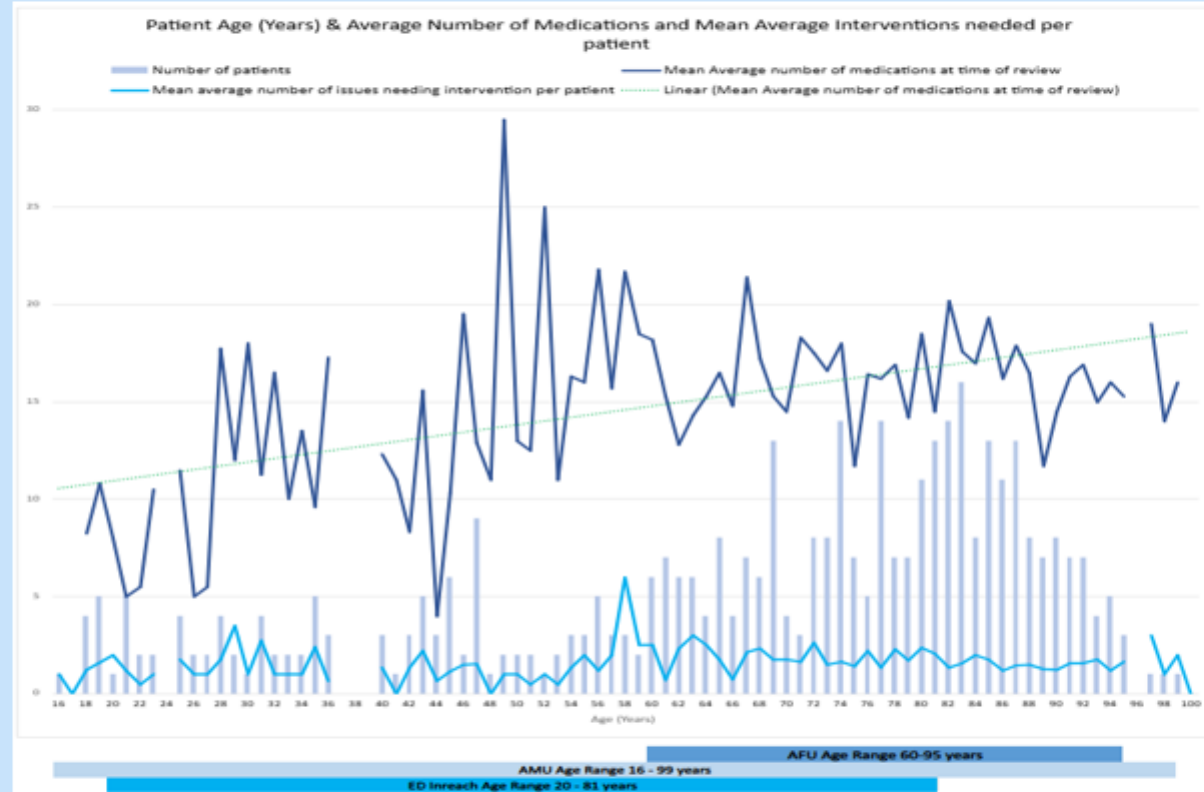
METHOD

- ✓ 2 pharmacists prospectively reviewed electronic medication charts
- ✓ 12-week period (22/9/2025 to 18/12/2025)
- ✓ Five admission units at University Hospital of Leicester:
 - ✓ 4 general acute medical units (AMU North, East, West, South)
 - ✓ Acute frailty unit (AFU)
 - ✓ within the Emergency Department (acute medical department in-reach service)
- ✓ Patients were selected using a standardised priority guide.
- ✓ Approval for the study was obtained from the Audit Department (#14967).

DISCUSSION

- ✓ Pharmacists intervened in 167 instances
- ✓ Uptake for prescribing the admission protocol bundle remains less than optimal
- ✓ Different individual elements of the bundles were commonly prescribed
- ✓ Pharmacists have a key role in providing a safety net for patients – all aspects of medications optimisation

Graph 1



Key Findings

- ✓ 409 patients were prescribed 7956 medications (average 18 medications /patient)
- ✓ 690 issues with prescriptions or prescription bundles were identified
- ✓ 45 drug charts reviewed required no intervention
- ✓ Bundle related interventions accounted for 23.9% of interventions
- ✓ Mean average issues needing pharmacy interventions per patient per age group consistent

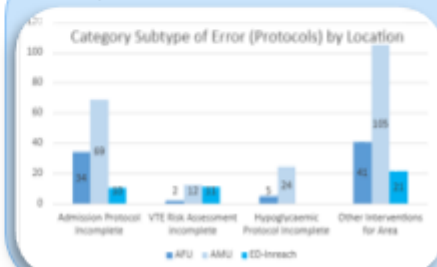
Next Steps

Identify barriers to prescribing admissions bundles

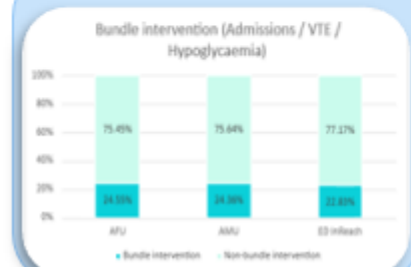
Review pharmacy prioritisation to ensure that wider range of populations are reviewed given consistency in average number of issues per patient

Re-data collect to determine overall error rates for locations

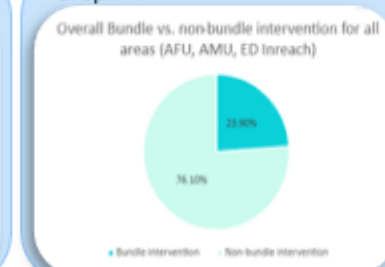
Graph 2



Graph 3



Graph 4



Prevalence and Mechanism of Antibiotic Resistance in Group B Streptococcus from Neonatal Sepsis in Kampala, Uganda

Charlotte Kington¹, Caitlin Farley¹, Dr Musa Sekikibo², Prof Kirsty De Loare³, Prof Brad Spiller¹

¹ Cardiff University School of Medicine; ² Makerere University School of Medicine; ³ University of London, City St George's

Introduction

Sepsis is one of the leading causes of death in neonates worldwide,¹ with Group B Streptococcus (GBS; *Streptococcus agalactiae*) being the most common cause of sepsis in HICs.² Data on antimicrobial resistance to common prophylactics and neonatal treatment is often lacking (notably in LMICs), which hinders global surveillance. Additionally, the limited availability of culture-based detection methods in LMICs hinders effective antibiotic usage.

Primary aims of this project:

1. Define samples by phenotypic resistance
2. Understand the prevalence of resistance to each antibiotics as an example of neonatal sepsis infections in LMICs

Secondary aims of this project:

1. Discover the presence of common resistance genes
2. Understand the genotypic mechanisms underlying phenotypic resistance

Results

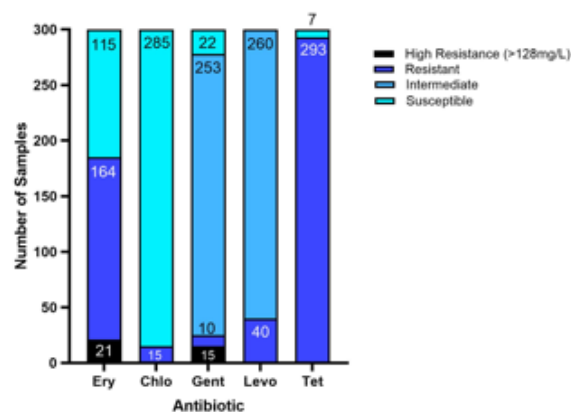


Figure 3: Phenotypic Resistance. As compared to EUCAST breakpoints.

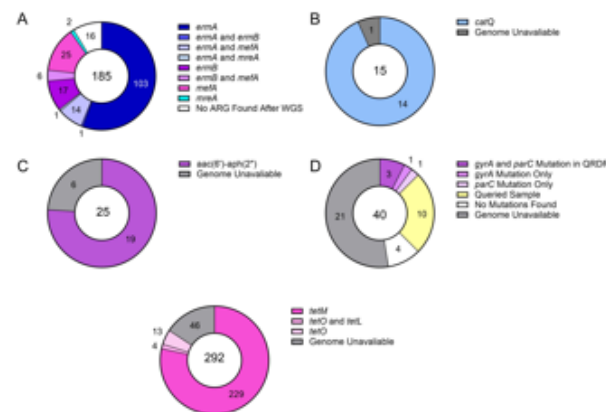


Figure 4: Genetic Resistance. Identified by qPCR and PCR of common resistance genes.

Methodology

314 GBS samples were collected from Kawempe National Referral Hospital between 2018 and 2021. Samples were maternal or neonate carrier isolates, plus 11 invasive disease isolates. Methods are outlined in Figure 1 and Table 1, and chromogenic agar colours in Figure 2.

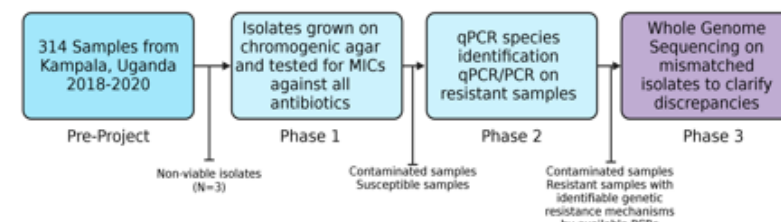


Figure 1: Project Methodology.

Table 1: Project Methodology.

Phase	Methodology
Pre-Project	Contamination analysis and chromogenic agar species identification (Figure 2)
Phase 1	MIC AST testing against erythromycin, gentamycin, chloramphenicol, tetracycline and levofloxacin using international thresholds of resistance
Phase 2	Further qPCR species identification and PCR in resistant samples
Phase 3	WGS on mismatches samples to clarify phenotype/genotype discrepancies

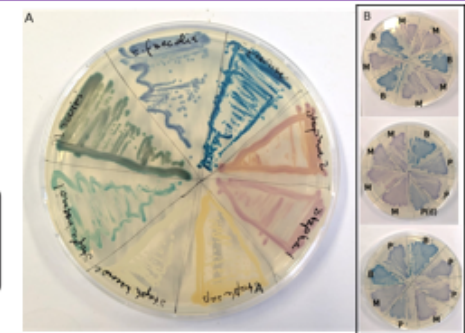


Figure 2: Chromogenic Agar.

A) Common pathobiont species and their colours on agar. B) GBS Serotypes: B=Blue P=Purple M=Magenta P(d)=Dark purple (suspected blue and purple mix)

Discussion and Conclusion

High erythromycin and tetracycline rates were consistent with previous international studies, showing increasing resistance³. Most streptococci show intrinsic resistance to gentamycin, explaining high resistance and proving the need for updated breakpoints. Phenotypic MDR was widespread, mostly due to tetracycline resistance, but the rise of the invasive MDR CC174 strain and highly plastic mobile elements (Gentamycin ICE 515)⁵ makes some antibiotic combinations inherently useless. Without any vaccines currently developed, antibiotics remain the first line of treatment, but this fight may be a losing battle to bacterial evolution, emphasising the need for rapid diagnostic methods which chromogenic agar may address.

Thanks to Dr Alex Voisey and Prof Derek Lang. Thanks to City St. George's, University of London, Kawempe National Referral Hospital paediatrics teams and the families who donated samples to protect the patients of the future.

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An Unlikely Culprit: Antiphospholipid Syndrome and Bioprosthetic Valve Thrombosis in an Elderly Patient

Dr Chizute Ogbedeh, Dr George Amin-Youssef, Dr Hoda Abdelgawad

CASE

A woman in her late 70s with a history of two ischaemic strokes and pulmonary embolism was found on routine post-operative imaging to have a new, highly mobile mass on a bioprosthetic aortic valve (Figures A & B). Five months earlier, she had presented with a native aortic valve mass (Figure C) causing severe aortic regurgitation, requiring valve replacement. Histology at the time confirmed thrombus. On this admission, she had no features of infective endocarditis.

INVESTIGATIONS

Transoesophageal echocardiography confirmed the valvular mass. Inflammatory markers remained normal, and multiple blood cultures were negative. A previous CT TAP showed no malignancy. PET-CT showed uptake around the valve consistent with postoperative changes. Further testing revealed markedly elevated anticardiolipin IgG and anti- β_2 -glycoprotein I antibodies.

MANAGEMENT & OUTCOME

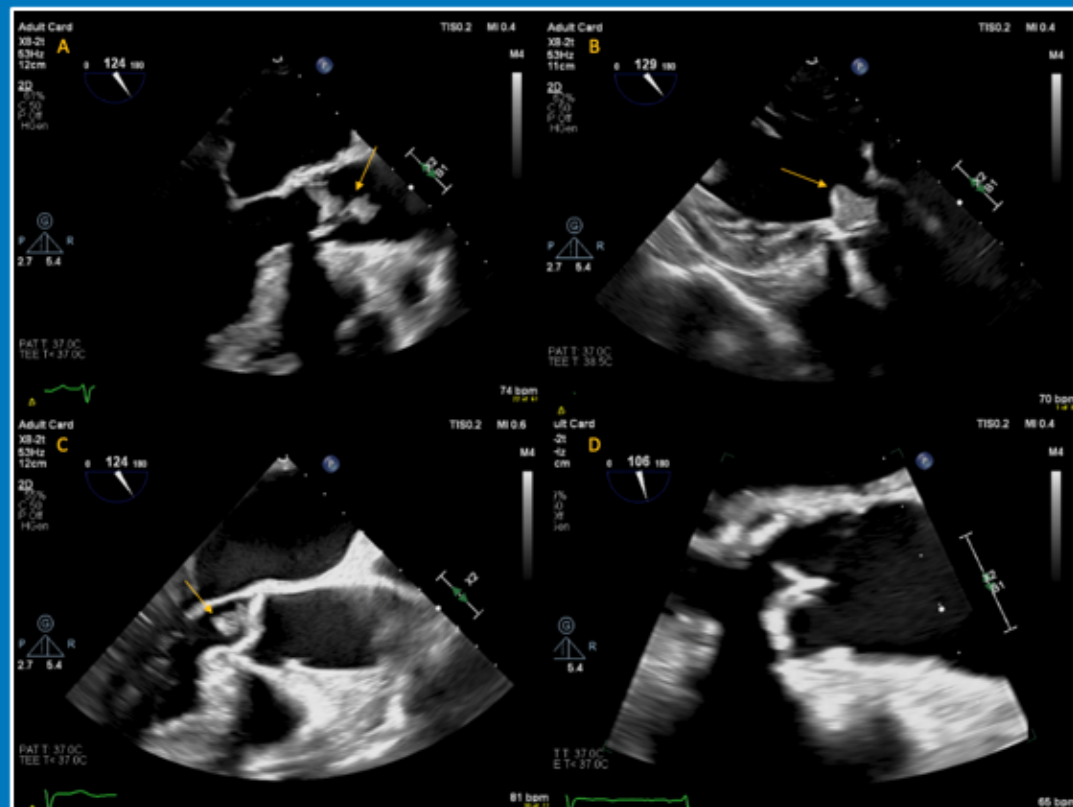
Empirical antibiotics were discontinued and anticoagulation was switched from apixaban to warfarin with a target INR of 2.5–3.5, higher than standard recommendations. Follow-up imaging (Figure D) after 4 weeks showed significant regression of the valvular mass, with no further embolic events.

CONCLUSION

Antiphospholipid syndrome is an important mimic of infective endocarditis.

KEY LEARNING POINTS

1. **Antiphospholipid syndrome** should be considered in the differential diagnosis of recurrent thrombosis irrespective of patient age.
2. **Not all** valvular masses represent infective endocarditis, though careful evaluation remains essential.
3. INR targets in antiphospholipid syndrome should be **individualised** to the clinical context.



Figures

- A & B. Bioprosthetic aortic valve mass (TTE)
- C. Native aortic valve mass (TOE)
- D. Bioprosthetic aortic valve post-warfarin (TOE)

CARDIAC MANIFESTATIONS OF APS

- #1 = Valvular disease
- #2 = Coronary artery disease
- #3 = Pulmonary hypertension

2023 ACR/EULAR APS CRITERIA

CLINICAL: VTE (1 point), cardiac valve vegetation (4 points), thrombocytopenia (1 point) = 7 points
LABORATORY: high positive (IgG) aCL or a β_2 GPI = 7 points



References

Background



- ❖ **Uterine fibroids** are common benign tumours arising from uterine smooth muscle. Common symptoms include: **abnormal uterine bleeding, pelvic pain, dysmenorrhoea, or urinary and bowel symptoms**. Fertility and pregnancy may be impacted (1).
- ❖ **Transcervical resection of fibroids (TCRF)** is a minimally invasive uterus preserving procedure (2).
- ❖ **Infective endocarditis (IE)** involves inflammation of the endocardium. It may present with fever, night sweats, embolic phenomena, and heart murmurs, and may lead to sepsis, heart failure, or stroke (3).
- ❖ The **incidence of IE** following gynaecological procedures is **unclear**.

Case Timeline

TCRF and postoperative presentation

- ❑ A 49-year-old female underwent TCRF for a large submucosal fibroid and heavy, irregular menstrual bleeding.
- ❑ Past history included endometriosis, recurrent iron deficiency anaemia, and dental infections.
- ❑ **Four days postoperatively**, she re-presented with **lower abdominal pain, fever, malaise, and offensive vaginal discharge with blood**.

Antimicrobial therapy

- ❑ Blood cultures grew *Staphylococcus aureus*, so therapy was changed from IV Tazocin to targeted IV flucloxacillin. Continued positive cultures led to the addition of metronidazole.
- ❑ A delayed hypersensitivity rash to flucloxacillin necessitated a switch to teicoplanin.

Infective Endocarditis

- ❑ Given the presence of bacteraemia, a transoesophageal echocardiogram was performed and confirmed IE.
- ❑ It revealed a large posterior **mitral valve vegetation** (1.75 × 1.12 cm), **moderate mitral regurgitation, early abscess** formation, and possible pulmonary valve involvement.

Infection source and management

- ❑ CT of the abdomen and pelvis demonstrated features consistent with **endometritis** and associated **pyometra**.
- ❑ A **keyhole hysterectomy** with **bilateral salpingectomy** was performed to remove potential source of infection.

Recovery

- ❑ A six-week course of IV cefazolin led to clearance of bacteraemia.
- ❑ Serial echocardiography showed **reduction in vegetation size**, with improvement in mitral regurgitation.
- ❑ Valve replacement surgery was consequently deferred.

Discussion

● **Mechanism of IE:** **Uterine instrumentation (TCRF)** likely resulted in *Staphylococcus aureus* bacteraemia, leading to **IE**, supported by clinical improvement following hysterectomy.

● **Literature search:**

No reported cases of IE following TCRF were identified. However, rare cases after other gynaecological procedures support a plausible association.

● **Prevention and diagnosis:**

Routine antibiotic prophylaxis is not recommended for TCRF given the low overall risk (4). However, early recognition of IE is critical; persistent postoperative fever or bacteraemia should prompt evaluation using Duke criteria (5).

● **Procedure selection:**

TCRF should be **used with caution** in **perimenopausal women** who have **completed childbearing**. While minimally invasive and uterus-preserving, **hysterectomy** provides definitive **management**.

Conclusion

This case demonstrates...

- the **rare, but real, possibility of IE following gynaecological procedures**.
- the need for **prompt diagnosis and management** by clinicians.

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Severe AMAN-Variant Guillain-Barré Syndrome Progressing to a Locked-in-like State

Jadzia Chou, Maha Younes, Sarah White (consultant), Craig Cowan (consultant)

Wirral University Teaching Hospitals NHS Trust, Upton, The Wirral

Guillain-Barré syndrome (GBS)

- Acute sensorimotor immune-mediated polyradiculoneuropathy
- 1.1-1.8/100,000 persons; M>F (1.5 : 1)
- Subtypes include AIDP, AMAN, AMSAN
- Symmetric ascending flaccid paralysis and bulbar involvement often leading to respiratory failure (25%)¹
- Post-infection (75%): *Campylobacter jejuni*, CMV, EBV, Zika virus, HEV^{1,3}
- Non-infection: trauma, surgery, immune checkpoint-inhibitors, malignancies, autoimmune disease
- Systemic lupus erythematosus (SLE) is a rare trigger (0.7-1.6%)²

Possible differentials for our patient

- Steroid-induced myopathy
- CNS lupus, CNS vasculitis
- Vasculitic neuropathy
- Bickerstaff encephalitis
- Alcoholic encephalopathy
- Lyme disease
- Sarcoidosis
- Botulism
- Paraneoplastic
- Conversion

CSF: protein 0.87, WBC n, microbiology (-)
Anti-ganglioside Ab: negative
Serology: unremarkable
MR imaging of brain and spine: nil acute findings
Nerve conduction studies: axonal neuropathy
Neurology opinion: presentation consistent with AMAN-variant GBS

EEG:
Absence of evoked potentials

Bispectral Index analysis:
Preserved consciousness

Asleep? Awake? Difficult to correlate to BP/HR due to autonomic instability

Loss of all brain stem (including pupillary) reflexes

Interrupted sedation
Communication via eyebrow twitches

Respiratory failure and ITU admission
Sedation and tracheal intubation

Flaccid distal paralysis + paraesthesias
IV Immunoglobulins (IVIg) course given

Diagnosis of Lupus Nephritis
Systemic steroids + Cyclophosphamide

Admitted with lethargy and AKI

SEPTEMBER 2024

32M ACCOUNTANT

HISTORY OF ALCOHOL EXCESS

Consented for his data to be collected and shared for the purposes of education and research.

DAY 57

Minimal ocular movement

Motor function recovered in a descending fashion

DAY 71

Ventilator wean

DAY 104

Discharged with ongoing rehabilitation

Sequelae: pain, psychological impact, fatigue

AMAN-variant GBS³

- 3-5% of GBS cases in Europe and North America
- Rapid + severe onset with absence of sensory symptoms
- Complement-mediated, reversible axonal conduction block at the nodes of Ranvier or the motor nerve terminal
- Anti-GM1 and GD1a Ab¹, and electrodiagnostic studies

Management

- No improvement with the standard IVIg regimen, and plasma exchange (PLEX) and repeat IVIg were advised against;
- Complications during ITU stay included tracheostomy conversion, respiratory infections, and enteral and intravenous access difficulties;
- Level of consciousness? Autonomic instability confounded any correlations;
- He later demonstrated total recall of the last 6 weeks, and expressed that paralysis and pain were key concerns.

Learning points

- Severe presentation of AMAN-variant GBS can mimic the physical signs of brainstem death.
- This can lead to diagnostic and prognostic dilemmas, particularly alongside recent diagnosis and treatment of SLE.
- PLEX or not to PLEX? The evidence is inconclusive.
- Early use of BIS monitoring can guide assessment of cerebral responsiveness.
- Multidisciplinary teamwork crucial to the positive outcome of this case.

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BACKGROUND

- ❖ Primary cutaneous follicle centre lymphoma (PCFCL) is an indolent cutaneous B-cell lymphoma which may rarely show spontaneous regression [1].
- ❖ Vaccine-associated immune stimulation has been implicated in triggering or unmasking lymphoproliferative disorders [2], but clinicopathological correlation remains limited.

CASE PRESENTATION

- ❖ A 73-year-old man presented with an over 30-year history of an asymptomatic truncal eruption consisting of erythematous patches and indurated plaques (Image 1, 2). He developed an erythematous raised lesion over the right deltoid directly following COVID-19 vaccination to this area, which progressively enlarged into two tumoral nodules measuring 5 to 6 cm (Image 3).
- ❖ Skin biopsies from the right arm and trunk demonstrated a diffuse dermal B-cell infiltrate (CD20+, PAX5+) co-expressing CD10 and BCL6, with variable BCL2 positivity and a high proliferative index (Ki-67 ~80%). Molecular genetic analysis confirmed a monoclonal B-cell population with concordant immunoglobulin gene rearrangements across multiple biopsy sites, supporting a diagnosis of diffuse variant PCFCL.
- ❖ Full staging with PET-CT demonstrated FDG avidity confined to the right deltoid lesions, with no systemic disease and a clear bone marrow. Notably, the deltoid tumours involuted spontaneously prior to any treatment, while indurated truncal lesions progressed.
- ❖ Repeat biopsies demonstrated persistent clonal B-cell infiltrates, with admixed CD4-predominant T-cells raising clinicopathological concern for mycosis fungoides. T-cell clonality, however, was not diagnostic.
- ❖ He received rituximab with near complete cutaneous clearance and remains stable under surveillance.



Image 1. Right lateral (deltoid view)



Image 2. Right lateral (abdominal view)



Image 3. Right deltoid

HISTOLOGY

SKIN, PUNCH BIOPSY, RIGHT ARM:

Pandermal infiltrate of medium to large sized cleaved lymphoid cells. Numerous apoptotic bodies and mitotic figures present. This infiltrate is composed of B-cells (CD20 and PAX5 positive) which coexpress CD10, BCL6 and BCL2 (weak). Ki-67 proliferation index is in the order of 80%. Morphology and immunoprofile would be consistent with cutaneous involvement by B-cell Non Hodgkin lymphoma. Overall features would favour diffuse variant of primary cutaneous follicle centre lymphoma.

CONCLUSION

- ❖ This case is notable for high-grade appearing tumoral PCFCL arising at a COVID-19 vaccination site with spontaneous regression, supporting a potential antigen-driven immunological trigger.
- ❖ This case highlights the complexity of diagnosing and managing lymphoproliferative disease in immunologically altered skin microenvironments.
- ❖ Vaccine-associated triggering or apparent transformation of PCFCL represents an unanswered aspect of dermatological oncology and may influence future diagnostic and management approaches.

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Consent was gained from the patient to collect and share data for the purpose of this presentation.

EFFECTIVENESS OF TELEMEDICINE IN NURSING HOMES AND POST-ACUTE CARE: A SYSTEMATIC REVIEW OF CLINICAL OUTCOMES AND HEALTHCARE UTILISATION

Salah, Malaz; Khalifa, Alaa; Ali, Sondos; Magzoub, Ahad; Ismail, Youma; Elenan, Areeg; Mohamed, Lena; Mohamed, Alaa; Mohamed, Marwa; Khalafalla, Mnaan; Ali, Sara; Dana Hashim; Abdelrahman, Nadir



Tele Geriatric Research Fellowship, Okemos, Michigan, USA

BACKGROUND

- Global population aged ≥60 is projected to rise from 12% (2015) to 22% by 2050
- Increasing demand for skilled nursing facilities (SNFs) and long-term care
- Telemedicine in SNFs may reduce hospital readmissions and improve care delivery

OBJECTIVE

To evaluate the effectiveness of telemedicine in:

- Improving patient outcomes
- Reducing acute care utilization
- Lowering costs in SNFs and long-term care settings

METHODOLOGY

- Design:** Systematic review following PRISMA guidelines
- Database:** PubMed (1974–2026)
- Settings:** SNFs, nursing homes, long-term care
- Primary outcomes:**
 - ED transfers
 - Hospital admissions
- Secondary outcomes:**
 - 30-day readmissions
 - Mortality
 - Length of stay
 - Costs
 - Patient/staff satisfaction
- Quality appraisal:**
 - Newcastle-Ottawa Scale
 - Cochrane risk-of-bias tool

Figure 1: PRISMA Flow Diagram



RESULTS



42
Studies included



~23,781
Residents



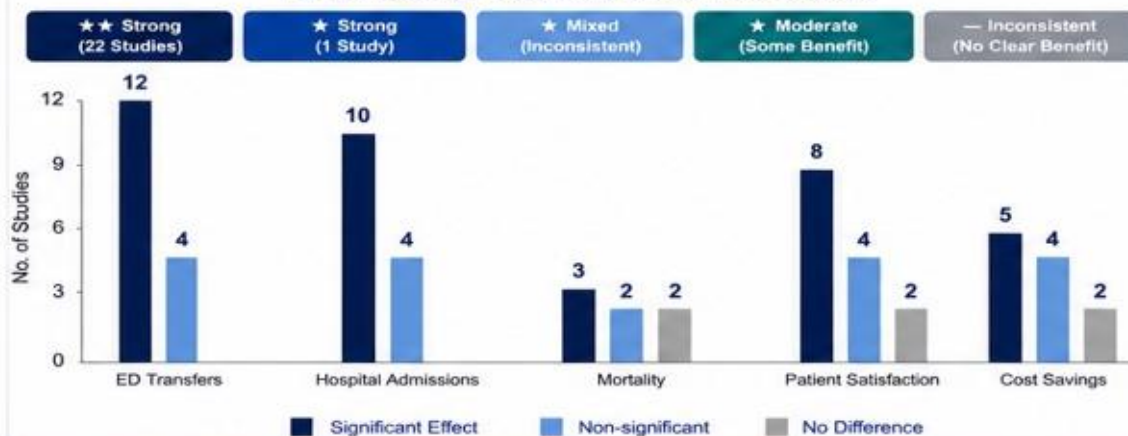
11
Countries

- Mostly observational study designs across 11 countries
- Interventions included:**
 - Video consultations
 - Tele-triage systems
 - Remote patient monitoring
 - Integrated geriatric telehealth programmes



Telemedicine interventions were associated with significant reductions in ED transfers and hospital admissions across multiple care settings.

Figure 2: Reported Outcomes Across Included Studies



KEY FINDINGS



ED Transfers

Reduced in 16 studies, with significant reductions ranging from 15–82%.



Hospital Admissions

Reduced in 14 studies across multiple care settings.



Mortality

Inconsistent findings:

- 3 studies showed modest reduction (12–19%)
- 2 studies showed no significant difference



Satisfaction & Cost Savings

- Patient satisfaction generally improved
- Cost savings reported, though results remain variable



CONCLUSIONS



Telemedicine may reduce acute care utilisation and improve access to timely clinical decision-making in nursing homes.



Hospital admissions reduced in 14 studies, particularly in models with structured escalation pathways and multidisciplinary input.



Satisfaction and cost savings were reported in several studies, though findings remain inconsistent.



Evidence for mortality reduction is limited — 3 studies showed modest reductions (12–19%); 2 showed no significant difference.



Overall study quality is moderate due to predominance of non-randomised designs and potential selection bias.



ED Visits



Admissions



Satisfaction



Costs



FUTURE DIRECTIONS

- Standardised outcome reporting frameworks needed across studies
- Formal cost-effectiveness analyses to strengthen the economic evidence base
- Greater focus on patient-centred outcomes to guide real-world implementation
- Scalable implementation strategies for nursing homes and SNF settings
- Well-designed RCTs to move beyond predominantly observational study designs



ACKNOWLEDGEMENTS

This study is supported by the Tele-Geriatric Research Fellowship, part of the Combined Research Foundation, Okemos, MI, USA.



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- Multiple studies included in the review (n=42).



Increasing post-take experience and acute care assessment through a timetabled, 1:1 virtual-hybrid post-take ward round

Dr Daniel I. Fernando, Dr Josh Wade, Dr Wut Yee Win, Dr Federica Merlini, Ms Zara Head, Dr Kamal Patel, Dr Anthony W. Martinelli
Cambridge University Hospitals NHS Foundation Trust

Aims

- 1) To increase post-take ward round (PTWR) exposure and experience amongst medical registrars in our medical take service.
- 2) To provide a structured, formally timetabled teaching opportunity for Acute Care Assessment Tool (ACAT) completion on shift.

Standards

JRCPTB Quality Criteria for GIM and AIM Trainees 2015

Domain 1.1: "Ensure sufficient time is available for patient reviews and workplace-based assessments."

Domain 3.16: "GIM and AIM registrars are given regular opportunities to lead the PTWR."

Baseline Survey Identifying Training Gap

Regarding the medical take, I am present at a consultant review of patients I have clerked

Regarding the medical take, there is an opportunity to complete an ACAT/WPBA with a consultant on a PTWR

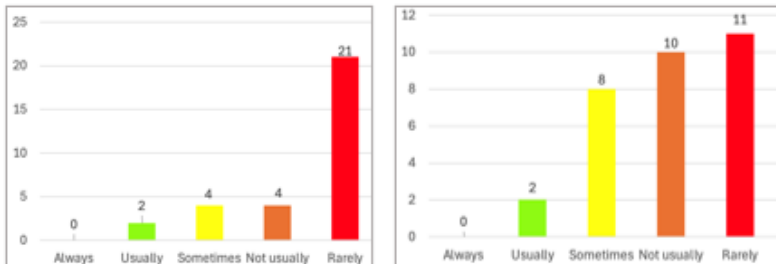


Figure 1: Baseline survey of medical registrars illustrating responses to their education experience on the medical take (n=31).

Intervention

A daily virtual-hybrid PTWR that occurs at 5pm, 1:1 between the on-call consultant and one registrar. Allocation disseminated weekly by email. Data collected online.

Sequential PDSA "embedding cycles" from 2024 to 2026 using:

- 1) Weekly Emails
- 2) Departmental meetings
- 3) IMT3/HST Induction

Results

The VH-PTWR was recorded as taking place on 69% of scheduled occasions (n=81). The most common reason given for cancellation was "service pressures".

Ease of obtaining an ACAT after starting the VH-PTWR QIP (1-10 scale)

4.7 → 7.8

Figure 2: Impact of the virtual-hybrid PTWR on ACAT completion (n=45).

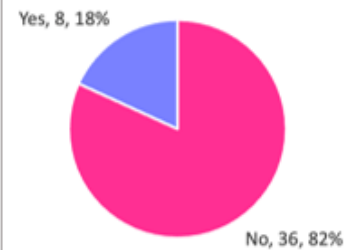
Impact on Trainee Experience

"I found this session useful to explore and test the foundation for my decision making and soundcheck my reasoning. It was useful that this was in a non-time pressured private environment." [HST1]

"I actually got some learning out of it instead of just service provision...people assume once you are HST you can manage a take - which is true - but it is also nice to learn from others and see what else you could think of." [HST2]

Impact on Patient Care

Were there any changes to planned investigations for any cases?



Were there any changes to management plans for any cases?

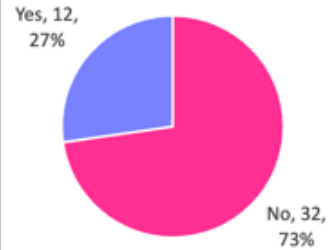


Figure 3: Impact of the virtual-hybrid PTWR on investigation and management of admitted patients (n=44).

Limitations

1) Gaps in data collection / loss of day-to-day data:

Solution: Expanding QIP team to chase feedback.

2) Service pressures:

Solution: Ongoing discussions in departmental meetings about medical take efficiency.

3) Need to provide this for twilight and night HSTs:

Solution: ACAT Clinics.

Conclusions

- A **structured, situated, formally timetabled, prospectively agreed, trainee-led** PTWR and ACAT teaching opportunity for the medical take in a novel VH format was successful in improving educational experience and helping maintain patient safety.
- Early and ongoing stakeholder engagement has been critical to success.

"From Bump to Barré": Guillain-Barré Syndrome in Late Pregnancy

A Multidisciplinary Approach to Maternal and Foetal Management and Rehabilitation

Dr David Devine, Dr Nikolas Hitiris. James Cook University Hospital, Middlesbrough

Background

Guillain-Barré syndrome (GBS), an acute inflammatory demyelinating polyneuropathy, has an estimated incidence of 1–2 per 100,000 pregnancies⁽¹⁾.

Case Presentation

A 37-year-old G2P1 woman at 36 weeks presented with a 2-week history of progressive bilateral lower limb weakness following a viral illness. Examination demonstrated areflexia with proximal muscle weakness and urinary retention.

Investigations

Nerve conduction studies: Reduced recruitment of motor unit action potentials in the right deltoid
Hypertension + proteinuria + ALT 150

MDT Input



Neurology

- Nerve Conduction Studies
- IVIG



Obstetrics

- Steroids
- Labetalol
- Foetal Monitoring
- Delivery



Anaesthetics

- Early assessment for airway management in event of deterioration
- Regional block



Physiotherapy

- Early Mobilisation
- FVC Monitoring
- Rehabilitation

Outcome

- Successful LSCS at 38 weeks
- Healthy infant
- No respiratory compromise
- Early mobilisation achieved
- Discharged with physiotherapy follow-up

Learning Points

- Early MDT coordination is essential
- Delivery planning should be proactive
- Balance maternal neurology with foetal wellbeing
- Integrate rehabilitation into postnatal care

References

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Cross-specialty MDT working and nutrition in a rare gastro-pericardial fistula case

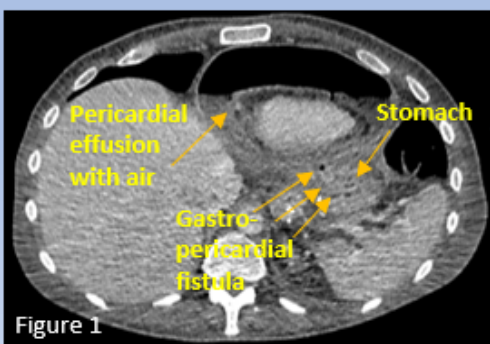
D Lim, S Pomfret, S Rahmany, A McCulloch, J Byrne, M White, B Maher, C Allan, P Cowburn

Introduction

Gastro-pericardial fistulation is a rare post-operative complication with high mortality rates due to sepsis, cardiac tamponade and death.^{1,2} Parenteral nutrition (PN) can improve physical reserve and minimise perioperative complications where enteral feeding is not feasible.³ We report a gastro-pericardial fistula case requiring extensive multidisciplinary team (MDT) working involving the nutrition team, upper GI (UGI) surgeons, cardiothoracic surgeons, cardiologists, anaesthetists and radiologists.

Case Background

- 35 year old male, Roux-en-Y gastric bypass for weight loss 2 years ago
- Complicated by gastro-gastric fistula 1 year post-operatively managed with outpatient nasojejunal feeding (NJ)
- Presented locally with dyspnoea and chest pain, echocardiogram confirmed a pericardial effusion and CT confirmed a gastro-pericardial fistula
- Transferred to Southampton for ongoing management and nutritional optimisation



Initial picture

- Complex pericardial effusion, gastro-pericardial fistula and gastro-colonic fistula seen on CT (Figure 1 and 2)
- Managed initially with surgical pericardial window and bilateral chest drains, E. Coli positive pericardial fluid treated with co-amoxiclav

Nutrition input

- 16.6% weight loss in 6 months (78kg to 65.7kg)
- NJ feeding versus PN (including Home PN) discussed as clinical improvement

Interval imaging

- Interval CT with oral contrast did not show ongoing fistula

Managing uncertainty

- Paucity of literature to guide MDT discussion regarding risks of PN versus NJ feeding with possible reflux, worsening sepsis and effusion^{1,2}
- NJ feeding restarted, PN stopped

Complication

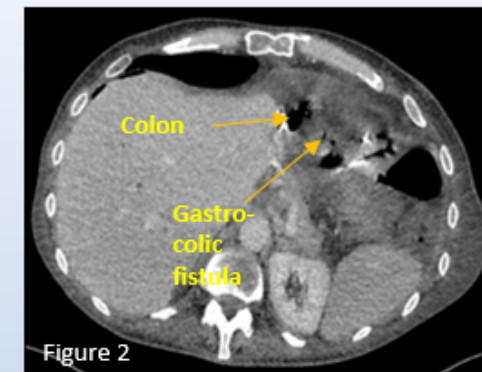
- Rising inflammation markers, discussed with UGI surgeons and NJ stopped
- Suspected fistula reformation
- Colonoscopy to rule out Crohn's – suspected gastro-colonic fistula seen on initial CT not found

MDT review

- Nutrition/UGI - restart PN to nutritionally optimise pre-surgery and pre-habilitation
- Cardiology/Anaesthetics – Ongoing constrictive pericarditis and sepsis risk. High-risk cardiopulmonary exercise test for complex surgery. Potential challenging intubation as fixed scoliosis
- Time to optimise pre-op versus risk of recurrent pericardial effusion, sepsis and decline in cardiac function

Outcome

- Optimised with PN and pre-habilitation before surgery
- Successful completion gastrectomy, transverse colonic fistula resection (fistula confirmed intraoperatively) and oesophagojejunostomy reconstruction
- Discharged on modified diet, no ongoing PN needs



Conclusion

This case demonstrates the importance of cross-specialty MDT working due to complex decisions made in balancing the risks of operating on a deconditioned and nutritionally depleted patient, against risk to life of ongoing sepsis due to a persistent gastro-pericardial fistula. The lack of relevant literature or lived experience in this case emphasised the importance of MDT working for this patient. It also demonstrates the importance of peri-operative nutritional optimisation to reduce the risk of complications.

References

1. Bing EM, Skogsborg A, Hayes D. Gastropericardial fistula as a late complication of Roux-en-Y procedure. J. Surg. Case Rep. 2024 Aug 1;2024(8)
2. Chauhan A, Perry I, Veitch A, Li P, Rattehalli D, Brookes MJ. Gastropericardial fistula: A potential role for conservative treatment. Eu. J. Gastroenterol. Hepatol. 2012 Jul;24(11):1341-3.
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Consent: Written consent from patient gained for collecting and sharing patient data

Glucagon-like Peptide-1 Receptor Agonists in Kidney Transplantation: Peri-operative and Post-transplant Use, Risks, and Practical Recommendations

Sharma, Hemant; Asad, Umair; Abdelwahab, Hassan; Raj, Tanissha; Ravishankar, Adit; Rajasekar, Pranav; Shikhare, Rohan; Kirkevich, Palina; Mehra, Sanjay
Royal Liverpool University Hospital

Background:

GLP-1 agonists are commonly used for T2DM and obesity, and show kidney and cardiovascular benefit in non-transplant populations. If, when and how to use these agents in kidney transplant patients is a pressing clinical question with limited evidence.

Objectives:

- To assess global evidence on the peri-transplant use of GLP-1-based therapies.
- To provide practical recommendations based on current published evidence and guidance.

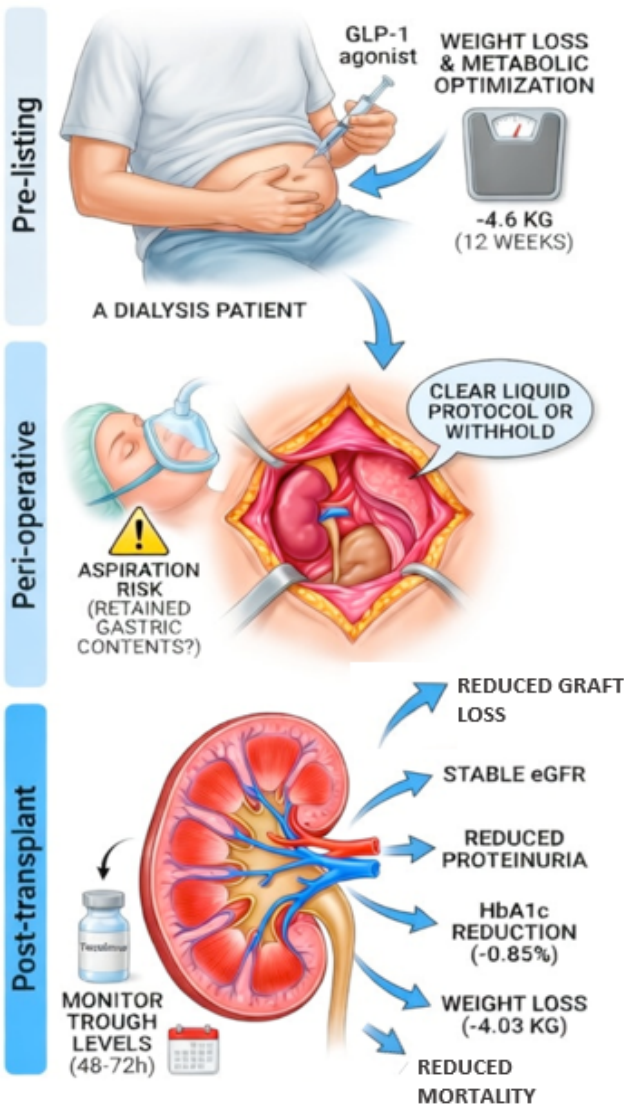
Methods:

A scoping review of PubMed, Embase, and major guidelines focusing on adult kidney transplant candidates and recipients was conducted through to November 2025.

Included were randomized and non-randomized studies, cohort series, case series, meta-analyses, society and regulator guidance, which reported peri-operative adverse respiratory events, immunosuppression pharmacokinetics, metabolic outcomes, kidney outcomes, or weight change.

Effect sizes were extracted; Study-reported estimates and pooled values provided by the original authors are presented here.

PERI-TRANSPLANT GLP-1 USE



GLP-1 Receptor Agonist Use Results:

Peri-Procedural Safety Cohort

43,354 endoscopy procedures
GLP-1 users VS SGLT2 users
Pulmonary Aspiration risk stable
(RR 0.98, 95% CI 0.73-1.31)
Procedure discontinuation ↑
(RR 1.99, 95% CI 1.56-2.53)
Consistent with retained gastric content

2025 US Registry Cohort

1,970 Users VS 16,031 Non-Users
Mortality ↓ 41%
(aHR 0.59, 95% CI 0.48-0.72)
Death-Censored Graft Loss ↓ 25%
(aSHR 0.75, 95% CI 0.60-0.94)
In patients with pre-existing diabetes

12-Week Prospective Study

13 dialysis candidates ineligible for listing due to obesity
Weight ↓ 4.6kg (~0.38kg/week)

2024 Systematic Review & Meta-Analysis

9 Cohorts & 338 Recipients
HbA1c ↓ 0.85 percentage points
Weight ↓ 4.03kg
Proteinuria ↓
eGFR & Tacrolimus trough levels stable

Single-Center Semaglutide Use Review

Weight ↓ 8.8kg over 13 months
HbA1c ↓ 1.0 percentage points

aHR= Adjusted Hazard Ratio, RR=Risk Ratio, aSHR= Adjusted sub-distribution hazard Ratio, CI- Confidence Interval

Research-based

Recommendations:

Pre-listing:

- Semaglutide use achieves clinically meaningful weight loss over 12 weeks in obese dialysis candidates.

Peri-operative:

- Continue GLP-1/dual agonists when a clear-liquid protocol is used in low-risk and elective patients
- High risk- withhold therapy/ implement full-stomach precautions in high-risk patients.
- Do not postpone transplant procedures solely based on recent GLP-1 dosing.

Post-operatively:

- Resume once oral intake and immunosuppression absorption are stable.
- Monitor tacrolimus trough concentrations 48-72 hours after initiation and each dose increase.

References: 1. Perkovic V *et al.* N Engl J Med. 2024;391:109–21. 2. Orandi BJ *et al.* Lancet Diabetes Endocrinol. 2025;13:374–83. 3. Krisanapan P *et al.* Clin Kidney J. 2024;17:sfae018. 4. El-Boghdadly K *et al.* Anaesthesia. 2025;80:412–24.

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Late-Onset Dermatomyositis Revealing Transitional Cell Carcinoma: A Case of Anti-TIF-1 γ -Associated Paraneoplastic Myopathy

Dr S. M. H. San, Dr C. Swaby, Dr V. Warriar, Dr N. M. Aoyon, Dr A. Almezal (Southend University Hospital, UK)

BACKGROUND

- Dermatomyositis (DM) is an idiopathic inflammatory myopathy that can be paraneoplastic, especially in adults >60 years.
- Anti-TIF-1 γ antibodies are strongly associated with underlying malignancy and cardiac involvement

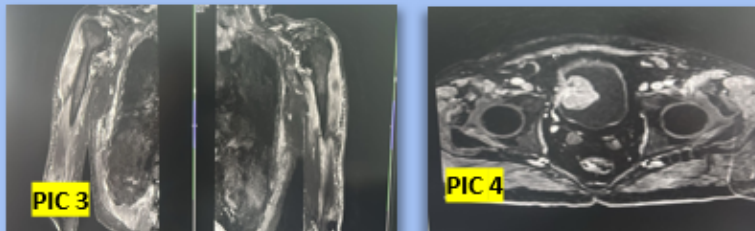
HISTORY

- 71-year-old male, ex-heavy smoker
- Background: COPD, bronchiectasis, dyslipidaemia
- 5-week history of progressive dyspnoea and productive cough
- B/L Proximal muscle weakness
- Erythematous rash (chest, back, knees)



CLINICAL FINDINGS

- Symmetrical proximal muscle weakness
- Typical rash: **Gottron's sign** - (PIC 1)
- **"Shawl sign"** / **"V-sign"** - (PIC 2)



INVESTIGATIONS

- CK: 4843 U/L CRP: 48 mg/L
- Troponin 192, Echocardiogram: LVEF ~15%
- Cardiac angiogram – Unobstructed coronaries
- MRI muscles: Prox muscle edema S/O Myositis - (PIC 3)
- MRI pelvis - Bladder mass + iliac lymphadenopathy (PIC 4)
- Autoantibodies: **anti-TIF-1 γ positive**

MANAGEMENT & OUTCOME

- IV methylprednisolone \rightarrow oral prednisolone (taper)
- Heart failure therapy initiated
- Discontinued statin
- Trans urethral resection bladder tumor (urology)

OUTCOME

- **Rapid clinical improvement**
- **CK reduction**
- **LVEF improved from 15% \rightarrow 40%**
- **Rash resolved**
- **Functional status improved**

When to Suspect Paraneoplastic dermatomyositis

- Age >50
- Rapid onset disease
- Severe skin involvement
- Poor response to standard therapy
- Anti-TIF-1 γ or anti-NXP2 positivity

DISCUSSION

- Dermatomyositis has the strongest malignancy association among inflammatory myopathies
- Cancer risk highest within first 2–3 years
- Anti-TIF-1 γ strongly linked to malignancy
- Cardiac involvement, though rare, significantly impacts prognosis

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- Fitzpatrick J et al. Uro Ann. 2014;6(4):364-366.

Consent

Patient consent was obtained for the collection and publication of clinical data and images

Complicated Cause and Effect: A Rare Case of Severe Refractory Hypocalcaemia With Hypoparathyroidism Following Denosumab Treatment

Ebrahim Luthfi Abousher, Awab Ismail, Almuatasim Billah Alsayyed, Tejaswi Ghimirie, Jayashekara Acharya
Department of Endocrinology and Diabetes Mellitus, Wye Valley NHS Trust

References



Introduction

Denosumab is a monoclonal antibody that reduces bone resorption by inhibiting RANKL, reducing osteoclast activity^{2,4}. Hypocalcaemia occurs in 6-7% of patients, severe hypocalcaemia in <1%, with the expected response being a compensatory PTH rise. We describe a case of severe prolonged hypocalcaemia with inappropriately suppressed PTH.

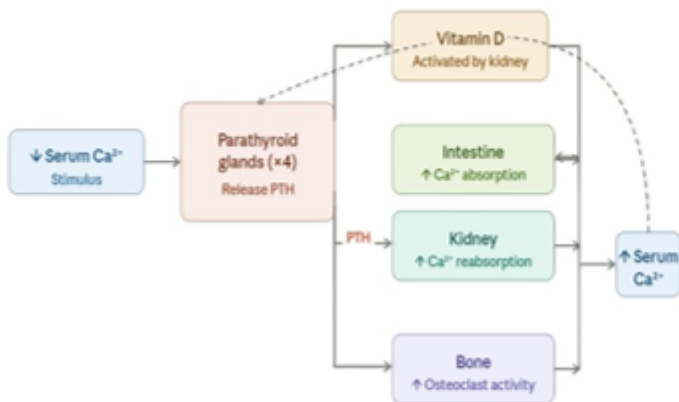


Figure 1: Parathyroid axis and Calcium regulation

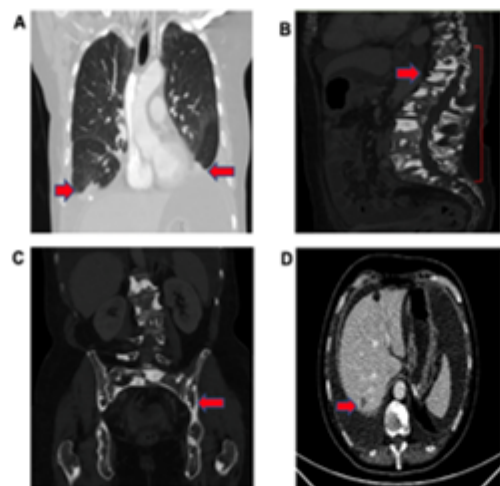
Methods

This single patient case report is based on retrospective review of electronic medical records, biochemical data, and imaging findings. Serial adjusted calcium, PTH, ALP, and Vitamin-D levels were reviewed alongside medication records and inpatient details.

Results and Discussion

A 70-year-old woman with chronic kidney disease and a prior mastectomy for breast cancer presented in April 2024 with cough, weight loss, and dysphagia. A CT scan showed widespread metastatic disease. (Fig. 2)

Figure 2 (Right): CT scan showing (A) bilateral Severe pleural effusion with lower lobe atelectasis (B) diffuse sclerotic metastatic changes in the thoracic, lumbo-sacral spine with T12 collapse. (C) Metastatic changes in pelvic bones (D) 15mm hypodense liver lesion



She was diagnosed with triple negative lobular breast cancer (T3 N2 M1) but did not tolerate palliative chemotherapy. Following optimisation of vitamin-D and calcium, she was commenced on Denosumab. Seven weeks after initiation (two doses), she presented with fatigue and paraesthesia.

	Baseline pre Denosumab	Day 0	Day 1*	Day 3*	Day 13*	Day 48*	Day 68**	Normal range
Corrected Calcium	2.4	1.60	2.03	1.59	1.55	1.98	1.91	2.15-2.55 mmol/l
Phosphate	1.35	1.69	2.01	1.28	1.44	1.17	1.27	0.8-1.43 mmol/l
ALP	138	289	258	279	336	420	775	30-130 IU/L
Vitamin-D	63	122	-	-	-	106	-	>50 nmol/l
PTH	-	21.1	-	-	14.1	14.6	-	15-65 ng/l

Table 1: Serial biochemical parameters

*Bloods taken at re-presentation to A&E

**The day the patient passed away

Despite intravenous supplementation and discharge on high dose calcium and vitamin-D, she developed severe and recurrent symptomatic hypocalcaemia. Following over three weeks of intermittent replacement, she stabilised on oral calcium and calcitriol. Notably, PTH remained suppressed throughout.

Denosumab induced hypocalcaemia is well recognised in renal impairment, but the distinguishing feature here was inappropriately suppressed PTH despite severe hypocalcaemia, suggesting impaired parathyroid reserve. This could be due to subclinical hypoparathyroidism or malignant parathyroid infiltration^{7,8}.

Conclusion

Denosumab may unmask underlying parathyroid dysfunction, causing severe and prolonged hypocalcaemia. Pre-treatment PTH may help identify at-risk patients. Suppressed PTH should prompt close biochemical monitoring and early aggressive replacement of activated vitamin D and calcium.

Optimising the AMB Score for Predicting Same-Day Discharge in an admitting Acute Medical Unit

Eleanor Reeve, Eleni Tserioti, Ailsa McKinlay, Venkatchalam Meyyappan, Elizabeth Hall, Gloucestershire Royal Hospital

Background

- The AMB score is recommended by the RCP Acute Care Toolkit 10 to identify patients suitable for ambulatory care pathways (**threshold ≥ 5**).
- External validation is limited and shows variable performance across centres.
- At Gloucester hospital, patients are triaged via the **Emergency Department** or **CINAPSIS**, a referral system used by GPs and paramedics, with referrals reviewed by consultants or registrars.
- The potential for variability in decision making between clinicians drives the need for a reliable, evidence-based triage threshold.
- Patients are streamed to **SDEC**, an admitting **AMU**, or the **ED**, requiring a reliable, consistent triage tool.

The AMB Score

- The score uses **7 independent variables**, which are all available before the patient arrives
- Predicts likelihood of discharge **within 12 hours**. A higher score = more suitable for ambulatory care

Sex
Age
Access to transport
Likely to require IV/Rx
Confused
NEWS
D/C in last 30 days

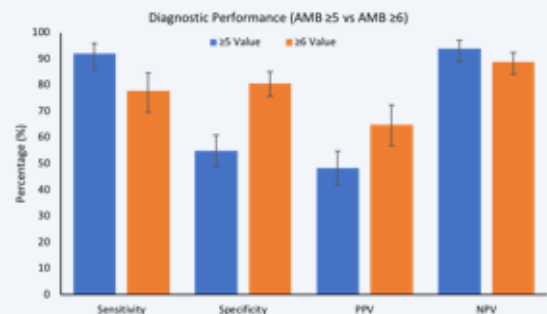
Aims

- Determine whether **adjusting the AMB threshold to ≥ 6** improves specificity and PPV for predicting discharge within 8 hours, in line with NHS SDEC targets
- Explore whether excluding chest pain (CP) and social admissions further optimises discriminative performance.

Methods

- Retrospective data collected over **one month** from an admitting Acute Medical Unit.
- 401** patients included 107 referred from the Emergency Department; remainder via CINAPSIS
- Outcome window set at **8 hours** (modified from 12h to align with NHS SDEC recommendations).
- 32%** of patients were discharged within 8 hours.
- AMB score thresholds of ≥ 5 and ≥ 6 evaluated for their ability to predict same-day discharge.
- Sensitivity, specificity, PPV and NPV calculated with 95% confidence intervals.
- Subgroup analyses performed excluding CP and social admissions to assess their influence on performance.

Results



- Excluding chest pain and social admissions from analysis did not produce a statistically significant improvement in sensitivity, specificity, PPV or NPV ($P > 0.05$).
- Raising the AMB threshold to ≥ 6 produces a statistically significant increase in specificity and PPV ($p < 0.001$). However, this comes at the cost of reduced sensitivity.
- The admission rate among patients scoring ≥ 6 was 35%, compared with 51% at ≥ 5 .
- AMB scores ≥ 5 had a high NPV.

Conclusion

A Two-Threshold Triage Model:

- In hospitals with an admitting AMU, it may be appropriate to apply different thresholds depending on the intended pathway

AMB ≥ 6

→ Same Day Emergency Care (SDEC)

35% admission rate — marked improvement vs ≥ 5 threshold (51%). Approaching NHS SDEC target of 20–30%.

AMB = 5

→ Clinical Judgement Required

Grey zone. Triage should be guided by clinical assessment and local service capacity

AMB < 5

→ Acute Medical Unit (Admission)

Discharge rate only 6% vs 32% in consultant-led model. High NPV confirms appropriate allocation to inpatient care.

This approach aims to:

- Reduce unnecessary bed occupancy in the AMU admitting zone and decrease discharge burden on inpatient teams
- Provide a cost-effective alternative to a 10-hour consultant-led triage model that is applicable by less experienced staff without compromising safety.

Next Steps

- Validate the AMB ≥ 6 threshold prospectively across a larger patient cohort.
- Conduct a formal cost-effectiveness analysis comparing this model against a consultant-led triage approach.

A diagnostic trap in hypercalcemia: why FHH matters in acute care

Ellie Waters-Barnes¹, Cosmina Schiteanu², George Varughese^{1,2}, Lakshminarayanan Varadhan^{1,2}

¹Keele University, Stoke-On-Trent, United Kingdom. ²Royal Stoke Hospital, University Hospitals of North Midlands (UHNM), Stoke-On-Trent, United Kingdom

Introduction:

Primary hyperparathyroidism (PHPT) is a common endocrine disorder that presents to acute medicine as severe hypercalcemia¹. PHPT is characterised by hypercalcemia with normal-to-high levels of parathyroid hormone (PTH). A much rarer cause and an important differential for PHPT is Familial Hypocalciuric Hypercalcemia (FHH), which can have a similar biochemical picture to PHPT. FHH is a benign, autosomal dominant genetic disorder that causes lifelong hypercalcemia; the most common type is FHH-1, caused by heterozygous mutations in the calcium-sensing receptor gene, leading to decreased receptor activity². A hallmark feature of FHH is low urinary calcium excretion, with 24-hour urine calcium and urine calcium creatinine-clearance ratio (UCCCR) measurements aiding diagnosis³⁻⁴. We present two patients that highlight this diagnostic challenge:

Declaration: both patients gave consent for their medical information to be presented on a poster for educational and professional purposes.

Case 1:

- 49/F with accelerated hypertension was found to have incidental hypercalcemia.
- Past h/o renal stones and fragility fractures.
- Family h/o hypercalcemia.
- Found to have an elevated serum ACE level, CT- TAP ruled out sarcoidosis and malignancy.
- US and MIBI negative for parathyroid adenoma.
- She has been on Cinacalcet for symptomatic hypercalcemia for several years.
- Revisit to Endocrine clinic led to Urine Ca analysis showing a low UCCCR.
- Genetic testing was positive for FHH-1.

Investigation	Result	Ref range
Adj Ca	2.82	2.2-2.6 mmol/L
PTH	3.90	2.0-8.5pmol/L
24hr urine Ca	4.1	2.5-7.5mmol/24hrs
UCCCR	0.015	

Case 2:

- 77/M referred to endocrine clinic following an episode of severe hypercalcemia.
- Family h/o of hypercalcemia.
- Investigated 20yrs ago for hypercalcemia
- Had a parathyroid gland removed.
- Histology showed normal parathyroid gland; his calcium levels did not reduce.
- He has had no further investigations or endocrine follow-up since.
- Revisit to endocrine clinic, had urine tests that found a low UCCCR.
- Genetic testing confirmed FHH-1.

Investigation	Result	Ref range
Adj calcium	2.99	2.2-2.6 mmol/L
PTH	6.80	2.0-8.5pmol/L
24hr urine Ca	1.7	2.5-7.5 mmol/24hrs
UCCCR	0.0066	

Discussion:

- FHH is an important differential diagnosis for PHPT - it is important to avoid missing a diagnosis of FHH because, unlike PHPT, FHH takes a benign course that rarely requires treatment³⁻⁴.
- The most common type of FHH is caused by CASR mutations (FHH-1, on Chr 3), but less commonly it can be caused by defects on GNA11 (FHH-2, on Chr 19) or AP2S1 (FHH-3, on Chr 19).
- All types of FHH have relative hypocalciuria and do not improve with parathyroidectomy.
- Family history is crucial during history taking as this can help us to consider syndromic conditions such as MEN or FHH.
- UCCCR should be included as part of the initial investigations for hypercalcemia with normal-or-mildly elevated PTH, this is particularly pertinent if there is intermittent hypercalcemia and lack of localisation on imaging,
- With wider availability of genetic testing, screening for FHH should form an important part of the initial assessment in admission portals and acute physicians should be aware of this condition when patients with mild hypercalcemia present on the unselected medical take.

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Improving Treatment Escalation Plan and Do Not Attempt Cardiopulmonary Resuscitation Documentation for Oncology Inpatients: A Quality Improvement Project

E. Schleifer, M. Haydock, H. Bainbridge

Queen Alexandra Hospital, Cosham, Portsmouth Hospital University NHS Trust, UK

Background

- Oncology patients are at high risk of clinical deterioration¹
- Many receive palliative or best supportive care¹
- Clear documentation of escalation plans is essential for safe-decision making
- Treatment Escalation Plans (TEPs) provide structured documentation of ceilings of care²
- Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) decisions should be clearly documented where CPR is unlikely to be beneficial

Aim: Improve documentation of TEP and DNACPR forms in oncology inpatients



Methods

Baseline Audit (16/06/25):

- Treatment intent (curative, adjuvant, neoadjuvant, palliative/best-supportive)
- Presence of TEP form and/or DNACPR form



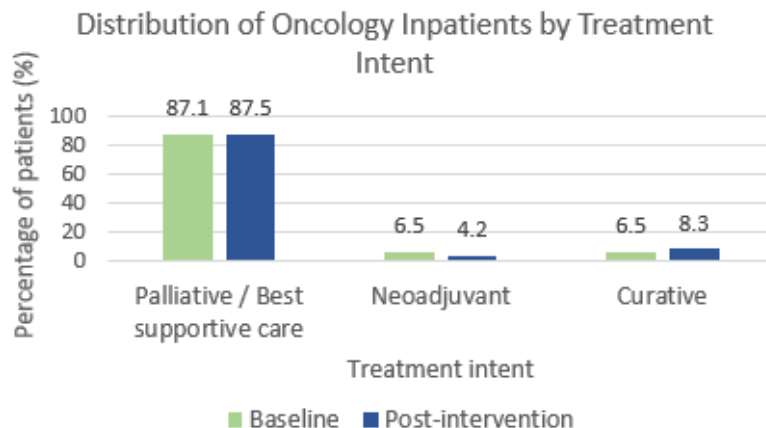
Intervention:

- Consultant email reminders
- SHO teaching sessions
- TEP forms placed in notes during clerking
- Documenting prior escalation discussions



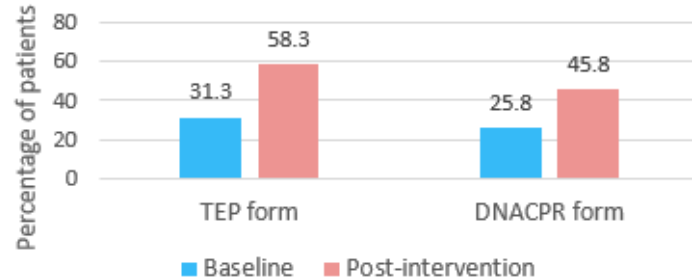
Re-audit (01/10/25)

Results



Graph 1. Bar chart showing the distribution of oncology inpatients by treatment intent

Percentage of patients with a TEP form and DNACPR form in place



Graph 2. Bar chart showing the percentage of patients with TEP forms and DNACPR forms before and after intervention

Key findings:

- Most oncology inpatients were receiving palliative/best supportive care
- TEP documentation: 31 → 58%
- DNACPR documentation: 26 → 46%



Discussion

- Most patients were receiving palliative/best supportive care who are at high risk of deterioration and therefore need escalation plans
- Educational intervention improved TEP and DNACPR documentation
- Findings highlight the impact of simple, low-cost awareness strategies
- Persistent gaps suggest structural and behavioural barriers.
- Future work should explore system sustained education and change

Conclusion

Targeted educational and awareness-based interventions improved TEP and DNACPR documentation among oncology inpatients

Ethics and Governance:

Anonymised patient data were used in accordance with local governance policies, and approved permissions




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First report of *Fusobacterium nucleatum* isolated from CSF in a cerebral abscess

Emily Wong | Foundation Year One Doctor, Sherwood Forest Hospitals NHS Foundation Trust

CASE SUMMARY

-  Patient → male, 70s
-  Symptoms → headache, dizziness, vomiting
-  Neurological signs → ataxia, nystagmus, reduced sensation


BACKGROUND

- F. nucleatum* - **rare cause of intracranial infection**
- Associated with periodontal/oropharyngeal sources
- In current medical literature, detected **only** by **direct abscess sampling**
- Not previously isolated in **cerebrospinal fluid (CSF)**


CASE PRESENTATION

- Raised inflammatory markers
- CSF findings:
 - ↑ white cells, ↑ protein
 - F. nucleatum* isolated
- MRI - abscess in **right pons and middle cerebellar peduncle**
 - High-risk location** for surgery

INVESTIGATIONS




 Table 1: CSF Results

Parameter	Before treatment	After 3 days	Normal range
Lactate (mmol/L)	15.2	7.6	1.0 - 2.2
Protein (mg/L)	>6000	1184	150 - 450
WBC (/μL)	10,400	94	0 - 5
Polymorphs (/μL)	10,400	28	0

 Table 2: Blood Results

Parameter	Before treatment	Day 3	Day 10	Normal range
WBC (x10 ⁹ /L)	16.1	9.2	7.3	4 - 11
Neutrophils (x10 ⁹ /L)	12.3	6.1	4.2	1.5 - 8.0
CRP (mg/L)	1.7	52	4.2	0 - 5

MANAGEMENT

-  **No neurosurgical intervention** - high risk anatomical location
-  **Antibiotics** - 8 weeks (IV + oral)
-  **MRI monitoring** - every 2 weeks

OUTCOME

- Almost complete resolution of abscess
- Mobility regained and improved inflammatory markers
- Persistent sensory deficit**

KEY LEARNING POINTS

- First reported **CSF isolation of *F. nucleatum***
- CSF culture can:
 - Provide **critical microbiological diagnosis**
 - Avoid **high-risk neurosurgery**
- Consider **anaerobic pathogens in CNS infections**

DISCUSSION

- Deep brain abscesses - often **inaccessible surgically**
- Craniotomy risks:
 - Up to **20% complications/re-operation**
 - ~ **5% mortality (1)**
- CSF-guided diagnosis enabled:
 - Targeted therapy
 - Avoidance of invasive procedures

CONCLUSION

- CSF culture is a valuable diagnostic tool in:
 - Deep/high risk lesions**
- Enables:
 - Accurate diagnosis
 - Avoidance of high-risk surgery**

Relationship between Study Leave Provision for Locally Employed Doctors and Acute NHS Trust Performance in England

Felicia Chiu^{1*}, Oladimeji John Abiodun^{2*}, Georgina Yan³

¹Frimley Health NHS Foundation Trust, ²Mid Yorkshire Hospital NHS Trust, ³University Hospital Southampton NHS Foundation Trust, *Joint First-Authors

Background

Locally employed doctors (LEDs) constitute a substantial component of the NHS medical workforce. In 2024, 38,394 doctors were locally employed, a figure that has risen steadily since 2014. (1)

Aims

1. To map monetary study-leave entitlement for LEDs across acute NHS trusts in England, assessing national consistency.
2. To assess the relationship between acute trust ranking and monetary study-leave entitlement provided for LEDs.

Methods

Cross-sectional study using Freedom of Information requests sent to all acute NHS trusts in England between November 2025-January 2026.

A standardised proforma was used to collect data on monetary study leave budgets for LEDs.

Acute trust performance was determined using rank in the Quarter 2 2025/26 league table. (2)

Results

88.06% Response Rate 118/134 Acute Trusts

Distribution of Annual Study Leave Budget vs Acute Trust League Rank

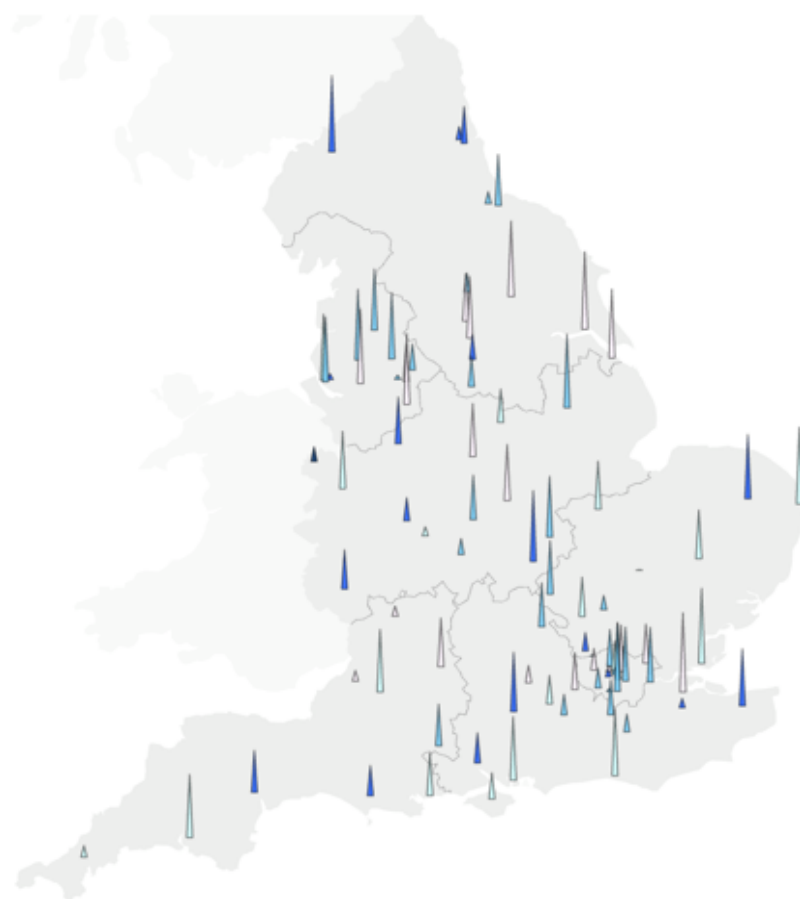
N=89

Fixed Study Leave Budget per Year

< 560 560-720 720-880 880-1,040 ≥ 1,040

Acute Trust League Rank

140
105
70
35



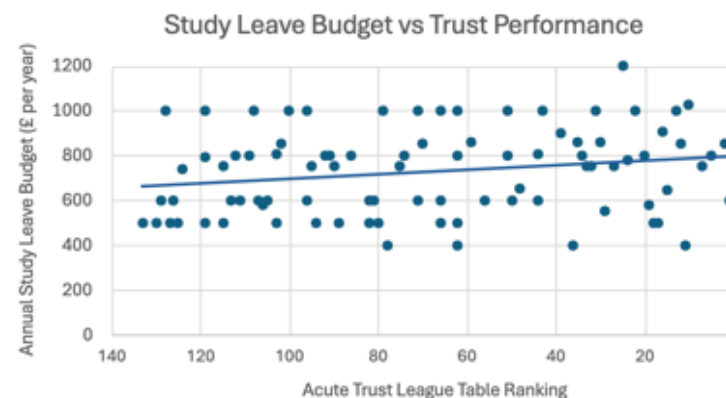
Map data: © Crown copyright and database right 2020 · Get the data · Created with Datawrapper

Figure 1 (Left): Choropleth map representing the spatial distribution of annual study leave budget per LED across the nation against acute trust league rank. Data variation highlighted by colour palette & height, with darker colour indicative of higher values, and shorter height showing higher rank.



Mean £728.43 ± £187.63 (population SD)

Figure 2: Box plot showing the range, interquartile range, median and mean of annual study leave budget



Spearman's $\rho = -0.20$, $p = 0.04$

Figure 3: Scatter plot of Acute NHS Trust Ranking vs Fixed Annual Study Leave Budget (£)

Discussion

Our findings demonstrate a significant majority of LEDs working in England have unequal access to monetary study leave allowance compared to doctors in training. There is wide variation between acute NHS trusts. The small effect size of the correlation between acute trust performance and monetary study leave suggests acute trust performance explains little of the variation in monetary study leave allowance.

LEDs may face challenges in accessing educational and training opportunities due to variation in financial reimbursement. This may have profound implications on career progression, workforce morale, and retention.

We hope our results aid discussions around educational support and governance for LEDs outside traditional training programmes. There is potential for analysis of trusts that outperform their rank to deliver proportionally higher monetary study leave allowance.

LEDs make up a crucial and substantial proportion of the workforce and deserve to work in a supportive and equitable system.

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Statin-Induced Immune-Mediated Necrotising Myopathy (IMNM) and Breast Cancer: Navigating the Complex Interplay of Adjuvant Therapy, Malignancy, and Autoimmune Myopathy

G Karthikeyan, S Venkatachalam, S Chacko, A Zachariah

Background

Diagnosing new-onset weakness in oncology patients is challenging, as symptoms are often attributed to Cancer-related Fatigue (CRF) or treatment related side effects, affecting more than 40% of cancer patients. IMNM is a type of autoimmune myopathy characterized by severe proximal weakness, myofiber necrosis with minimal infiltrate on muscle biopsy and infrequent extra-muscular involvement. Most common agent causing IMNM are statins, diagnosed by high Anti-HMGCR (3-hydroxy-3-methylglutaryl-coenzyme A reductase) antibody titre (Figure 1). Aromatase Inhibitors (Anastrozole), used in adjuvant therapies for oestrogen receptor-positive breast cancer, have also been reported to cause inflammatory myopathies. Paraneoplastic Necrotizing Myopathy and Dermatomyositis are rare but often associated with cancer.

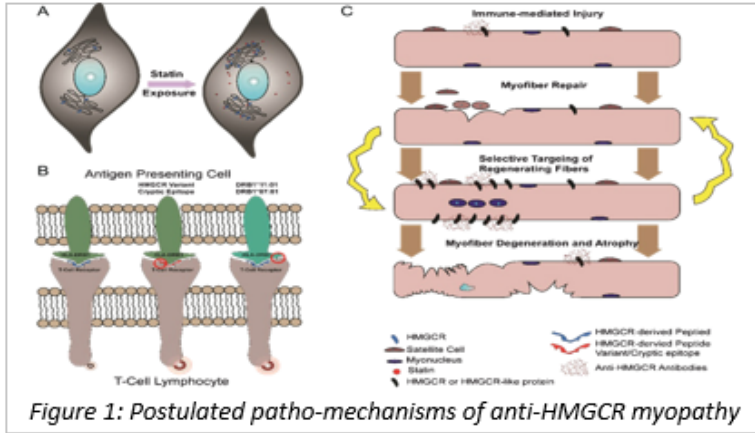


Figure 1: Postulated patho-mechanisms of anti-HMGCR myopathy

Case Report

A 62-year-old lady presented to her outpatient oncology clinic for post-surgical adjuvant chemotherapy planning. She had undergone bilateral mastectomy with sentinel lymph node biopsy 1-month ago after investigation of an early stage 2 breast cancer with a high Oncotype DX score of 40 (25% distant cancer recurrence risk at 10 years). She reported generalised fatigue and progressive proximal muscle weakness that started 6 months ago, which rapidly progressed following surgery.

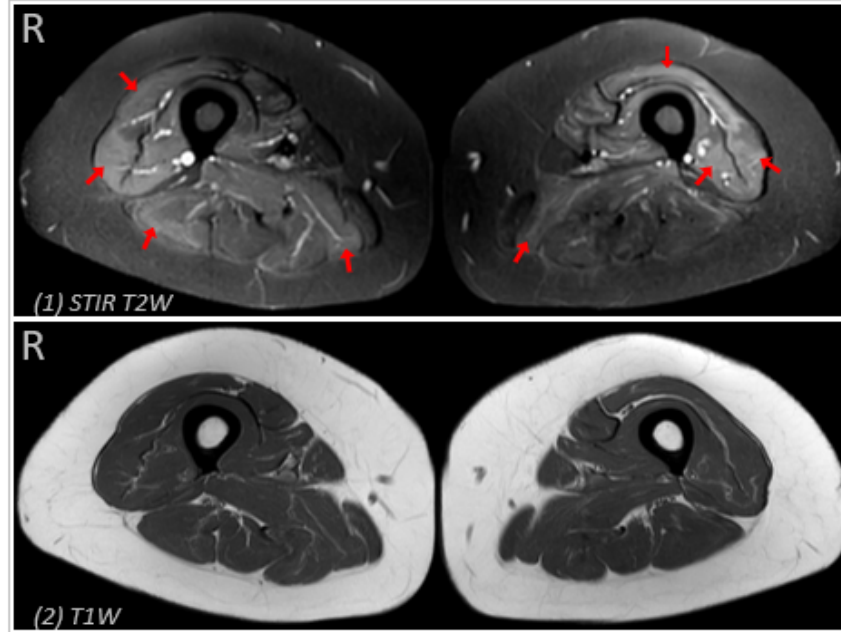


Figure 2: MRI of Bilateral Thighs, suggestive of acute myositis. (1) STIR T2-weighted image, arrows show symmetrical patchy muscle oedema. (2) T1-weighted image does not reveal any chronic fatty muscle changes.

Markers	Values	Notes
Creatine Kinase	10866 IU/L (29 - 168)	Acute Muscle Breakdown
Tumour Markers	Negative	Unlikely New Malignancy
NXP2, PL7	Weakly Positive	Dermatomyositis/Interstitial Lung Disease related, but inconclusive without relevant clinical features
TIF-1-Y	Negative	
ANA	Weakly Positive	Clinically Irrelevant
Anti-HMGCR Abs	168.1 CU (0-15)	Statin-Induced Myositis

Table 1: Some Relevant Investigations

(Written informed consent was obtained from the patient for publication of this poster and any accompanying images.)

A medication review revealed use of Atorvastatin 20mg (started 1 year ago) with Anastrozole for breast cancer commenced 3 months ago, both of which were promptly discontinued. Initial investigations revealed significantly elevated creatine kinase levels (>10,000 IU/L). She was hospitalised for suspected inflammatory myositis. The results of both a full body CT scan and a myositis-specific antibody panel were inconclusive (Table 1). Rheumatology review prompted further blood tests, which returned a high anti-HMGCR antibody titre (168.1 CU). MRI imaging of the thighs demonstrated symmetrical patchy muscle oedema (Figure 2) consistent with IMNM, the likely culprit being the statin. Patient showed only transient symptomatic improvement with high-dose corticosteroids. She was discharged and received IVIg infusions as outpatient which gradually improved her symptoms.

Discussion

Although the initial set of differentials was broad, liaising with the specialist team helped with performing the right tests to narrow down the diagnosis. Extensive MDT discussions revolved around whether to focus on long term myopathy optimisation or chemo-adjuvant therapy given the association between malignancy and immune-mediated myopathies. A decision was finally made to actively focus first on her myopathy in the interest of symptom control and potential risk of chemotherapy-related toxicity worsening ongoing inflammation. She was considered for further immunosuppression with Methotrexate, IVIg infusions and Rituximab.

KEY POINTS

- ‡ High Index of Clinical Suspicion for IMNM in Oncology Patients
- ‡ Immunosuppression vs Adjuvant Chemotherapy: Therapeutic Paradox
- ‡ MDT!!!

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Vape and Additional Foreign Body Ingestion in a Sectioned Patient

Dr Harishankar Praveen-Nair, Dr Hasan Imtiaz, Dr Jamie Catlow, Dr Nadia Stock

Newcastle Upon Tyne Hospitals NHS Foundation Trust

BACKGROUND

Foreign body ingestion is an increasing clinical challenge, with incidence rising from 3 to 5.3 per 100,000 persons between 2000 and 2017. Intentional ingestion accounts for 14% of adult cases and is strongly associated with psychiatric disorders, particularly BPD, with 85% of intentional ingestions occurring in psychiatric patients.

63–76% of intentional ingestions require endoscopic intervention and 12–16% require surgery. Electronic devices represent an emerging category presenting retrieval challenges rarely encountered a decade ago.

TIMELINE OF EVENTS

- 13 Nov**
Patient presents to ED after deliberately ingesting vape device (~10 cm), 3 lighters (~7 cm each), 2 fork handles (~15 cm each).
- 14 Nov**
OGD under conscious sedation — fork handles removed from pylorus using snare and retrieval net. Vape + lighters left in situ due to size and smooth cylindrical surfaces.
CT abdomen: gastric foreign bodies, no perforation, no free gas.
- 20 Nov**
Serial AXR: 3 lighters migrated into small bowel; vape device remained gastric.
- Follow-up**
Vape and all remaining objects removed endoscopically under GA. Capuchon latex hood used to protect oesophagus and pharynx from sharp edges.

CASE PRESENTATION

A 25-year-old female detained under Section 3 MHA (EUPD, PTSD, recurrent depressive disorder) with multiple prior self-harm episodes presented having deliberately ingested a vape device, 3 lighters, and 2 fork handles.

Investigations: CT abdomen demonstrated mixed-density foreign bodies within the stomach with no free gas, no perforation, no obstruction.

Clinically stable throughout, NEWS 2, haemodynamically normal, tolerating fluids.



Figure 1: AXR — foreign bodies in situ

PSYCHIATRIC PERSPECTIVE

Ingestion behaviour reflects emotional dysregulation and maladaptive coping in BPD. Triggered by environmental stressors in inpatient settings; may serve to terminate dissociative states.

Recurrence rate of 21.2%, some patients require dozens of endoscopies over years.

DBT is first-line for BPD (SMD -0.60 to -0.65). Environmental controls, limiting access to ingestible objects, are an essential adjunct.

MANAGEMENT

URGENT: Fork handles removed — pyloric obstruction

Vape + lighters left in situ:

- Size >5 cm & smooth cylindrical shape, no secure grasp
- High risk of oesophageal mucosal injury on extraction
- No perforation, obstruction or clinical deterioration
- Reasonable probability of spontaneous passage. Serial AXR monitoring. Repeat OGD under GA using Capuchon latex hood: all objects successfully retrieved.



Figure 2: Retrieved objects — lighters and vape device

DISCUSSION

Object length (not shape) predicts surgical intervention, OR 1.67 per cm. Objects >5–6 cm have significantly higher operative rates.

Smooth cylindrical surfaces prevented secure grasp (Roth net, snare). Forced extraction risked oesophageal perforation.

Vape devices: **lithium battery thermal injury** risk on compression; length typically exceeds 5–6 cm.

TECHNICAL CHALLENGES

- Size >5 cm & smooth surface, no secure grasp
- Oesophageal mucosal injury risk during extraction
- Intact viscus, conservative approach justified
- Vape: lithium battery & length >5 cm threshold

CONCLUSION

- Risk stratification, not universal retrieval, should guide management.
- Urgent removal when obstruction or injury present; watchful waiting with serial imaging when viscus is intact.
- GI, surgery and psychiatry must collaborate from admission, not sequentially.
- Vape ingestion is an emerging challenge requiring dedicated prospective study.

KEY REFERENCES

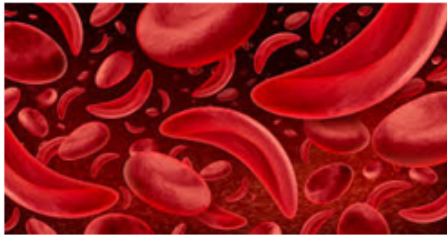
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Initial Management of Sickle Cell Crisis in Adults in the Emergency Department Audit

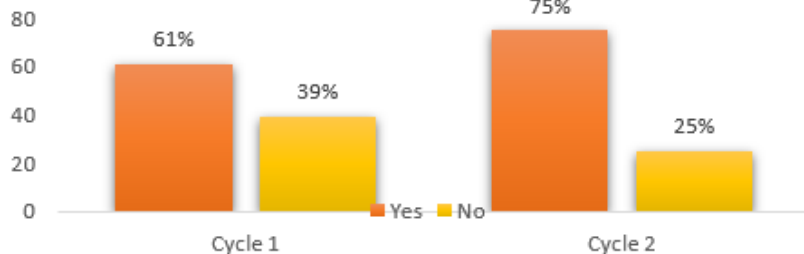
Dr Oluwatobi Esan, Dr Ee-Lin Wong, Dr Suzanne Smith, Dr Joy Galani, Dr Oluwaseyi Okunade, Dr Dalton Bally Darent Valley Hospital, Dartford

Introduction

Sickle cell disease is a genetic blood disorder characterised by the production of abnormal haemoglobin leading to the deformation of red blood cells into a sickle shape (1). These sickle cells can cause various complications (1). The management of adults with SCD in the emergency department (ED) is crucial, as timely and appropriate interventions can significantly impact patient outcomes.



Was the case discussed with the on call Haem Con/Reg



Figur1 2 – Percentage of Patients escalated to Haem Con/Reg

References

1. National Institute for Health and Care Excellence (2025) Sickle cell disease. NG70. Available at: <https://cks.nice.org.uk/topics/sickle-cell-disease/>
2. NICE (2012) Sickle cell disease: managing acute painful episodes in hospital. National Institute for Health and Care Excellence. <http://www.nice.org.uk>

Methods

- This was a two-cycle retrospective audit. The inclusion criteria for this project were adult patients (aged 16 years and older) attending the Emergency Department with the primary diagnosis of acute sickle cell crisis.
- The quality indicators against which the standards of patient care were measured were set out by local policy, 'Adult Patient Acute Sickle Cell Crisis Management HAE003' (adapted from NICE Guidance on SCD (2)).

Were the patients care plans/protocols followed or a generic care plan in the SOP initiated?

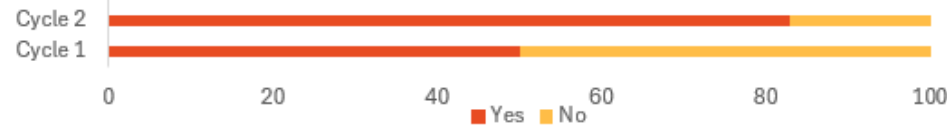


Figure 2 – Adherence to SCD patient care plans in acute crisis (Cycle 1 and 2).

Results

There has been a significant increase in cases where the patient's care plan/protocol or the SOP has been followed between cycles. This increased from 50% in cycle 1 to 83% in cycle 2.

A new sickle cell proforma to be used by ED was introduced between cycles and was used 58% of the time in cycle 2.

- Data was collected from patient hospital records. Cycle 1 looked at the time period from 01/01/2024 to 31/03/2024 and 38 suitable cases were identified. Cycle 2 looked at the time period from 01/07/2025 to 31/09/2025, 40 suitable cases were identified.
- Quality improvement initiatives were implemented between cycles, including a sickle cell proforma for clerking in ED and publication of a Standard Operating Procedure.

Conclusion

- The results indicate a positive impact in several parameters related to the management of acute sickle cell crisis.
- The interventions implemented following cycle 1 are shown to be in use and having a positive impact on patient outcomes.
- Continued promotion and education of these tools are needed to ensure high quality and standardised care of these patients.

From Delay to Flow: A System-Wide Quality Improvement Programme to Reduce Excess Length of Stay and Discharge Delays

BACKGROUND

- District General Hospital in the West Midlands
- Inpatient core capacity approx. 700 beds
- Between Aug 24-25: 28,508 discharges; 8,682 delayed
- Mean delay post-MFFD: 3.99 days → 34,566 excess bed days
- Estimated £31 million annual financial opportunity cost



AIM

- Reduce excess LOS and avoidable discharge delays by targeting the most prevalent, high-impact, modifiable drivers.

PLANNING PHASE

- End-to-end process mapping
- Pareto analysis of delay drivers
- Main Drivers to target identified
 - **Delayed discharge planning**
 - No EDD documentation in 71%
 - Therapy/MDT delays
 - **Hospital acquired deconditioning**
 - No formal interventions/policy for prevention
 - **Limited weekend flow/bottlenecks**
 - **Discharges late during the day**
 - Only 15% discharged before midday
 - >50% occurred after 18:00.



Dr Hasaan Rafique, Dr Shumaila Baloch, Anita Cupper, Mr Atiq Rehman, Dr Tamar Saeed

EXISTING REACTIVE DISCHARGE MODEL



INTERVENTION BUNDLE



Discharge Planning

- EDD within 24h + daily review
- Discharge planning by Transfer of Care Hub starts 72h pre-discharge



Ward Process Redesign

- WR prioritisation: discharges before the rest of the WR
- Discharge-focused clinician per team



Tackling deconditioning

- Early identification using Deconditioning Early Warning Indicator
- Bundled actions



Flow & Culture

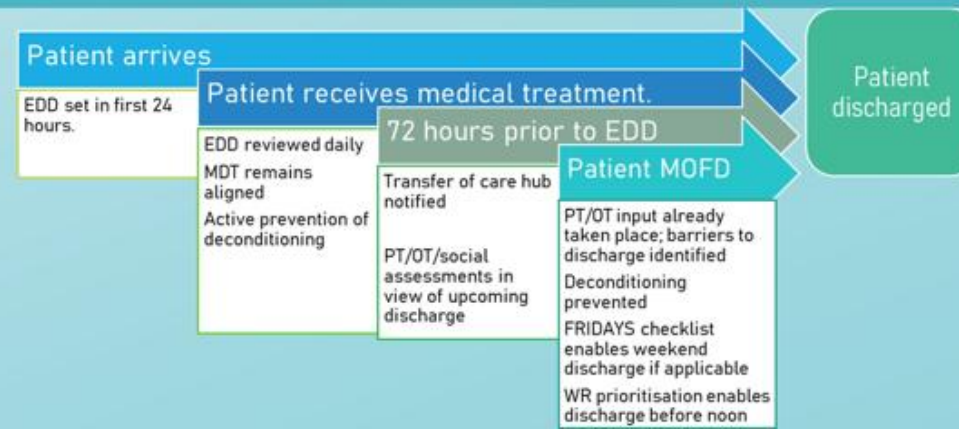
- Board rounds + huddles
- MDT ownership of discharge
- Staff engagement & education



Weekend Flow

- FRIDAYS checklist – weekend safety & discharge planning

FROM DELAY TO FLOW MODEL



RESULTS

- ↑ EDD documentation compliance
 - Earlier discharge engagement
 - ↓ escalation of MFFD patients
 - ↑ recognition of deconditioning
- Formal LOS and discharge timing outcomes pending ongoing PDSA cycles*



NEXT STEPS

- Trust-wide rollout
- Digital integration (EDD + FRIDAYS + deconditioning tracking)
- Outcome evaluations
- Exploring CCDs / criteria-led discharges



CONCLUSION

- Feasible, scalable, system-wide model
- Early signals show operational + cultural transformation
- Strong potential to:
 - Reduce LOS
 - Improve outcomes
 - Deliver major financial benefit

"From Delay to Flow" is transferable model for NHS-wide flow improvement.




Suggestions for an Individually Tailored Development of a New Curriculum Plan for a Returning FY2 Medical Practitioner in the United Kingdom (UK), Subject to the General Medical Council (GMC) Fitness to Practise.

Individualised learning needs assessment enables safe return and structured career progression.

Dr Helen Addington

INTRODUCTION

•Returning FY2 level doctors face:

 Clinical challenges



Professional pressures



Psychosocial barriers

- Standardised programmes may not address **individual risk and learning needs.**
- This project develops a **bespoke curriculum using Learning Needs Assessment (LNA).**
- Aim: **Structured career progression** supporting continuity of clinical practice for a safe, equitable return to practice (GMC-aligned).

DISCUSSION HUBS



Educational Theory

- Cognition
- Constructivism

Assessment

- Structured Progression
- SOLO Taxonomy⁽⁵⁾

Supervisions & Implementations

- MDT Discussion
- Interviews

References

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METHODOLOGY– Venn Diagram

From Assessment

→ Curriculum

→ Outcomes

Framework adapted from Harden⁽¹⁾ & Grant⁽²⁾

Principal Concepts:

- ✓ Improves safety and confidence in returning doctors.
- ✓ Enables Learning Needs Assessment.
- ✓ Targeted, equitable support.
- ✓ Stronger assessment reliability.
- ✓ Aligns with GMC standards and patient safety priorities.
- ✓ Scalable model.

Legends

EPAs: Entrustable Professional Activities.

BARS: Behaviourally Anchored Rating Scale.

SOLO: Structure of Observed Learning Outcomes.

Conclusion and Recommendations

Further research is needed to optimise structured career progression pathways in clinical practice.

LAYER 1: Individualised Need Assessment

LAYER 2: Tailored Curriculum Design



LAYER 3: Outcomes

Disclaimer & Acknowledgment

Disclaimer: The authors declare no competing interests. Patient informed consent was not required for data collection or presentation.

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Background

Hashimoto's encephalopathy (HE) is an uncommon immune-mediated neurological disorder, characterised by acute neuropsychiatric symptoms, elevated anti-thyroid antibodies, typically normal imaging and blood tests, and usually responds well to steroid therapy. (1,2)

Case presentation

A 70-year-old man presented with rapidly progressive confusion, neuropsychiatric symptoms, and myoclonic jerks, suggestive of an autoimmune encephalopathy. Investigations, including imaging and extensive blood tests, were largely normal except for elevated thyroid peroxidase antibodies and raised CSF protein, with concomitant ultrasound finding of thyroiditis, supporting a diagnosis of Hashimoto's encephalopathy after exclusion of other causes.

Investigations

Thyroid Peroxidase Ab	30 IU/mL	Elevated (0–5.5)
CSF Total Protein	0.87 g/L	Elevated (0.15–0.45)

Table 1. Significant investigations results

Management and outcome

The patient initially demonstrated moderate cognitive improvement with steroid therapy, but this soon plateaued, and he developed steroid-related aggression. Although plasma exchange would have been the preferred treatment due to his recent CABG and triple-vessel disease, intravenous immunoglobulin was commenced due to unsafe transfer. After which, he showed marked clinical recovery, enabling discharge and continued improvement on follow-up.

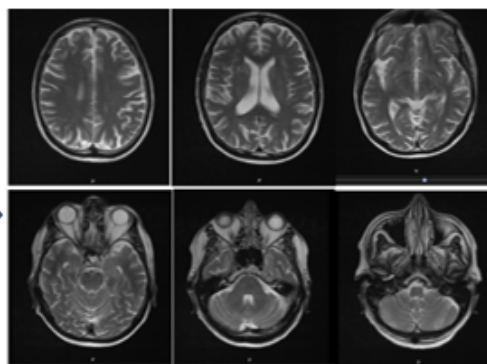


Fig 1. MRI head

No significant intracranial abnormality is demonstrated

Conclusion

HE remains a diagnosis of exclusion. It should be considered in patients with new, florid psychiatric symptoms or rapidly evolving cognitive deterioration. Anti-TPO antibodies can support the diagnosis but are not definitive. If steroids are not effective, other immunotherapies such as IVIg or plasma exchange may have clinical efficacy. Early recognition and multidisciplinary management are essential to improve outcomes.

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WHEN INTERNET MISINFORMATION CAUSES HARM: IVERMECTIN-INDUCED ANCA-ASSOCIATED VASCULITIS

BACKGROUND

Ivermectin is a widely used anti-helminthic with an established safety profile at licensed doses. Off-label use has increased in recent years, potentially driven by online misinformation and claims of therapeutic benefits. Drug-induced anti-neutrophil cytoplasmic antibody (ANCA) associated vasculitis (AAV) is a recognised phenomenon, but Ivermectin-associated AAV is less well-known.

CASE PRESENTATION

65-year-old male with previous hypertension and undiagnosed primary hyperparathyroidism

2-week history of

- migratory polyarthralgia
- early morning stiffness
- necrotic finger and leg ulcer
- aphthous oral ulcers
- nasal crusting
- night sweats and fatigue



- CT thorax/abdomen/pelvis unremarkable
- Venous duplex ultrasound legs negative

Management – Treated for presumed AAV¹

- 3 days of IV methylprednisolone followed by oral Prednisolone
- Rituximab infusions – remission induction
- Avacopan – remission induction
- Co-trimoxazole – prophylactic

Reviewed at joint rheumatology/ renal MDT appointment – disclosure of consumption of Ivermectin purchased online.

Ingestion of 3 tubes of 1.87% Ivermectin paste marketed for horse dewormer (approximately 341mg total).

This significantly exceeded standard licensed dosing. Weight-adjusted human doses: ~20mg for scabies; ~18mg for strongyloidiasis.² The recommended veterinary dose for a 1250lb (~567kg) horse is 200µg/kg.³ Based on this, the quantity ingested was sufficient to treat approximately 3 horses.



On examination:

- Bilateral lower limb oedema
- Lower limb purpuric rash
- Necrotic right calf and L index finger ulcers
- Bilateral metacarpophalangeal swelling
- Peripheral sensory neuropathy

Investigations:

- CRP 60 mg/L
- ESR 36 mm/hr
- ANA – weak positive (1:80 homogeneous)
- Anti-CCP, anti-dsDNA and ACE negative
- Anti-proteinase-3 > 177 IU/mL
- Evolving haemato-proteinuria

Written informed consent for publication of this poster was obtained from the patient

AUTHORS

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AFFILIATIONS

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4. University of Manchester
5. NIHR Senior Clinical Researcher

DISCUSSION

Mechanism:

Mechanisms underlying this association remain incompletely understood. The literature suggests ivermectin may influence neutrophilic activation, central to AAV pathophysiology – though causation remains unproven.^{4,5}

Some studies also suggest a protective effect against inflammation.⁶ Additional studies explore possible mechanisms involving neutrophilic apoptosis and increased autoantigen expression triggered by drugs such as Hydralazine, helping to elucidate the immunomodulatory effects contributing to drug-induced vasculitis.⁷

Clinical Context:

Ivermectin-associated AAV is rare; a literature review found two published human case reports of vasculitis temporally linked to Ivermectin exposure.^{8,9} Drug-induced AAV may be clinically indistinguishable from primary disease, with the temporality a key differentiating factor.

Management mirrors primary AAV following withdrawal of the offending agent and appropriate immunosuppression.

In this case, ivermectin was initiated after exposure to a social media podcast promoting it as an effective anti-cancer therapy, despite absence of credible supporting evidence and public refutation of the claim by oncologists.^{10,11}

Further discussion revealed underlying anxiety about personal cancer risk after a parental death, illustrating how online misinformation may intersect with health anxiety and drive attempts to control future disease risk.

Wider Implications of Misinformation & Access:

This case represents a growing concern in the digital era of healthcare. Unregulated online access to prescription-only and veterinary medications may be associated with harm.¹² This is compounded by social media, artificial intelligence (AI) tools, and online forums – which can disseminate persuasive but unverified health claims at scale.¹³ Notably, such misinformation is readily accessible to the general public, often via simple internet searches or social media engagement.

Clinicians must foster open, non-judgemental discussions to explore health beliefs and gently challenge information obtained from unverified online and AI sources. Addressing medical misinformation requires empathetic dialogue and reinforcement of evidence-based guidance, whilst maintaining shared decision-making.

BOTTOM LINE

Key lessons - clinicians should:

1. Recognise ivermectin as a potential immunological trigger of AAV;
2. Remain vigilant to digital misinformation as an emerging risk for preventable patient harm.



One-minute consults in Respiratory

By Dr Jade Man, Dr Naomi Earl, Dr Burhan Khan



Introduction

Specialty referrals are common practice in district general hospitals and are useful to gain advice on the optimal care and management of a patient. Respiratory referrals are among the most frequent specialty referrals, however, high referral volumes, clinical time pressures, and the rotational nature of resident doctors' training can result in repetitive referrals with unclear clinical questions and incomplete information. This can result in delays in patient management. The aim is to review respiratory referral patterns and develop interventions to help support appropriate, timely referrals as well as empowering and upskilling knowledge of resident doctors.

Method

All respiratory referrals submitted via an electronic referral system between August 2024 and July 2025 were analyzed. Referrals direct to Respiratory Clinical Nurse Specialists or via bleep were excluded. Referrals were categorized by primary respiratory conditions such as pleural effusion, COPD, pneumonia, suspected lung cancer, pulmonary nodules, etc.

1-MINUTE CONSULT: PLEURAL EFFUSIONS

WHAT IS A PLEURAL EFFUSION?
Pleural effusion is the accumulation of fluid in the space between the lung and the chest wall. It can be caused by a variety of conditions, including heart failure, infection, and malignancy.

WHAT IS THE CAUSE?
There are several management strategies and advice that can be considered in the management of a pleural effusion.

DO ALL PLEURAL EFFUSIONS NEED TO BE TAPED?
Not all pleural effusions need to be tapped. The decision to tap depends on the size of the effusion, the patient's symptoms, and the underlying cause.

WHAT TO DO BEFORE I REFER TO RESPIRATORY?
• Check oxygen saturation on room air
• Check CXR
• Check if patient has been on antibiotics

WHAT TO DO AFTER?
Send patient back under care of their primary care provider. If the patient is symptomatic, consider referral to Respiratory for further management.

ANALYSING PLEURAL FLUID

Parameter	Normal	Abnormal	Significance
Transudate	< 0.5	> 0.5	> 0.5 = Exudate
Exudate	> 0.5	> 0.5	> 0.5 = Exudate

MANAGEMENT OPTIONS
There are several management strategies and advice that can be considered in the management of a pleural effusion.

DOCUMENTATION
• Document the size of the effusion
• Document the patient's symptoms
• Document the results of any investigations

USEFUL LINKS
• [NICE Guidelines on Pleural Effusions](#)
• [British Thoracic Society \(BTS\) Guidelines](#)

1-MINUTE CONSULT: LUNG CANCER (NEW DIAGNOSIS)

WHAT IS LUNG CANCER?
Lung cancer is a disease in which abnormal cells in the lungs grow and spread to other parts of the body.

WHAT HAPPENS NEXT?
The management of lung cancer depends on the type and stage of the cancer, and the patient's overall health.

STAGING
Staging is a process of determining the extent of the cancer. It involves a variety of tests, including CT scans, PET scans, and biopsies.

ASSESSING PERFORMANCE STATUS
Performance status is a measure of a patient's ability to perform their daily activities. It is used to help determine the most appropriate treatment options.

HOW DO WE GET TESTS?

TYPES OF LUNG CANCER AND TREATMENT OPTIONS
There are two main types of lung cancer: non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC). Each type has different treatment options.

HOW TO REFER TO RESPIRATORY FOR DISCUSSION IN LUNG MET
• Consider the lung cancer performance status
• Consider the patient's symptoms and signs
• Consider the results of any investigations

1 MINUTE CONSULT: PULMONARY NODULES

WHAT IS A LUNG NODULE?
A lung nodule is a small, round or oval-shaped mass of tissue in the lung. It can be benign or malignant.

HOW COMMON IS IT TO HAVE A LUNG NODULE?
Lung nodules are common, especially in older people and those who have smoked.

WHAT MIGHT CAUSE LUNG NODULES?
Lung nodules can be caused by a variety of conditions, including infection, inflammation, and malignancy.

WHAT HAPPENS NEXT?
The next steps depend on the size of the nodule, the patient's symptoms, and the results of any investigations.

DO ALL 'LUNG NODULES' NEED TO BE REFERRED TO THE LUNG CANCER MD?

WHEN DO 'LUNG NODULES' NEED TO BE REFERRED TO THE LUNG CANCER MD?
• Size of the nodule
• Patient's symptoms
• Results of any investigations

USEFUL LINKS
• [NICE Guidelines on Lung Nodules](#)
• [British Thoracic Society \(BTS\) Guidelines](#)

1-MINUTE CONSULT: COPD

WHAT IS COPD?
COPD is a chronic condition that affects the lungs, making it difficult to breathe.

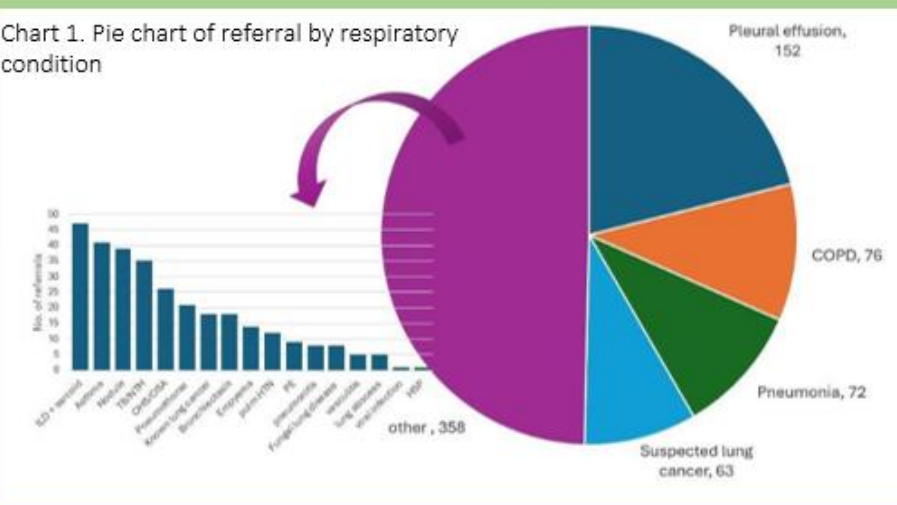
WHAT CAUSES COPD?
COPD is caused by damage to the lungs, most commonly from smoking.

WHAT TO DO IF I THINK SOMEONE HAS COPD?
• Check for symptoms
• Check for risk factors
• Check for signs of complications

ASSESSING COPD

STRATIFYING COPD
Stratification is a process of grouping patients based on their symptoms and signs. It helps to determine the most appropriate treatment options.

MANAGING ACUTE EXACERBATIONS OF COPD
Acute exacerbations of COPD are sudden worsening of symptoms. They can be managed with a variety of treatments, including antibiotics and steroids.



Results and conclusion

721 referrals were received over the 12-month period. January was the busiest month, coinciding with the winter surge of respiratory illnesses. The most commonly referred conditions were pleural effusion (n=152), COPD (n=76), pneumonia (n=72), and suspected lung cancer (n=63). Pulmonary nodules accounted for 39 referrals. These conditions were therefore identified as priorities for targeted intervention (Chart 1). We created a series of one-minute consults for the most frequently referred conditions, focusing on initial management, recommended investigations prior to referral, and clear criteria for respiratory review. (Figure 1) These masterclasses aim to improve resident doctors' confidence, reduce unnecessary or unclear referrals, and promote the principle of "the right referral at the right time". These consults were collated onto a website which could be accessed on trust computers and mobile devices.

Scan here for website

Effect of antibiotic therapy duration on risk of future exacerbations in patients with non-CF bronchiectasis

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Background

Bronchiectasis is a chronic respiratory disease with irreversible airway dilation and inflammation. Infections cause exacerbations which negatively impact quality of life and require treatment with antibiotics.¹

The optimal length of antibiotic prescription is poorly defined.² The EMBARC research group identified defining the optimal duration of therapy as a research priority.³

The UK NICE guidelines recommend 7-14 days for non-CF bronchiectasis, whereas the British Thoracic society advise 14 days as standard.

Objective and Method

We aimed to determine if antibiotic duration influenced time to next exacerbation. Short courses were defined as less than or equal to 7 days and long courses were longer than 7 days.

We conducted a retrospective study of antibiotic prescription duration in patients who were identified through respiratory infection clinic lists and ICD-10 coded diagnoses from inpatient stays from March 2024 to March 2025.

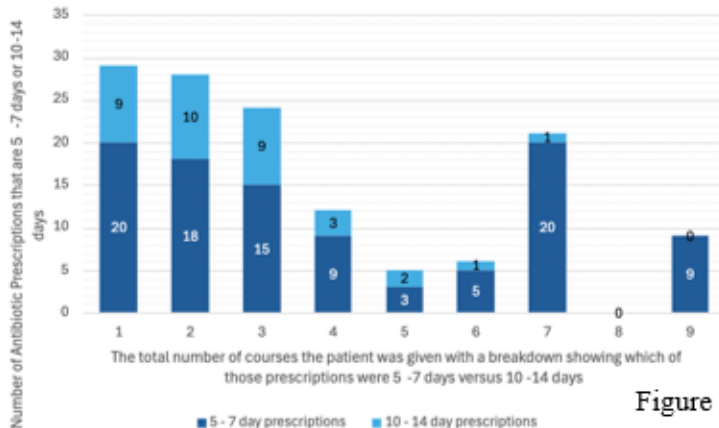
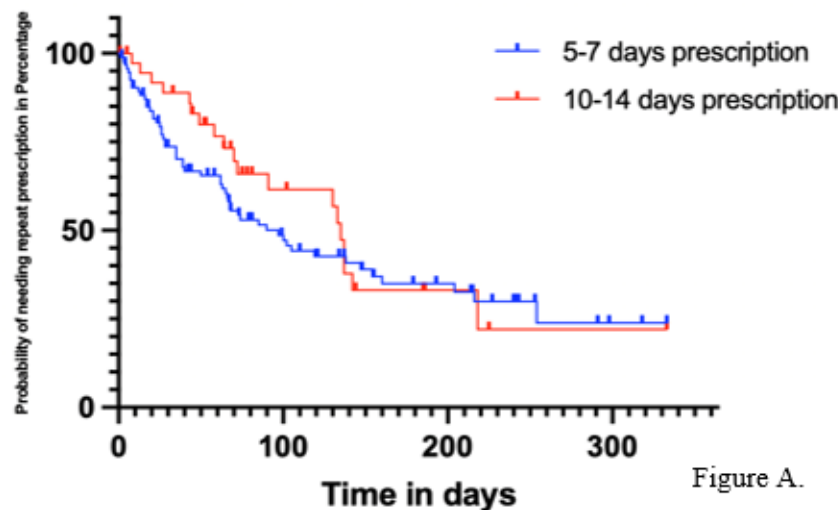
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Results

134 prescriptions were collected from 83 patients. The primary outcome measured was time to next exacerbation.

Kaplan Meier Survival Estimates



Discussion

In our cohort, antibiotic course length did not significantly affect annual exacerbation risk in non-CF bronchiectasis.

There was no statistically significant difference in time to next exacerbation. Patients who received short courses of antibiotics had a median time of 90 days to next exacerbation, whereas for patients who received long courses it was 135 days ($p=0.40$). Figure A shows that cumulative one-year exacerbation risk was broadly similar between groups, though early divergence occurred, with patients who received longer courses receiving fewer further prescriptions until day 137.

In patients with very high exacerbation frequency (7 courses/year), all were prescribed 5- or 7-day antibiotic courses, despite guidelines advocating longer antibiotic courses. This may be because most antibiotics are prescribed in primary care, where shorter durations for other respiratory infections are typical, which could suggest the need education in primary care on adequate antibiotic duration length in bronchiectasis.

Limitations of this study include the retrospective, single-centre design, incomplete microbiological data, and inability to control for disease severity or adherence, as well as small sample size.

Conclusion

Prospective, multicentre trials are needed to define optimal treatment duration and explore whether therapy should be tailored by microbiology or disease severity.

While there continues to be discrepancy between guidelines, it is important that clinical judgement is applied and patients with frequent exacerbations are prioritised for longer courses and assessed for prophylactic antibiotics.



Barking up the wrong tree!

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Introduction

Asthma is the **most common lung condition in the UK** affecting 5.4 million people. Typical presentation includes chest tightness, shortness of breath, wheeze and cough, with diagnosis confirmed by blood eosinophilia and evidence of bronchodilator reversibility.¹ Up to 33% of physician-diagnosed cases are mislabeled as asthma.² Granulomatosis with polyangiitis (GPA) is a form of vasculitis characterised by granulomatous inflammation, classically involving the upper and lower respiratory tracts with associated otolaryngological complications. Subglottic stenosis (SGS) is the narrowing of the airway below the vocal cords and has a frequency of 16-23% in GPA.³⁻⁴ Presenting features of SGS may mimic asthma and may have life-threatening consequences if misdiagnosed.

Objectives

- ❖ To understand the **principles of asthma diagnosis**
- ❖ To highlight key clinical and diagnostic features that differentiate asthma from upper airway obstruction and other **asthma mimics**

Case presentation

A 42-year-old female with chronic cough was reviewed in the Respiratory clinic following a hospital admission with an infective exacerbation of asthma. Note was made of a **'barking' cough** with poor response to inhaled corticosteroids, persistently low peak expiratory flow rate (PEFR) with little variability, and initially normal nasendoscopy findings. Spirometry confirmed flow volume loops demonstrating flattening of both inspiratory and expiratory limbs, indicating fixed upper airway obstruction (**figure 1**).

Computed tomography (CT) imaging confirmed diffuse tracheal wall thickening with mild stenosis at subglottic, mid-tracheal region and both mainstem bronchi along with nasal septal perforation and paranasal sinus disease (**figure 2**). These findings were in keeping with the patient's symptoms of nasal crusting and chronic sinusitis, prompting further evaluation. A vasculitis screen identified ANCA positivity with elevated PR3 antibodies consistent with GPA. Repeat ENT assessment identified 50% subglottic stenosis. In consultation with Rheumatology, the patient was treated with pulsed methylprednisolone followed by cyclophosphamide and continues on maintenance immunosuppression.

Results

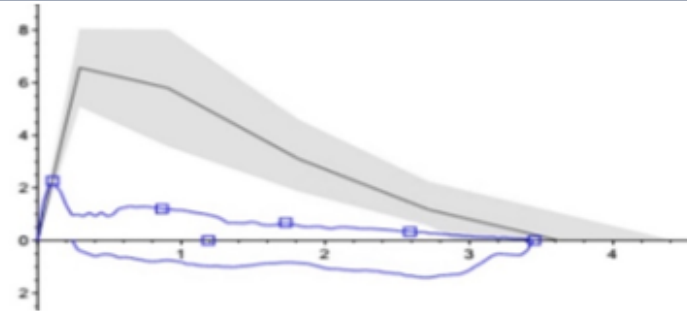


Figure 1
Flow volume loops showing flattening of inspiratory and expiratory limbs, indicative of fixed airway obstruction

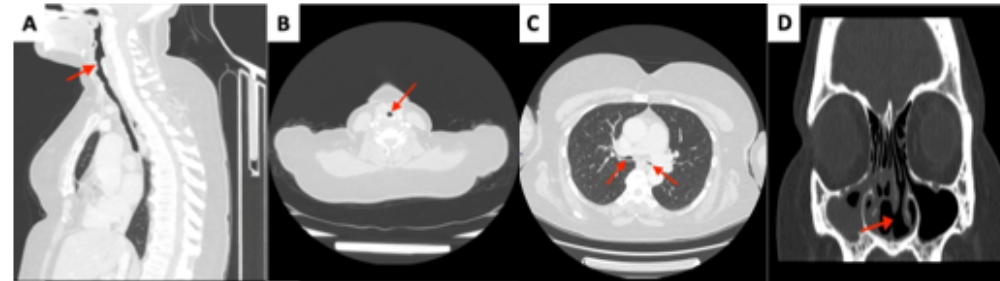


Figure 2
(A-B) CT imaging highlighting diffuse tracheal wall thickening causing mild stenosis at subglottic and mid-tracheal region, (C) wall thickening with mild to moderate stenosis in both main stem bronchi (left > right), and (D) paranasal sinus disease and nasal septal perforation in GPA.

Discussion

In asthma, symptoms alone are neither specific nor sensitive enough to make a diagnosis. **Objective diagnostic tests** should be performed to confirm reversible or variable airflow obstruction. This case highlights the importance of **spirometry** in confirming asthma, and in the evaluation of lung disorders. It also demonstrates the need to **challenge established diagnoses** when patients do not respond to treatment as expected and the importance of **multi-disciplinary management**.

Conclusion

Asthma misdiagnosis is common, occurring in 54.8% of a cohort of confirmed SGS.⁵ Factors identified in expedition of SGS diagnosis include early CT imaging, lung function tests, and early ENT review, all of which contributed to accurate diagnosis in this case.

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Appropriate permissions for the sharing of patient data have been obtained.

Copy number alterations in histologically normal resection margins forecast advanced neoplasia in ulcerative colitis.

Introduction

Endoscopic resection is first-line treatment for dysplasia in IBD, with success typically defined by R0, en bloc excision. However, non-dysplastic IBD mucosa may harbour genomic alterations (“field cancerisation”).

Hypothesis: Histologically clear margins may contain genomic changes that predict progression to advanced neoplasia (AN).

Methods

Low grade dysplastic lesions from IBD patients were analysed: 10 progressors (advanced neoplasia within 3 years) and 49 non-progressors. Dysplasia and histologically clear margins were microdissected, DNA extracted, and low-coverage whole-genome sequencing performed to generate copy number alteration (CNA) profiles.

63 lesions were sequenced: 40 matched LGD–margin pairs, 13 LGD only, and 10 margin only.

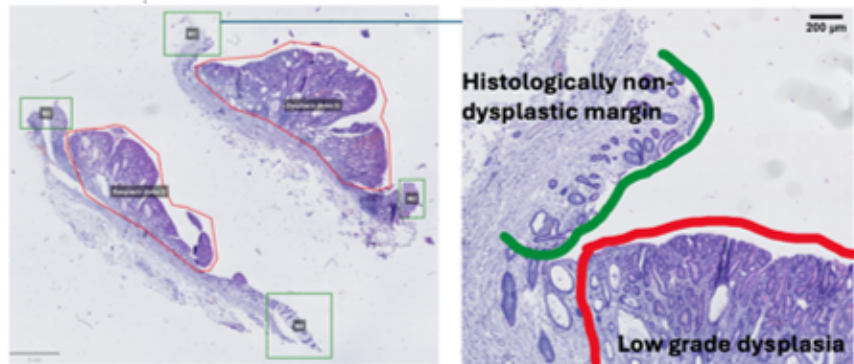


Figure 1. H&E identification of dysplastic tissue, circled in red and histologically clear lateral margins circled in green

Results: Margin and lesions genomics predict advanced neoplasia

Progressor LGD showed higher genomic alteration than non-progressors (48.0% vs 17.6%, $p = 0.028$; Figure 2) and predicted progression (HR 43.1, $p < 0.001$). Histologically clear margins from progressors also had higher PGA (52.0% vs 4.2%, $p = 0.006$; Figure 3).

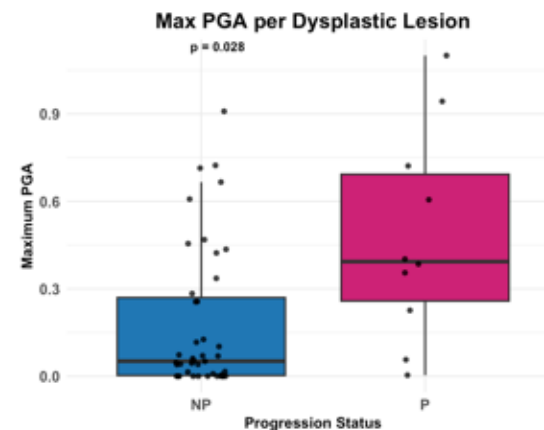


Figure 2 . Maximum percentage genome alteration per dysplastic lesion. Progressors show a significantly higher PGA than non progressors

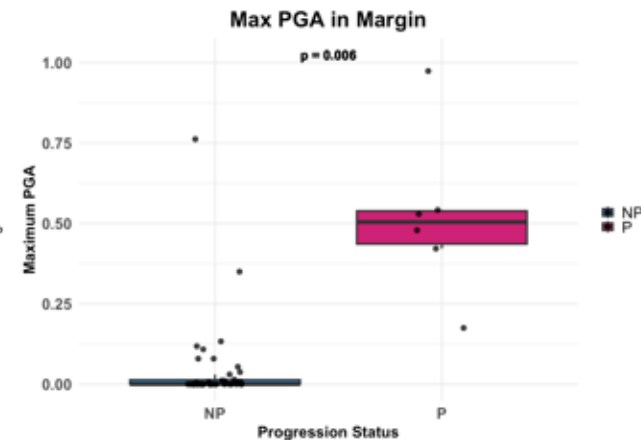


Figure 3 . Maximum percentage genome alteration in the margin per dysplastic lesion. Progressors show a significantly higher PGA than non progressors

Conclusion

- CNA burden predicts progression to advanced neoplasia in IBD
- Margin genomic alterations showed the strongest predictive value, beyond R0 status and en bloc resection
- Genomic profiling may improve post-resection risk stratification and guide surveillance

The Prognostic Utility of Serum Lactate Dehydrogenase in Patients With Primary Intra-axial Malignant Brain Tumours: A Systematic Review, Meta-analysis and Meta-regression

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1. Melanin Medics Research Network, Luton, UK



INTRODUCTION

Serum LDH reflects tumour metabolic dysregulation and predicts outcomes in solid tumours, but its prognostic role in primary intra-axial malignant brain tumours is unclear. This systematic review evaluates the association between baseline serum LDH and prognosis in primary central nervous system lymphoma (PCNSL) and glioblastoma.

METHODS

Scopus, Cochrane, Medline & Embase were searched to 8 August 2025 for studies on baseline serum LDH and patient outcomes. HRs with 95% CIs were pooled in R using random-effects, inverse-variance methods. Heterogeneity was assessed via subgroup and meta-regression analyses. Evidence certainty was assessed using GRADE framework.

RESULTS

- 36 observational studies including 6,144 patients.
- PCNSL: Elevated LDH → 62% higher mortality risk (HR 1.62, 95% CI 1.38–1.92; $I^2=74%$) (Fig 1) (GRADE: +). Elevated LDH → 63% higher risk of death/recurrence (HR 1.63, 95% CI 1.28–2.08; $I^2=77%$) (Fig 2) (GRADE: +). Subgroup analyses: Findings consistent across treatment modalities, pre/post-2016 cohorts, and geographic regions.
- Glioblastoma: Elevated LDH → 58% higher mortality risk (HR 1.58, 95% CI 1.26–1.98; $I^2=51%$) (Fig 3) (GRADE: ++)

RESULTS

- Meta-regression (PCNSL): Older age → worse overall survival ($\beta = -0.065$, $p=0.018$); explained ~99% of between-study heterogeneity ($R^2=99.3%$), adjusted for sex and ECOG 0–1.

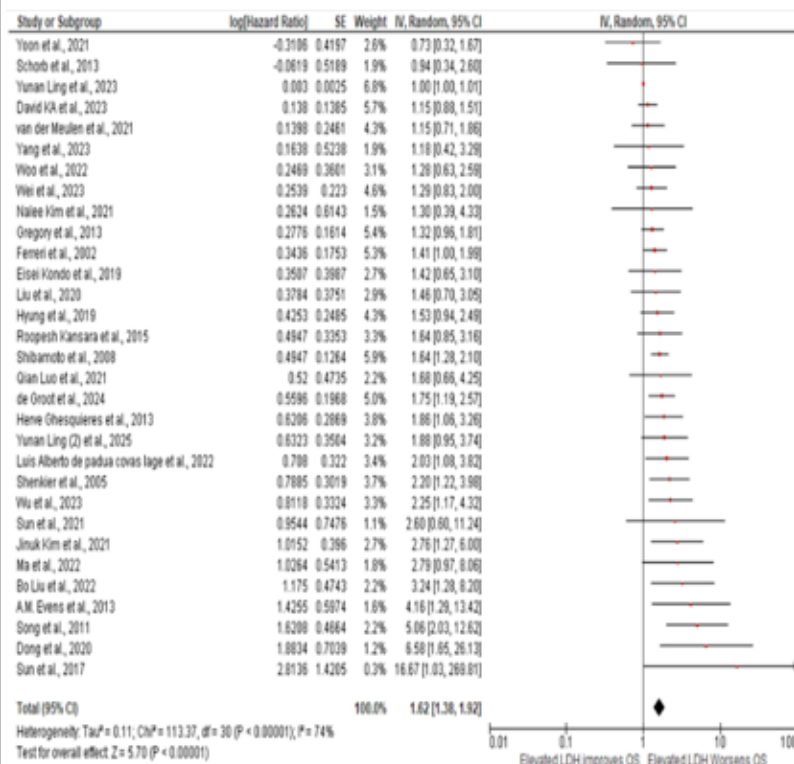


Fig 1: Forest plot evaluating the association between baseline serum LDH and overall survival in PCNSL

RESULTS

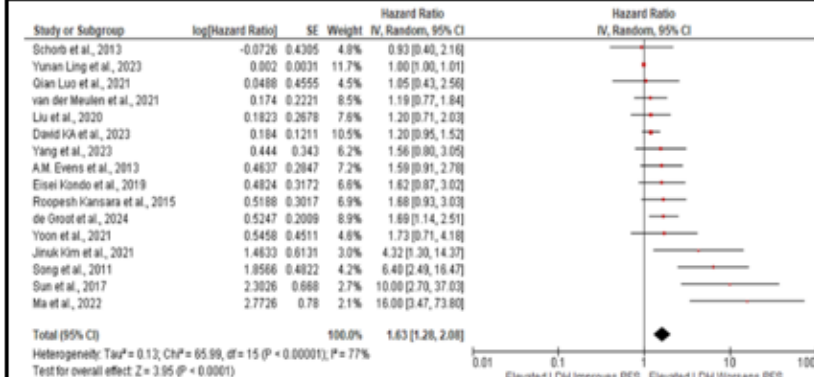


Fig 2: Forest plot evaluating the association between baseline serum LDH and survival in PCNSL.

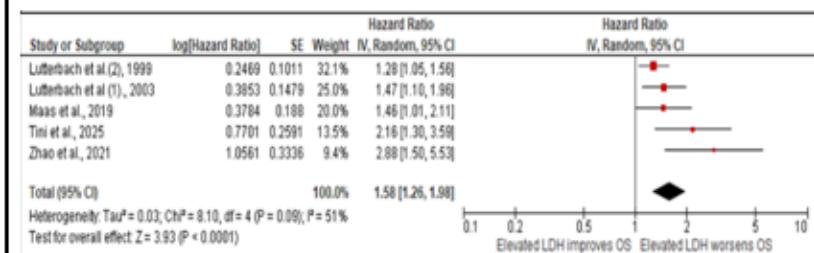


Fig 3: Forest plot evaluating the association between baseline serum LDH and overall survival in glioblastoma.

CONCLUSION

Elevated baseline serum LDH is associated with poorer overall and progression-free survival in PCNSL and glioblastoma (GRADE: very low to low). Serum LDH may serve as a simple prognostic biomarker at diagnosis.

Communicating liver disease risk to patients – a patient-centred report for transient elastography (TE) examinations performed in a community diagnostic centre (CDC)

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Introduction

Liver disease deaths in the UK have risen significantly over the last 50 years (1). The two biggest drivers for this are alcohol and obesity (steatotic liver disease).

There are now several well validated, non-invasive techniques for measuring liver fibrosis including the technique of transient elastography (2). Results from these technologies have now been demonstrated to correlate with liver related clinical events (3).

In 2020 the Lancet standing commission on liver disease made a call for “schemes to allow general practitioners to refer patients directly for elastography assessment” (4). This approach has received provisional support from NICE (5) and aligns with the key principles of the current NHS 10-year plan (6).

We are developing a community-based liver fibrosis assessment service by establishing a transient elastography (TE) service in our community diagnostics centre (CDC) in Stratford-upon-Avon.

Recognising the current lack of TE data interpretation expertise in primary care we identified a clear need to communicate the test result directly to the patient.

The British Liver Trust is the largest UK charity supporting those affected by liver disease. The charity has a long track record of offering TE to members of the public through their liver “roadshows”. The charity also maintains a public access website with well-resourced and evidence-based guidance on liver diseases, tests and advice on lifestyle changes to reduce liver disease.

Methods

The hepatology and service improvement teams at Warwick Hospital have developed TE as a “stand alone” diagnostic test with an agreed referral pathway developed with colleagues from Primary Care.

To establish a patient-centred test report the team worked with colleagues at the British Liver Trust to tailor their existing public report to more appropriately suit the needs of patients referred for elastography directly from primary care (i.e. without having been seen in a specialist hepatology clinic).

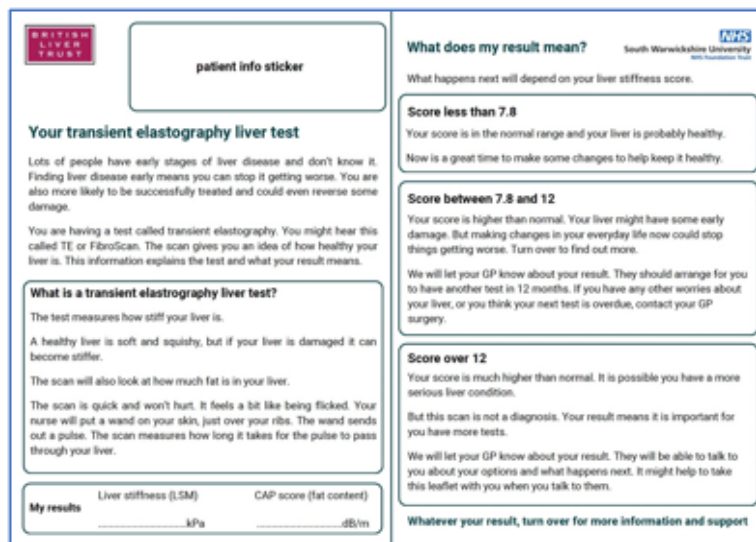


Figure 1



Figure 2

Results

We have created a patient result letter for use in a community-based liver fibrosis assessment service using TE (figure 1).

Although liver stiffness measurement (LSM) scores derived from TE can be used to determine high, moderate and low risk we felt strongly that all patients attending our CDC should be directed towards sources of information on liver health – including advice on alcohol, diet and exercise (figure 2).

Our template can be adopted and adapted for use in other CDCs.

The TE service will provide a pivotal role in our community liver referral pathway.

Conclusions

Assessment of liver fibrosis in community diagnostics centres (CDCs) represents a key (and hitherto under-expressed) opportunity to anticipate and influence liver disease outcomes. Recent evidence from large analyses of other non-invasive measures of liver fibrosis has highlighted the fact that high scores of liver fibrosis correlate with all-cause mortality in addition to liver related events (7, 8). This underscores the need to engage primary care and the wider community in the objective assessment of liver fibrosis.

Communication of liver fibrosis assessment results directly to patients will become an important element of liver disease prevention. Working with patients and their advocacy organisations is essential to this process.

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Hyperacute T waves: An early sign of ST Elevation Myocardial Infarction

Dr Jessica Holmes FY2 MBBS BSc¹, Dr Pujon Purkayastha MBBS MA (Cantab) MSc MRCP²
¹ Hull University Teaching Hospitals NHS Trust, ² Guy's and St Thomas' NHS Foundation Trust

Introduction

- Hyperacute T waves (HATWs) are an early ECG sign of myocardial ischemia.
- Characterised by broad, symmetrical, prominent T waves
- Highly specific marker of occlusion MI, caused by injury currents



Figure 1. Initial 12 lead ECG - Broad based prominent T waves present in leads V2-6

Discussion

- Timely diagnosis of STEMI enables early transfer for PPCI. Each 30 minutes of delay from first medical contact to reperfusion is associated with a **7.5% increased RR of 1-year mortality**¹
- Failure to recognise HATWs as a marker of impending STEMI or underlying occlusion can lead to delays in diagnosis and therefore appropriate treatment
- 2022 ACC Expert Consensus recognises **HATWs as a STEMI equivalent trace**¹, but ESC guidance does not.
- Meyers et al. 2025 propose a HATW score (symmetry + increased T wave area relative to QRS amplitude). Preliminary results showed **98% specificity for acute occlusion MI, in patients not meeting STEMI criteria**³

Case Presentation

- Gentleman in his 50s presents to district general hospital with **central chest pain** not relieved by rest
- On assessment: Initial ECG (Fig 1) shows **broad based prominent T waves**, does not meet STEMI criteria, declined for PPCI and admitted locally to DGH
- Seizure soon after initial assessment which self-terminated. 10 minutes later patient suffers a second seizure, external defibrillator pads placed and **monitor shows VF** (ventricular fibrillation)
- Patient is immediately cardioverted, receiving 2 shocks
- Repeat ECG (Fig 2) post cardioversion shows STE meeting STEMI criteria, and he is accepted for transfer and **emergency PCI 60 minutes after initial ECG**.
- PCI shows **critical proximal LAD stenosis**, successfully stented
- Initial post PCI echo showed severe LVSD, 1 year recovery to EF >50%



Figure 2. Repeat ECG following cardioversion after VF arrest - STE meeting STEMI criteria in leads V1-V6

Lessons

- Recognition of HATWs can aid **timely reperfusion** especially in a DGH setting
- **Recently proposed criteria** for HATWs has high specificity for occlusion MI even without STEMI criteria or progression to STEMI trace
- ESC guidance **doesn't currently** identify HATWs as a STEMI equivalent trace. Is this the correct approach?⁴

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Mind the Spike: Optimising Monitoring for Steroid-Induced Hyperglycaemia

Dr Meera Mahesh, Dr Jessica Showan, Dr Sophie Howarth, Dr Singhan Krishnan

Background

Steroids are widely prescribed in the hospital setting

In **diabetic** patients, they can worsen glycaemic control¹

In **non-diabetic** patients, they can unmask impaired glucose tolerance¹

↑ Admission¹ ↑ Mortality¹ ↑ Infections¹

Aim Monitor and escalate care of all medical patients on steroids according to Joint British Diabetes Society (JBDS) guidelines¹

Methodology

Medical inpatients at Hinchingsbrooke Hospital on **supraphysiological** steroid doses

2 PDSA cycles assessing **compliance** with JBDS guidance (Figure 1)

Interventions

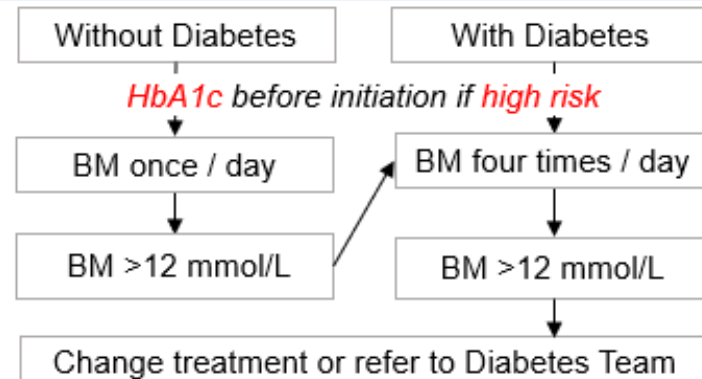


Figure 1: Abbreviated JBDS guidelines¹. BM; blood glucose

Results

Cycle 1 – Mar 25

Cycle 2 – Nov 25

Our intervention **increased** recommended glucose monitoring in an 8-month period from **27%** in Cycle 1 to **46%** in Cycle 2.

The percentage of patients without any glucose monitoring at all **decreased** from **72.7%** in Cycle 1 to **23%** in Cycle 2.



Figure 2²: Cycle 1 Compliance with JBDS Guidelines

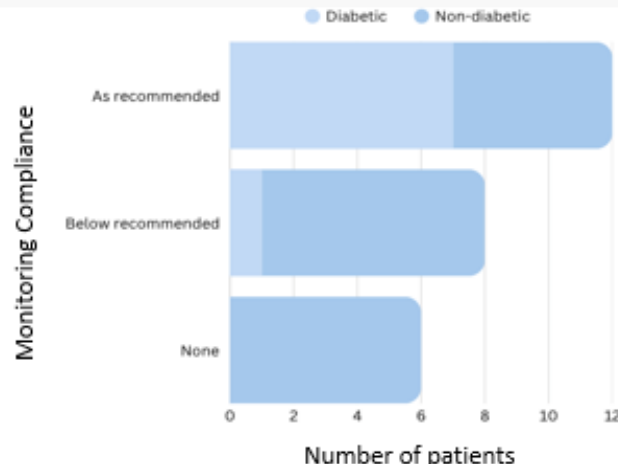


Figure 3²: Cycle 2 Compliance with JBDS Guidelines

Conclusion

Our intervention nearly **doubled compliance** with JBDS guidelines

Many of the individuals monitored were **diabetic**, showing awareness of **diabetes-related monitoring**

Extending the **existing monitoring practice** from **diabetic** patients to **all** patients receiving supraphysiological steroids is both **achievable and essential** to **reduce hyperglycaemia risk**

References

1. Roberts, A. (2018). Diabetic Medicine, 35
2. Figure 2 and 3 created with Canva Ethics approval granted (Reference 4489)

MELANOMA IN SITU WITH UNUSUAL DISTANT METASTASES TO URETER AND PORTA HEPATIS

Milton Keynes University Hospital NHS Foundation Trust , Jewel John, Amruta Patil, Allwyn John Karikunnel, Ashlin Z Thomas

INTRODUCTION

Melanoma in situ is typically associated with an excellent prognosis following complete excision, with metastatic spread considered exceedingly rare. We present an exceptionally rare case of a 77-year-old woman with a history of completely excised melanoma in situ diagnosed four years back, who developed obstructive uropathy and found to have metastatic melanoma to ureter, porta hepatis and spine.

CASE PRESENTATION

A 77-year-old woman with a history of completely excised MIS four years prior presented with hematuria, abdominal pain, increased fatigue and nausea unresponsive to multiple course of antibiotics.

Investigations

- Bloods: Initial blood tests revealed a mildly cholestatic pattern on liver function tests.
- Tumour markers: moderately raised CA 19-9 (68 U/mL)
- elevated faecal calprotectin (2,000 µg/g).
- contrast-enhanced CT scan and MRI -confirmed lesion in porta hepatis, liver and a right mid-ureteric mass was identified as the cause of hydronephrosis.
- PET-CT - showed metabolically active uptake at the porta hepatis, right mid-ureter, and T9 vertebral level.

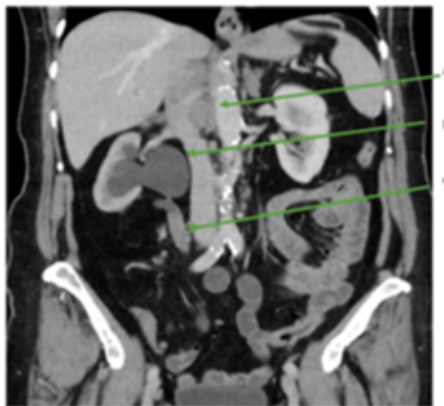


Figure 1: CT chest, abdomen, and pelvis
Coronal CT image demonstrating (a) periportal lymph nodes, (b) right hydronephrosis, and (c) right ureteric soft tissue thickening

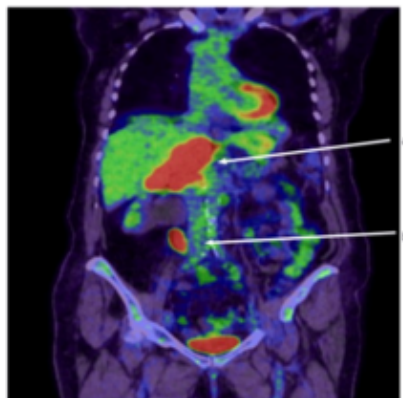


Figure 2: PET-CT scan
Coronal PET-CT image depicting (a) FDG-avid periportal lymph nodes and (b) right ureteric soft tissue thickening

- On dermatology review, there were no new suspicious skin lesions.
- urine cytology: nuclear atypia, prominent nucleoli (Figure 3)
- EUS -guided biopsy of the porta hepatis mass (Figure 4) tumour cells highlighted by Melan-A, S-100, and HMB45

MDT Discussion and treatment : Given the current findings, the patient's earlier lesion was likely to have unrecognized invasive or metastatic potential. She was diagnosed with disseminated metastatic melanoma and urgently referred to Oncology to initiate systemic immunotherapy with pembrolizumab.

DISCUSSION

- Melanoma metastasizing to the ureter and porta hepatis is extremely rare, especially from melanoma in situ (MIS).
- **Diagnostic Challenges:** MIS can mimic other malignancy. **IHC is critical** for diagnosis.
- **Prognosis:** Metastasis to distant organs like liver, spine, and porta hepatis carries poor prognosis.
- **Treatment:** No standardized guidelines for genitourinary metastasis. **surgical resection** where feasible and **immunotherapy** (immune checkpoint inhibitors) for systemic disease (pembrolizumab).
- **Key Takeaway:** Rare MIS metastasis underscores the need for **high clinical suspicion**, even in lesions initially considered non-invasive.

CONCLUSION

This case shows what is generally considered impossible-the rare potential for MIS to give rise to late, distant metastasis involving atypical sites such as the porta hepatis, right ureter, and T9 vertebra. It emphasizes the necessity of maintaining careful clinical monitoring throughout long-term follow-up.

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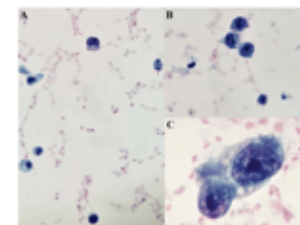


Figure 3: Urine cytology showing a high N:C ratio

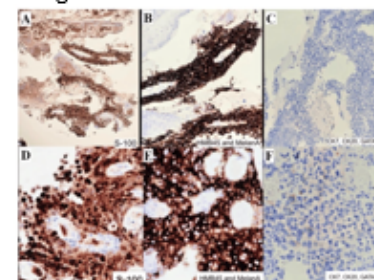


Figure 4: IHC staining of ureteric lesion

Atrial Fibrillation at Home, Experiences from the Gloucestershire Hospitals Virtual Ward

Dr Joanna Lindsay, Dr Elinor Beattie, Gemma Carroll

INTRODUCTION:

Atrial fibrillation (AF) is the most prevalent arrhythmia and nearly 60% of direct healthcare costs relate to inpatient care¹.

No trust guideline existed for rate control of AF patients in the virtual setting, until one was written and implemented in February 2025 for such patients in the acute trust to be subsequently managed in the community under the care of the virtual ward.

METHODS:

Inclusion criteria: diagnosis of AF with need for ongoing rate monitoring, HR <140 prior to transfer to virtual ward (in line with other studies^{2,3}), SBP <90, documented anticoagulation decision

Exclusion criteria: additional acute medical indication for admission e.g. o2 requirement, inability to use remote monitoring, significant AF related symptoms

Patients were given virtual observation monitoring kits and would upload their observations at pre-determined intervals which were reviewed by the virtual ward team, management determined using flowcharts (see figures 1 and 2)

Outcomes measured: average virtual ward admission and discharge heart rate, length of virtual admission, readmission rate compared with a matched cohort of AF patients admitted and managed solely in the acute trust.

References:

- Burdett P, Lip GYH. Atrial fibrillation in the UK: predicting costs of an emerging epidemic recognizing and forecasting the cost drivers of atrial fibrillation-related costs. *European Heart Journal - Quality of Care and Clinical Outcomes*. 2020 Dec 21;8(2).
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Figure 1: Management of New AF on the Virtual Ward

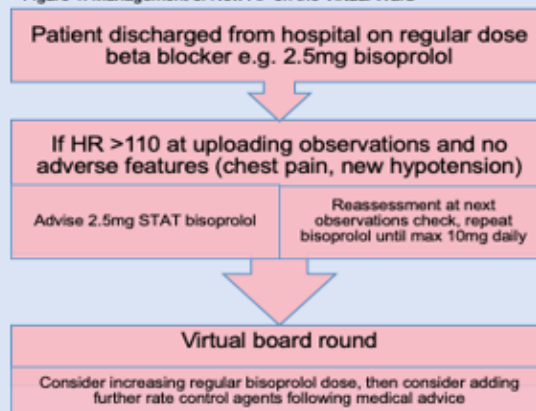
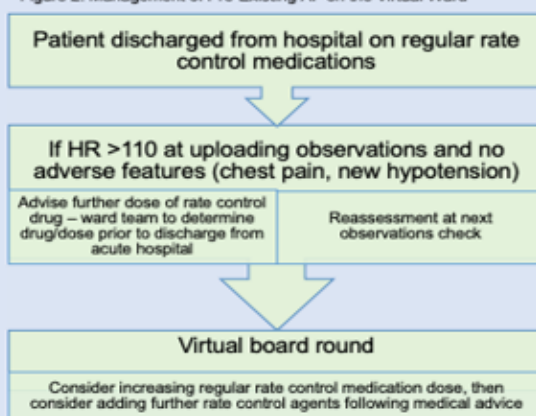


Figure 2: Management of Pre-Existing AF on the Virtual Ward



RESULTS:

100 patients were reviewed, mean age 79, 59% female

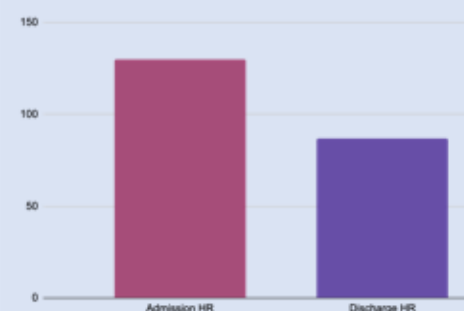


Table 1: Comparison between VW and Acute Trust AF Patients

	Virtual Ward AF Patients	Matched Acute Trust AF Patients
	£148/night	£280/night
Admission length	6.92days	3.34 days
Readmission rate	13%	18%

DISCUSSION:

The Gloucestershire AF Virtual Ward has generated valuable insights from its first 100 patients. Although virtual ward patients had a longer overall length of stay, this is likely multifactorial. Inpatients benefit from a controlled environment, more frequent clinical reviews, and potentially more aggressive rate control strategies. At home, patients are typically more active and may consume stimulants such as alcohol, potentially prolonging time to achieve rate control.

Early data suggests that home management is safe, evidenced by a relative reduction in readmissions compared to inpatient management, while potentially also demonstrating cost-effectiveness especially considering the increased numbers of patients who could be managed in the virtual setting.

With an ever-present focus on hospital flow and discharging patients to the community, the virtual ward is an area to focus on to save bed days and relieve some pressure on the acute trust while maintaining patient safety.

When the Spine Speaks First: A Rare Case of Thyroid Cancer Presenting with Cord Compression

Faryal J, Nijith L, Yusuff S, Ibrahim H

A rare Diagnostic Dilemma

Spinal metastasis is a recognised complication of advanced malignancy; however, initial presentation with malignant spinal cord compression from an otherwise occult thyroid carcinoma is exceptionally rare¹⁻⁴. This case highlights a diagnostic and management dilemma, where a life-threatening neurological emergency preceded the identification of the primary malignancy.

Case Presentation

History: A 71-year-old man presented with a 6-week history of thoracic back pain progressing to bilateral leg weakness.

Examination: revealed asymmetric paraparesis with hyperreflexia, suggesting evolving spinal cord compression.

Baseline investigations were normal, and myeloma was excluded- illustrating the diagnostic uncertainty at presentation.

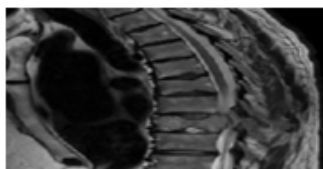


Figure-1. MRI showing T9 vertebral metastasis with cord compression.

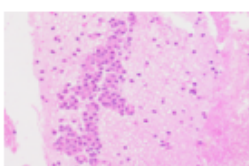


Figure-2A(H&E): Thyroid FNA demonstrates a follicular thyroid neoplasm.

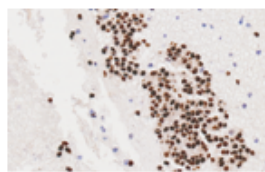


Figure-2B (TTF-1) demonstrates diffuse nuclear TTF-1 positivity in follicular tumour cells

From Spinal Emergency to Thyroid Carcinoma: A Patient Journey

4 Histology& Immunohistochemistry

CT-guided spinal biopsy
Confirmed Thyroid origin (TTF-1, PAX8).

3 Neurosurgery

Urgent Cord Decompression
Stabilize spine
High-dose steroids.

2 Staging CT

To identify the primary source/disease burden.

1 MRI Spine

Identified Malignant cord compression.

5 Endocrinology

Thyroid US-U4
FNAC-Follicular Pattern
Levothyroxine –Aim TSH Suppression.

6 ENT

Total Thyroidectomy.
Follicular Carcinoma.

7 Oncology

External Beam Radiotherapy
I-131 RAI
+/-systemic therapy.

8 Rehabilitation

Early mobilization.
Functional goals.

Diagnostic and Multidisciplinary Escalation of Care.

Conclusion

A rare presentation of occult follicular thyroid carcinoma as malignant spinal cord compression, posing diagnostic and management challenges..

Rare: Spinal cord compression as the first presentation of asymptomatic thyroid cancer

Dilemma: Urgent surgery required before primary diagnosis.

Outcome: Treatable malignancy with good neurological recovery potential.

Outcome

Despite the severity of presentation, the patient made a **remarkable neurological recovery**, progressing from assisted mobility to **independent ambulation**, with preserved sphincter function.

Learning Points

Think broad

•Thyroid Cancer can present as spinal mets.

Imaging

•MRI/CT defines level & compression.

Tissue Biopsy

•Histopathology + IHC confirms origin.

Act fast

•Early decompression prevents deficit.

MDT drives

•Key role to guide definitive treatment and favorable outcomes.

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Disclaimer

The author confirms that all patients' information has been fully anonymised. Appropriate institutional processes for obtaining informed consent, where appropriate, have been followed.

Improving Cardiology Discharge Summary Safety Using a Standardised Checklist and Driving Advice Intervention: A Quality Improvement Project.

Dr J. Essien, Dr S. Sharma, Dr U. Arshad, Dr N. Khurshid, Dr B. Yirdaw | Cardiology, Fairfield General Hospital

BACKGROUND

Discharge summaries are critical patient safety documents ensuring continuity between hospital and primary care.

Incomplete summaries risk:

- Unsafe driving post-cardiac events
- Inadequate lipid optimisation
- Poor GP communication
- Patient safety and governance risks

Aim: Improve discharge summary quality, completeness, and safety via education, a standardised checklist and driving advice leaflet.

METHODOLOGY

This QIP was conducted at FGH cardiology unit with two PDSA cycles. Firstly, a baseline audit, reviewing 30 discharge summaries against predefined standards aligned with NICE, DVLA and RCP guidance was conducted.

Intervention:

Targeted interventions were designed which included an 8-point cardiology discharge checklist and a DVLA aligned patient driving advice leaflet then actively implemented through ward-based teaching sessions. These were embedded into the discharge workflows.

RESULTS

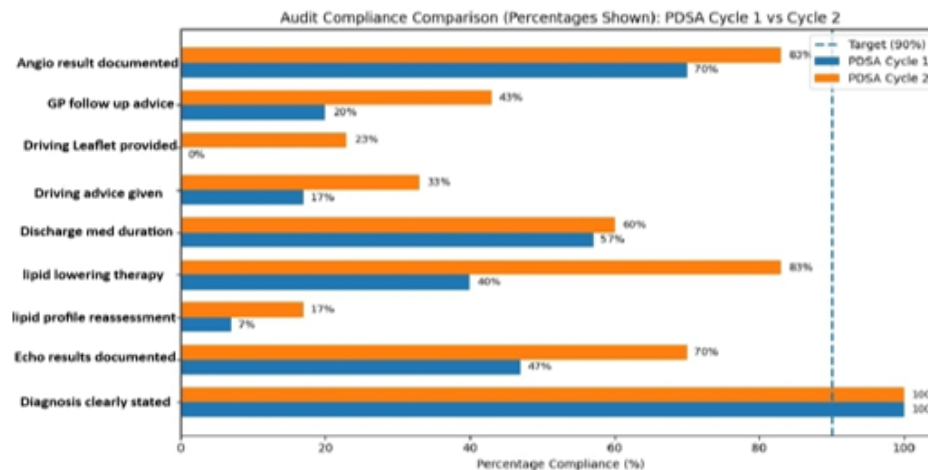


Chart 1: Audit Comparison (PDSA Cycle 1 and 2)

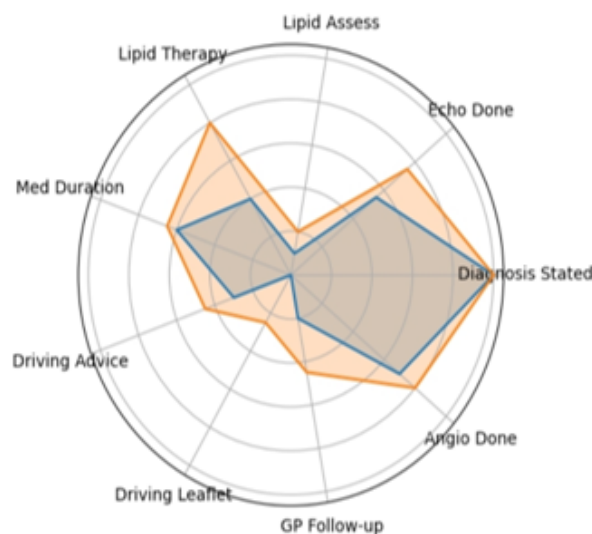


Chart 2: Compliance chart (Radar Chart)



Scan me!

40% → 83%	+43%	Lipid Rx
20% → 43%	+23%	GP F/U
47% → 70%	+23%	ECHO
0% → 23%	+23%	Drive Lft

Table 1: Largest improvements

DISCUSSION

- Key challenges included variable documentation practices and the frequent rotation of junior doctors
- Early engagement of a consultant stakeholders provided clinical leadership
- Endorsement at Medicine Trust level and presenting the project at Trust Governance meetings
- Embedded into the departmental induction pack.

CONCLUSION

- ✓ 100% of parameters improved
- ✓ Improved quality, completeness and safety
- ✓ Enhanced national guidance compliance
- ✓ Strengthened secondary and primary care link
- ✓ Low-cost, scalable, sustainable and transferrable strategy
- ✓ Standardisation and human factors designs

Next Steps:

- Integrate checklist into electronic discharge systems
- 3rd Cycle
- Trust-wide roll-out

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Impact of place of care on outcomes following diabetic ketoacidosis: a multicentre real-world analysis

Herbert J, Persad K, Hamza M, Manta A, Philip NC, Kempegowda P, DEVI Collaboration

Introduction

Acute management of DKA largely standardised
Paucity of data evaluating impact of inpatient care quality and outcomes during and post-DKA

Purpose = to examine association between place of care during DKA, management and outcomes

Materials and methods

Retrospective multicentre analysis
Involved 1,995 DKA episodes
DEKODE (Digital Evaluation of Ketosis and Other Diabetes-related Emergencies) surveillance

Stratification of patient based on place of care during peri-DKA period:

- endocrine/diabetes
- general medical
- surgical

Multivariable regression models used to assess associations between ward destinations and outcomes (adjusted for clinically significant confounders)

Results and discussion

Figure 1	Endocrine	Medical	Surgical	p-value
Median age (years)	47.0	43.0	59.0	<0.001
% type 2 diabetes	26.2	29.2	63.0	<0.001
Hourly glucose monitoring adherence	92.4	90.5	83.3	0.046
Length of management (days)	3.9	4.0	10.0	<0.001

Surgical admission independently associated with increased length of stay ($p = 0.014$)

DKA cases managed in surgical wards had 7.5-fold higher likelihood of ITU admission compared to endocrine/DM wards ($p < 0.001$)

Conclusion

DKA managed in endocrine units consistently demonstrated better monitoring adherence, shorter length of stays and fewer escalations

- Potentially due to presence of specialised staff trained in DKA care
- But not all patients can be in specialist wards due to resource constraints

Recommendation = need for risk-stratification tools and diabetes outreach services to enhance safety and efficiency of DKA management



UNIVERSITY OF BIRMINGHAM | Applied Health Sciences

Funded by
NIHR | National Institute for Health and Care Research

A rare cause of lung cancer in a young patient: pulmonary mucoepidermoid carcinoma

JOS Cheng¹, T Bowers², AG Nicholson³, F Medeiros², M Avari¹

1: Broomfield Hospital, Mid and South Essex NHS Foundation Trust, 2: Essex Cardiothoracic Centre, Basildon University Hospital, Mid and South Essex NHS Foundation
3: Royal Brompton & Harefield Hospitals, Guy's & St Thomas' NHS Foundation Trust; National Heart & Lung Institute, Imperial College



Case presentation

A male in his 20s, never-smoker, with a family history of *Succinate Dehydrogenase Complex Iron-Sulfur Subunit B (SDHB)* mutation, presented with four months of night sweats, haematuria, splenomegaly, back pain, lethargy, and weight loss. Despite antibiotics for pyelonephritis and pneumonia, he developed progressive exertional dyspnoea, haemoptysis, and chest pain.

Investigations

Bone marrow aspirate and trephine excluded haematological malignancy. Given renal symptoms and family history of *SDHB* mutation, metastatic renal cell carcinoma was suspected, however CT urogram, cystoscopy and plasma metanephrines were unremarkable.

CT showed a soft tissue density in the right middle lobe (RML) obliterating the bronchus (Figure 1a). PET-CT revealed avid right hilar lymph node and RML lesion. Bronchoscopy (Figure 1b) with RML and endobronchial ultrasound biopsies confirmed non-small cell carcinoma, suggestive of MEC.

Management

He underwent sleeve lower bi-lobectomy which confirmed low-grade MEC (Figure 2) with TNM9 staging pT1bN1aM0V1P1O0R0. RNA-based next-generation sequencing showed *CRTC3-MAML2* gene rearrangement, with no targetable mutations.

Following counselling on limited evidence on adjuvant therapy in low-grade MEC, he received adjuvant chemotherapy for risk reduction, given nodal and vascular staging. He remains under surveillance without recurrence and referred for *SDHB* mutation testing.

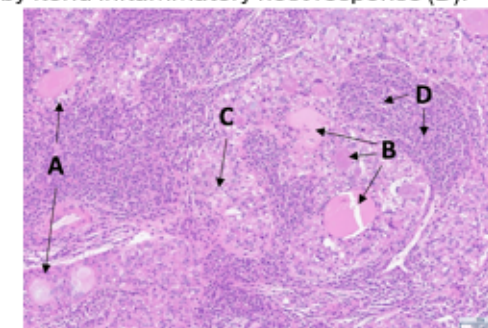
Discussion

Pulmonary MEC accounts for <0.2% of lung cancers, with ~50% presenting before age 30^{1,2}. It primarily affects salivary glands but can arise within proximal bronchi¹. MECs are associated with oncogenes, including novel fusion chromosome (11;19) translocation, resulting in *CRTC3-MAML2* fusion protein³. Low-grade pulmonary MEC carries a favourable prognosis (5-year survival 95%), while high-grade MECs have a higher incidence of metastasis^{1,2}. Surgical resection is treatment of choice⁴. Adjuvant treatment is guided by tumour grade and staging², although evidence is limited.

Constitutional symptoms are uncommon in low-grade MEC. His symptoms likely reflected post-obstructive infection from the endobronchial tumour and concurrent pyelonephritis, initially misleading as red herrings.

SDHB mutations are associated with paraganglioma, pheochromocytomas and rarely, renal cell carcinoma⁵. Family history and renal symptoms initially suggested a renal primary; however, this did not delay the diagnosis. To our knowledge, *SDHB* mutation is not associated with MEC.

Figure 2: 10x H&E right lower bi-lobectomy: Carcinoma with mucin-producing cells (A), mucin-filled glands (B), intermediate cells (C), surrounded by florid inflammatory host response (D).



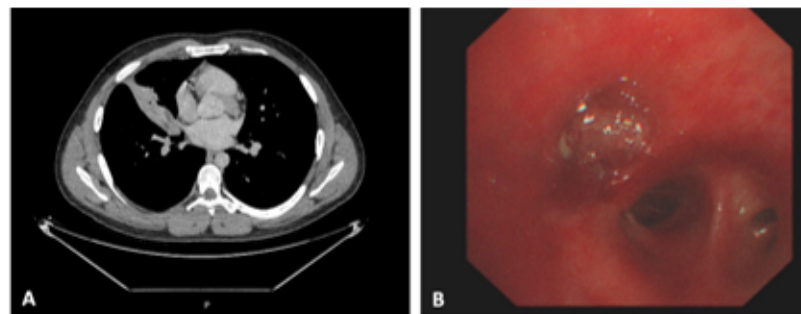
Take home messages

- MEC is a rare lung malignancy requiring histopathological confirmation and multidisciplinary team approach
- Clinicians should remain open-minded when assessing young patients, although malignancy is uncommon, pulmonary MEC represents a distinctly rare entity

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Figure 1: (a) CT Chest: RML mass (b) Bronchoscopy: RML occlusion



Acknowledgements We thank the patient for providing written informed consent for publication of this case.

Legionella pneumonia with rhabdomyolysis, severe AKI & unexplained dysarthria: a diagnostic challenge on the acute medical take

Juanita Ravindran

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BACKGROUND

- Patients may present on the acute medical take with multisystem involvement, requiring clinicians to actively pursue unifying diagnoses.
- Legionella pneumonia is an atypical CAP and can present with extra-pulmonary manifestations.
- Failure to recognise these features as clues to a unifying diagnosis can delay effective therapy, whereas early suspicion enables targeted antibiotics.

An unexpected rise in cases of Legionnaire's disease has been reported in NW London recently¹.

PATIENT SNAPSHOT

54♂
PMHx: Pre-diabetes
DHx: Nil regular
SHx: iADLs, no EtOH, no recent travel

PC: Unwitnessed fall + dysarthria
HPC: No LOC, mild dyspnoea, dry cough, non-bloody diarrhoea for 3/7

OBSERVATIONS

HR 110 BP 150/110
RR 28 SpO2 96% 2L
Temp 39.4
AVPU

INVESTIGATIONS

Blood Test	Result
WCC	17.5
CRP	169.5
Lactate	1.8
Na	125
Creatinine	254 (87)

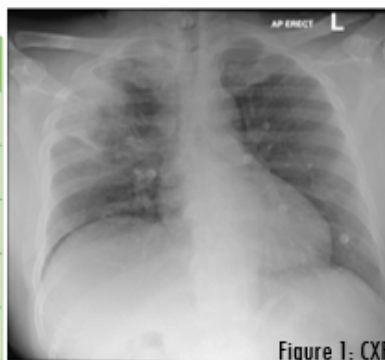


Figure 1: CXR

PATIENT TIMELINE

DAY 1 A&E

- CT head- nil acute.
- Stroke: Dysarthria with confusion + no other focal neurology. Not stroke, ?metabolic. MRI Brain advised.

INITIAL IMPRESSION
RUL CAP with hyponatraemia & AKI- ?Legionella, ?pre-renal AKI, ?cerebellar

DAY 2 AMU

Table 2: Day 2 Bloods

Blood Test	Result
Creatinine	541 (371)
CK	35,573

Figure 2: CT KUB- Bilateral perinephric fat stranding R>L.

- Legionella urine Ag +ve. Rising creatinine (table 2), urine dip- blood & protein 3+, CT KUB- no obstructive uropathy (figure 2).
- 6L IV fluid administered so far.
- Micro: ?AKI doesn't fit entirely? Stop clarithromycin, start levofloxacin.
- Renal: AKI stage 3 + oliguria. Renal screen advised.

DIAGNOSTIC REASONING
1) Rhabdomyolysis- ?long lie post unwitnessed fall
2) Legionella pneumonia with ?sepsis-driven hypovolaemia

DAY 5 ITU

- 3x +ve Legionella urine Ag samples (days 1-3). Creatinine peaks at 870, renal screen (ANA/ANCA/GBM/dsDNA/C3+C4/PLA2) -ve.
- Renal: Anuric on CVVH. CT KUB suggests inflammation (figure 2).

DIAGNOSTIC REASONING
Probable Legionella-related rhabdomyolysis

DAY 11 ITU

- MRI Brain- No evidence of infarct/bleed (figure 3).
- Neuro: Dysarthria not aphasia, no focal neurology or evidence for encephalitis.
- Case reports of Legionella pneumonia with dysarthria², however they had associated corpus callosum splenium lesions on MRI brain and dysarthria was accompanied by ataxia.

DIAGNOSTIC REASONING
Dysarthria ?metabolic cause, although disproportional

DAY 28

- Creatinine falls to 234.
- Renal + SALT + Neuro OP appointments.
- Latest creatinine 143.

Figure 3: MRI Brain- No lesion in corpus callosum splenium.

DISCUSSION

Key diagnostic challenges:

- Dysarthria triggered stroke pathway activation → risking delay in antimicrobial therapy
- Severe rhabdomyolysis could have been misattributed to long lie → risking delay in antimicrobial therapy

Extrapulmonary features may precede or dominate in Legionella pneumonia; minimal respiratory support was required, and neurological + renal complications were the main drivers of admission and escalation.

Over-reliance on hyponatraemia, a common extrapulmonary manifestation of Legionella → risks missing cases where other systemic features predominate.

Severe AKI secondary to rhabdomyolysis is a recognised but under-appreciated manifestation³, likely mediated by endotoxin myotoxic effects³.

Clinicians should look beyond hyponatraemia and consider Legionella in CAP with disproportionate renal impairment, rhabdomyolysis, and/or unexplained neurological features such as dysarthria.

Macrolides and fluoroquinolones are the antibiotics of choice for Legionella pneumonia; beta-lactam monotherapy is ineffective. Early recognition enables targeted antimicrobial therapy and improves outcomes.

CONCLUSION

- Clinicians on the acute medical take should consider a single unifying diagnosis in patients with multisystem complications.
- This approach is crucial in Legionella pneumonia and broadly applicable to other complex acute presentations.

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Thank you to the patient for permission to present his case.

Thank you to the renal and neurology teams for their specialist input.

Non-Hepatic Encephalopathy following Gastric Bypass Surgery

Yuuki Yanagisawa, Julia Bylinska, Sarah-Jane Harris, Irina Grecu

Background

- **The urea cycle** converts toxic ammonia into urea. It requires specific amino acids and micronutrients for its enzymes to function.
- **Amino acid and micronutrient deficiencies** can lead to unmasking of previously silent enzyme deficiencies of the urea cycle, such as Ornithine transcarbamylase (OTC), an X-linked disorder¹.
- **Gastric bypass surgery** causes significant catabolic stress, which can lead to hyperammonaemia via several mechanisms, including micronutrient deficiencies which can reveal OTC deficiency².
- In recent years gastric bypass surgery has been associated with states of **non-hepatic encephalopathy (NHE)**, in the absence of liver disease³.

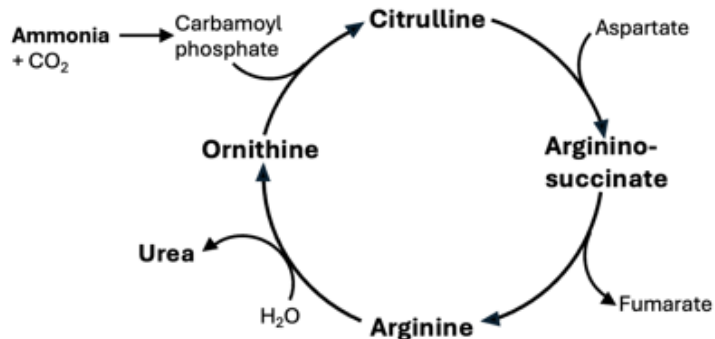


Figure 1. The Urea Cycle.

Case presentation

- **34F** with a background of disordered eating. She underwent **Roux-en-Y gastric bypass surgery one year ago** for bariatric management and then was lost to follow up.
- **Significant weight loss** from **127kg to 57kg** (55% total body weight) over the next 9 months.
- 3-month history of confusion, nausea and vomiting, generalised abdominal pain and loose stools.
- On examination: Disorientated, asterixis, flattened affect, acrodermatitis enteropathica present.

Work up

INFECTION: Septic screen negative.

IMAGING: CT Head: Unremarkable. CT Abdo Pelvis: Normal liver and spleen, no intrabdominal shunts.

LIVER screen: Albumin: 16g/L (35-50g/L), Bilirubin: 57µmol/L (0-20 µmol/L), ALT: 130 units/L (0-34 units/L), ALP: 186 units/L (30-130 units/L), Ammonia: 207µmol/L (<40µmol/L). **Non-invasive liver screen and liver fibroscan (5.5KPa) unremarkable.**

MICRONUTRIENT DEFICIENCIES (µmol/L)
↓ Zinc 4.7 (12-25) ↓ Selenium 0.23 (1-3.35)
↓ Vitamin A 0.32 (1-3.35). ↓ Vitamin E 5.22 (10-42)

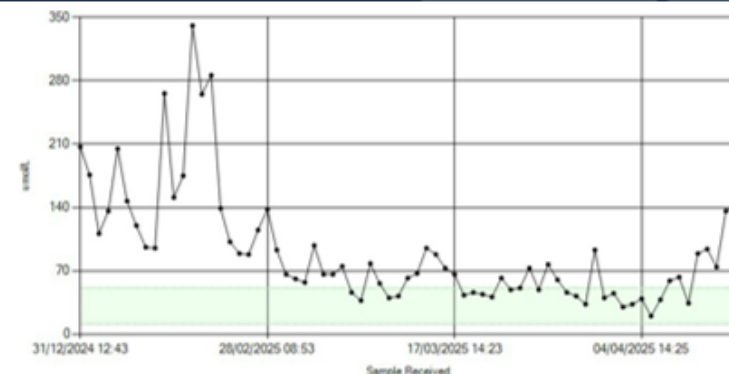


Figure 2. Serum Ammonia concentration throughout admission

Management and outcome

- **Micronutrient replacement** with slow introduction of feeding. **Lactulose, rifaximin and L-ornithine-L-aspartate were commenced.**
- Encephalopathy progressed to a life-threatening coma, requiring **ITU admission for intubation and haemofiltration**. **Nitrogen scavengers** were started. The patient continued to deteriorate. The decision was made with her family for palliation. She sadly passed away.

Learning points

- Gastric bypass can trigger NHE via several mechanisms: **Micronutrient deficiencies** can unmask silent disorders of the urea cycle. **Ammonia production is upregulated from massive proteolysis and changes in gut microflora** increasing urease-producing bacteria.
- NHE is a **life-threatening condition**, requiring prompt recognition and management.

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Closing the POCUS Training Gap:

A Rotation-Embedded *Ultrasound Training Programme* Supporting Safer Clinical Decision-Making

Kamya Gandhi¹, Scarlett Gunn¹, Charlie Hall^{1,2}

BACKGROUND:

- Point-of-Care Ultrasound (POCUS) enables **rapid bedside assessment**, improving diagnostic accuracy and clinical decision-making.¹⁻³
- However, training for UK junior clinicians **remains inconsistent**, due to limitations in faculty, equipment, and time.⁴⁻⁵
- Ultrasound is not GMC-mandated as an undergraduate practical skill, meaning exposure and teaching often depend on local initiatives
- Short, focused teaching models have shown to **rapidly improve** basic ultrasound skills in novice clinicians.⁶

Aim: Develop and evaluate a rotation-embedded POCUS teaching programme to improve *early-career clinician confidence and safe practice*

METHODS:

Participants & Facilitators

Participants: Foundation, trainee doctors and physician associates at a tertiary hospital

Facilitators: Two medical students co-delivering alongside senior registrar

Structured Four-Session POCUS Curriculum

1. Introduction to ultrasound
2. Vascular access and fluid status
3. Renal and bladder ultrasound
4. Lung ultrasound

Teaching Format

- Live demonstrations
- Supervised bedside scanning
- QR-linked pocket guides with escalation criteria

Evaluation

- Pre- and post-session questionnaires
- Self-reported understanding (1-5 scale)
- Confidence in clinical escalation

RESULTS:

Median confidence (1-5 Likert Scale)

2 → 4

Pre-session
After 4 teaching sessions. Pilot cohort n=6

95%

% achieved high post-session understanding (≥4/5)

4/5

Median escalation confidence across all participants post session

Improvement in Median Self-Reported Confidence Following POCUS Teaching

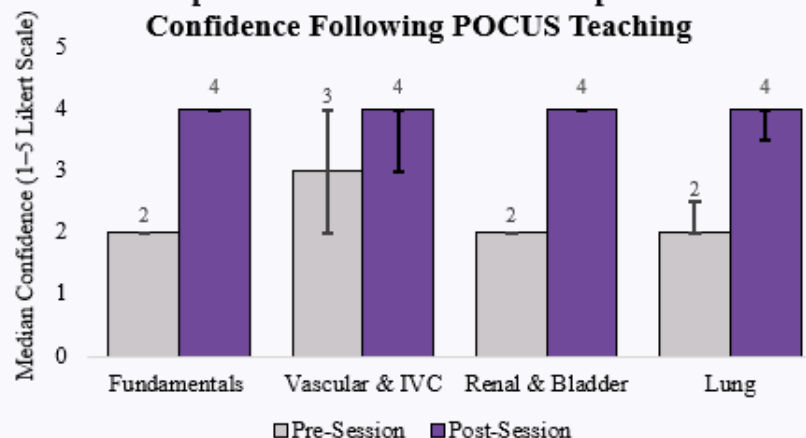


Figure 1. Median self-reported confidence improved across all sessions following POCUS programme. Error bars represent interquartile range (IQR), where not visible, variability was minimal.

Participant Satisfaction Ratings:

Domain	Median Rating (1-5)
Clinical relevance	★★★★★
Likelihood of applying learning clinically	★★★★★
Escalation clarity	★★★★★
Session usefulness	★★★★★
Pocket guide usefulness	★★★★★

All domains rated 5/5 by participants (n=6)

Participant Feedback:

- Hands-on experience and red flag identification rated most valuable
- QR-linked pocket guides supported retention and clinical application

100%
of participants expressed interest in attending further teaching

“Fantastic, useful, practical”

Educational Impact:

- Feasible, rotation-embedded model, highly valued by clinicians
- Student led, enabling scalable and nationally replicable teaching
- Low cost with minimal faculty, overcoming barriers to teaching
- Improves understanding across multiple ultrasound applications
- Enhances patient safety behaviours

CONCLUSION:

A student led, rotation-embedded model is low-cost, scalable and effective for rapidly improving early-career clinician ultrasound education and supporting safer clinician decision making.

Future Scope:



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The Newly Qualified Doctor's Perception of Preparedness for Clinical Practice

A Qualitative Study

Authors

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- The University of Warwick.

Acknowledgements

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01

Introduction

- Feeling unprepared for clinical practice is common in newly qualified doctors in the UK (1 - 5).
 - 35% preparedness level in 1999
 - 70% prepared in 2012
- Medical education reforms, outlined in GMC's "Tomorrow's Doctors" have been ongoing since 2009, yet there had been no comprehensive assessment of preparedness since 2014 (5, 6).

- The learner's perspective of preparedness is poorly understood and often contradicts the consensus of those in supervisory roles (7, 8).

Research question:
What are the themes surrounding the perception of preparedness

02

Objectives

- To uncover and explore the themes surrounding the perception of preparedness during the transition between medical school and FY1.
- To identify areas of interest that may improve preparedness in this cohort if appropriately addressed.

03

Methodology

- Single-centre qualitative interview study performed at UHBW.
- Ethics approval provided by the University of Warwick and UHBW.
- Study undertaken in the constructivist paradigm.

Recruitment and sampling

FY2 doctors at UHBW
Criterion sampling
Sample size of 8
Voluntary participation



Data collection

Informed consent required
Qualitative interviews ~45-90 minutes
Mixed face-to-face and virtual formats
Video and audio recordings
Electronic transcription

05

Results

The study yielded 8 themes:



07

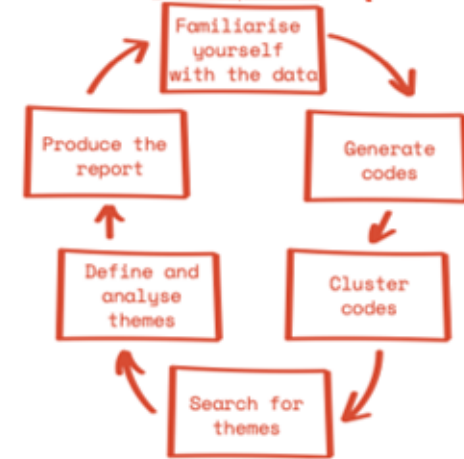
Conclusion

This study emphasises the importance of preparedness during the transition from medical school to FY1, and explores themes around the topic, while highlighting a number of potential barriers. Providing high-fidelity workplace exposure for undergraduates and promoting psychologically safe environments for newly qualified doctors are key factors in addressing preparedness barriers.

04

Analysis

- Reflexive thematic analysis (9).
- 102 codes generated
- Themes generated from clusters of codes.
- Iterative process.



06

Discussion Points

The Medical School Experience

- **Training Structure:** Variable approaches and structures.
- **Placement Quality:** Inconsistent and non-compliant with GMC guidance.
- **Independent Learning:** Often formed the bulk of all learning with varying success, in the face of unstructured placements and absent supervision.
- **Clinical Realism:** Training experiences failed to mirror real practice and was often not clinically relevant.

The FY1 Experience

- **Resilience:** Was eroded by the fear, anxiety, and stress of the FY1 experience.
- **Psychological Safety:** Often absent, and inhibited trainees from seeking support or exploring their knowledge.
- **Imposterism:** There was a tendency to attribute success to external factors. An inability to acknowledge success inhibits reflection and stops individuals seeking future development opportunities that they would be entitled to pursue.

Post-Infectious Transverse Myelitis or Idiopathic Event?

Diagnostic Dilemma following Varicella Exposure Confounded by Grover's Disease

Case summary

- Woman in mid-60s
- Rash 2 weeks post varicella exposure
- Rash evolved atypically → ?scabies → ?eczema (primary care)
- Neurology at 6 weeks after rash onset
- Acute transverse myelitis (TM) → paraparesis, L1 level, sphincter dysfunction
- Persistent/new lesions during admission
- Biopsy on day 20 → Grover's disease

Investigations

- MRI: T12-L1 cord lesion consistent with TM
- CSF: pleocytosis (54cells/mm³), ↑ protein (0.87g/L)
- VZV PCR (CSF & skin): negative (expected in delayed phase)
- Intrathecal VZV IgG testing not available locally
- Serum VZV IgG positive, serum IgM unavailable

Treatment

- IV aciclovir (initiated due to initial diagnostic uncertainty and ongoing skin lesions)
- IV methylprednisolone
- Partial neurological recovery

Exposure → 2wks → rash → 6 wks → TM/admission → Biopsy → Grover's

Key question: Is this **VZV-triggered** TM or an **idiopathic event**?

Supports VZV association

- Exposure + incubation period
- Neurotropism of VZV
- Typical post-infectious latency
- Exclusion of alternative aetiologies

Limits diagnostic certainty

- No CSF VZV IgG
- Negative PCR (expected but ↓ attribution)
- Atypical skin rash evolution
- Grover's disease confirmed (confounding attribution)
- Serum VZV IgG non-specific (cannot distinguish prior infection, vaccination, or recent exposure)

Key message

- This case highlights the diagnostic complexity of post-infectious TM when dermatological evolution confounds interpretation
- Absence of intrathecal antibody confirmation precludes definitive proof
- Temporal association alone ≠ causation
- Integration of chronology, vaccination history, biological plausibility, laboratory findings, clinical evolution, and exclusion of mimics is essential for diagnostic certainty and causal attribution

Image: MRI spine: T12-L1 cord lesions consistent with transverse myelitis



Vaccination note:

- No clear history of prior varicella infection
- Received recombinant zoster vaccine (Shingrix®) 6 and 12 months before the varicella exposure
- Shingrix® is indicated for herpes zoster, and not indicated for prevention of primary varicella infection
- In adults without evidence of immunity (unknown history of chickenpox or seronegative for VZV antibodies) the recommended approach is to administer varicella vaccine first.
- Shingrix® boosts immunity to latent VZV in individuals with prior infection, it does not protect against primary varicella
- Prior Shingrix® immunisation may have theoretically modified clinical expression, but this remains speculative

Impact of Respiratory Virtual Ward Models on Admission Outcomes in COPD and Bronchiectasis

A Retrospective Cohort Study in a UK District General Hospital

Walsall Healthcare NHS Trust | Respiratory Medicine

Medicine 2026 – RCP Annual Conference

Background

Virtual Wards (VW) are designed to facilitate early hospital discharge and alleviate inpatient bed pressures while maintaining continuity of clinical care. They enable remote monitoring and management of patients in their homes, potentially reducing healthcare costs and improving patient satisfaction.

Methods

Study Design

Retrospective cohort analysis at Walsall Manor Hospital

Study Period

January – June 2024

Patient Population

Patients discharged with primary diagnosis of COPD or Bronchiectasis

VW: 107

Non-VW: 475

Total: 582 patients

Author

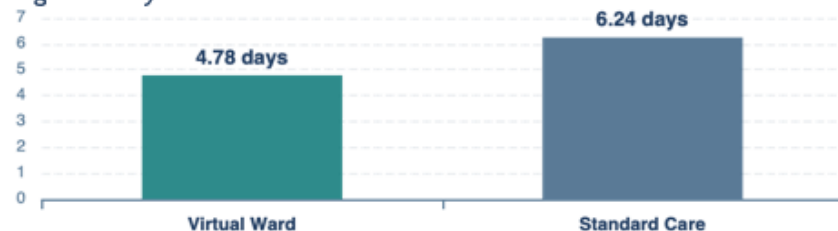
Khaled Mohamed

Results

COPD Subgroup Analysis

Primary analysis focused on COPD (VW n=104; Non-VW n=443). Bronchiectasis subgroup too small for robust comparison (VW n=3).

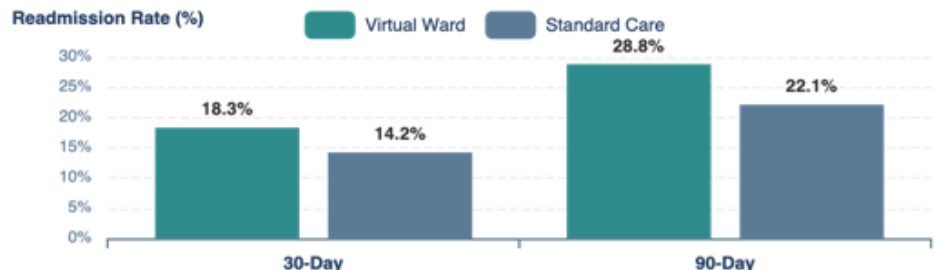
Average Length of Stay



Key Finding

VW group showed a **numerical reduction** in AV-LOS (4.78 days vs 6.24 days), though this did not reach statistical significance ($p=0.122$).

Readmission Rates



Observation: VW cohort demonstrated higher readmission rates across both 30-day and 90-day timeframes compared to standard care.

90-Day Mortality

VW Group
11.5%
per 100 patients

Non-VW Group
14.7%
per 100 patients

Mortality is higher in non-VW though not significant

Conclusions

- Length of Stay:** Virtual ward models show potential for reducing hospital stay duration, though larger studies needed for statistical confirmation.
- Readmissions:** Higher readmission rates in VW group highlight need for enhanced post-discharge support and monitoring protocols.
- Clinical Implications:** VW models require careful patient selection and robust community support to optimize outcomes.
- Future Research:** Prospective studies with larger cohorts needed to validate findings and identify optimal patient selection criteria.

Radiological Risk Stratification and Performance Status Documentation in a Fast-Track Lung Cancer Clinic: A Service Evaluation of Diagnostic Prediction and Treatment Intent

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Background

Fast-track lung cancer clinics aim to accelerate diagnosis and treatment, yet predicting malignancy at first presentation remains challenging, particularly in older adults with multimorbidity. Early clinical suspicion is often driven by radiological features, and investigations such as PET-CT may act as surrogate markers of pre-existing clinical concern rather than independent predictors of malignancy. Alongside imaging, WHO performance status (PS) guides treatment decisions, but documentation at initial assessment is often inconsistent and may not adequately reflect frailty in ageing population. This service evaluation examined predictors of cancer diagnosis within a fast-track pathway, assessed PS documentation quality, and explored the relationship between MDT-recorded PS and treatment intent.

Methods

We conducted a retrospective review of consecutive patients attending a fast-track lung cancer clinic between November 2024 and January 2025 at a district general hospital. Data collected included age, sex, smoking history, documented weight loss, comorbidity burden, CT findings, PET-CT utilisation and PS recording.

Radiological suspicion was stratified by lesion type. Brock probability was calculated for discrete pulmonary nodules. Mass-like lesions with radiological features typical of malignancy were categorised as high suspicion. Ground-glass or indeterminate lesions were interpreted in the context of clinical presentation and risk factors, reflecting routine MDT risk assessment practice.

PS documentation was assessed at first clinic review and at MDT discussion. Associations with cancer diagnosis were analysed using chi-square testing and multivariable logistic regression. The relationship between MDT-recorded PS and treatment intent was also examined.

Results

A total of 129 patients were included (mean age 70.2 years; 58% male), with 75.2% aged ≥ 65 years. Cancer was diagnosed in 46 patients (35.7%), including 36 primary lung cancers. On multivariable analysis, high radiological suspicion—defined by elevated Brock probability or mass-like malignant features—was independently associated with cancer diagnosis (OR 4.78, $p < 0.001$). PET-CT utilisation was also independently predictive (OR 5.58, $p = 0.006$), likely reflecting higher pre-test clinical concern. Overall model accuracy was 72.1%. Clinical variables, including weight loss and comorbidity burden, provided limited additional independent predictive value.

Documentation quality was variable. Weight loss was unrecorded in 37.2% of cases. PS documentation at first clinic review was incomplete in 40.3% and non-quantifiable in further 10.1%. Among patients aged ≥ 65 years, 52.6% had borderline or missing PS documentation at initial assessment.

In contrast, MDT-recorded PS was complete and significantly associated with treatment intent ($\chi^2 = 8.83$, $p = 0.012$). Curative-intent treatment was offered to 16/23 patients with PS 0–1 and 7/10 with PS 2, while all patients with PS ≥ 3 received non-curative management.

Conclusion

Radiological risk stratification was the strongest predictor of cancer diagnosis within this fast-track pathway, while clinical variables added limited independent value. However, PS documentation at first clinic review was frequently incomplete, particularly in older adults, limiting its usefulness for early decision-making. In contrast, MDT-recorded PS was consistently documented and strongly associated with treatment intent.

These findings highlight a structural gap between initial clinic assessment and MDT evaluation. Standardised PS documentation and incorporation of structured frailty assessment at first presentation may strengthen early risk stratification, improve decision consistency, and enhance patient safety within fast-track lung cancer services.

Deprescribing in Frailty (DiF) Project: Do Screening Tools Align with Clinical Judgement on Older Persons' Wards?

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Introduction

- Deprescribing in older people living with frailty is an evidence-based, structured, patient-centred process aimed at stopping medications where potential harms outweigh benefits.
- Evidence suggests deprescribing is safe and feasible, reduces potentially inappropriate medications (PIMs) without increasing adverse outcomes, and leads to modest but clinically meaningful benefits.
- Central to deprescribing is shared decision-making, ensuring decisions align with individual goals, symptom burden, life expectancy, and patient preferences.
- DiF project aimed to proactively identify PIMs using validated screening tools and evaluate whether recommendations align with real-world clinical judgement, while identifying such tools add value in discharge practice on older persons' wards.

Methods

- Retrospective snapshot review of medications from **20 randomly selected discharge summaries** (November/2025) was conducted using **STOPP-START3** and **STOPPFRAIL2** criteria.

- Clinicians were invited to indicate whether they **agreed or disagreed** with medications identified by screening tools for potential deprescribing, and to provide **reasons for any disagreement**.
- **Free-text responses** were analysed using thematic analysis.

Results

Demographics - 20 patients were included.

Mean age – 84 years
(range 74-95)

9 males
11 females

Mean Clinical Frailty
Score – 6 (range 5-7)

Mean co-morbidities
– 14.6 (range 8-20)

Out of 20 patients, **11 patients met all criteria for short life expectancy** as per STOPPFRAIL-2



STOPP-START3 identified **41 PIMs**, most commonly proton-pump-inhibitors (PPIs), alpha-blockers, opioids and antidepressants.

STOPPFRAIL2 (applied to 11 patients deemed to have short life expectancy) identified **22 PIMs** including calcium/vitamin D, statins and PPIs.

50 PIMs were reviewed by **5** treating clinicians (**35 STOPP-START3**; **15 STOPPFRAIL2**).

Responses to screening tools	Agreed	Disagreed	Undecided
STOPP-START3	16/35 (45.7%)	16/35 (45.7%)	3/35 (8.6%)
STOPPFRAIL2	9/15 (60%)	6/15 (40%)	0 (0%)

Four drivers of discordance

- Acute clinical context superseding tools recommendations
- Risk of destabilisation
- Patient/family preferences
- Uncertain prognosis

Medications with high concordance

- PPIs without indication/duplicate drug classes
- Benzodiazepines & opioids in high falls-risk
- Prolonged vitamins

Medication with high discordance

- Opioids
- Antidepressants
- Alpha-blockers
- Antiplatelets/Anticoagulants,
- Antidiabetics
- Statins

Undecided medications

- Long term opioids for further discussion due to short admission
- Vasodilator post-ACS required specialist input

Conclusion

- Screening tools identified a substantial burden of potentially inappropriate medicines (PIMs).
- Clinicians agreed that about **half of flagged medications** were suitable for deprescribing, though many of them were not addressed on discharge.
- This demonstrates that screening tools meaningfully support **proactive identification** of deprescribing opportunities.
- However, nearly half of recommendations required **individualised, goal-oriented** decision-making and did not align with tool outputs.
- Deprescribing in frailty is therefore not purely algorithmic; it requires **contextual clinical judgement and shared decision-making** to balance life expectancy, functional status, symptom control and patient preferences.
- Routine **integration** of structured deprescribing prompts before discharge, supported by pharmacist input and patient-centred conversations, may enhance safe, individualised medicines optimisation while preserving the vital role of clinical judgement.

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Background

Ramadan fasting may alter glycaemia in people with type 2 diabetes because of changes in meal timing, sleep, and medication schedules. Continuous glucose monitoring (CGM) provides detailed assessment of glycaemic exposure and variability beyond HbA1c, but evidence during Ramadan remains heterogeneous.

AIM

To assess glycaemic exposure and variability during Ramadan fasting in adults with type 2 diabetes using:

* A prospective observational CGM study

* A meta-analysis of observational CGM studies

Methods

Prospective cohort

Adults with type 2 diabetes who completed Ramadan fasting
 ↓
 CGM during Ramadan
 ↓
 Repeat CGM 4–8 weeks post-Ramadan
 ↓
 Outcomes: mean interstitial glucose, estimated HbA1c, TIR, TAR, TBR, coefficient of variation, body weight

Meta-analysis

Observational CGM studies identified
 ↓
 Pooled with the present study
 ↓
 Outcomes: TIR, TAR, TBR, coefficient of variation
 ↓
 Pooled mean differences with 95% confidence intervals

Prospective cohort findings

Mean glucose improved post-Ramadan

147 ± 25 mg/dL during Ramadan
 → 129 ± 27.8 mg/dL post-Ramadan
 p = 0.01

Estimated HbA1c improved post-Ramadan

6.8 ± 0.8% during Ramadan
 → 6.1 ± 0.9% post-Ramadan
 p = 0.01

Body weight decreased during Ramadan

Mean change: -2.2 kg
 p = 0.02

Clinical safety and CGM profile

No severe hypoglycaemia
 No dehydration
 No diabetic ketoacidosis
 No hyperosmolar events
 TIR, TAR, TBR and coefficient of variation remained broadly stable in this small cohort

In this cohort, Ramadan fasting was not associated with major acute complications and showed stable variability with improved mean glucose post-Ramadan.

Meta-analysis findings

4 studies, n = 79:

- Hyperglycaemia exposure
 ↑ TAR (MD +7.10%)
- Hypoglycaemia exposure
 ↓ TBR (MD -1.18%)
- Variability
 ↔ CV unchanged MD +0.2%; I² = 15%
- TIR: directional decrease (MD -5.29%)

➤ Overall: more hyperglycaemia exposure, less hypoglycaemia exposure, and stable variability during Ramadan.

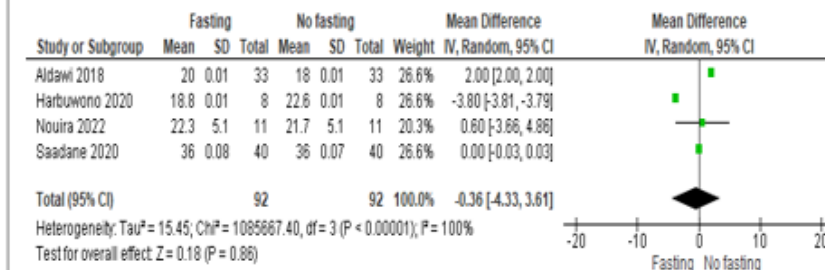


Figure 1. Forest plot showing pooled coefficient of variation during Ramadan fasting versus post-Ramadan

Ethics and permissions:

Appropriate permissions and ethical procedures were followed for collection, analysis and presentation of study data. All data were handled in accordance with local ethical and institutional requirements.

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Pharmacological and Device therapy in Elderly Patients with HFrEF and Proper documentation of rationale for not giving core foundational HFrEF therapies



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Introduction

Heart failure (HF) is a significant cause of mortality, long-term disability and chronic poor health. It is the number one cause of hospitalisation over the age of 65. Trust and NICE guidelines facilitate initiation and titration of the 4 HFrEF pillars as quickly and as safely as possible. Drug sequencing order is tailored according to the patient's blood pressure, heart rate, fluid status and renal function. If temporarily withheld, restart as soon as possible for prognostic benefit.

Aim

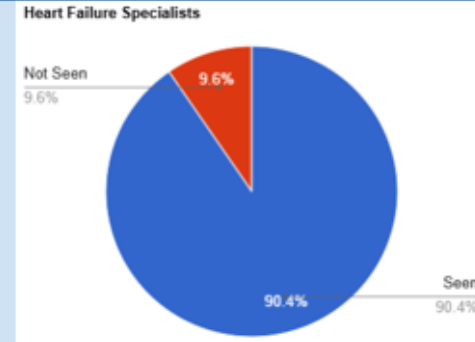
- To establish robust reasons i.e., hypotension, renal dysfunction, bradycardia for not prescribing HFrEF medications, and whether this was clearly documented to ensure patient safety, continuity of care, and to avoid inappropriate re-initiation of medication
- This project also highlights whether device therapy has been considered where appropriate

Materials and Methods

A Four-months retrospective study of patients aged 75 or above diagnosed with HFrEF referred to heart failure specialists in four months from 1st of June to 30th of September 2024. Electronic clinical letters were reviewed, and data were collected.

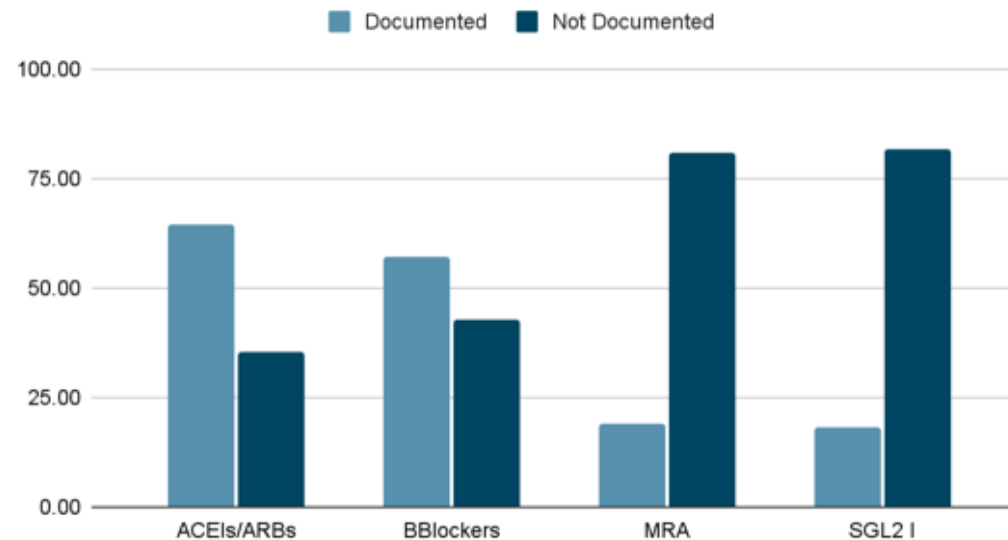
Results

52 patients were referred to HF specialists. 46% patients with HFrEF received quadruple therapy. Among 52 patients, 47 were seen by heart failure specialists, with 5 without specialists' consultation. 69% were either on ACEI/ARBs/Sacubitril/Valsartan. 11% were not clearly documented. 86.5% were on BBLOCKER and 7 were without, where only 4 patients had reasons specified for not continuing BBLOCKER.



Almost 81% for MRA and SGL2 Inhibitors were deprived of documentation. 65% were diuresed to euvolemia.

Rationales



Device Therapy

Among 52 patients, 21% patients underwent device implantation. 53.8% had no need for device therapy. 9.6% had an indication for device therapy but had no related documentation.

Conclusion

This study highlights several key findings in management and documentation practices. While a majority of patients received guideline-directed medical therapies, significant gaps were identified in the documentation of reasons for medication omission or discontinuation. Most patients were successfully diuresed to euvolemia, and a notable portion underwent device implantation after medical therapy optimisation. The data highlights the importance of thorough documentation to better understand treatment decisions and patient outcomes in heart failure management.

References

1. *Diagnosis and Management of Heart Failure* | Royal Berkshire Hospital NHS Foundation Trust Guidelines
2. *Recommendations* | *Chronic heart failure in adults: diagnosis and management* | *Guidance* | NICE

Consent: Appropriate permissions have been

World kidney day celebrations: 15-year analysis of health check events

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Introduction

Chronic kidney disease (CKD) is defined as the long term progressive decline in glomerular filtration rate. (1)
This is a major global public health problem and is frequently unrecognised until advanced stages (1).

Common modifiable risk factors of CKD include (2):

- Diabetes
- Hypertension
- Hyperlipidaemia
- Proteinuria
- Obesity

Early detection of and correction of these factors can enable prompt diagnosis, management and prevention of CKD progression (3-5)

World Kidney Day

This is a global celebration on the second Thursday of March each year since 2006. (6)
It aims to raise awareness of kidney disease and promote its early detection and treatment. (6)

Health Check up events

Liverpool University Hospitals Nephrology Department have delivered community-based health check events during World Kidney Day.
Participants: Hospital staff, visitors, and the wider public
Locations: Hospital drop-in clinics and outreach sessions in public areas railway stations and shopping centres.

Objective:

- To evaluate the role of community-based screening in identifying previously unrecognised renal and cardiovascular risk.
- To identify the prevalence of CKD risk factors detected during World Kidney Day health-check events in Merseyside and compare them nationally.

Methods

Data from community health screening events conducted on World Kidney Day across Merseyside between 2009 and 2024 was analysed for bloods pressure, blood glucose, cholesterol and urinalysis, with the aim of identifying CKD risk factors at an early stage. Signed consent was obtained from all participants to record their data.

Results

Demographics

- A total of 3,490 individuals had available data from at least 1 screening test
- The mean age was 62.9 years, and 67.3% were women.

Hypertension

- Hypertension was identified in 40.2% of participants
- 1,306 attendees (43.9%) met criteria for BP $\geq 130/80$ mmHg.

Blood glucose

- Raised capillary blood glucose (>7.0 mmol/L) was observed in 8.7% of attendees
- 1.7% having a value >11 (range 3.0–13.8 mmol/L). The median value was 5.3mmol/L

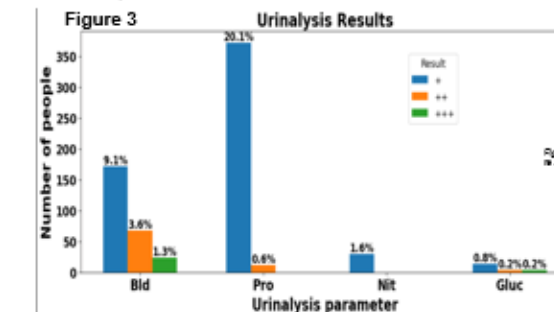
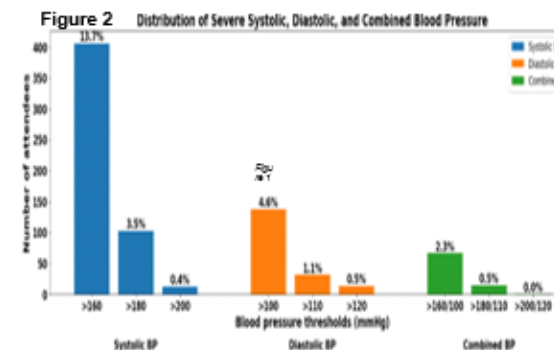
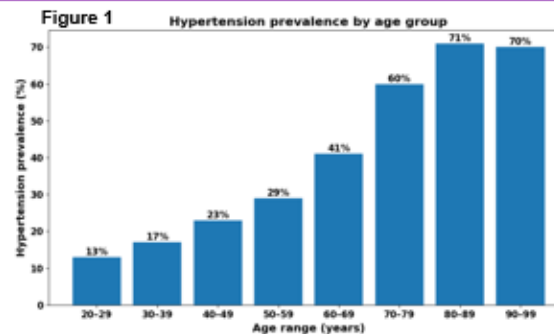
Urinalysis

Of the mid stream urine samples analysed:

- Proteinuria +ve: 462 (20.1%)
- Haematuria +ve: 315 (14%)

Cholesterol

Total cholesterol levels ranged from 1.0–10.0 mmol/L for the 1320 participants, with a median of 5.2 mmol/L.



Conclusion

World Kidney Day health-check events in Merseyside identified a high burden of previously undiagnosed risk factors.

- Hypertension which demonstrated a higher average (40.2%) in our Merseyside sample when compared to the national average (33.2%), reflecting the wider North-West pattern of increased cardiovascular and metabolic risk (7,8)
- Random capillary blood glucose screening identified a substantial proportion of attendees with hyperglycaemia, suggesting possible undiagnosed diabetes, pre-diabetes or uncontrolled
- Urinalysis independently revealed proteinuria and haematuria in others. This highlights early renal and cardiovascular risk within the community, especially when coupled with hypertension

Avenues for further research include

- Explore the primary care follow-up and prognosis of those with abnormal results
- Conduct similar interventions in other UK regions to compare incidents of abnormal findings

Opportunistic, one-stop community screening can support early identification of at-risk individuals and may help prevent short- and long-term renal and cardiovascular complications through timely intervention and referral.

References

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- 8- Department of Health and Social Care. *Health trends and variation in England, 2025: a Chief Medical Officer report*. London: GOV.UK; 2025 [cited 2025 Apr 9]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/1071566/health_trends_and_variation_in_england_2025_a_chief_medical_officer_report.pdf

Sex-Specific Distribution of Traditional and Non-Traditional Risk Factors among Young Adults with Acute Coronary Syndrome: A South Indian Hospital-Based Study



Authors: Mano Harshadan K., D Karthikeyan, Dr. Karthikeyan S, Dr. Prem Krishna Anandan, Dr. Abinaya D | PSG Institute of Medical Sciences & Research, Coimbatore

INTRODUCTION

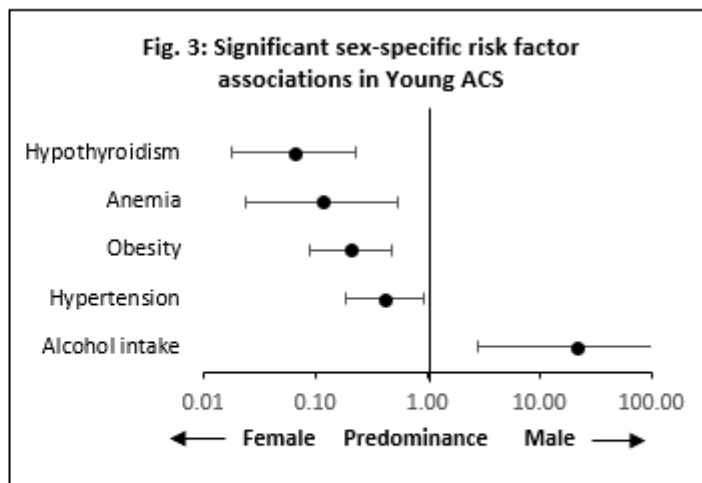
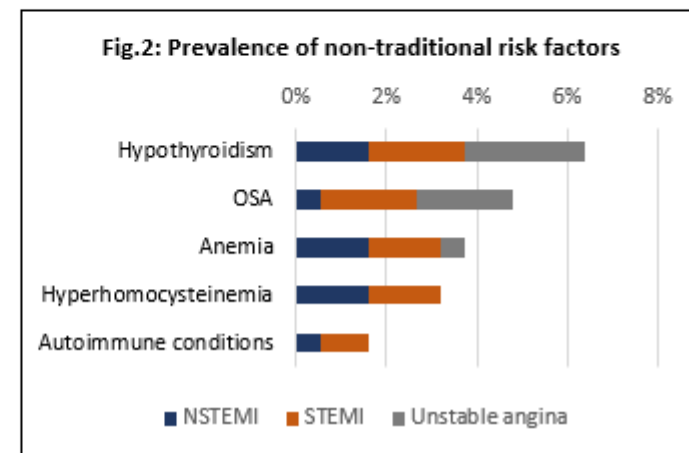
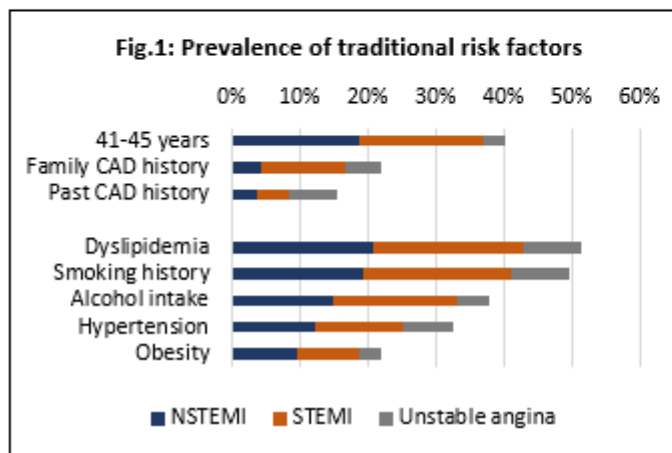
- Non-traditional risk factors - sleep apnoea, hyperhomocysteinemia, thyroid disorders & anaemia are increasingly implicated in ACS.⁽¹⁾
- Young Indian adults - develop CAD/ACS nearly a decade earlier than Western populations,⁽²⁾ but there is limited data on sex-specific risk patterns and non-traditional risk factors
- **Objectives:** To compare the distribution of traditional and non-traditional risk factors across ACS subtypes, sex, age groups, and area of residence in young adults

METHODOLOGY

- Cross-sectional study
- 187 ACS patients aged 18-45 years admitted to PSG Hospitals
- January 2022 – May 2024
- Consecutive hospital-based cases using ICD-10 coding
- Demographics, ACS subtype, traditional modifiable, non-modifiable and non-traditional risk factors
- Chi Square test; $p < 0.05$ – Statistically significant

RESULTS

- **Key findings:**
 - STEMI most common (46.5%),
 - Predominantly male (85%), urban (70%), aged 31–40 years (54.5%)
- **ACS subtype associations :**
 - NSTEMI → 41-45 yr ($p=0.015$)
 - Unstable angina → Past CAD ($p<0.001$)
 - STEMI → Family CAD history ($p=0.034$)



- **Residence area:** Smoking history ($p=0.018$) was significantly higher in urban than rural populations (OR, 2.17; 95% CI, 1.13 – 4.14).

KEY FINDINGS AND IMPLICATIONS

What's new in our study: ^(2,3)



NSTEMI predominates in 41–45 years v/s STEMI earlier reported



Females: Metabolic factors
Males: Lifestyle factors



Modifiable: prevalent but no subtype link
Non-modifiable: stronger associations



- Sex-specific risk stratification
- Include non-traditional factors
- Targeted early screening of high-risk groups
- Focused lifestyle interventions

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3. Lu Y, Li SX, Liu Y, Rodriguez F, Watson KE, Dreyer RP, et al. Sex-Specific Risk Factors Associated With First Acute Myocardial Infarction in Young Adults. *JAMA Netw Open* 2022 May 2;5(5):e229953.

INTRODUCTION

- CVST accounts for <1% of strokes and is primarily treated with systemic anticoagulation.⁽¹⁾
- Catheter-directed thrombolysis (CDT) is reserved for refractory or comatose cases due to bleeding risk and is typically avoided in intracranial haemorrhage.⁽¹⁾
- We report successful CDT in a CVST patient with SAH, achieving complete recovery within 2 weeks despite poor initial prognosis.

HISTORY AND EXAMINATION

A 29-year-old male referred with h/o



Global Headache x 2 days



Multiple vomiting episodes and unresponsiveness x 16 hours



Medical history: Alcohol use disorder x 3 years



Admission GCS: 5/15 (E2V1M2), intubated

Vitals stable, pupils reactive, B/L plantar-extensor response present

CLINICAL COURSE AND MANAGEMENT

- Pre-admission brain CT showed subarachnoid haemorrhage (SAH)

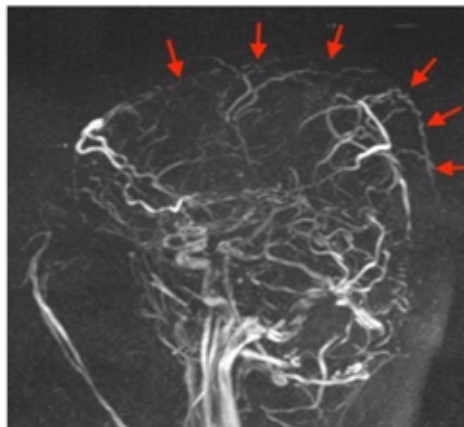


Fig.1: MRI brain with MRV: Thrombosis of superior sagittal, B/L transverse & sigmoid sinuses with multiple collaterals but **no venous infarct**

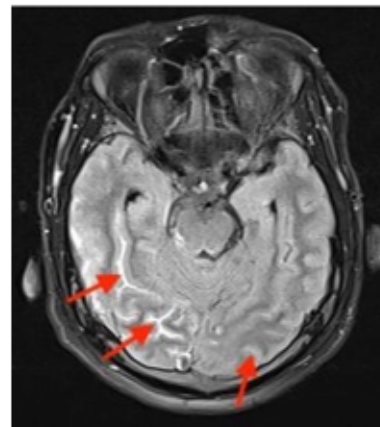


Fig.2: MRI brain: Bilateral SAH observed in fronto-parieto-temporo-occipital sulci

Final Diagnosis: Cerebral Venous Sinus Thrombosis (CVST)

- Initial treatment: **Enoxaparin** 1mg/kg s.c BD for 24 hours
- Due to extensive clot burden, irreversible neurological injury concern, CDT was considered
- Procedure performed with intra-catheter **Alteplase** infusion (20mg over 40hrs)

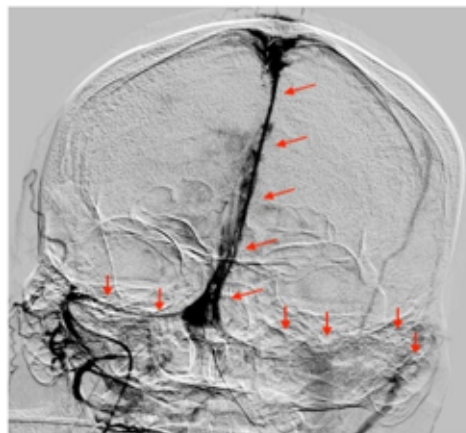


Fig.3: Thrombolysis of above-mentioned sinuses with catheter in situ

Post-procedure brain CT: Static SAH and reduced hyper-density in superior sagittal & right transverse sinuses. Enoxaparin resumed

CVST aetiology: Hyperhomocysteinemia (76.26 $\mu\text{mol/L}$), \uparrow D-dimer (2.43 mg/L FEU), normal thrombophilia markers

Day 13 - Modified Rankin Scale score 0 and discharged on Dabigatran

2 year follow up - Functionally independent (neurologically intact)

KEY LEARNING POINTS

- Neutral TO-ACT trial outcomes for CDT → No infarction: Potential underrepresented subgroup
- Prior cases showed prolonged recovery, residual deficits → Complete recovery within two weeks despite low GCS is exceptional
- Physician-led timely escalation is critical → Selected CVST with SAH may benefit from early CDT

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The impact of cardiac implantable electronic devices on delays to acute magnetic resonance imaging: a two-year service evaluation

Authors: Dr Mantaran Dosanj, Dr Ranganatha Rao

Introduction

- More than 500,000 people in the UK have cardiac implantable electronic devices (CIEDs)¹, each with a 75% lifetime chance of needing a magnetic resonance imaging (MRI) scan².
- Since 2014, European-manufactured CIEDs must be produced to be MR-conditional.
- The British Cardiovascular Society and The Royal College of Radiologists have issued a joint statement: "Patients with CIEDs should have the same access to MRI scanning in the NHS as everyone else."
- Clinicians continue to report delayed access, which can prolong hospital admission, and cause critical diagnostic delays in time-sensitive conditions, namely: stroke, spinal cord compression, cerebral abscess.

Methods

Timeframe: Two-year retrospective service evaluation (June 2023 - June 2025) at a single large Tertiary Care Centre in the UK. 1243 acute MRI scans analysed.

Population: 1) Patients with CIEDs 2) Patients without CIEDs.

Inclusion Criteria: All acute inpatient and emergency department MRI scans. (Outpatient, elective, routine or follow-up scans were excluded)

Primary outcomes measured:

- 1) 'Request → vetting time'
- 2) 'Request → scan execution time'

Statistical Analysis: Non-parametric Mann-Whitney U test.

References

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2. Kalin R and Stanton MS. Current clinical issues for MRI scanning of pacemaker and defibrillator patients. Pacing Clin Electrophysiol 2005;28:326–8.

Ethics/Consent: This service evaluation was conducted in accordance with local governance guidelines. No identifiable patient data were used.

Aims

- To determine whether patients with CIEDs experience inequitable delays in access to urgent MRI.
- To identify where delays occur in the imaging pathway.

Results

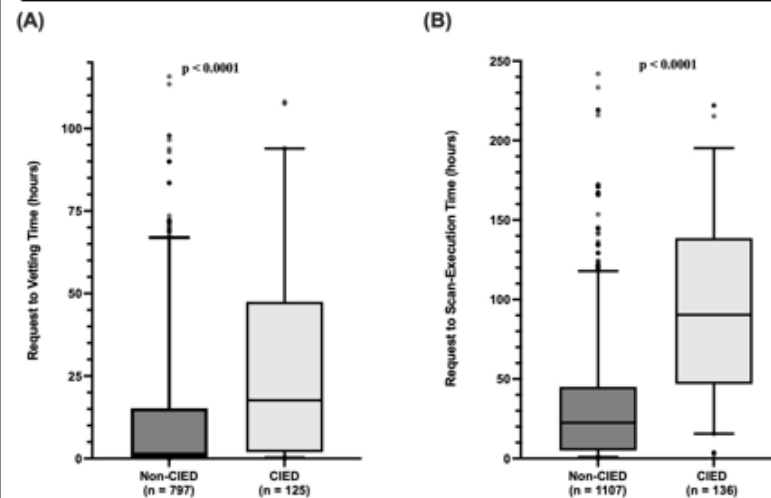


Figure 1. (A) Request to vetting time of patients without CIEDs, vs patients with CIEDs. Across all MRIs, CIED patients experienced longer vetting delays (median 17.7 vs 1.3 hours), $p < 0.0001$. **(B)** Request to scan execution time. CIED patients experienced markedly prolonged request-to-execution times (median 90.4 vs 22.5 hours), $p < 0.0001$.

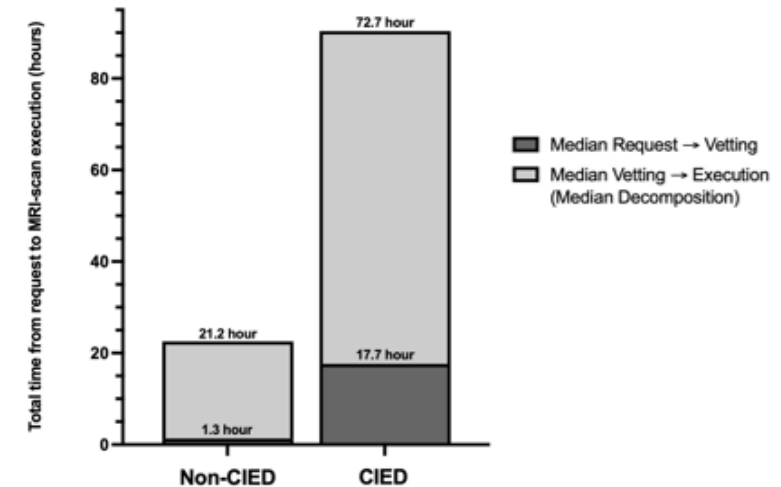


Figure 2. Demonstrates median time from request to MRI execution, with decomposition into vetting and post-vetting intervals.

Key Takeaways

- 1) Patients with CIEDs experience significant delays in access to acute MRI.
- 2) Median time to scan execution **post-vetting** was **more than 3 times longer** in CIED patients.
- 3) Delays predominantly occur **post-vetting**, suggesting **system-level inefficiencies** rather than safety-related delays alone.

- **Recommendations:** Increased capacity for cardiac physiology access, standardised post-vetting pathways, an electronic indicator on the electronic record timestamping when vetting is completed by cardiac physiology.

Cardiometabolic Benefits and Risks of Combined SGLT-2 Inhibitor and GLP-1 Receptor Agonist Therapy in Type 2 Diabetes: A Systematic Review

Dalia Tantawy, Maram Rabih Musa Rabih, Razan Seifeldin Ibrahim Mohamed, Malaz Omer Abdelrahman Ali, Rayan Saad Aldeen, Mohammed Saad Aldeen, Ali Omer Ahmed Abdelkarim, Tawasul Mohamedzain

Background

Type 2 diabetes affects over 500 million people worldwide and is a major cause of cardiovascular disease. Management now focuses on cardio-renal-metabolic risk reduction, not glucose control alone. SGLT2 inhibitors and GLP-1 receptor agonists each reduce cardiovascular and renal events, and their complementary mechanisms may offer added benefit in combination. However, evidence for combined cardiovascular benefit and safety remains heterogeneous.

Aim

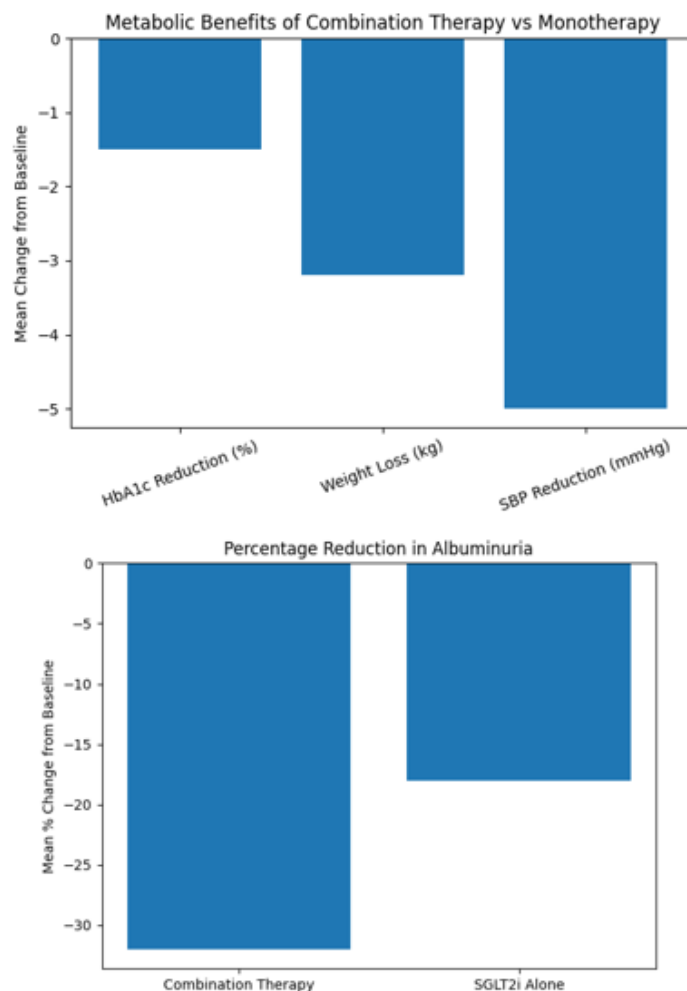
To evaluate the cardiovascular, metabolic, renal and safety outcomes of combined SGLT2i and GLP-1 RA therapy in adults with T2DM.

Methods

PRISMA 2020 systematic review of RCTs from PubMed, Embase, Scopus, and Web of Science (January 2020 to October 2025). Studies included adults with T2DM receiving combination therapy versus monotherapy or placebo. Outcomes included cardiovascular events, HbA1c, weight, blood pressure, renal outcomes, and adverse events. Risk of bias was assessed with RoB 2, and findings were synthesised qualitatively due to heterogeneity.

Key References

1. Galicia-Garcia U et al. *Int J Mol Sci* 2020 2. Palmer SC et al. *BMJ* 2021 3. Cannon CP et al. *N Engl J Med* 2020 4. Lam CS et al. *Circulation* 2022 5. Page MJ et al. *BMJ* 2021



Results

Nine RCTs were included (sample sizes 60–17,160). Combination therapy improved HbA1c, weight, and systolic blood pressure more than monotherapy, with benefits sustained in longer studies (104 weeks). Cardiovascular findings suggested additive rather than synergistic benefit, with SGLT2 inhibitors mainly reducing heart failure and cardiorenal outcomes, and GLP-1 receptor agonists reducing MACE. Renal findings included reductions in albuminuria in selected high-risk populations; however, evidence for long-term synergistic preservation of estimated glomerular filtration rate remains limited. Safety was consistent with known class effects, with no major new concerns.

Conclusion

Combined SGLT2i and GLP-1 RA therapy provides additive cardiovascular protection, superior glycaemic and weight reduction, and clinically meaningful blood pressure improvement without introducing new safety concerns. Current evidence supports its use in high cardiovascular-risk T2DM patients requiring intensified cardiometabolic management. Dedicated prospective RCTs specifically randomising to combination therapy are warranted to confirm long-term cardiovascular and renal synergy and inform guideline optimisation.

Full Study:





Bethany Boatin, Mathangee Senthilkumar, Nazan Arslan, Thishana Kirupakaran, Ben Lovell & Neil Cunningham
University College London Hospitals NHS Foundation Trust

Background

- F1 doctors at a large London teaching hospital cover AMU out-of-hours, often as the first to assess deteriorating patients
- They report challenges transitioning to professional practice, particularly with time-critical assessments and clear documentation—reflected nationally in GMC National Training Surveys¹
- Structured assessment and high-quality documentation are essential for safe escalation, effective communication, and continuity of care.

Methods

Baseline (Aug 2025): Newly qualified F1s on AMU out of hours (n=8) completed a survey assessing confidence and influencing factors using Likert scales and free text.

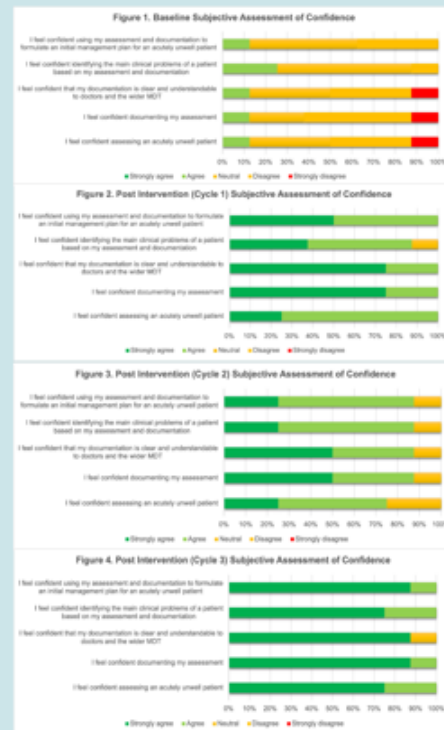
Intervention (Sep 2025): F1 doctors, supported by a registrar, developed a “Smart Text” tool within the EPR to guide A–E assessment, auto-import observations/investigations, and prompt escalation/senior review [Figure 1].

Cycle 1 (Nov 2025): The same cohort was re-surveyed to assess changes in confidence, tool utility, and usage. Feedback informed initial revisions.

Cycle 2 (Jan 2026): Wider MDT and cross-specialty feedback was gathered; further refinements were made.

Cycle 3 (Feb 2026): Final evaluation of changes with feedback from all users to optimise the tool for the August 2026 F1 cohort.

Results



Baseline (Aug 2025):

- ≤25% reported confidence across five domains (assessment, documentation, escalation) [Fig 1].
- 87.5% had no prior formal documentation teaching.
- Free-text responses highlighted variable assessment quality and uncertainty in forming safe management plans.

Cycle 1 (Nov 2025):

- Tool use was frequent (62.5% often; 12.5% daily).
- Confidence improved across all domains [Fig 2].
- 100% of F1s agreed or strongly agreed that they would continue using and recommend the tool.
- Clinicians reported more consistent assessments, clearer documentation & improved escalation.
- Feedback included incorporation of other auto-populated elements (e.g. bloods, fluid balance).

Cycle 2 (Jan 2026):

- Use remained high (62.5% often/daily) with sustained confidence [Fig 3].
- 50% of F1s agreed and 50% strongly agreed that using the tool made them feel safer when reviewing acutely unwell patients.
- Qualitative feedback showed some reported the tool was time-consuming.
- Updates included pre-populating background and active problems from the EPR.

Cycle 3 (Apr 2026):

- Use increased (75% often/daily) with maintained confidence [Fig 4].
- 100% of F1s would recommend this proforma to future F1s rotating into their first placement.
- Feedback highlighted adaptability across clinical contexts and specialties.

Discussion

Although confidence may naturally increase with experience, sustained high tool use suggests added value beyond experiential learning.

A Dunning–Kruger pattern was observed, with confidence rising in Cycle 1, dipping in Cycle 2, then increasing again by Cycle 3.

The intervention improved structured assessment, documentation, and safer management decisions, supporting patient safety. All participants would recommend the tool to incoming F1s. Wider MDT engagement enhanced relevance and utility, benefiting not only doctors but also nursing staff and other professionals relying on clear documentation for ongoing care.

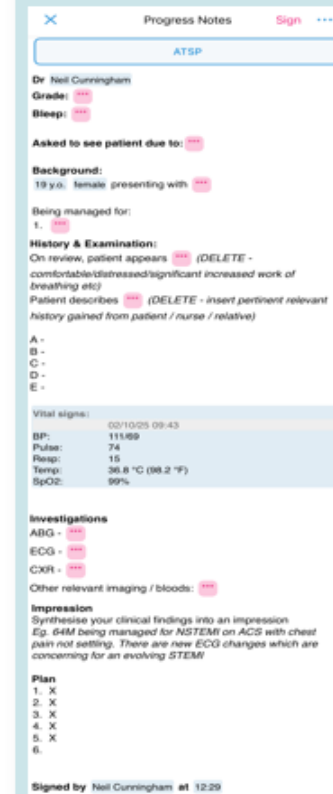
Conclusion

The tool will be incorporated into AMU F1 induction and refined through MDT feedback, with future audits assessing documentation quality and escalation outcomes.

With most NHS trusts implementing or upgrading EPR systems by 2026, optimising their usability and clinical value is essential.

This simple, adaptable tool can be applied across EPR platforms, supporting new doctors to deliver structured assessments and clear documentation during high-pressure reviews.

Figure 1. SmartText™ documentation tool.



Enhancing Antimicrobial Stewardship Through Improved Intravenous to Oral Antibiotic Switch - A Quality Improvement Project

M Rafay Jamal, MD Arafat, Kathryn Halliday, Syam Krishnan, Eleanor Reid
Medicine for Older People, University Hospital Southampton NHS Trust

Introduction

- Intravenous therapy is essential for managing many infections.
- Prolonged IV use increases the risk of complications, resource burden, and avoidable antimicrobial exposure (Rojo, 1999).
- Some IV antibiotics also have a 67-fold higher carbon footprint than oral options (Figure 1; Walpole, 2021).
- Timely IV-to-oral switching (IVOS) can reduce length of stay by 1–2 days (Mouwen, 2020), Lower adverse drug reactions by >10% (Carratalà, 2012), free up nursing time by 10 minutes for each dose (MacDonald et al., 2024).
- Replacing just 10% of IV doses with oral alternatives could save the NHS over £10 million annually and reduce broad-spectrum IV exposure (Khanom, 2023).
- Standardized criteria such as ACED support clinicians in identifying safe opportunities for step-down.

Objectives

To increase timely IV-to-oral antibiotic switching using targeted education and ACED criteria, reducing unnecessary IV doses and nursing workload.



- Ciprofloxacin 500mg oral 12-hourly for 7 days = 1kg CO₂
- Ciprofloxacin 400mg IV 12-hourly for 7 days = 67kg CO₂



Methodology

- A cross-sectional study was conducted across geriatric wards.
- Eligibility for IVOS assessed using ACED criteria.
- Two audit cycles were completed, each followed by a targeted intervention to improve IVOS practice.

Interventions

- Junior doctor training
- EOLAS App demo
- Whole-team reminders
- Ward posters

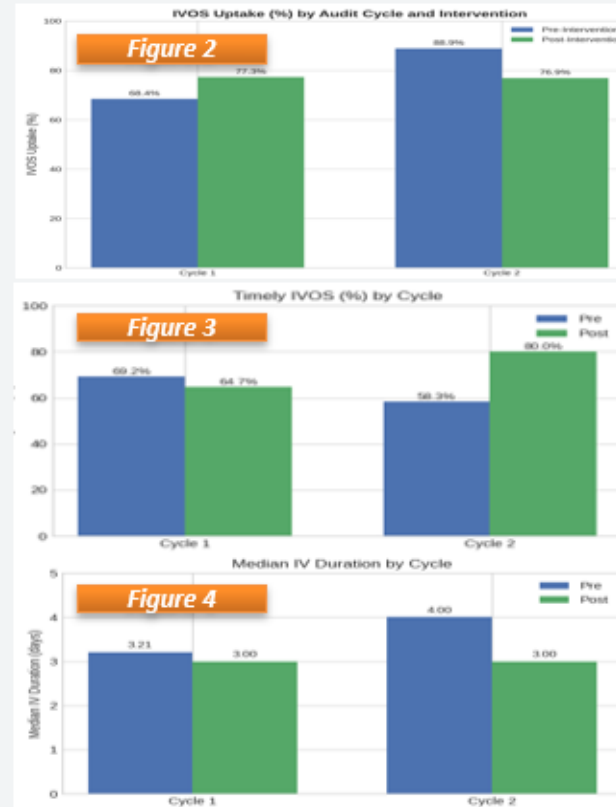
Key Parameters

- Proportion of eligible patients switched within 48 hours.
 - Duration of IV therapy
- Saved IV antibiotics doses and days.
 - Nursing time saved
- Documentation of reasons for not switching

Results

- Greater IVOS rate in 1st cycle with higher baseline rate in 2nd cycle pre-intervention.
- Timely IVOS increased by 8.6% on average.
- Median Duration of IV therapy reduced by 1 day.
- Improvement in Documentation of reasons in 1st cycle with 100% rate in 2nd cycle.
- Greater improvement in Saved IV antibiotics doses and days and Nursing time saved in first cycle.

Figures



Analysis

- Cycle 1:** Junior-doctor teaching improved IVOS uptake and documentation modestly. (Figure 1)
- Cycle 2:** Whole-team teaching and ward posters drove stronger gains in timely switching and consistency. (Figure 2)
- Efficiency metrics:** Improved in Cycle 1; fell in Cycle 2 due to higher baseline IV use

Discussion

- Multidisciplinary engagement and visual prompts produced the most meaningful improvements
- ACED criteria supported earlier switching across both cycles

Conclusions

- IVOS interventions reduce IV burden and nursing workload and promote sustainability.
- Whole-team teaching improves timeliness and consistency

Limitations

- Small sample size across two cycles limits generalisability.
- Patients with multiple comorbidities or infections experienced appropriately delayed switching, influencing efficiency metrics.
- Differences in baseline IV use between cycles contributed to variation in IV days saved.

References

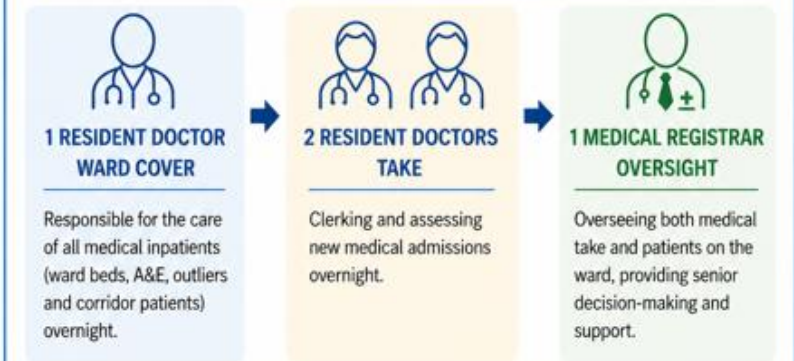
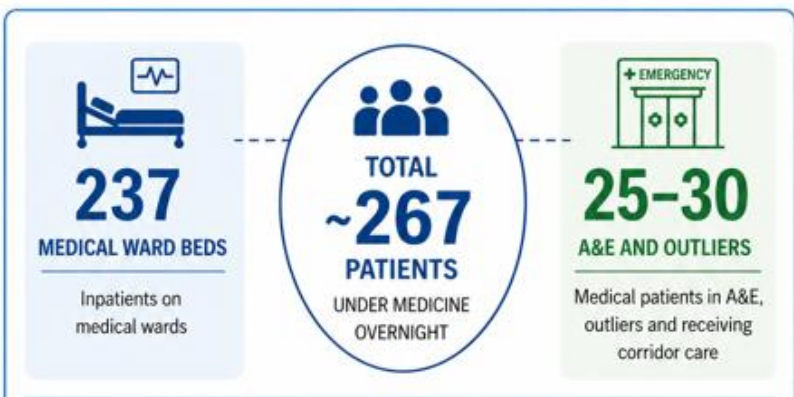
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Resident doctor and out-of-hours medical cover: Optimising Hospital at Night in a District General Hospital for better patient safety

Dr Meghana Varala, Dr Balram Shah, Dr Mark Sutton-Smith



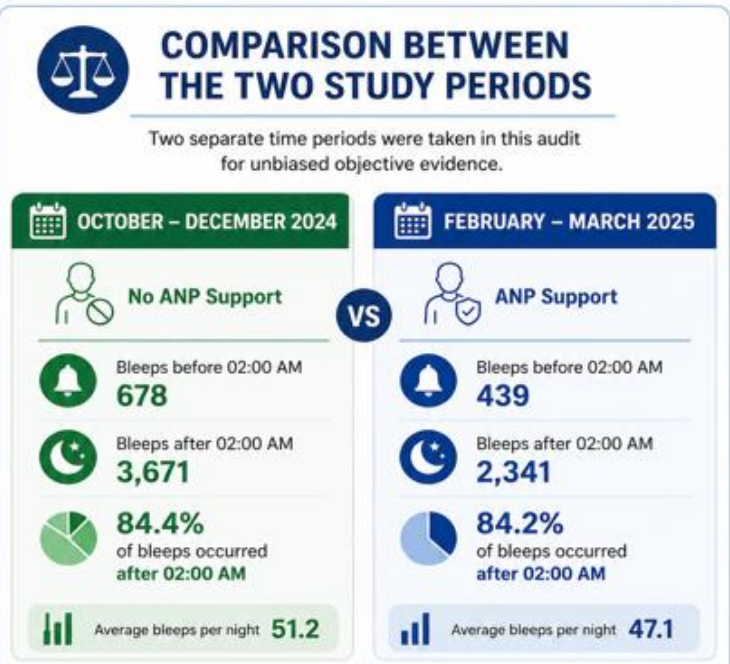
Epsom and St Helier University Hospitals NHS Trust



EVIDENCE PROVED that having an Advanced Nurse Practitioner on site did not reduce the burden on resident doctor.

KEY TAKEAWAY

Overnight, a single resident doctor covers ~267 patients on the wards and in outliers, while two resident doctors manage new admissions, all under the oversight of one medical registrar.



KEY POINTS TO NOTE FROM THIS DATA

QUALITATIVE FINDING
Handover received constituted to **45.2%** of the workload, evidencing that the night is continuously busy independent of the time pattern.

BLEEPS FREQUENCY
On average, the resident doctor receives one bleep every **12.9 minutes**.

TIME IMPACT
Assuming 5 minutes to answer each bleep, the resident doctor spends about **40%** of their shift time answering bleeps.

Overnight workload remains high, sustained and unpredictable across both periods, placing significant burden on the resident doctor.

- Resident doctors have consistently provided substantial anecdotal evidence citing-
 - Chronic understaffing**
 - Lack of clinical support**
 - High workload intensity** with work environment perceived as unsafe, including reports of missed/ delayed patient reviews at night.
- An **audit** carried out to investigate the matter revealed extensive clinical burden on the resident doctor on medical cover, and the need for a better structured 'Hospital at Night'.

- ### CHANGES IMPLEMENTED
- Systemic improvements introduced to strengthen overnight medical care and patient safety.
- MEDICAL EMERGENCY TEAM ESTABLISHED**
A dedicated rapid response team available overnight to support clinical teams, provide timely senior review and improve patient safety.
 - OVERNIGHT CRITICAL CARE OUTREACH**
Enhanced outreach support overnight for deteriorating patients, enabling earlier intervention and reducing avoidable escalations.
 - TWILIGHT ADDITIONAL MEDICAL REGISTRAR**
Additional medical registrar cover during twilight periods to bridge workload peaks and improve patient flow into the night.
 - OVERNIGHT ESCALATION GUIDELINES FOR WARD TEAMS**
Clear escalation guidance and communication pathways for ward teams to ensure timely escalation, appropriate support and reduce delays in care.
- These changes represent meaningful progress and an **important step in the right direction**. There is more to be done, and ongoing work will continue to address the **significant overnight workload burden** on resident doctors.

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When Reperfusion Is Not Enough: Refractory Ventricular Fibrillation Following Successful Primary PCI in a 29-Year-Old Patient

Mohamed Raghieb Hussain Mohamed Kalifa¹, JR Wilkinson¹, Richard Blencowe¹

¹ University Hospital Southampton NHS Foundation Trust

Background

Ventricular arrhythmias remain a major cause of mortality in acute ST-elevation myocardial infarction (STEMI)¹. While timely reperfusion improves outcomes, malignant ventricular arrhythmias may persist despite successful revascularization. Refractory ventricular fibrillation (VF) in this context is uncommon but associated with poor prognosis.²

Case Presentation

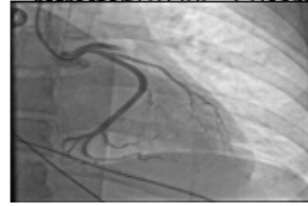
A 29-year-old female with no significant cardiovascular risk factors apart from family history presented with an out-of-hospital cardiac arrest. Return of spontaneous circulation (ROSC) was achieved following prolonged resuscitation.

Post-resuscitation ECG demonstrated anterior STEMI. Emergency coronary angiography revealed an occlusion of the proximal left anterior descending (LAD) artery. Primary percutaneous coronary intervention (PCI) was performed with successful restoration of coronary flow.

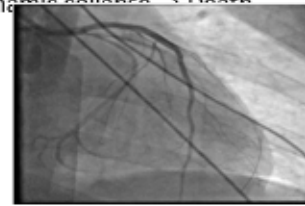
Despite this, the patient developed recurrent episodes of ventricular tachycardia (VT) and ventricular fibrillation, consistent with an electrical storm, leading to haemodynamic instability.

Clinical Course

Out-of-hospital cardiac arrest → ROSC after prolonged CPR (~55 min)
→ Anterior STEMI → Primary PCI (proximal LAD) → Recurrent refractory VT/VF → Haemodynamic collapse → Death



Proximal LAD occlusion



Stented LAD (TIMI 3 flow)

Discussion

This case highlights that restoration of epicardial coronary flow does not necessarily ensure electrical stability. Large anterior infarctions, particularly involving the proximal LAD, are associated with a high arrhythmic burden.¹

Proposed mechanisms include reperfusion injury, myocardial electrical instability, and extensive myocardial damage. Electrical storm following reperfusion remains challenging to manage and carries a high mortality despite optimal therapy.²

Advanced circulatory and mechanical support strategies, such as extracorporeal membrane oxygenation (ECMO), may be considered in selected cases.³

Key Learning points

- Successful PCI does not eliminate malignant arrhythmia risk
- Refractory VT/VF may persist despite TIMI 3 flow
- Proximal LAD infarction → high arrhythmic burden
- Early aggressive management of electrical storm is crucial
- Consider advanced support (e.g. ECMO) in selected patients

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Appropriate consent and institutional

Resident Doctor Leadership in Global Health Policy – Developing an International Air Pollution Declaration

Dr Muha Hassan^{1,2,3}, Dr Lekha Rathod¹

¹Junior Doctors Network of the World Medical Association, ²Wye Valley NHS Trust, ³South Warwickshire University NHS Foundation Trust



BACKGROUND

Climate change and air pollution are major threats to population health, with the World Health Organization (WHO) predicting 250,000 annual excess deaths between 2030 and 2050 from climate-related causes, including malaria, diarrhoea, heat stress, and undernutrition.¹

⚠️ Air pollution contributes to 7 million premature deaths each year, disproportionately affecting vulnerable populations in low- and middle-income countries.²

👨‍⚕️ **Physicians can mitigate these impacts through:**

- 🏥 Clinical risk recognition
- 🗣️ Public health advocacy
- 📄 Policy engagement

AIM

To describe how an internal medicine trainee (IMT), as part of the Junior Doctor Network of the World Medical Association (WMA), led the development of an international air pollution policy by leveraging professional networks to formalise physician responsibility and translate evidence into actionable policy.

Evidence Review & Expert Consultation

- WHO guidance
- Scientific literature
- Major commission reports
- Input from environmental health experts

Iterative drafting with stakeholder feedback

- Circulation to 110+ national medical associations (NMAs)
- Feedback → Revision → Discussion at General Assembly → Circulation to NMAs → Revision

Declaration Adopted

- Revised policy presented at WMA General Assembly, Helsinki, October 2024
- Formally adopted as WMA policy

📄 Key Output:

WMA Declaration on the Prevention and Reduction of Air Pollution to Improve Air Quality

RESULTS

The 'WMA Declaration on the Prevention and Reduction of Air Pollution to Improve Air Quality' was adopted,³ establishing:

- mitigation of health impacts of air pollution as a professional responsibility within clinical care
- positioning medical associations as partners in governmental air quality strategies
- integration of health impacts of air pollution into medical education

This process demonstrates how structured physician engagement can translate environmental health evidence into professional standards and international policy.

CONCLUSION

This initiative enabled resident doctors to develop competencies in evidence synthesis, policy drafting and advocacy, demonstrating that early-career doctors can effectively exercise leadership in global health policy by translating scientific evidence into actionable policy and professional standards.

It also highlights their capacity to influence governance, integrate environmental health into clinical practice and education, and promote workforce sustainability.

Formalising opportunities for policy engagement within postgraduate training across specialties could further strengthen physician leadership in addressing upstream determinants of health. This work supports IMT competencies in leadership and public and global health awareness.

IMPACT AREAS

- 🏛️ Policy Adoption
- 📖 Medical Education
- 🌱 Health Promotion & Mitigation
- 🌐 Global leadership

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ARDS ECMO Outcomes: Mortality Predictors

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Background

- Acute respiratory distress syndrome (ARDS) leads to increased alveolar-capillary permeability, resulting in oedema and impaired gas exchange (1)
- Severe ARDS has a poor prognosis, and venovenous extracorporeal membrane oxygenation (VV-ECMO) is often used for patients with refractory hypoxaemia or those who cannot tolerate lung-protective ventilation (2).
- Mortality rates for ARDS patients on ECMO range from 22% to 62.6%, with estimates between 38% and 48% (3).
- Research into outcome predictors includes patient factors (age, immunocompromised status), ventilation parameters (driving pressure, pre-ECMO duration), and centre-related factors (ECMO experience) (4)

Methods

- It was a prospective observational cohort. This study was conducted from Jan 2023 to March 2023 at Sarosh Hospital Diagnostic Center, AJ&K, Pakistan. Adults (≥ 18 y) with COVID-negative ARDS (Berlin criteria) who were placed on VV-ECMO ≤ 7 after intubation were included in the study.
- Patients with cardiac arrest pre-cannulation, chronic ILD, and immunosuppression were excluded.
- The primary outcome was 60-day mortality, while the secondary outcome was ECMO-free days alive at day 28.
- Logistic regression was used to analyze mortality, and competing-risk regression was applied to evaluate liberation from ECMO, adjusting for SOFA score and P/F ratio.
- Ethical approval was obtained from the Institutional Review Board, with informed consent waived due to the observational study design.

Results

- Table 1 shows that in just 42 patients, only three early indicators (lactate >4 mmol/L, platelets <100 k/ μ L, $\Delta P \geq 18$ cmH₂O) increased the odds of death within 60 days by 4–6 times, demonstrating that the initial post-cannulation blood gas and ventilator assessment already predicts outcomes.
- Figure 1 shows that combining these three bedside markers yields an ROC AUC of 0.84, providing clinicians with an 85% specificity, 81% sensitivity rule-in tool to identify futility before costly days on the circuit accumulate.

Table 1. Predictors of 60-day Mortality

Predictor (24-h post-cannulation)	OR (95% CI)	p value
Lactate > 4 mmol/L	5.9 (1.4–25)	0.017
Platelet count < 100 k/ μ L	4.7 (1.1–20)	0.034
ΔP (driving pressure) ≥ 18 cmH ₂ O	3.8 (1.0–14)	0.049
SOFA cardiovascular ≥ 3	3.2 (0.9–12)	0.075

Figure 1: ROC Curve for 3-variable Score



Discussion

- Fisser et al. (2025) reported an AUC of 0.82 (71% sensitivity, 91% specificity) using eleven variables in 2,162 VA-ECMO patients.
- In comparison, our model achieved an AUC of 0.84 (81% sensitivity, 85% specificity) with just three bedside measurements (5).
- While Fisser's method relies on complex pre-cannulation values, our approach uses dynamic post-cannulation data from a blood gas, platelet count, and ventilator screen (5).

Conclusion

- In this small but intensively phenotyped cohort, three bedside variables—hyperlactatemia, thrombocytopenia and high driving pressure—accurately flagged patients unlikely to survive despite VV-ECMO.

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Improving Early Recognition and Escalation of Suspected Thrombotic Thrombocytopenic Purpura (TTP): a regional multi-specialty education programme in the East Midlands

Muhammad Anas Memon^{1,2}, Rebecca Wright², Sandhya Munireddy¹, Styliani Salta¹, Amy Webster¹

¹University Hospitals of Leicester NHS Trust ²East Midlands TTP Service

Introduction:

- TTP is a life-threatening haematological emergency, requiring urgent recognition and treatment.^{1,2}
- Presentation is heterogeneous and does not always reflect textbook ‘classic pentad’ (fever, haemolytic anaemia, thrombocytopenia, renal and neurological dysfunction).³
- Education outreach is essential across clinical and laboratory specialties to address diagnostic uncertainty and delayed escalation.⁴

Methods:

- Multi-centre, multi-specialty education programme delivered across the seven acute NHS trusts in the East Midlands regional TTP Service.
- Sessions targeted ED, Acute Medicine, Stroke, Intensive Care, Haematology, Laboratory and Apheresis teams.
- Specialty-tailored content – focused on early recognition, initial investigations and escalation/referral pathways.
- Hybrid teaching, to a multi-disciplinary audience:
 - using interactive case-based teaching with engagement tools such as Slido.
 - ‘Choose Your Platelet Adventure’, an innovative branching format – one case, involving three possible outcomes with participants selecting management steps at key decision points.
- Nine sessions delivered (at time of abstract submission), with evaluation using Likert-scale ratings and free-text comments.

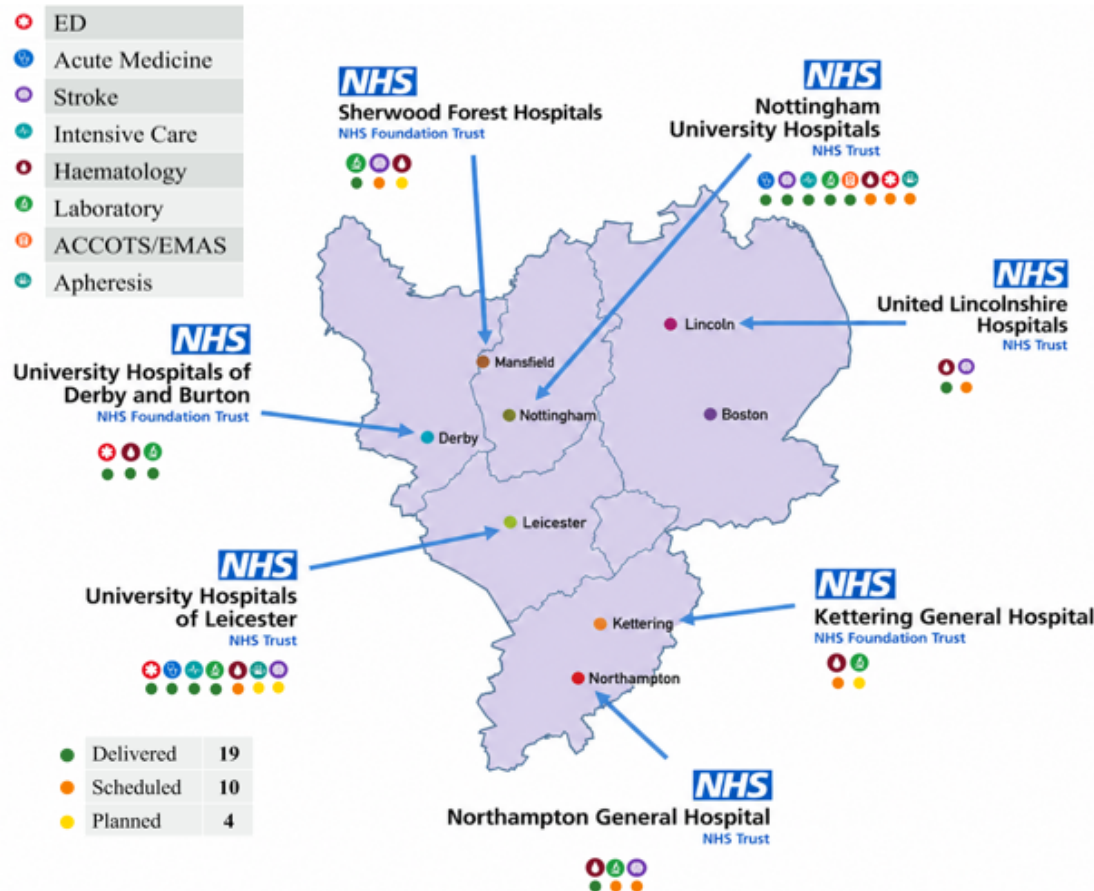


Figure 1. East Midlands TTP education programme: regional reach, multi-specialty engagement and session activity as of April 2026.

CHOOSE YOUR PLATELET ADVENTURE

THE QUEST

21-year-old university student, presents with a 3-day history of:

- Headache
- Feeling unwell
- Bruising on lower limbs

Initial observations performed at triage:

HR	108
BP	110/65
RR	20
SpO2	96% (on air)
Temp	37.9

Figure 2. ‘Choose Your Platelet Adventure’: interactive branching case format supporting audience participation and clinical decision-making.

Results:

- Feedback received from sessions using either 10-point rating scale or 5-point Likert domains.
- Mean overall score was 9.4/10 among 65 respondents using 10-point scale.
- Free-text feedback highlighted clinical relevance, clear structure and improved clarity on when to refer to Haematology.
- In 5-point Likert feedback (n = 17), usefulness was rated highly: 88% scored 5/5 and 12% 4/5.
- Session objectives met, with 100% scoring 5/5.
- Confidence in recognising and escalating suspected TTP was strong: 65% scored 5/5, 29% scored 4/5 and 6% scored 3/5.
- Free-text feedback supported the value of role-specific education content.

Conclusion

This regional programme has received consistently positive evaluation across clinical and laboratory teams. Further assessment will explore its impact on local referral pathways, with findings to be discussed at the regional TTP Annual Clinical Meeting.

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Real-world Effectiveness of Non-Invasive Fibrosis

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Introduction

- Accurately determining the stage of liver fibrosis is crucial for understanding how cirrhosis will progress (1).
- Although liver biopsy has long been considered the gold standard for assessing fibrosis, it is an invasive procedure with certain risks (2).
- Two of the most commonly used non-invasive tools are the Fibrosis-4 (FIB-4) index and the Aspartate Aminotransferase-to-Platelet Ratio Index (APRI) (3).
- Recent research shows that non-invasive tests like FIB-4 and APRI can predict important clinical outcomes, helping to identify cirrhotic patients at higher risk of variceal bleeding and 30-day mortality, with higher score thresholds acting as early warning signs (4).
- This study evaluates the real-world effectiveness of NIS compared to LB in predicting clinical outcomes in a small, prospective cohort of patients with suspected cirrhosis.

Methodology

- A prospective analysis of 78 patients with chronic liver disease referred for fibrosis assessment.
- This study was conducted from Jan 2024 to March 2024 at Gajju Khan Medical College/ Bacha Khan Medical Complex, Swabi. All patients underwent liver biopsy (reference standard), and FIB-4 and APRI scores were calculated simultaneously.
- Patients were followed for 3 months for the composite primary outcome of liver-related events (LREs), defined as variceal bleeding, hepatic encephalopathy, ascites, or liver-related mortality.

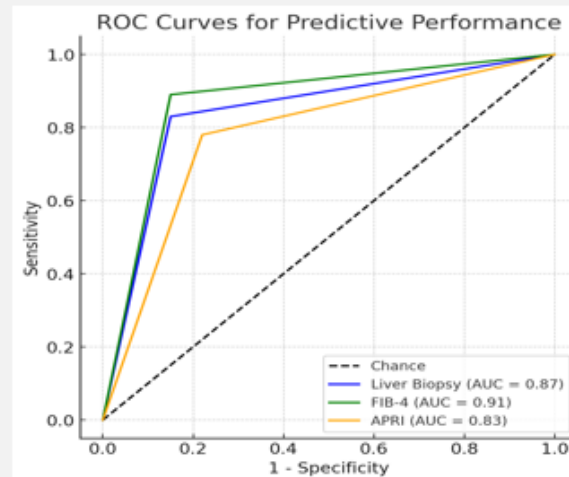
Results

- Table 1 describes the 78-patient cohort with a mean age of 55. Shows NAFLD (42%) was the most common liver disease. Confirms 28 patients (36%) had cirrhosis diagnosed by biopsy.
- The figure shows that the FIB-4 curve (AUC=0.91) is the closest to the top-left corner. This indicates its overall predictive performance was the best. It outperformed both the APRI and biopsy-based models.

Table 1: Baseline Patient Demographics and Characteristics (N=78)

Characteristics	Value
Total Patients	78
Mean Age (years)	54.6 (± 9.2)
Gender (Male/Female)	48 / 30
Primary Etiology	- HCV: 35% - NAFLD: 42% - Alcohol: 23%
Biopsy-Proven Cirrhosis	28 (36%)

Figure 1: Receiver Operating Characteristic (ROC) Curves



Discussion

- This study results indicate that FIB-4 (AUC 0.91) outperforms APRI (AUC 0.83) and liver biopsy (AUC 0.87), aligning with recent studies. For instance, Elgorashi et al. found that FIB-4 demonstrated strong diagnostic performance for predicting cirrhosis, achieving an AUC of 0.82.
- Likewise, research by Sanyal in patients with nonalcoholic fatty liver disease demonstrated excellent predictive accuracy of FIB-4 for liver-related events, with an AUC of 0.94, high sensitivity (92%), and high specificity (86%). These findings further support the reliability of FIB-4 as a valuable non-invasive prognostic tool (5,6).

Conclusion

- In this cohort study, non-invasive fibrosis scoring, especially FIB-4, effectively predicted clinical outcomes, comparable to liver biopsy.
- These results support the use of non-invasive methods as a first-line tool for risk stratification, helping to streamline patient management and reduce costs and procedural risks.
- Liver biopsy remains important for cases with diagnostic uncertainty or when an etiological diagnosis is needed.

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Masquerading as Deep Vein Thrombosis: Intravascular Leiomyosarcoma of the Femoral Vein

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Introduction

Leiomyosarcoma is a malignant smooth muscle tumor (5–10% of soft tissue sarcomas). Intravascular type is rare, usually involving IVC. Peripheral vein involvement is uncommon and often mimics DVT leading to delayed diagnosis.

Methods

- 40-year-old female with thigh pain/swelling. Initially treated as iliac vein thrombosis.
- CT venogram -well-defined intraluminal soft tissue lesion measuring 2.1 × 2.3 cm with a length of 5.7 cm near the saphenofemoral junction Surgery + vein repair done.
- Histopathology and IHC performed.



Discussion

Mimics DVT clinically.

- Key differentiator: enhancement and vascularity on imaging.
- Persistent symptoms despite anticoagulation → suspect tumor.
- Surgery is mainstay; adjuvant therapy in high-grade lesions.

Results

- Spindle cell tumor with pleomorphism, mitosis (8/10 HPF), 10% necrosis. IHC: SMA, Desmin, H-caldesmon positive. Ki-67: 30–35%. PET-CT: no metastasis.
- Adjuvant chemotherapy + planned RT. (ifosfamide and adriamycin was administered, followed by planned radiotherapy using P.IMRT (66 Gy in 33 fractions))

Conclusion

- Rare vascular malignancy. Early imaging + multidisciplinary care essential.
- Complete resection + adjuvant therapy improves outcomes. Close follow-up needed.
- This patient is now in remission

The Tongue Tells the Tale: Profound Hypothyroidism Mimicking Stroke and Acute Coronary syndrome

Authors- Dr. Thin Thin Khaing, Dr. Myo Khaing, Elaine Burnett, Dr. Najaf Haider, Dr. Min Thaik Aung

Abstract

Profound hypothyroidism can present with a constellation of multisystem symptoms that often mimic other medical emergencies. The diverse presentations occur because thyroid hormone receptors are ubiquitous, allowing thyroid hormone to influence metabolic pathways in every bodily system. While these multisystem symptoms are typically reversible with hormone replacement therapy, their diverse presentations create a significant diagnostic challenge in acute clinical settings.

Case Report

History

A 53-year-old male presented to the Same Day Emergency Care unit with a three-month history of **slurred speech** and **exertional dyspnea**, without chest pain or orthopnea. While his speech was slurred, it lacked the typical characteristics of acute stroke-related dysarthria. A history of total thyroidectomy and subsequent cessation of thyroid hormone replacement therapy was identified.

Examination and investigations

- ❖ Significant **macroglossia** with **lateral dental indentations (scalloping)** (Fig. 1)
- ❖ No focal neurological signs of stroke and the CT Head was unremarkable
- ❖ ECG -**lateral T-wave inversion** (Fig2)
- ❖ ECHO-Dilated LV cavity with **concentric LVH**. (Septum 1.8 cm). LV has a globular appearance with foreshortening of the apex. (Fig. 3)
- ❖ Blood tests confirmed profound hypothyroidism, elevated mean corpuscular volume (MCV), and raised Creatine Kinase (CK) (Table 1)

Management

Due to cardiac instability and potential myocardial ischemia, a cautious, low-dose induction of thyroxine was prioritized. As hormone levels were slowly titrated, cardiac function improved, systemic manifestations stabilized, and the patient's acute kidney injury resolved.

Discussion

This case highlights the physiological impact of severe hypothyroidism on myocardial and soft tissue structures.

Macroglossia, a hallmark of myxoedema, is caused by the deposition of glycosaminoglycans within the lingual tissues and accounted for the patient's speech impairment.

The "**myxoedema heart**" is characterised by interstitial oedema and myofibrillar changes, which can manifest as Left Ventricular Hypertrophy (LVH) on imaging and repolarisation abnormalities on the ECG. Elevated troponin levels highlight the diagnostic challenge of distinguishing between primary ACS and hypothyroid-induced myocardial strain. Cautious thyroxine replacement enhances cardiac contractility, which subsequently improves renal perfusion and overall metabolic stability.

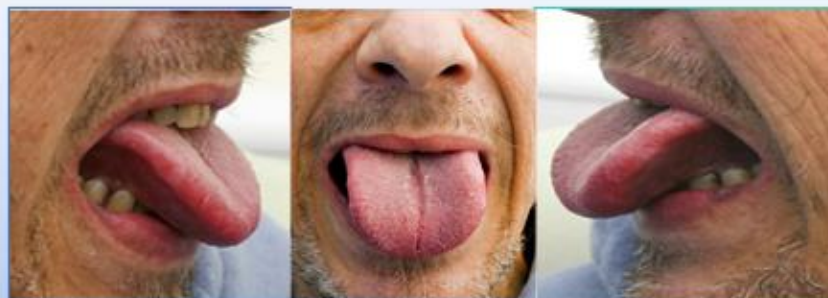


Fig.1

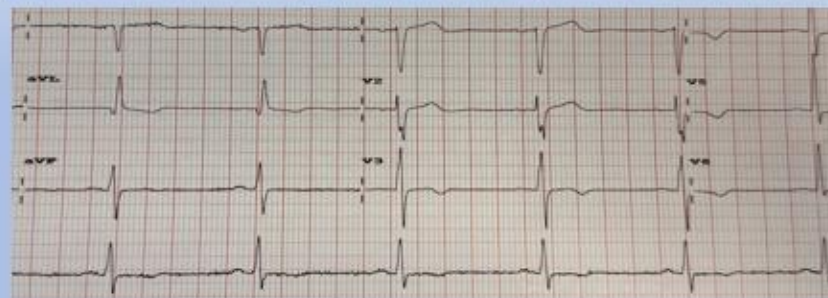


Fig.2

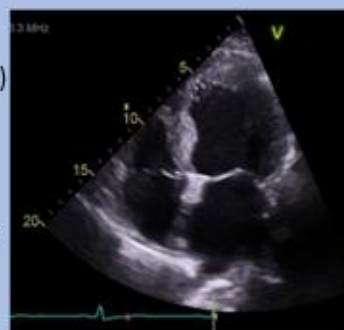


Fig. 3

TSH	>100 mIU/L
FT4	<3.2 pmol/L
FT3	<1.4 pmol/L
Hb	139 g/L
MCV	107 fL
Cr	127 umol/L
eGFR	60
TNT	85->79 ng/L
NTBNP	521 ng/L
CK	2385 U/L

Table 1

Conclusion

Profound hypothyroidism is a clinical "chameleon" capable of mimicking multisystem failure, including **acute heart failure, acute kidney injury, and neuropsychiatric conditions**. A thorough review of previous thyroid conditions and medication compliance is a critical diagnostic step. Treatment requires cautious thyroid hormone replacement, carefully titrated to the patient's cardiac tolerance. Cardiovascular complications are the primary cause of morbidity and mortality in hypothyroidism, making early diagnosis essential to prevent permanent heart damage. Fortunately, research shows that thyroid hormone replacement can significantly improve or even reverse cardiac dysfunction in hypothyroidism.

Reference

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INTRODUCTION

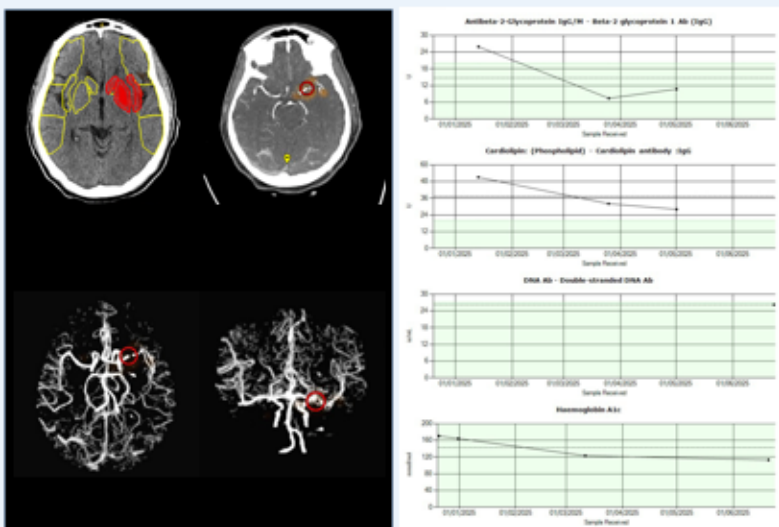
Type B Insulin Resistance Syndrome (TBIRS) is a rare autoimmune disorder caused by polyclonal autoantibodies against the insulin receptors, resulting in severe and refractory hyperglycaemia.

The insulin receptor autoantibodies can also produce an insulin-like effect, leading to hypoglycaemia.

Prevalence is unknown; fewer than 200 cases reported worldwide. It predominantly affects middle-aged women of African origin and is associated with other autoimmune conditions, most commonly Systemic Lupus Erythematosus (SLE).

No standard treatment guideline exists. Management involves insulin therapy, diet fractionation, plasmapheresis, and immunosuppressive therapies (Rituximab, cyclophosphamide, steroids).

This is the only reported case of TBIRS with concurrent AntiPhospholipid (APL) Syndrome.



CASE SUMMARY

A 49-year-old Afro-Caribbean female presented in December 2024 with dense right-sided weakness, aphasia, and left gaze deviation. CT head: hyperacute Left MCA territory changes → Thrombolysis and Mechanical Thrombectomy.

Admission BG: 37 mmol/L; HbA1c: 170 nmol/ml. Hyperglycaemia refractory despite >1,000 IU insulin/day.

Type B Insulin Receptor Antibodies: POSITIVE → TBIRS diagnosed.

Management:

- 4 rounds plasmapheresis — ineffective
- Rituximab Cycle 1 — limited response; insulin requirement remained very high
- Rituximab Cycle 2 (4 months later) — insulin requirement gradually reduced; HbA1c 113 at 5 months

Concurrent diagnoses: Lupus Spectrum + Antiphospholipid Syndrome → Warfarin + Hydroxychloroquine commenced.

July 2025: Transferred to Specialist Neuro-rehab with ongoing right weakness and aphasia.

Early 2026: Off insulin; no oral diabetic agents. HbA1c 57 (9 Mar 26), Weight +35 kg.

CLINICAL TIMELINE

- Dec 2024:** Acute ischaemic stroke; BG 37 mmol/L; HbA1c 170
- Dec 2024 - Feb 2025:** Refractory hyperglycaemia >1,000 IU/day; TBIRS antibodies +ve
- Feb-Mar 2025:** 4 rounds plasmapheresis — hyperglycaemia persists
- Mar 2025:** Rituximab Cycle 1 — limited response
- Jul 2025:** Rituximab Cycle 2 — insulin falls; HbA1c 113
- Jul 2025:** Transfer to Specialist Neuro-rehabilitation Unit
- Early 2026:** Off insulin; HbA1c 57; weight +35 kg

DISCUSSION & LEARNING POINTS

Delayed diagnosis of TBIRS limited rehabilitation progress; however, slow improvement was observed after commencing treatment with immunosuppression, particularly Rituximab.

Over a 15 months period, HbA1c decreased from 170 to 57. Currently she is neither receiving insulin nor taking any oral or injectable anti-diabetic medications.

Key Learning Points:

1. TBIRS should be suspected when daily insulin requirement exceeds 3 units/kg/day, or with unexplained severe hyperglycaemia/hypoglycaemia. It predominantly affects African American females with significant weight loss and is associated with SLE in >50% of cases.
2. Diagnosis is confirmed by positive Type B Insulin Receptor Antibodies but may be made clinically when testing is unavailable. Concurrent autoimmune conditions should be actively screened at the time of diagnosis.
3. Management primarily involves plasmapheresis, immunological therapies such as Rituximab, cyclophosphamide, and steroids. Remission is achieved in ~80% of cases but may take up to 54 months.

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Consent: Appropriate permissions have been obtained for collecting and sharing patient data in accordance with the conference requirement.

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Strengthening Bone Health: A Quality Improvement Project on Fragility Fracture Risk Assessment in Elderly Patients

Dr Neethu Tom

Dr Safwa Nayab

Introduction:

Fragility fractures are major causes of morbidity and mortality in older adults contributing around 500,000 fractures in UK and costing £4.4 billion to NHS.

NOGG recommends risk assessment through FRAX score but uptake remains inconsistent.

Aim:

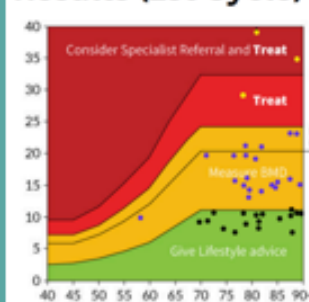
- Assess baseline compliance with FRAX scoring in elderly inpatients
- Improve fracture risk assessment, documentation and management through targeted interventions

Method:

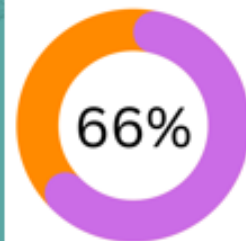
A retrospective review was conducted across four geriatric wards using a predefined dataset. Data collected included:

- Falls-related admission
- FRAX score documentation
- Previous fragility fractures
- Prior DEXA scans
- Current osteoporosis treatment
- Risk factors and comorbidities

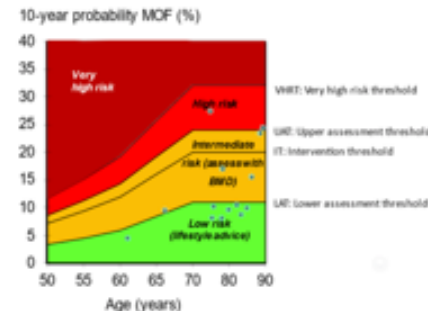
Results (1st Cycle)



1st Cycle FRAX score compliance across 4 wards



2nd Cycle FRAX score compliance across Pilot Ward



Results – Cycle 1 (Baseline)

- 0% FRAX compliance
- Median age: 88 years, 78.3% female
- 41% eligible for BMD (DEXA)
- 43% eligible for treatment
- 41% admitted with falls
- 35% had prior fragility fractures



Conclusion:

- The intervention was successful, achieving >50% improvement in FRAX compliance.
- There is a strong need for greater awareness and education in fragility fracture risk assessment, particularly in understanding risk factors and accurate FRAX use.
- A stepwise approach can support implementation across other geriatric wards.
- Patients already on bone protection therapy should be individually assessed, considering comorbidities and clinical context.
- Careful assessment is required in patients aged >90 and those with falls, as FRAX may underestimate fracture risk in these groups.

Discussion:

- This quality improvement project identified a significant gap in fragility fracture risk assessment, with no routine assessments at baseline.
- An intervention focused on education and process improvement led to a substantial increase in FRAX scoring compliance.
- Challenges remain in accurate risk estimation & treatment optimisation, particularly in patients aged over 90 and those with a history of falls.
- Falls risk is not included in FRAX scoring, which may lead to underestimation of fracture risk.
- Future efforts should focus on expanding the intervention, ongoing education, & refining the assessment process to ensure comprehensive fracture risk evaluation.

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Piloting a Multidisciplinary, Simulation-Based Non-Invasive Ventilation Programme: Early Lessons for Interprofessional Learning and Patient Safety

Dr Nicola Bowman¹, Marianna Amatuni¹, Aisling O'Donoghue¹, Dr Lola Loewenthal¹

Introduction

Non-invasive ventilation (NIV) is a high-risk intervention requiring coordinated multidisciplinary input, with safe delivery depending on both technical competence and system-level collaboration. An established one-day nursing NIV course at Imperial College Healthcare NHS Trust has strengthened knowledge, confidence, and patient safety over several years. Amid increasing service pressures and policy emphasis on multidisciplinary working, we adapted this programme to include doctors and physiotherapists, aiming to enhance interprofessional collaboration, improve protocol adherence, and increase the sustainability and reach of NIV education.

Methods

We redesigned and implemented a pilot multidisciplinary NIV simulation programme for nurses, resident doctors, and physiotherapists, building on an established nursing course to maximise sustainability and faculty efficiency (Figure 1). A pre-development survey (n=28) demonstrated strong demand, with 89.3% expressing interest in future NIV simulation. Profession-specific and shared competencies were reviewed and synthesised into a multidisciplinary framework.

The programme was delivered as a team-based simulation focusing on NIV initiation, optimisation, and escalation, with pre- and post-session questionnaires evaluating impact on clinical understanding, MDT working, and system processes.

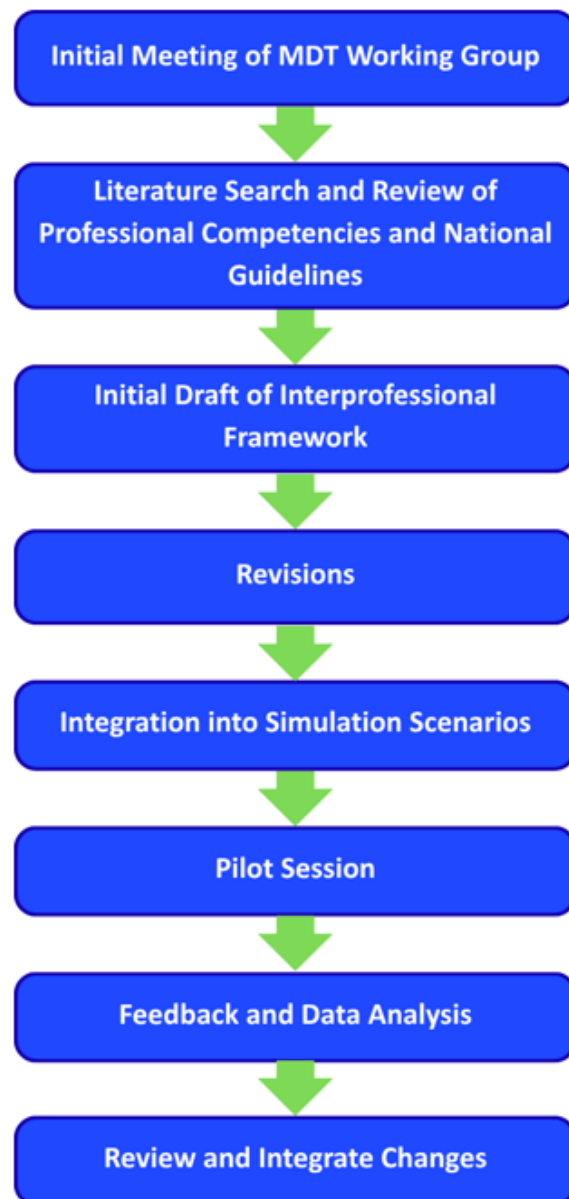


Figure 1: Programme development process map



Figure 2: Qualitative feedback from attendees

Results

Simulation scenarios reflected real-world acute NIV delivery, incorporating medical decision-making, physiotherapy-led respiratory optimisation, and nursing coordination. Structured debriefing emphasised communication, role clarity, shared decision-making, and local governance adherence. Poor compliance with NIV prescribing protocols was identified during development and explicitly integrated into the session to strengthen policy alignment.

Early piloting included structured feedback collection, with all resident doctors (n=8) reporting improved understanding of MDT members' roles in NIV delivery. Participants described increased awareness of operational challenges, including timing of treatment breaks and medication administration.

Qualitative feedback (Figures 2 and 3) reinforced the programme's contribution to collaborative practice, with 17 residents requesting future sessions, reflecting strong demand and potential for scalability.

“Reinforced the importance of communicating with colleagues within the MDT”

“An enjoyable and valuable part of the day working with colleagues within the MDT”

Figure 3: Qualitative feedback from attendees

Conclusion

Adapting an established profession-specific programme into a multidisciplinary simulation model demonstrates a sustainable approach to workforce development. Leveraging existing infrastructure and faculty expertise expanded reach without duplicating resources, supporting organisational efficiency. Early findings suggest multidisciplinary simulation can strengthen role clarity and improve policy adherence. This model offers a pragmatic framework for health services seeking to modernise training, optimise workforce capability, and align education with team-based care.

A CASE REPORT OF PALMAR DIGITAL ARTERY OCCLUSION AS A RARE MANIFESTATION OF THYROTOXICOSIS

Nija Ann Jacob¹, Udochukwu Anuforom¹, Vani Shankaran¹
¹Barnsley Hospital NHS Foundation Trust

INTRODUCTION

Hyperthyroidism

Hypercoagulation

Hypofibrinolysis

Microvascular dysfunction

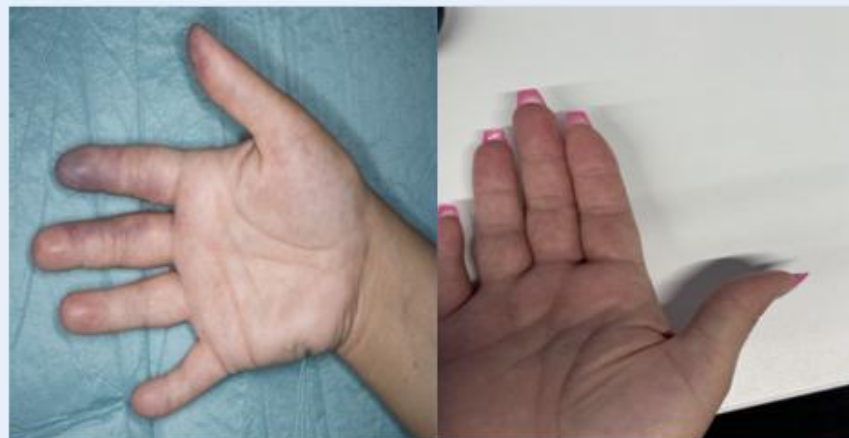


Image 1. Unilateral acrocyanosis of the right-hand fingers (left) and improvement after treatment (right). Images published with patient consent.



Image 2. USS duplex image of the right palmar artery mid superficial index finger. Images published with patient consent.

CASE SUMMARY

Presentation

- 35yr female with known Crohn's disease
- Presented with a 3-week history of progressive painful discolouration of the right hand fingers and palpitations

Assessment

- Bilateral hand tremors, mild exophthalmos and unilateral acrocyanosis (right thumb, index & middle fingers) (Image 1).
- TFTs confirmed thyrotoxicosis (Table 1). Duplex imaging of right hand demonstrated isolated palmar digital artery thrombus occlusion (Image 2).

Management

- Multispecialty input from Vascular surgery and Endocrinology via the Acute Medicine ambulatory clinic.
- Started on Carbimazole 30mg OD, Diltiazem 90mg BD and Aspirin 75mg OD
- Improvement in hand symptoms by week 2 of treatment with full resolution by week 8
- Endocrinology follow up for monitoring and surveillance

Tests (Table 1)	Range in Units	17/7/25	14/8/25	4/9/25	18/12/25
TSH	(0.38-5.50) mIU/L	<0.01	<0.01	0.02	5.03
Free T3	(3.5-6.5) p mol/L	18.7	5.5	5.3	5.0
Free T4	(10.0-18.7) p mol/L	50.7	17.3	10.8	10.3
TSH Receptor antibody	(0-0.9) IU/L	3.7			
TPO Antibody	(0-60) IU/L	168			
Autoimmune screen		Negative			
Thrombophilia screen		Negative			

DISCUSSION

- ↑ Thyroid hormones drive hypercoagulation and hypofibrinolysis → Increased risk of arterial and venous thromboembolism
- Thyroid suppressive therapy normalises the haemostatic profile
- Microcirculatory involvement can present as palmar digital artery thrombosis

RECOMMENDATION

- Consideration of thyroid function testing in unexplained digital ischaemia

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A Bespoke Addictions Maternity Unit for the Treatment of Substance Use Disorders and Complex Health Needs in Pregnancy

N Desai, L Ilves, J Krzanowski, S Quashie, P O'Brien, D East, H Carpenter, A Banerjee, JRH Archer



¹Guy's and St Thomas' NHS Foundation Trust and King's Health Partners, London, UK
²South London and Maudsley NHS Foundation Trust, London, UK
³King's College London, London, UK



INTRODUCTION

- Substance misuse during pregnancy is common and associated with several harmful obstetric and neonatal outcomes (low birthweight¹, preterm delivery, intrauterine growth restriction^{2,3}.)
- Remains a significant contributor to maternal deaths and, combined with psychiatric illness, accounts for over one-third of cases in the UK with deaths peaking in the late postnatal period⁴.
- Provision of an elective addictions pathway with antenatal support, before delivery offers the opportunity to address the needs of this group
- At Guy's and St Thomas's NHS Foundation Trust (GSTT), the **Addiction Clinical Care Suite (ACCS)** is a dedicated unit that provides a bespoke inpatient maternity pathway for drug/alcohol detoxification and/or stabilisation



CASE SERIES

Figure 1: Flowchart of Patients Admitted to the ACCS from March 2022 to February 2024

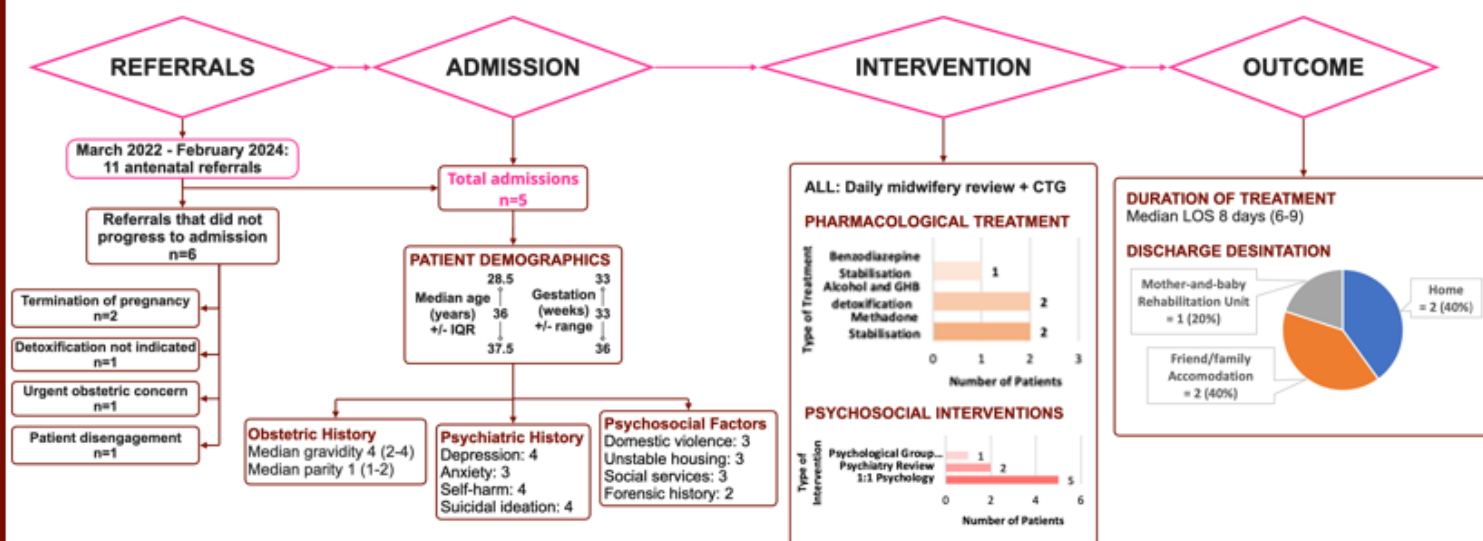


Table 1: Details of substance use, mental health comorbidity, treatment required and outcome

Substance being detoxed/stabilised	Other substance(s) used	Mental health history	Dose administered D1 admission; subsequent dosing regime	Outcome
1 Alprazolam	Nil	Depression, anxiety, DSH, suicidal ideation	Diazepam 46mg → diazepam 10mg QDS, weaned by 2-4mg/day	Discharged on weaning diazepam
2 Methadone, smokes heroin	Heroin, crack cocaine, cannabis, alcohol	BPD, DSH, suicidal ideation	Methadone 70mls; ↑ to 75mls OD	Stabilised on methadone OD
3 Alcohol (binge drinking)	Cannabis, crack cocaine	Depression, anxiety	Nil required; psychosocial support	Not applicable
4 Methadone, smokes heroin	Crack cocaine	Depression, DSH, suicidal ideation	Methadone 50mls; ↑ to 70mls OD	Stabilised on methadone OD
5 GHB	Crystal meth, crack cocaine, cannabis, BDZ	Depression, anxiety, panic attacks, DSH, suicidal ideation	Baclofen 10mg TDS + diazepam 30mg; diazepam ↓ by 5mg/day, baclofen stopped	Left treatment prior to completion

CONCLUSION

- The high proportion of postpartum maternal deaths due to mental health and drug-related causes represents a key area of concern within maternal health.
- Our case series highlights an elective pathway for patients with substance use disorder in the perinatal period
- It offers an opportunity to deliver multidisciplinary management for complex health needs of pregnant patients that struggle to access care

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- MBRACE-UK report:maternal mortality 2025

Radiofrequency Rhizotomy for Trigeminal Neuralgia in Multiple Sclerosis: A Systematic Review of Short- and Long-Term Outcomes

Authors: Nour Ahmed , Maram Rabih Musa Rabih , Rayan Mamoun Fadul Ageeb , Lima Gharbawi , Sara Elsayed Saeed Gharbawi , Namarig Othman Abdullatif Farah , AL MUGHIRAH Salahaldin Sr.

Introduction:

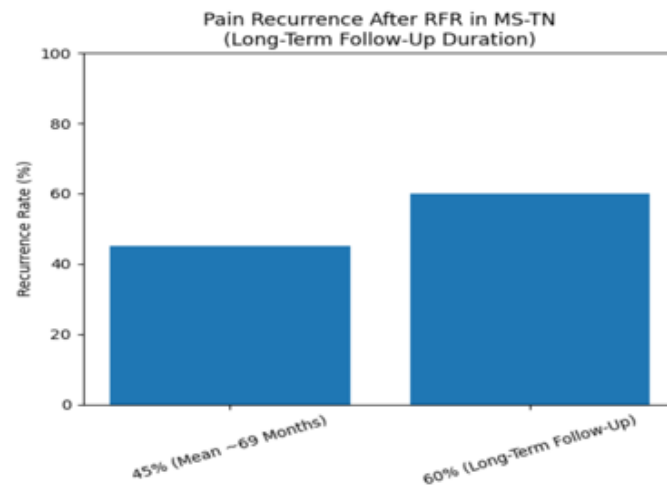
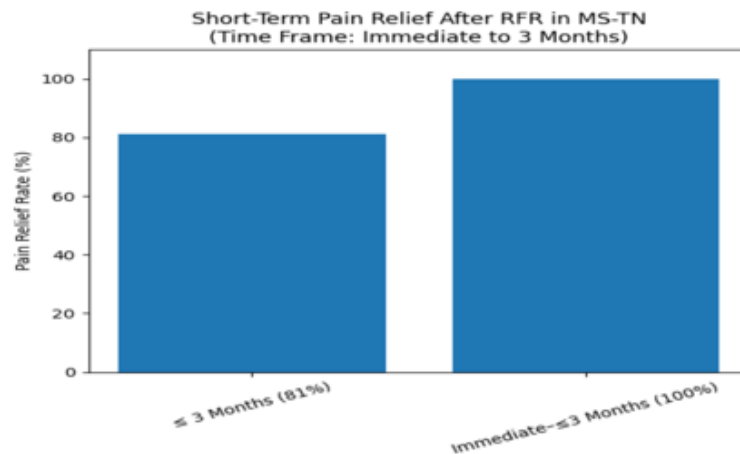
Trigeminal neuralgia (TN) is a severe neuropathic facial pain disorder characterised by paroxysmal electric shock-like attacks affecting one or more divisions of the trigeminal nerve. In patients with multiple sclerosis (MS), TN arises secondary to demyelinating plaques within the trigeminal root entry zone or brainstem and tends to present at a younger age, with higher rates of bilateral involvement and reduced responsiveness to pharmacological therapy. Radiofrequency rhizotomy (RFR) is a minimally invasive percutaneous technique that thermocoagulates trigeminal fibres to disrupt nociceptive transmission while attempting to preserve sensory function. While RFR demonstrates high initial success rates in classical TN, long-term efficacy and recurrence patterns in MS-associated TN remain uncertain. This systematic review evaluates the short- and long-term outcomes of RFR in patients with MS-related TN.

Materials and Methods

This review was conducted in accordance with PRISMA 2020 guidance. A comprehensive search of PubMed, Scopus, Web of Science, and Embase was performed up to October 2025. Eligible studies included clinical trials and observational studies published between 2015 and 2025 that reported outcomes of RFR in patients with MS-associated TN. Data extraction included study design, patient demographics, procedural parameters, follow-up duration, short- and long-term pain relief, recurrence rates, complications, and repeat procedures. Risk of bias was assessed using the ROBINS-I tool.

Key References

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Results and Discussion

Eight retrospective studies comprising 283 patients met inclusion criteria. Short-term pain relief was consistently high, with 81–100% of patients achieving favourable outcomes within the first three months. Immediate pain relief was reported in up to 98% of cases. However, durability declined over time. Long-term pain freedom ranged from 22% to 40% at extended follow-up in some studies, although others reported sustained benefit in up to 77–87% of patients at one to three years. Recurrence rates ranged from 45% to 60%, frequently necessitating repeat procedures, which were performed in 42–60% of cases. The most common adverse event was facial sensory disturbance, reported in 23–81% of patients, though major complications were rare. These findings suggest that RFR provides rapid symptom control but functions as a repeatable management strategy rather than a definitive cure in the context of progressive demyelinating disease.

Conclusion

Radiofrequency rhizotomy is highly effective for achieving rapid short-term pain relief in MS-associated trigeminal neuralgia. Although recurrence is common, the procedure's repeatability and acceptable safety profile support its role as a cornerstone intervention within a multimodal, chronic disease management framework. Prospective comparative studies incorporating standardised patient-reported outcomes are warranted.

Full Study:



Negative Dopplers, Positive Clot:

Unilateral Arm Swelling Revealing Cerebral Venous Sinus Thrombosis in an Anticoagulated Cardiac Patient

Chowdhury, Nusrat Ahmed¹; Rahman, Shadman Sakib¹; Alam, Kh Imranul²; Akter, Sumaya¹; Galib, Ehsanul Haque³; Kamal, Sumaiya¹; Amanatullah, SM¹

¹Medway NHS Foundation Trust ; ²The Princess Alexandra Hospital NHS Foundation Trust ; ³Northern Care Alliance NHS Foundation Trust

BACKGROUND

Cerebral venous sinus thrombosis accounts for a small proportion of all strokes but carries substantial morbidity when recognition is delayed.¹⁻² Epidemiologic reports indicate that CVST constitutes less than one per cent of strokes, with earlier population estimates in the order of 1.3 to 4 cases per million person-years.¹⁻² The condition is more common in young adults and is relatively more prevalent in women due to risk factors such as oral contraceptive use, pregnancy, and the postpartum period.¹⁻²

INVESTIGATIONS

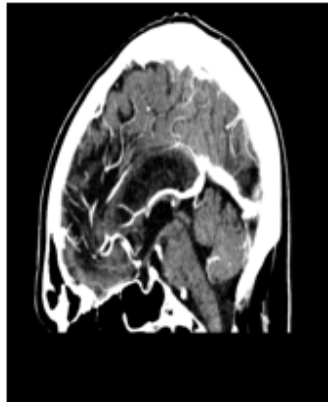


Figure 1: CT Venogram (Sagittal section)



Figure 2: CT Neck showing opacification

CASE PRESENTATION

A man in his 70s with ischaemic heart disease, prior coronary artery bypass grafting, atrial fibrillation treated with apixaban 5 mg twice daily, a permanent pacemaker, and two recent coronary stents presented with persistent left-arm swelling. Serial upper-limb venous Dopplers were negative, as was D-dimer testing. Symptoms progressed over several weeks with the development of chest-wall telangiectatic collateral veins and intermittent digital cyanosis. Given ongoing symptoms despite negative peripheral investigations, central venous obstruction was suspected. Contrast-enhanced CT of the neck and thorax demonstrated non-opacification of the left internal jugular vein at the skull base. CT intracranial venography confirmed thrombosis of the left transverse and sigmoid sinuses with contiguous jugular vein involvement, without venous infarction or haemorrhage. In accordance with AHA/ESO guidance recommending therapeutic heparin in acute CVST, apixaban was discontinued and weight-adjusted low-molecular-weight heparin initiated, followed by warfarin with overlap until a therapeutic INR was achieved. The patient remained clinically stable without focal neurological deficits on outpatient follow-up, and Warfarin and Thrombosis Clinic review were arranged to guide treatment duration.

CONCLUSION

Current guidance recommends prompt neuroimaging with CT or MR venography and immediate therapeutic anticoagulation in the acute phase, noting that modern CT venography performs comparably to MR venography when MRI is contraindicated or unavailable.¹⁻⁴ Lead-related central venous obstruction from transvenous pacemakers and other cardiac implantable electronic devices is increasingly recognised; symptomatic patients may present with unilateral arm swelling and chest-wall venous collaterals, and internal jugular or dural sinus thrombosis can coexist along the same pathway.⁵⁻⁶ Finally, the diagnostic performance of D-dimer is context dependent, and exposure to a direct oral anticoagulant can reduce sensitivity such that a negative assay cannot reliably exclude thrombosis in anticoagulated patients.

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SUBCLAVIAN STEAL SYNDROME:

AN UNDER-DIAGNOSED CAUSE OF PERSISTENT DIZZINESS ON ACUTE MEDICAL TAKE

Consider vascular causes in persistent and multifactorial dizziness - Interarm BP difference can be the key clue.

BACKGROUND



"Dizziness" is a common, non-specific presentation with diverse aetiologies.^{1,2}
Misdiagnosis is common: initial ED diagnosis revised in 31.4% at follow-up.¹

Cerebrovascular events presenting only with dizziness are missed in 39.4% of cases.⁴

Subclavian steal syndrome (SSS) is a rare cause of posterior circulation hypoperfusion due to proximal subclavian artery stenosis → retrograde vertebral artery flow.^{5,6} It is often overlooked.

CASE PRESENTATION



Woman with multiple comorbidities:

- Heart failure, mitral regurgitation
- Atrial fibrillation
- Chronic hyponatraemia (SIADH)
- Quiescent temporal lobe epilepsy
- Alcohol related cerebral ataxia
- Hypertension
- Presented with recurrent dizziness and falls

CLINICAL COURSE



Initial assessment

Horizontal nystagmus, no focal deficits. Presumed peripheral vestibular cause → Symptomatic treatment initiated.



Orthostatic hypotension identified

Antihypertensive and heart failure therapy rationalized.



Persistent symptoms

Chronic hyponatraemia investigated → SIADH managed with fluid restriction and tolvaptan



Key clue uncovered

Inter-arm BP difference identified. Patient reported asymmetrical home BP readings discussed with GP months prior.



Vascular cause confirmed

CT angiography and doppler USS: complete proximal occlusion of the left subclavian and vertebral arteries with collateral retrograde flow → consistent with Subclavian Steal Syndrome.

MANAGEMENT AND PLAN



- ✓ Lipid lowering therapy initiated.
- ✓ No urgent revascularization required.
- ✓ However, outpatient vascular follow-up arranged.
- ✓ Secondary prevention and risk factor optimization.

DISCUSSION

- Urgent vascular intervention may not always be required, but establishing the diagnosis remains clinically significant.
- In patients with multiple comorbidities and ongoing symptoms despite treatment of other contributing conditions, reconsideration of the diagnosis is essential.
- Identification of an underlying vascular pathology can provide greater diagnostic clarity, guide appropriate secondary prevention and avoid unnecessary repeated investigations, and inappropriate treatments.

TAKE-HOME MESSAGE

In persistent, multifactorial dizziness:

- ❖ Reassess systematically
- ❖ Check inter-arm BP
- ❖ Listen to the patient's history



AUTHORS- YEE WIN, NYO LAI; TIPPINS, MARK; ALSENEID, ALHASSEN

Beyond Idiopathic ILD: Unmasking Myasthenia Gravis and Dermatomyositis Overlap by Bedside Examination

Niraula, Oasis; Shah, Saurav; Regmi, Bishal; Baral, Umanga; Timalsina, Sama

INTRODUCTION

- Interstitial lung disease (ILD) in young adults is often attributed to idiopathic or connective tissue-related etiologies.¹
- Coexistence of ILD, anti-acetylcholine receptor-positive myasthenia gravis(MG) and anti-Mi-2 β seropositivity without overt dermatomyositis(DM) features is exceedingly rare.^{2,3}
- Here we report a diagnostically challenging and rare case where careful bedside examination unmasked a complex autoimmune overlap masquerading as idiopathic ILD .

CASE PRESENTATION

24-years-old female

With

Acutely exacerbated dyspnea for 6-days

Progressively worsening dyspnea X 3 years.
Long term oral steroid and domiciliary oxygen

Initial clinical findings

GCS: E4V5M6

Vitals: Normal

Respiratory Examination: Bilateral crepitation with wheeze associated cough



Figure 1.

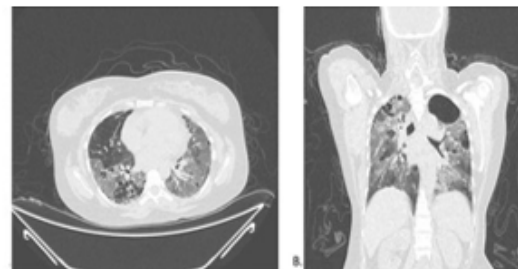


Figure 2.

Baseline Investigation

- PFT: **FEV1: 25% of predicted**
- DLCO: **22% of predicted**
- Chest X-ray: Consistent with ILD
- Autoimmune workup:
- ANA & immunological panels: Negative
- **→ Etiology unexplained**

Turning Point (Missed Clues Identified)

- Bilateral fatigable ptosis (Fig-1)
- Previously overlooked symptoms:
 - Easy fatigability
 - Difficulty chewing
 - Exercise intolerance
 - No cutaneous signs of dermatomyositis

Bedside Tests (Strongly Suggestive of MG)

- Ice-pack test → Positive
- Repetitive arm abduction → Fatigability
- Hand-grip fatigue → Present
- Neck flexor weakness → Positive
- Curtain sign → Positive

CECT Chest+ Neck

Extensive patchy area of ground glass opacities in bilateral lung field, predominantly in bilateral upper lobe and left lower lobe(Figure 2). **No Thymoma.** Multiple tiny subpleural cyst stacked over one another giving honey combing appearance in apical segment of right upper lobe and apico-posterior segment of left upper lobe.

Immunological Workup

- Anti-AChR antibody → Positive
- Anti-Mi-2 β antibody → Positive
- Anti-MuSK → Negative
- Creatine kinase → Normal

Management

- Azathioprine
- Corticosteroids
- Pyridostigmine
- Regular follow up initiated

Discussion

- **Diagnostic pitfall:** Neuromuscular weakness may mimic ILD progression, leading to delayed recognition of treatable causes.
- **Bedside supremacy:** Simple clinical tests remain critical in identifying occult neuromuscular disease.
- **Atypical autoimmunity:** Anti-Mi-2 β positivity without DM features may represent incomplete autoimmune overlap^{2,3}.
- **Therapeutic impact:** Diagnosis of MG significantly altered treatment strategy and prognosis.

CONCLUSION

- When ILD doesn't fit, think beyond the lungs.
- Not always a single disease, but a convergence—where lung, muscle, and nerve intersect.
- Still today, clinical examination remains superior to isolated investigations and can overturn years of misdiagnosis.

Written informed consent was obtained from the patient for publication of this poster and any images.

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Completeness of Smoking and Vaping History Documentation on a Specialist Respiratory Ward: A Cross-Sectional Study from a Tertiary Teaching Hospital

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BACKGROUND: E-cigarette use has risen markedly in the UK over the past decade, with around one in ten adults reporting current use. Vaping is widely used as a smoking cessation aid and is recognised by UK public health bodies as less harmful than combustible tobacco, though it is not risk-free and long-term effects are still being studied.

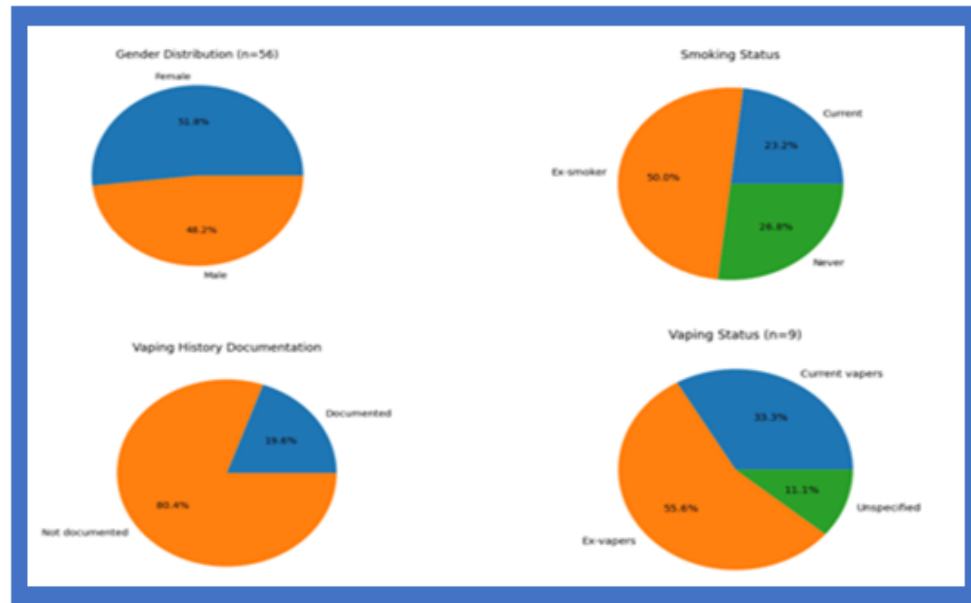
Accurate documentation of smoking and vaping history is particularly important in respiratory medicine, where inhalational exposures can affect diagnosis, disease progression, and management. While tobacco screening is routine in clinical practice, vaping history is often inadequately assessed. Studies suggest clinicians frequently omit vaping-specific questions, leading to under-recognition of exposure and missed opportunities for counselling and intervention.

AIMS : This study aimed to assess the completeness of smoking and vaping history documentation among patients admitted to a specialist respiratory ward in a tertiary teaching hospital.

METHODS: A cross-sectional analysis of all patients admitted to a respiratory ward was conducted over one month (November 2025). With appropriate consent received, smoking and vaping status were obtained from patient interviews and electronic records. Data collected included demographics, smoking status, pack-years, vaping history, dual use, and documentation of vaping details (e.g. cartridge dose and strength). Data was recorded in Microsoft Excel (MS Office 365) and analysed descriptively.

RESULTS :

- Cohort characteristics: 56 patients; 52% female, 48% male. Mean age 69.2 years (SD 15.9); median 72 (IQR 61–79). Most were ever-smokers (73.2%): 13 current, 28 ex-smokers, 15 never-smokers .
- Smoking documentation: Pack-year history recorded in 23 patients; 17 had no record, and 16 were non-smokers.
- Vaping and documentation gaps: 9 patients (16.1%) reported vaping (5 ex-smokers, 3 current, 1 unspecified); 6 patients reported dual use. Only 2 noted reduced cigarette use with vaping. No patients had detailed vaping data (dose/strength), and vaping status was documented on admission in just 11 patients (19.6%).



CONCLUSION: Documentation of smoking pack-years and vaping status was incomplete, with major gaps in vaping history and detail. Given the rising prevalence and potential clinical relevance of vaping, specifically in smoking-cessation support, improved education and structured admission proformas may support more consistent assessment and documentation.

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"Mad Honey--Induced AV Block Presenting With Severe Bradycardia: A Case Report"

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Background:

Mad honey intoxication is an uncommon cause of cardiac conduction abnormalities resulting from exposure to grayanotoxins found in honey produced from *Rhododendron* species.¹ It may lead to severe bradycardia and atrioventricular (AV) block and can be easily overlooked outside endemic regions.²⁻³

Case Presentation:

We describe a 44-year-old man of Nepalese origin who presented to the emergency department in the United Kingdom with syncope, visual disturbance, and hypotension shortly after ingesting mad honey imported from Nepal. Pre-hospital electrocardiography demonstrated complete (third degree) AV block with ventricular rate of 23/min, which evolved into Mobitz type I second-degree AV block on arrival. The patient responded promptly to intravenous atropine and fluid resuscitation. Investigations revealed no alternative cause for the conduction abnormality, and cardiac imaging was unremarkable. The AV block resolved completely within 48 hours without the need for temporary or permanent pacing.

Conclusion:

To our knowledge, this is the first reported case of mad honey-induced AV block in the UK. Mad honey ingestion should be considered in patients presenting with unexplained bradycardia or AV block, particularly in individuals with exposure to regions where its use is common.

Early recognition and supportive management can prevent unnecessary invasive intervention.

Consent:

Appropriate consent was obtained from the patient for the use and publication of clinical data and images.

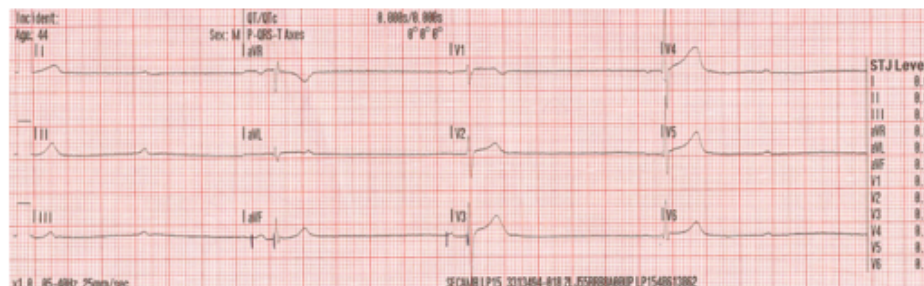


Figure 1: Prehospital electrocardiogram demonstrating 2:1 atrioventricular block with a heart rate of 23 bpm.

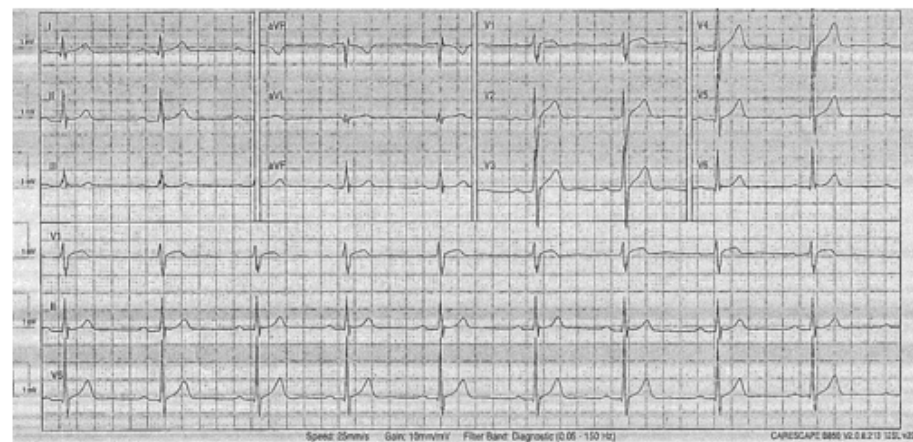


Figure 2: Electrocardiogram demonstrating sinus bradycardia with first-degree atrioventricular block; heart rate 55 bpm.

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Disease phenotype affects therapeutic choice in late-onset IBD: a large-scale analysis

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¹ Department of Metabolism, Digestion and Reproduction, Imperial College London; ² Department of Gastroenterology, Imperial College Healthcare NHS Trust; ³ Department of Gastroenterology, University of Cambridge, UK

Background:

- Incidence of late-onset (LO, ≥ 60 -years) inflammatory bowel disease (IBD) has increased over the last 30 years¹. Older patients are under-represented in clinical trials².
- Phenotypic and treatment differences in LO-IBD are reported, but data are contradictory^{3,4}.
- We compared the phenotype and treatment in propensity matched young-onset (YO, 16-39 years), mid-onset (MO, 40-59 years) and LO ulcerative colitis (UC) and Crohn's disease (CD) using multivariable logistic regression and Cox proportional hazards models

Methods:

- Multi-centre retrospective cohort study using the NIHR IBD BioResource from Jan 2000–Oct 2025. Ethical approval (ref 15/ee/0268).
- Propensity-score matching – sex, smoking status, disease duration, disease phenotype (extent in UC, location, behaviour & perianal disease in CD)

Results:

- Ulcerative colitis (UC) - n = 16,930 (2247 [13.3%] LO)
- Crohn's disease (CD) - n = 15,082 (1409 [9.3%] LO)
- **Disease Phenotype:**
- LO-UC
 - mainly left sided with less proctitis than LO and MO-UC
- LO-CD
 - less ileocolonic and perianal disease than LO and MO-CD
 - less penetrating behaviour than YO-CD

Treatment:

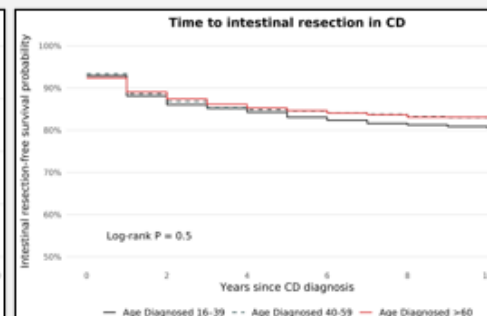
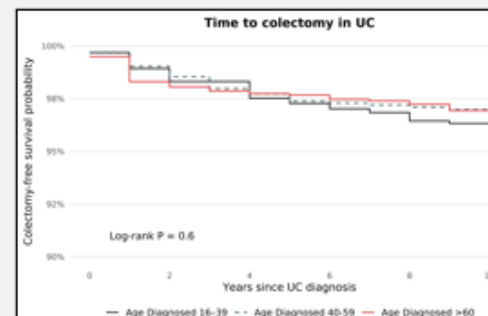
- LO-UC
 - ↓ corticosteroid, ↓ immunomodulator (IM) and ↓ anti-TNF use (**Table 1**)
 - equal vedolizumab use
 - equal risk of requiring colectomy with no difference in time to colectomy
- LO-CD
 - ↓ corticosteroids, ↓ IM and ↓ anti-TNF use
 - ↑ vedolizumab and ustekinumab use
 - equal risk of requiring intestinal resection with no difference in time to intestinal resection

Table 1 Drug class Age group OR multivariable (95% CI, * = P < 0.05)

Drug class	Age group	OR multivariable (95% CI, * = P < 0.05)	
		Ulcerative colitis	Crohn's disease
5-ASA	16-39	1.02 (0.80-1.30)	0.89 (0.70-1.12)
	40-59	0.87 (0.70-1.09)	0.87 (0.69-1.10)
Corticosteroids	16-39	1.67 (1.40-1.99) *	1.65 (1.32-2.07) *
	40-59	1.24 (1.06-1.47) *	1.21 (0.97-1.50)
Immunomodulator	16-39	0.64 (0.55-0.74) *	2.55 (2.02-3.23) *
	40-59	0.56 (0.49-0.65) *	1.88 (1.50-2.36) *
Anti-TNF	16-39	3.60 (2.89-4.49) *	2.70 (2.15-3.40) *
	40-59	1.99 (1.61-2.47) *	2.07 (1.65-2.59) *
Vedolizumab	16-39	1.02 (0.70-1.48)	0.34 (0.18-0.61) *
	40-59	0.90 (0.62-1.28)	0.46 (0.25-0.80) *
Ustekinumab	16-39	-	0.29 (0.09-0.76) *
	40-59	-	0.61 (0.25-1.40)

Table 2 Surgery type Age group HR multivariable (95% CI) * = P < 0.05

Surgery type	Age group	HR multivariable (95% CI) * = P < 0.05
Colectomy	16-39	1.22 (0.76–1.96)
	40-59	1.10 (0.69-1.74)
Intestinal resection	16-39	1.15 (0.90-1.47)
	40-59	0.91 (0.72-1.16)



Discussion:

- LO-IBD has a distinct phenotype, with less proctitis (LO-UC) and less ileocolonic and perianal CD
- LO-IBD patients had lower corticosteroid, immunomodulator and anti-TNF use, but equivalent risk of colectomy and intestinal resection
- LO-CD is notable for higher use of vedolizumab and ustekinumab, suggesting age, comorbidity and disease phenotype affect biologic choice in older adults
- Research to understand whether differential treatment of LO-IBD is justified is crucial

References:

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Improving time from Discharge to review for ICU Step-downs

Dr Polly Simpson MRCP (UK) ¹, Dr Aaron Corp FFICM, MRCP (UK) ² – 1) Leeds teaching hospitals NHS Trust, 2) Calderdale and Huddersfield NHS Foundation Trust

Aim: To review and improve time from discharge to review by CCOT and specialty teams at a district general ICU.

Why?

Intensive care patients are vulnerable to adverse events at stepdown, particularly between the hours of 22:00-06:59, recognised as 'out of hours'. NICE guidelines support clear continuity of care and involvement of critical care outreach services (CCOT). Robust MDT handover has been identified as crucial in reducing adverse events in recent NCEPOD reports.

The Standard:

No formal accepted target time for review. Old RCOA Audit standards suggest 6 hours is gold standard and were used as a feasibility target for this QIP.

What did we do?

8 bedded ICU at Huddersfield Royal Infirmary.

Collected Data re:

- Time of Stepdown
- Documentation of handover to Specialty team
- First review by CCOT
- First review by Specialty team
- Overall outcome (Re-admission/discharge/death)

Initial Data:

- 11.1% reviewed by CCOT within 6h
- 22.9% reviewed by Specialty within 6h
- 20.6% no formal CCOT review post stepdown at all
- 53% Patients handed over to specialty team

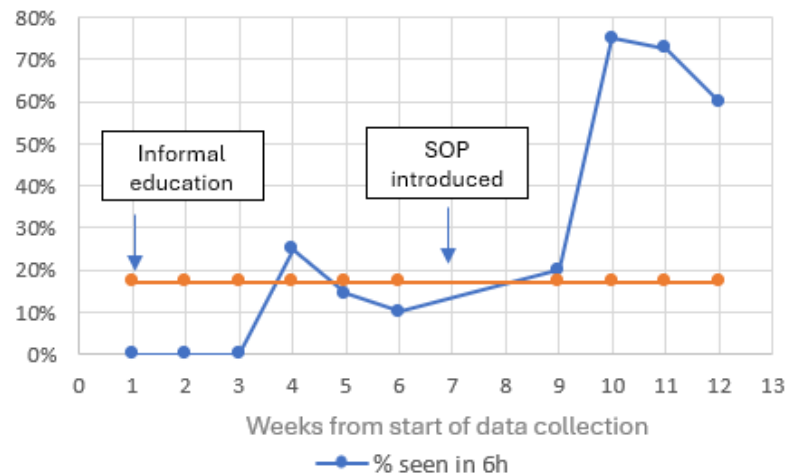


Figure 1: Run chart demonstrating % seen in 6h by CCOT

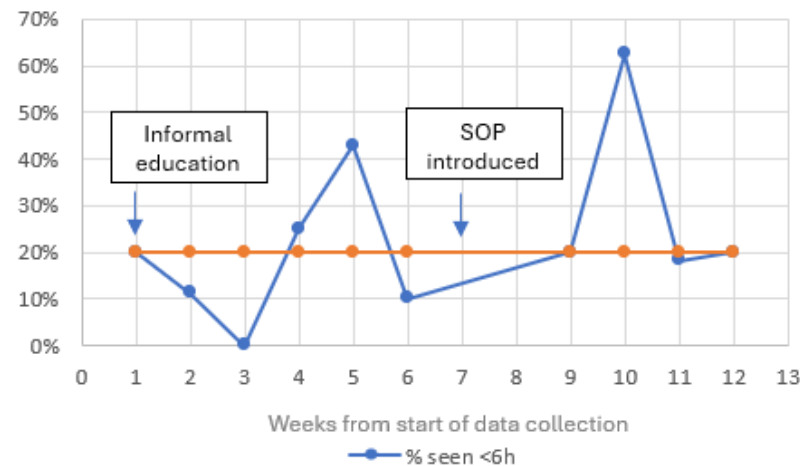


Figure 2: Run chart demonstrating % seen in 6h by Specialty teams

Improvement cycles:

Cycle 1:

- Targeting improved handover at point of stepdown by Resident Doctors
- Formal education about standards at ICU Clinical governance meeting
- Email communication to all Resident doctors

Cycle 2:

- Formalisation of CCOT involvement
- Standard set of 6h review time by CCOT
- CCOT to notify Resident doctors of stepdown via out of hours job allocation system
- Implemented as formal SOP by CCOT clinical lead

Results:

No significant step change post Cycle 1.

Post cycle 2:

- Up to 75% of ICU step-downs reviewed by CCOT within 6h
- Improvement in handover at point of step down to 71%
- No Sustained improvement in time to review by Specialty team
- No link between time to review and overall outcome

Discussion:

- CCOT involvement with ICU step-downs has been associated with reduced adverse events.
- We found a formalised discharge pathway for our CCOT team was both feasible and improved time to and consistency of review by CCOT
- Informal education of resident doctors was ineffective in both groups.
- 6h was a feasible and actionable review target time
- The long-term patient outcomes remain unclear and would be a suggested area for further study.

Immunotherapy-Induced Haemophagocytic Lymphohistiocytosis Presenting as Culture-Negative Sepsis: A Diagnostic Challenge

Pooja Pooja, Ebad Haq, Sadaf Usman

(Colchester General Hospital, ESNEFT NHS Foundation Trust)

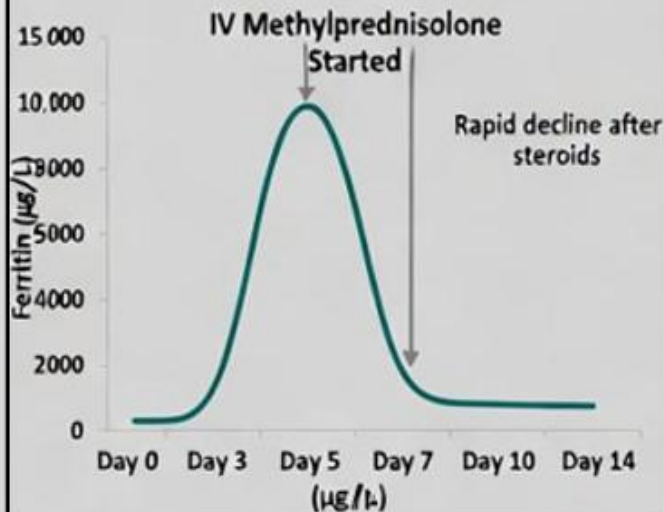
Appropriate permissions and consent gained to present the case report

Introduction

- Immune checkpoint inhibitors widely used in Oncology (1).
- Immune-related adverse events (irAEs) vary widely (2)
- HLH is a rare but severe hyperinflammatory irAE
- First line treatment for grade >3 AEs is a short course of high dose steroids (3)

High ferritin levels + unexplained cytopenias in an immunotherapy patient ----> Think HLH

Ferritin Trend (Before & After Steroids)



Case Presentation

Pathogenesis of Immunotherapy-Induced HLH

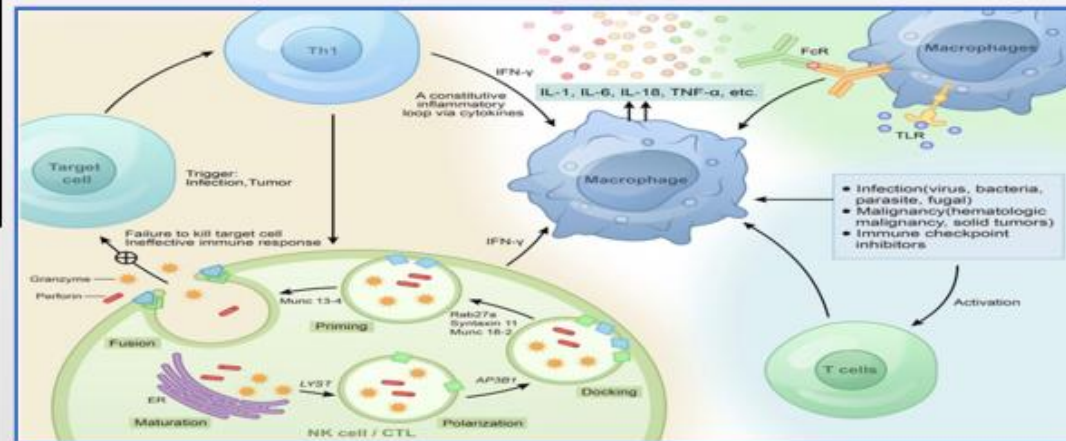
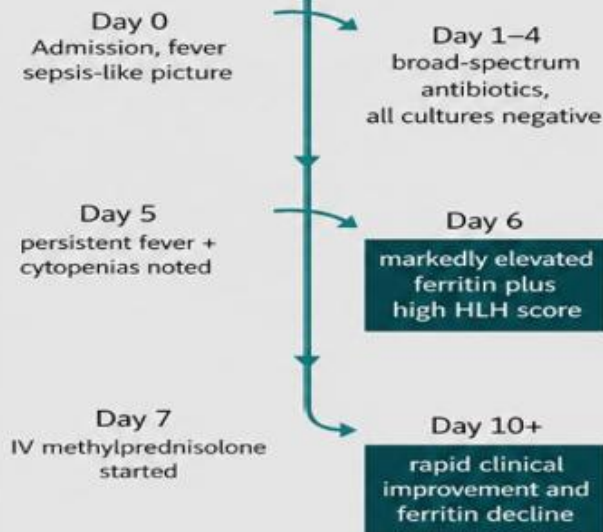
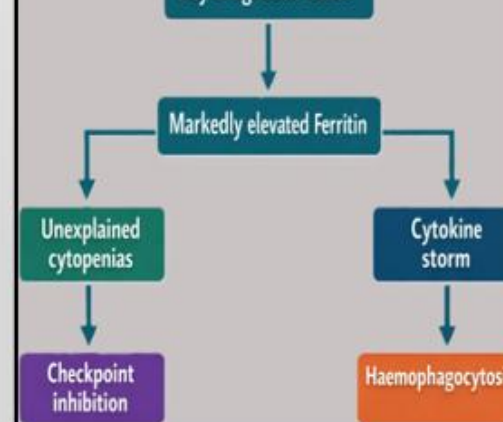


Figure 1: Pathogenesis of HLH (4)

Key Diagnostic Clues



Take-Home Messages:

- Immunotherapy-related irAEs may present like culture-negative sepsis
- In immunotherapy patients with unexplained fever, cytopenias and high ferritin, consider HLH early
- Markedly raised ferritin is a key diagnostic indicator of HLH
- Early diagnosis with prompt high-dose steroids and MDT involvement improves survival

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A Time-and-Motion Study for New Early Breast Cancer Patient Consultations in a Regional Medical Oncology Clinic: Aligning with the RCP Modern Outpatient Care Principles



Aligning with the RCP Modern Outpatient Care Principles

Okong'o Prince¹; Ogie Precious¹; Wilson Caroline²

¹The University of Buckingham; ²The Christie NHS Foundation Trust



Introduction

Efficiently delivering outpatient care is essential for addressing the mismatch between clinical capacity and patient demand, as highlighted in the Royal College of Physicians' (RCP) guidance on modern outpatient care¹. This time-and-motion study evaluates task durations—patient note preparation, consultations, and post-consultation administration—within a regional new patient early breast cancer oncology clinic for HER2 positive patients, to identify opportunities for improving clinic productivity and patient experience.

Methodology

Data were collected over five weekly clinic sessions. Consultations evaluated included; new patients referred for (neo)adjuvant multi-modality oncological management, HER2 positive breast cancer, curative, referred for treatment pre/post breast surgery. Using direct observation, durations of pre-consultation (note preparation), consultation, and post-consultation tasks were recorded. Each task's duration was analysed against RCP-recommended principles, including the need for proportional task time, standardization of session structure and minimizing unwarranted variation.

Results

Whilst most of the total new patient consultation time was spent with the patient, inefficiencies were identified in pre-consultation preparation related to lack of a standardised baseline clinical dataset from multiple referring NHS hospitals into the regional clinic. To improve these inefficiencies a new patient minimum dataset for oncology new patient referrals from MDTs has been introduced and a pre-appointment medical history summary sheet sent out for patients to complete prior alongside a diagrammatic summary treatment flow chart, to reduce consultation time with patients.

Conclusion

This study demonstrates the importance of standardizing workflows to reduce variation and optimize time spent on critical clinical tasks. Findings align with the RCP's call for "planned specialist care delivered in the most efficient way possible" and support the integration of pre-work preparation into clinic workflows.

Average Consultation

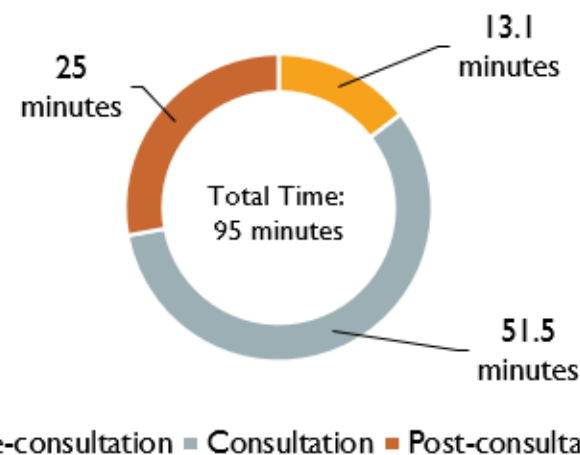


Figure 1 – Breakdown of average new early breast cancer consultation

Implications for Practice

The study underscores the value of aligning breast oncology outpatient practices with modern care principles, paving the way for sustainable pathways that enhance patient care and clinician efficiency. These results provide actionable insights for designing high-value, patient-centered clinics.

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A case of Thyrotoxic Periodic Paralysis complicated by Electrocardiogram Variability

Dr Charlotte Buchalter, Dr Apichaya Amrapala, Dr Hema Lata Veerasamy, Dr Asjid Qureshi
London North West University Healthcare NHS Trust

Introduction

Thyrotoxic Periodic Paralysis (TPP) is rare in the West and prevalent in East Asian males with undiagnosed or uncontrolled thyrotoxicosis of any aetiology. Patients present with acute flaccid paralysis affecting proximal muscles and hypokalaemia as the hallmark biochemical abnormality. Multiple electrocardiogram (ECG) changes are associated with TPP, including fatal arrhythmias¹.

Case summary

- 26M of Chinese ethnicity presented with sudden onset bilateral lower limb weakness ascending to upper limbs within 1 hour – ED referred as Guillain-Barre syndrome
- No preceding illness, past medical/family history, or recreational drug use
- Large carbohydrate meal and alcohol intake preceding symptoms
- Noted to be hypokalaemic, tachycardic (HR 120bpm), 10kg unintentional weight loss over prior 3 months → prompted thyroid function test (TFTs) check

Initial work-up

Investigations	Results	Normal Range	Action
Potassium	2.3 >> 4.3	3.5-5.3 mmol/L	IV 40mmol KCL in 1L 0.9% NaCL
Thyroid Function Tests	TSH <0.01 Free T4 87 Free T3 34.8	0.27-4.2 mIU/L 12-22.0 pmol/L 3.8-6.8 pmol/L	Carbimazole 40mg OD (titrated) Propranolol 20mg BD

- Positive TSH receptor antibodies (7.76u/L) revealed Grave's disease as the cause
- Other differentials excluded: Guillain-Barre syndrome, Familial Hypokalaemic Periodic Paralysis, Gitelman syndrome, Bartter syndrome, Liddle syndrome
- Admission ECG showed sinus tachycardia, T wave flattening in AVL/V1/V2, biphasic T waves in V3, U waves in II/III and prolonged QTc (493ms) – **Figure 1**
- Subsequent ECGs showed variable changes up to discharge – **Figure 2**, leading to cardiac monitoring, troponins and echocardiogram, all unremarkable

Follow up

- The patient made a rapid and complete neurological recovery and was discharged with outpatient endocrinology follow up
- 6 months later – TFTs normalised but developed Grave's ophthalmopathy requiring IV methylprednisolone – under regular ophthalmology follow up

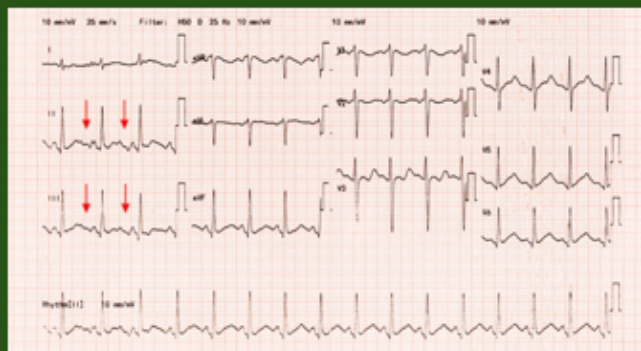


Figure 1 – Admission ECG. Red arrows: U waves. K⁺ level 2.3 mmol/L

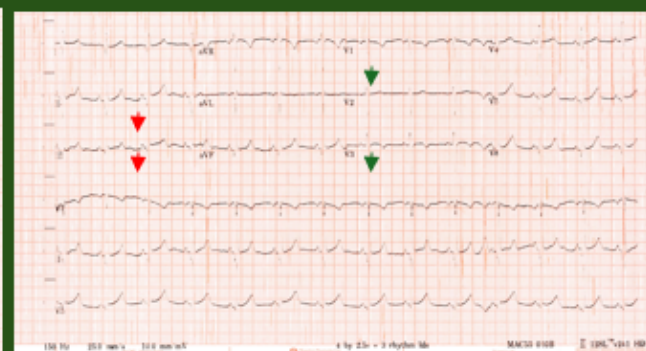


Figure 2 – Discharge ECG. Green arrows: T-wave inversion, Red arrows: U waves. K⁺ 4.0 mmol/L

Discussion

- Clinician awareness of TPP and prompt thyroid function testing can prevent misdiagnosis and unnecessary investigations such as cranial imaging and lumbar puncture
- Excess thyroid hormones increase skeletal muscle Na⁺/K⁺-ATPase pump activity, driving potassium into cells, causing hyperpolarisation and resulting in muscle paralysis¹
- Na⁺/K⁺-ATPase pumps are present in cardiomyocytes and ECG rhythm disturbances are common in TPP². Our case demonstrates that dynamic ECG changes can occur and may persist despite potassium normalisation
- Patients with ECG changes should be closely monitored³ and an individualised cardiac risk stratification may be required

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The Continual Impact of Stroke Simulation in Improving Confidence in Management of Acute Stroke in a Hyper Acute Stroke Centre

Dr E.L.Wong, Mrs M.Mathew, Dr P. Aghoram, Dr A.Gurung
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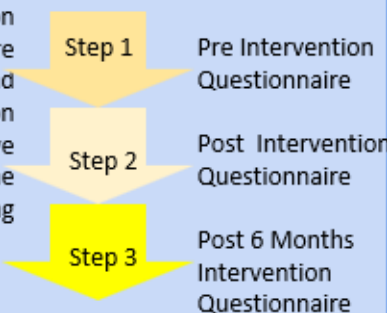
INTRODUCTION

Darent Valley Hospital transitioned to a Hyper-Acute Stroke Unit (HASU) in September 2024, resulting in an expanded catchment area and increased stroke admissions. To safely manage the higher patient volume, clinicians must be competent and confident in the assessment and treatment of hyper-acute stroke presentations.

Local baseline data identified a lack of confidence and training among resident doctors in the management of acute stroke. We therefore evaluated the impact of stroke simulation training on clinicians' confidence in managing hyper-acute stroke.

METHODS

Scenarios based on common stroke presentations were designed as in real life and delivered in the simulation suite to help improve confidence in following the pathway and managing acute strokes.



RESULTS

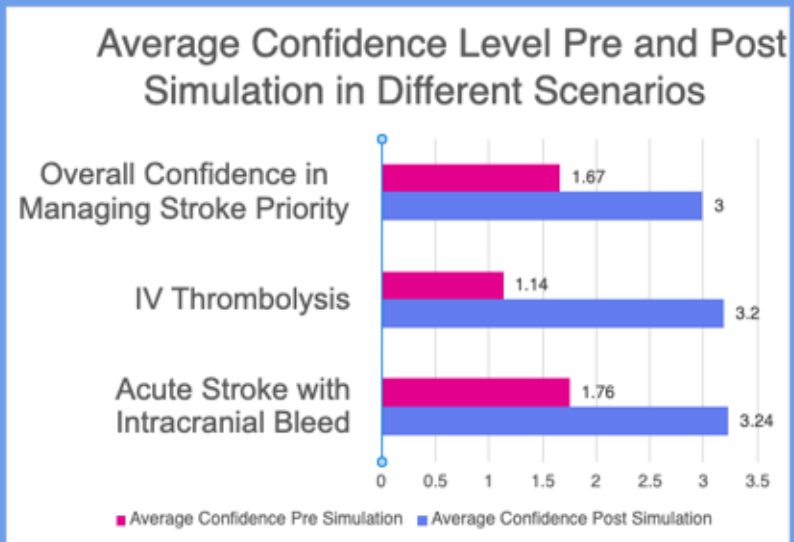


Figure 1: Graph of Confidence Level Pre and Post Simulation

Prior to this project, it was observed that clinicians—demonstrated a lack of confidence and uncertainty in managing acute stroke cases. Specific areas of concern included:

- Initiating and managing thrombolysis
- Managing acute intracerebral haemorrhages.
- Understanding the roles and coordination within the multidisciplinary stroke team.

Comparing pre simulations and post simulation showed more than 40% rise in confidence in managing stroke scenarios in ischaemic stroke and more than 40% in following the stroke pathway for ischaemic strokes and haemorrhagic strokes respectively.

DISCUSSION

Comparing the confidence level immediately after and post 6 months	Overall improvement in confidence immediately post simulation	Overall improvement in confidence post 6 months simulation
Percentage	44.3%	50%

The ultimate goal of this study is to provide sustainability in resident doctors' confidence. We hope that resident doctors retain the knowledge, confidence and ability to manage stroke priority, in and out of hours. The post 6 months intervention questionnaire has proven that 50% of resident doctors report having ongoing confidence post 6 months of simulation.

CONCLUSION

Stroke simulations have demonstrated a substantial and sustained positive impact on candidate's confidence in managing time-critical stroke and enhanced multidisciplinary collaboration.

These data supports continuous integration of simulation-based education as an effective tool in preparing healthcare professional for high-pressure clinical environment, especially in high pressures.

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Diagnostic Anchoring in Chronic Pancreatitis: Recognising a Rare Vascular Complication

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Informed consent was obtained for publication

Introduction

Ruptured pancreatic pseudoaneurysm is a rare but life-threatening complication of chronic pancreatitis, occurring in approximately 10-17% of cases¹. It is a recognised cause of upper gastrointestinal bleeding, typically presenting with haematemesis or haemodynamic instability. Diagnosis relies on prompt computed tomography angiography (CTA) imaging followed by endovascular embolisation. However, atypical presentations without overt bleeding or instability may delay diagnosis and worsen outcomes.

We present a case where non-specific symptoms and metabolic abnormalities led to diagnostic anchoring, masking a ruptured pseudoaneurysm and illustrating a critical diagnostic pitfall.

Materials and Methods

A gentleman in his late 50s presented to the Emergency Department following collapse, with a three-to-four-week history of vomiting and mild abdominal pain. Initial assessment revealed severe electrolyte abnormalities on venous blood gas analysis, confirmed on laboratory testing (Table 1).

Management was initially directed towards metabolic stabilisation with intravenous fluids. The combination of vomiting, mild abdominal pain, and electrolyte disturbances suggested a metabolic cause, delaying recognition of the underlying vascular pathology. The patient subsequently developed haematemesis, prompting urgent oesophagogastroduodenoscopy, which revealed fresh and altered blood within the stomach. CTA confirmed a ruptured gastroduodenal artery pseudoaneurysm causing haemosuccus pancreaticus (Figure 1).

Soon after diagnosis, the patient was found unresponsive and suffered a cardiac arrest. Despite prolonged cardiopulmonary resuscitation, he could not be revived.

Results and Discussion

This case demonstrates how non-specific gastrointestinal symptoms and metabolic abnormalities may divert attention from rare but life-threatening complications of chronic pancreatitis. Unlike most reported cases²⁻³, which present with haematemesis at onset, our patient was initially haemodynamically stable with no gastrointestinal bleeding.

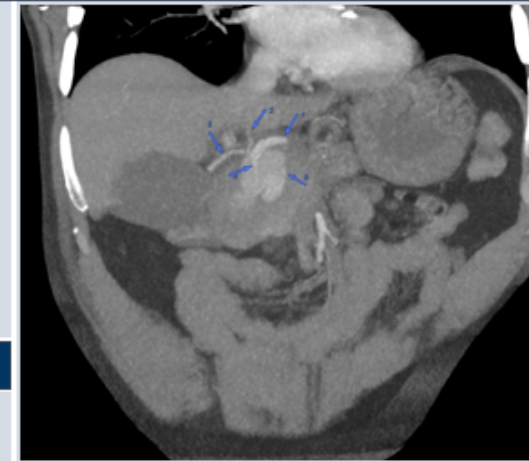
The focus on metabolic correction masked the underlying pseudoaneurysm, highlighting a key diagnostic pitfall. Clinicians should therefore maintain a high index of suspicion for visceral artery pseudoaneurysm in patients with chronic pancreatitis who develop new or evolving symptoms, even in the absence of overt bleeding, to enable earlier recognition and intervention.

Conclusion

Pancreatic pseudoaneurysms may present atypically and can remain clinically silent until rupture. In patients with chronic pancreatitis, new or evolving gastrointestinal symptoms should prompt early reassessment of differential diagnoses and consideration of vascular complications. Awareness of this diagnostic pitfall may enable earlier recognition and reduce mortality. This case highlights how increased clinician vigilance and timely reassessment may help prevent fatal outcomes.

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Parameter	Value	Normal range (Unit)
White cell count	19.3	4.0-11.0 x10 ⁹ /L
Haemoglobin	149	130-180g/L
Platelet count	315	140-400x10 ⁹ /L
Sodium	124	133-146mmol/L
Potassium	2.1	3.5-5.3mmol/L
Urea	26.5	2.5-7.8mmol/L
Creatinine	283	60-120umol/L
Inorganic phosphate	1.65	0.8-1.50mmol/L
Alanine transaminase	140	10-49U/L
Alkaline phosphatase	247	30-130U/L
C-Reactive protein	348	0-10mg/L
Amylase	86	30-118U/L

Table 1: Blood results during ED admission

Figure 1: Reconstructed coronal image from CT with contrast in arterial phase. The pseudoaneurysm (5) is arising from the gastroduodenal artery (4). Also labelled are the common hepatic artery (1) and the left and right hepatic arteries (2 and 3 respectively). Image courtesy of Dr Samuel Amis, who provided annotated imaging from the case report.

ISOLATED HAND WEAKNESS DUE TO CORTICAL HAND KNOB INFARCTION: A DIAGNOSTIC PITFALL

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Background

- Isolated hand weakness is commonly attributed to peripheral nerve pathology¹
- It may represent a focal cortical stroke involving the “hand knob” region²
- Such presentations are frequently misdiagnosed, causing delayed stroke diagnosis and management.

Clinical Presentation & Dilemma

Patient

- 73-year-old woman
- Acute isolated right-hand weakness

Examination

- Distal hand power 1/5
- Proximal strength preserved
- Sensation intact
- No other neurological deficits

Initial Assessment & Impression

- **CT head - no acute infarct or haemorrhage**
- Initial diagnosis: peripheral neuropathy

Concern

- Sudden onset
- Painless deficit
- Non-dermatomal pattern

Decision

- Stroke team review requested
- Brain MRI performed

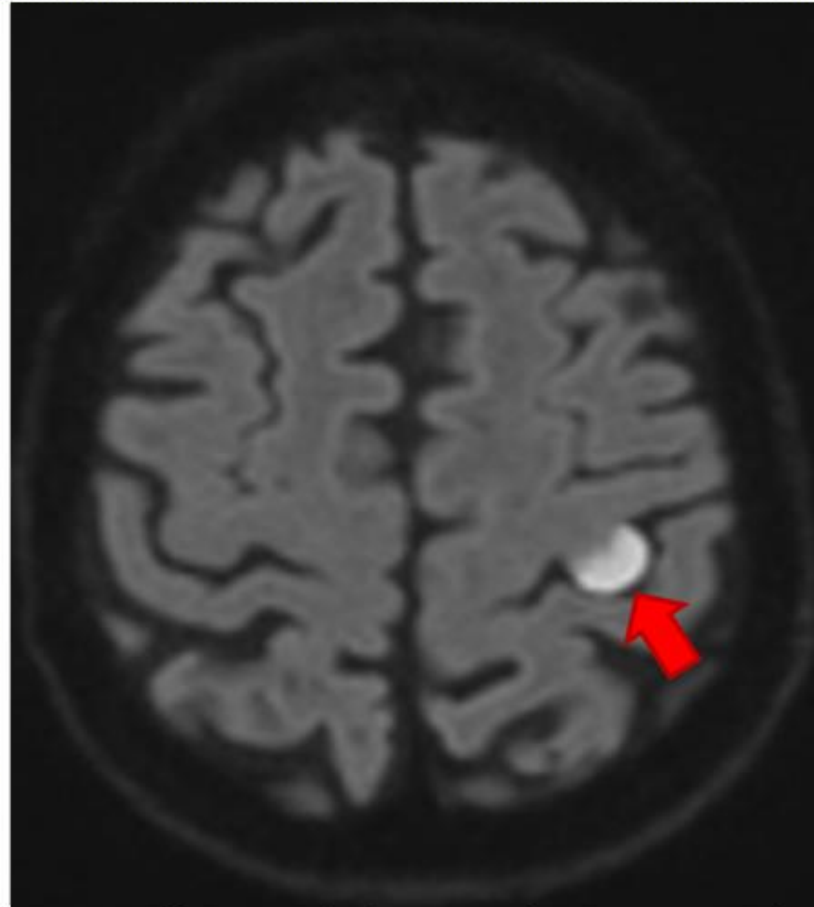


Figure 1. Diffusion-weighted Brain MRI showing an acute infarct in the left precentral gyrus at the hand knob region (arrow), with the characteristic omega-shaped motor cortex.

Peripheral vs Cortical Hand Weakness¹

	Peripheral	Cortical
Onset	Gradual	Sudden
Pattern	Dermatomal	Non-Dermatomal
Weakness	Nerve-specific	Isolated distal hand
Sensation	Often affected	Preserved

Management

- Aspirin 300 mg initiated
- MRI confirmed cortical hand knob infarction
- Admitted to stroke unit
- Strength improved to 3/5 at 24h
- Discharged on dual antiplatelet therapy → clopidogrel lifelong
- Minimal functional impairment

Clinical Message

- **Not all isolated hand weakness is peripheral.**
- Consider cortical stroke when deficits are sudden and non-dermatomal
- **Normal CT does not exclude acute cortical infarction.**
- Early recognition enables timely stroke management

BACTERIAL MYOCARDITIS MIMICKING ACUTE CORONARY SYNDROME IN THE SETTING OF NECROTISING FASCIITIS

Stefan Sepamalai¹, Okkar Myint Zaw¹, Eaint Kay Khine Thein¹, Thulasi Ramachandran², Hareshwaran Anpalagan²

¹ Buckinghamshire Healthcare NHS Trust | ² Imperial College London

Introduction

- Necrotising fasciitis requires urgent surgical source control¹
- Troponin elevation in sepsis often reflects non-ischaemic myocardial injury²
- Troponin elevation + dynamic ECG changes can mimic ACS
- Bacterial myocarditis may present as ACS despite unobstructed coronaries³

Key Investigations



Fig 1 - ECG showing inferolateral T-wave inversion (II, III, aVF, V4-V6)

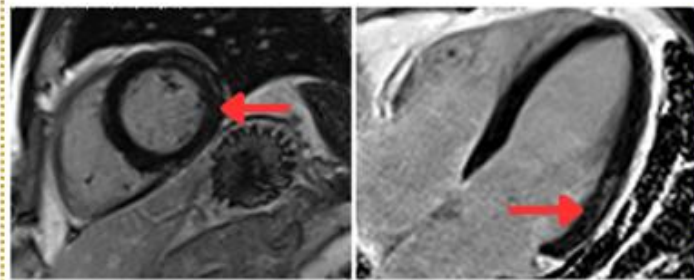


Fig 2 - Cardiac MRI (CMR) showing subepicardial late gadolinium enhancement in the lateral wall (arrow), consistent with myocarditis

CASE & CLINICAL DILEMMA

1

Initial Presentation

- Previously well man in his mid-40s
- Blunt calf trauma → deep haematoma → managed conservatively

2

Clinical Progression

- Progressive leg pain/swelling → treated as cellulitis → worsening pain and reduced distal sensation

3

Clinical Dilemma: ACS vs Necrotising Fasciitis

ACS Features

- Central chest pain radiating to left arm
- Troponin >20,000 | CRP 291 | BNP 1248
- ECG: **inferolateral T-wave inversion**

Necrotising Fasciitis Features

- Severe limb pain
- Rapidly progressive + skin changes
- Tense limb with blistering
- Reduced distal sensation

4

Clinical Decision

- Dual concern: ACS vs necrotising fasciitis
- Risk of delay if prioritising cardiac angiography
- **Decision: Urgent surgical debridement prioritised over angiography.**

5

Post operative outcome and Diagnosis

- Debridement → Staphylococcus aureus
- Initially treated as ACS → DAPT discontinued after **normal angiography**
- Troponin downtrending
- **CMR: subepicardial LGE consistent with myocarditis**

Final Diagnosis → Necrotising fasciitis complicated by bacterial myocarditis

Diagnostic Pitfalls

- Marked troponin elevation + dynamic ECG raise the suspicion of ACS
- Sepsis-related myocardial injury and bacterial myocarditis can mimic ACS^{2,3}
- Bacterial myocarditis is rare but clinically deceptive³
- Diagnosis often requires multimodality imaging (echo, angiography, CMR)
- Prioritising angiography may delay life-saving surgery

Differentials for Troponin Elevation²

- **ACS**
 - Plaque rupture / thrombosis
- **Non-ACS**
 - Supply-demand mismatch (e.g. sepsis)
 - Myocarditis
 - Critical illness
 - Other cardiac stress (Takotsubo, PE)

Clinical Message

- In suspected necrotising fasciitis with ACS features, **early MDT input** is critical to guide management
- Misinterpretation of troponin elevation and ECG changes may lead to inappropriate ACS management
- **Urgent surgical debridement must not be delayed**

Embedding Routine Quality of Life Assessment in Geriatric Cancer Patients Receiving Chemotherapy: A Quality Improvement Initiative



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INTRODUCTION

- Geriatric oncology patients face significant symptom burden, psychological distress and functional decline during chemotherapy
- Routine QOL assessment using patient-reported outcome measures (PROMs) improves symptom detection, communication and clinical outcomes¹⁻³
- Despite this evidence, QOL assessment remains under-utilised in routine oncology practice
- At our centre, baseline QOL documentation in geriatric patients receiving chemotherapy was **0%**
- Aim:** Increase routine QOL assessment from 0% to $\geq 50\%$ within six months

MATERIALS AND METHODS

- Six-month QIP** (2025), medical oncology department, tertiary care centre.
- SMART aim:** QOL assessment in geriatric patients (≥ 65 years) on chemotherapy from 0% \rightarrow 50% by December 2025
- Baseline data** plotted on run chart; progress tracked weekly. (Figures 1 & 2)
- Sequential PDSA interventions:**
 1. Validated QOL tool distributed in infusion therapy unit.
 2. Intern assigned to collect completed forms.
 3. QOL documentation integrated into EMR.
 4. Junior resident allocated for daily data collection.
 5. Onco-psychologist appointed for data entry, monitoring and monthly reporting.

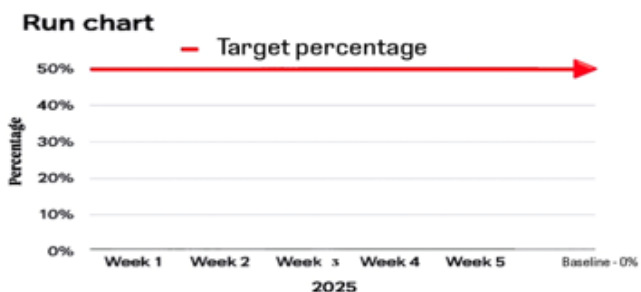


Figure 1. Baseline run chart demonstrating 0% QOL assessment rate prior to intervention.



Figure 2. Progress run chart demonstrating improvement to sustained 100% compliance following workflow redesign and role allocation.

RESULTS AND DISCUSSION

- QOL assessment rates increased from **0% at baseline** \rightarrow **50% by Week 3**.
- Temporary decline** following intern turnover — highlighting system vulnerability to personnel changes.
- Following junior resident allocation and workflow strengthening: compliance improved steadily.
- 100% compliance achieved by Week 12; sustained through project completion.**
- Structured workflow redesign and clear accountability are key drivers of sustained improvement.
- Findings align with evidence that PROMs improve survival and symptom control¹⁻³

CONCLUSION

- Routine QOL assessment in geriatric cancer patients is feasible, scalable and sustainable within structured clinical workflows.
- Clear role allocation and EMR integration were pivotal to achieving and sustaining improvement.
- Systematic QI methodology can successfully embed PROMs into routine oncology practice, strengthening holistic care⁴.

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optimising acute medical pathways in the ED using discrete event simulation

Thomas Knight, Nicola Crompton, Jan Hansell, Richard O'Sullivan, Timothy Felton, Anthony Wilson

Problem

- ED performance is a marker of whole-system flow
- System pressure creates **“Medical outliers in ED”**
- **Sequential assessment:** ED → medical assessment
- → duplication → delay → inefficiency

Aim

- To use real-world data and simulation to test alternative acute medical referral pathways improve patient flow and reduce system.

What is DES?

- A **probabilistic** simulation (built in python)
- Each run **30 days** (+ burn in and cool down)
- **Run 50 simulations** and aggregate
 - **Direct-to-medicine:** selected acute medical patients bypass ED assessment after triage
 - **Direct-to-consultant:** referred acute medical patients bypass initial medical assessment during in-hours periods

Data

Real-world data from Wythenshawe Hospital: **181,780 ED attendances** and **23,114 referrals** to acute medical services

- Arrivals modelled using a non-homogeneous Poisson process
- Service times derived from clinical document timestamps and modelled using log-normal distributions

Process map

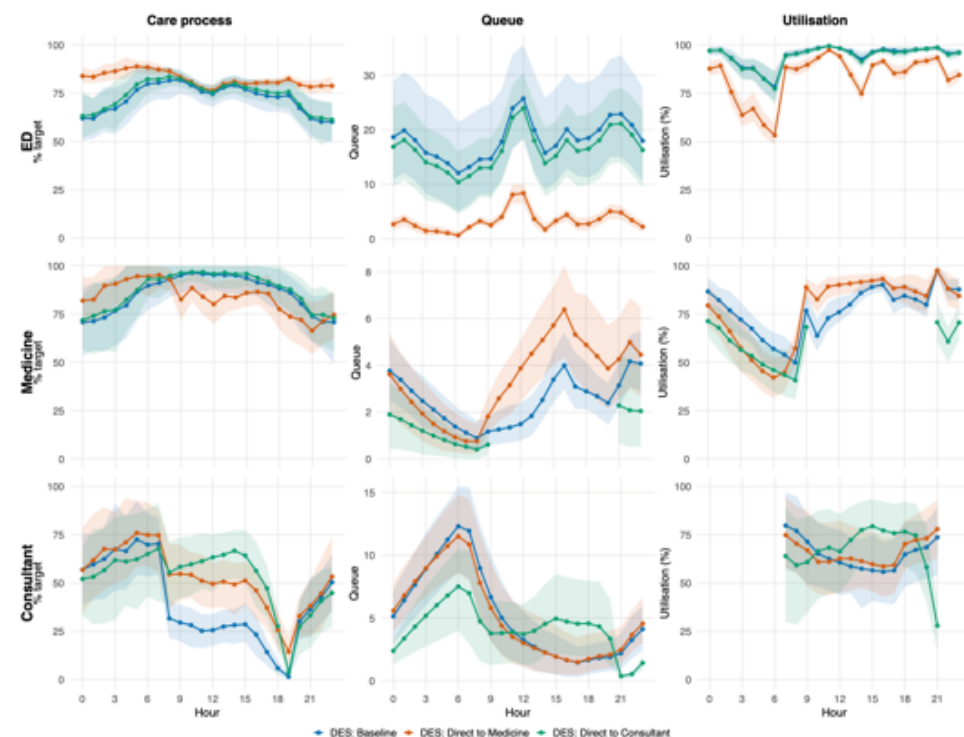


Figure. Hourly performance, queue length, and resource utilisation across emergency care processes. ED assessment < 4 hours and consultant assessment (time-varying target: < 6 hours daytime, < 14 hours overnight).

Results

- **Validation:** baseline DES closely reproduced observed ED time in system (observed median 3.8 hours vs simulated median 3.9 hours)
- **Direct-to-medicine** reduced overall time in system **3.9 → 2.8** hours
- **Direct-to-medicine** mean ED queue length **18.2 → 3.3** patient
- **Direct-to-medicine** mean ED clinician utilisation **94.7% → 83.3%**
- **Direct to consultant:** consultant assessment **9.2 → 4.4** hours
- **Direct-to-consultant** increased consultant utilisation in the day reduced morning backlog
- **Sensitivity analysis:** both alternative pathways deteriorated with small but sustained increases in referral volume

Take home

- Reducing duplication improves flow and time to clinical assessment

Scan to run the SIM



BREAKING THE STANDARD LETTER - RESTORING INDEPENDENT ACCESS TO GP COMMUNICATION FOR

PATIENTS WITH VISUAL IMPAIRMENT

Stefan Sepamalai¹, Thulasi Ramachandran², Liu, George³

¹ Buckinghamshire Healthcare NHS Trust | ² Imperial College London | ³ Tongdean Eye Clinic

Introduction:

- Over **360,000** adults in the UK are visually impaired.¹
- **Visual impairment impacts communication** as standard letters may not meet individual accessibility needs.
- **Personalised formatting** may improve independent reading.

Aim:

To improve accessibility of GP correspondence using patient-led formatting preferences.

Methods:

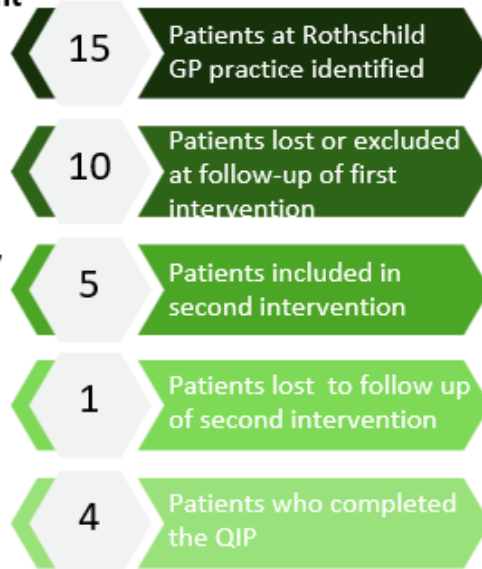
Patients with visual impairment

were identified using clinical codes. (Patients with poor cognitive function or declined consent were excluded).

Telephone consultation to assess baseline (reading ability, preferred communication, and need for assistance).

Intervention 1: Sample letters with varying font sizes.

Intervention 2: Personalised letters based on patient input. Preferences were recorded as **electronic alerts** for practitioner.



Results:

All patients requested font size 25 or larger.



Text messaging was the least preferred. All patients found text messages the most difficult to read.



All patients preferred telephone communication.

Hello!

All patients preferred bold, larger fonts. 50% of patients requested double spacing.



100% of patients could read correspondence independently after personalisation.

Limitations:

- Single-site study with a small sample size.
- Excludes patients without a formal visual impairment diagnosis.
- Need to evaluate scalability and sustainability.
- Future work should test email and phone-based communication.

Clinical Message:

- **Improved independent access** to written communication.
- **Low-cost**, simple, and easy to embed into multiple NHS services.
- Embedding preferences as electronic alerts **ensures sustainability** in routine practice.
- **Reduces inequality** and **improves safety** for patients with visual impairment.

Saving patient preferences electronically can sustainably help the NHS deliver safe, effective care whilst restoring patients' independence.

Prospective Development of a Delphi Questionnaire to Assess Clinical Abbreviation Use in Past Medical and Family History Documentation in a Secondary Healthcare System in The United Kingdom (UK).

Conducted as Part of the Royal College of Physicians Peer Support Network Project (October 2025– April 2026).

Dr Helen ADDINGTON

Introduction

Clinical abbreviations in secondary care in the United Kingdom (UK), especially in Past Medical History and Family History continuous to cause:

- ❓ Ambiguity, misinterpretation ⁽¹⁾.
- 🛡️ Patient safety concerns ⁽¹⁾.

Methodology

10 stake holders in the UK secondary healthcare Trust.

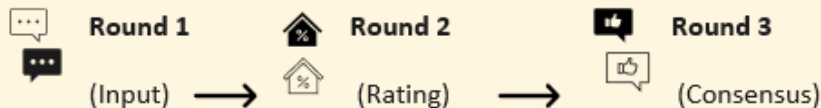
Conducted over 4 weeks (March 2026).

Responses analysed for clarity, communication, safety, and training themes.

Stakeholder Groups

👨‍⚕️ UK Non-consultant locum doctors (Foundation/SHO level)

👩‍⚕️ UK Healthcare Professionals



🔄 **Delphi Process** ^(2,3) – An iterative data process

Overarching Findings From Delphi Questionnaire

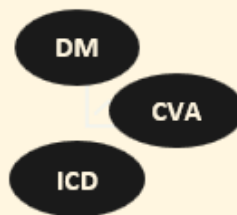


Examples of High-Risk Abbreviations:

MS:
 ? Multiple sclerosis.
 ? Mitral stenosis

PE:
 ? Pulmonary embolism
 ? Pleural effusion
 ? Pulmonary Oedema

Multiple meanings increase the risk of clinical misunderstanding.



Frequency of Abbreviations use

A wide range of abbreviations being are being used across specialities.



Memorability

Some abbreviations are easier to recall but not always clearly understood.



Variations in Training

Variation exists in whether clinicians receive formal training.

Conclusion

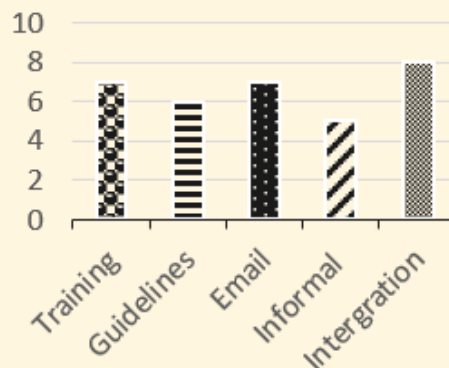
- ✓ Safer documentation.
- ✓ Improved patient safety.
- ✓ Improved clarity.
- ✓ Better communication.

Next step

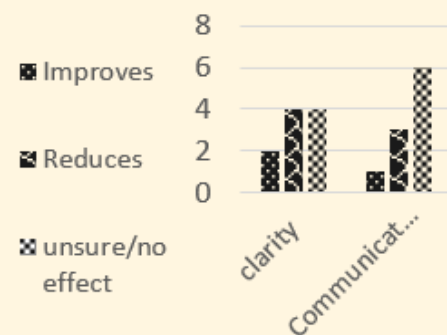
- ✓ Refine Delphi questionnaire
- ✓ Extend Delphi rounds (Socratic model ⁽⁵⁾, larger sample)
- ✓ Create standardised abbreviation guide

Results Analysis

Best ways of Communicating Medical Abbreviations Update



Perceived Impacts of Abbreviation Use on Communication



Disclaimer & Acknowledgement

The authors declare no competing interests. Patient informed consent was not required for data collection or presentation. I would like to offer my sincere gratitude to the medical and healthcare team at **WhippsCross Hospital, Barts NHS Health Trust** for assistance with data collation.

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Right Drug, Right Time: Improving Antibiotic Stewardship in an Acute Stroke Unit

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INTRODUCTION

- Antibiotics are commonly prescribed in hyperacute stroke units due to advanced age and comorbidities
- Local guidelines define right antimicrobials to prescribe ensuring patients safety and limiting AMR
- Prescribing does not always align with these standards

Objective: To evaluate adherence to local antibiotic prescribing standards and implement targeted interventions to improve prescribing practices in an acute stroke unit.

METHODOLOGY

Two cycle retrospective audit, each cycle spanning one month.

All consecutive stroke admissions were reviewed.

Antibiotic prescriptions assessed for:

- Documentation of indication and duration
- Alignment of indication and duration with local guidelines
- Microbiology involvement where prescriptions deviated from local guidelines

Interventions implemented:

- Departmental presentation
- Email communication to stroke physicians
- Ward-based discussions with doctors and nursing staff
- Visual reminder posters
- Proposal to mandate documentation of antibiotics duration in electronic prescribing system (Nervecentre)

RESULTS

1. Audit Overview

Metric	Cycle 1	Cycle 2
Patients admitted	71	120
Percentage of patients receiving antibiotics	40%	31%
Antibiotics prescribed	56	63

2. Analysis

Outcome	Cycle 1	Cycle 2	Change
Indication Documentation	91%	89%	2%
Duration Documentation	82%	68%	14%
Indication concordance	59%	57%	2%
Duration concordance	33%	53%	20%
Microbiology input	24%	35%	11%
Guideline aligned	48%	54%	6%

*includes prescriptions fully aligned with guidelines or aligned following microbiology advice/culture results

3. Key Findings

- ✓ Improvements seen in duration concordance, microbiology involvement and overall guideline alignment following targeted interventions.

Conclusion

- Targeted educational, awareness and multidisciplinary interventions improved antibiotic prescribing practices.
- Significant improvements were seen in duration concordance and microbiology consultation.
- Overall guideline adherence improved modestly suggesting partial effectiveness
- High indication documentation rates did not consistently translate into guideline-compliant prescribing

Future directions

- Introduce mandatory duration entry within the electronic prescribing system (Nervecentre)
- Re-audit following system changes to assess sustained improvement
- Expand interventions across other departments

Sex Differences in Adherence to Cardiac Rehabilitation Programmes: A Systematic Review of Barriers in Cardiovascular Care

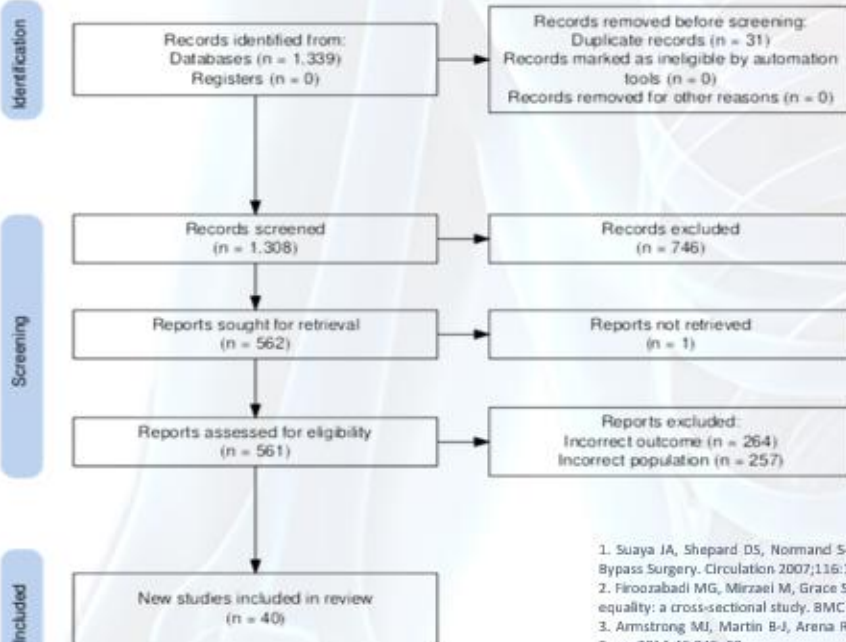
Dr Alaguraja, Mr Elmewafy, Dr Antoun

BACKGROUND

Cardiac rehabilitation (CR) is a critical component of secondary prevention in cardiovascular disease (CVD), yet women consistently demonstrate lower participation than men. This systematic review examines sex differences in CR adherence and explores barriers contributing to this disparity. ^[1]

METHODS

Identification of new studies via databases and registers

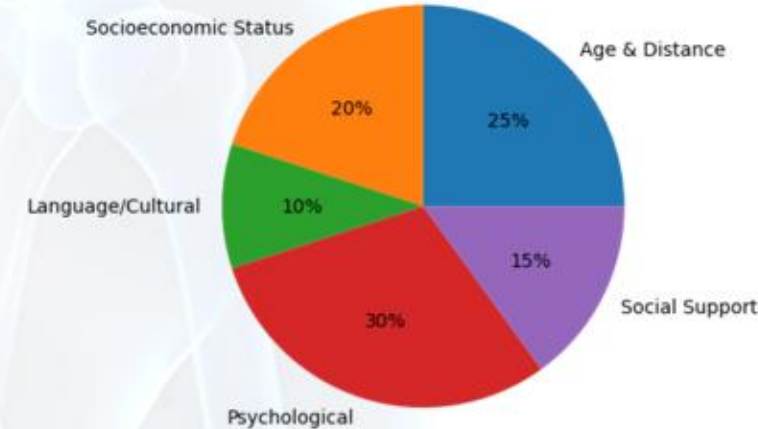


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RESULTS



Barriers to Cardiac Rehabilitation Adherence



CONCLUSION

Women consistently show lower cardiac rehabilitation uptake, attendance, and completion than men. This reflects persistent clinical, psychosocial, and structural barriers.

Targeted, sex sensitive programme design and standardised referral pathways are needed to improve access and outcomes.

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Lifting the veil: A case of sudden painful violaceous rash on the digits

Dr S Anis¹, Q Waleed¹, S Manupati³, Manchester University NHS Foundation Trust

1: Internal Medicine Trainee, 2: Consultant Dermatologist

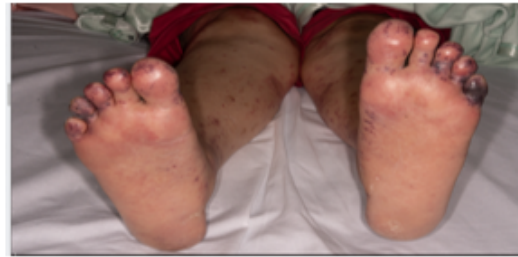
1 Case snapshot

A 70-year-old woman with ESRF on haemodialysis, with a background of diabetes, PAD and ischaemic heart disease

Presented with acute bilateral lower-limb pain

Violaceous rash affecting the left 5th toe, with proximal spread

Severe burning rest pain



2 Clinical pattern

Painful violaceous digits are a typical presentation of Blue Toe Syndrome (BTS)

Purpura, petechiae and haemorrhagic blisters

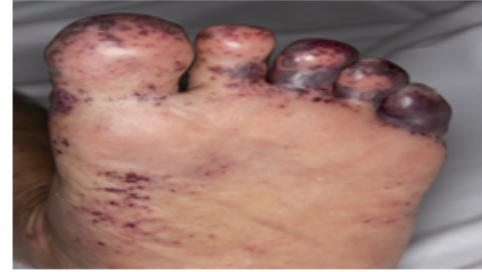
Early digital ischaemic change

Weak distal pulses with preserved proximal pulses

Interpretation

Infection, vasculitis and cardiac embolic sources were less likely; imaging and risk profile supported a diagnosis of blue toe syndrome secondary to atherothromboembolic disease in advanced PAD.^{1,2}

This highlights the case as a manifestation of underlying vascular pathology rather than a primary dermatological disorder.



3 Focused tests

Vascular imaging: severe distal PAD, tibial disease and monophasic distal flow

Cardiac work-up: no embolic source or arrhythmia

Negative cultures

Negative autoimmune / vasculitic screen

Management and outcome

Initial admission

- Antiplatelet therapy
- Close vascular monitoring
- No acute limb-threatening ischaemia initially

Progression

- Worsening rest pain and tissue ischaemia
- Angioplasty for chronic limb-threatening ischaemia

Key Takeaways

1. Blue toe syndrome is a clinical manifestation with multiple potential causes, most commonly embolic or thrombotic disease,¹ and requires systematic evaluation to identify the underlying cause.

2. Investigations should address key questions: vascular disease, embolic source, infection and vasculitis.²

3. In high-risk PAD patients, early recognition may prevent tissue loss.³

Appropriate patient consent and permissions were obtained for the collection and use of all data presented.

1. Abdelmalek MF, Douglas DD, Harrison JM. 79-year-old woman with blue toes. *Mayo Clin Proc.* 1995;70(3):292–295.

2. Casey C. Blue toe syndrome secondary to multiple spontaneous aortic thrombi following pneumonia. *J Vasc Soc G B Irel.* 2023;2(4):225–227.

3. Savill P. Early diagnosis of peripheral arterial disease can save limbs and improve outcomes. *Br J Surg.* 2012;99(5):643–645.

Towards a Geriatrician-led Hospital at Home model for frailty

Dr Madeleine Turner, Melanie Cassells, Dr Martha Twigg, Dr Richard Gilpin. Wye Valley NHS Trust

The problem: Underutilisation of frailty Virtual Ward

Can moving from a consultative to a direct-care medical model improve service output?

Methods:

1. Geriatric Consultant and Registrar spent two weeks with the community ACP team to understand the current processes and requirements to build the service.
2. Data collected including referral volume, length of stay, readmissions and qualitative staff/referrer feedback
3. Series of interventions developed targeting recognised areas for improvement



PDSA 1: Influencing Referrer Behaviour

Communication via WhatsApp, email and intranet



PDSA 2: Targeting Operation Inefficiency

Change to time and format of handover/MDT



PDSA 3: Maintaining Improved Clinical Presence

Resident doctor integrated into community team



PDSA 4: Streamlining Pathways

Aligning with OPAT and mobile services

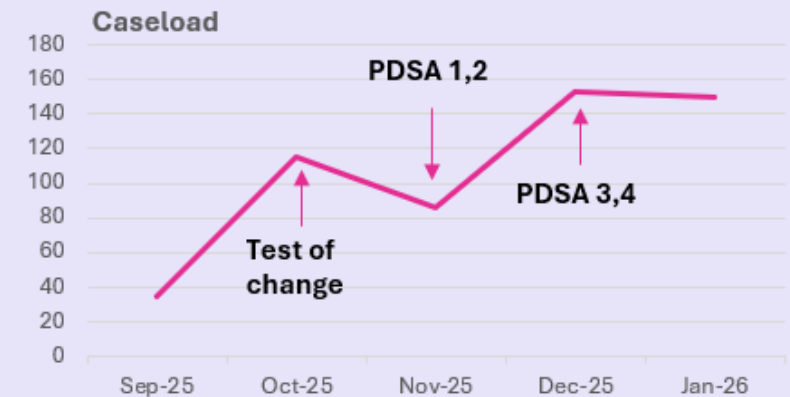
Results:

Month	Caseload	Daily Caseload	Occupancy	Mean LOS
Jan 2025 – pre	92	3.0	59.4%	7.0
Jan 2026 – post	150	6.0	120.0%	5.9
Change	63% increase	100% increase	100% increase	1 day reduction

- Referrals increased and sustained improved “bed” occupancy
- Aligning with OPAT – faster decision making and improved governance
- Qualitative Feedback:

Referrer feedback cited ease of senior access and reassurance in managing complex multimorbidity outside hospital

Community ACP feedback “I feel better supported in making faster decisions for my patients”



Conclusions and Future Steps:

- Enhancement of direct medical input within a frailty virtual ward produced a sustained rise in utilisation
- Integration with OPAT and mobile services expanded therapeutic scope and system confidence
- Future priorities: pan-system pathway standardisation, improving digital interoperability, governance maturation

Optimising Influenza Vaccination Uptake and Evaluating Respiratory Outcomes and Equity Impact in Adults with Sickle Cell Disease and Thalassaemia

Ameli, Rose¹; Troy-Barnes, Ethan¹; Draser, Emma²; Nakrani, Nisha²; Collins, Steve²; Ameli, Tina

¹University College Hospital London. ²Whittington Health NHS Trust

Background:

Sickle cell disease and thalassaemia patients are high-risk, yet influenza vaccination uptake remains suboptimal and socially patterned, driving preventable morbidity.

Methods:

- Paired cohort (n=375) → baseline vs intervention
- Targeted vaccination → hospital + opportunistic within transfusion pathway + bespoke home delivery
- Outcomes → vaccination uptake + respiratory morbidity
- Analysis → paired McNemar for vaccination, absolute risk difference for respiratory morbidity, logistic regression for deprivation (IMD)

Results:

Outcome	Baseline	Intervention	Change
Vaccination	39.2%	41.9%	+2.7%
LRTI	10.1%	6.9%	-3.2%
Admissions	6.7%	4.5%	-2.1%
Emergency RCE	3.4%	0.4%	-3.0% (p=0.039)
ACS	4.3%	2.2%	-2.2%
ITU	1.1%	0.5%	-0.5%

Permission for collecting and sharing all patient data obtained

References

1. Vichinsky EP, Neumayr LD, Earles AN, et al. Causes and outcomes of the acute chest syndrome in sickle cell disease. N Engl J Med 2000;342:1855-65.
2. UK Health Security Agency. The national influenza immunisation programme 2024 to 2025: guidance for healthcare practitioners. London: UKHSA, 2024.
3. Office for Health Improvement and Disparities. Seasonal influenza vaccine uptake in GP patients: winter season 2022 to 2023. London: OHID, 2023.

Aims:

- Does targeted vaccination increase uptake?
- Does it reduce respiratory morbidity?
- Does it reduce inequality?



Change in Respiratory Outcomes after Targeted Vaccination Delivery

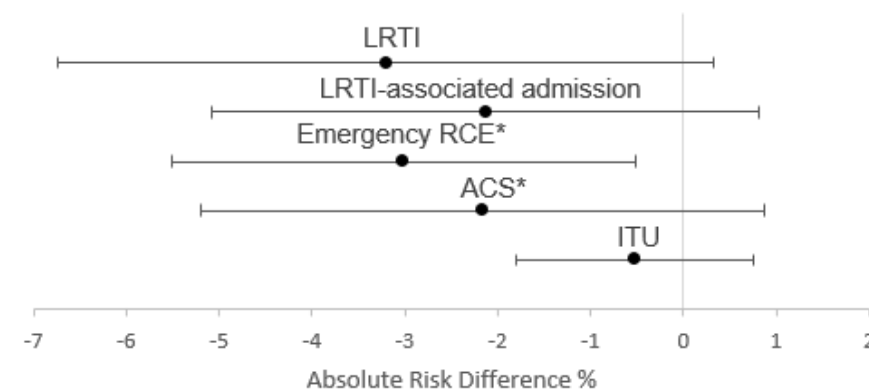


Figure 1: Absolute risk differences with 95% CI for respiratory outcomes (n=375; *Emergency RCE and ACS analyses restricted to SCD, n = 232).

KEY FINDING: Greater improvement in MORE DEPRIVED patients
OR 0.75 per IMD decile (p=0.0004)

Discussion

- Reduced severe morbidity (Red Cell Exchange ↓)
- Equity benefit → greatest gains in most deprived
- Targeting > total uptake
- Supports targeted hospital-based vaccination delivery

Elizabeth Chia, Sadaf Cheema & Daniel McNally

Abstract

Background

- SGLT2 inhibitors (used in diabetes, HF, CKD) ↑ risk of **DKA/euglycaemic DKA** during acute illness
- National guidance: **temporarily withhold** (“sick-day rules”)
- Poor awareness, especially in **non-diabetic patients**

Aim

- Improve compliance with **SGLT2 inhibitor sick-day rules** on AMU admission

Baseline (Jul–Aug 2025, n=70)

- 74% required withholding
- Only **21% appropriately withheld**
- 5 DKA cases** (1 ICU admission)
- Poor documentation

Intervention

- SGLT2 sick-day **poster + flowchart**
- eMeds alert** prompting review & mandatory justification if overridden

Results (Jan–Feb 2026, n=85)

- 93% appropriately withheld** on admission

Key Learning

- Education alone has limited impact
- Electronic prescribing alerts** improve compliance & sustainability

Next Steps

- 6-monthly audit cycle
- Refine alert system
- Ongoing staff education (especially new/rotating clinicians)

Conclusion

Embedding guidance into e-prescribing significantly reduces **preventable harm**
Scalable model for other **high-risk medications**

Results and discussion

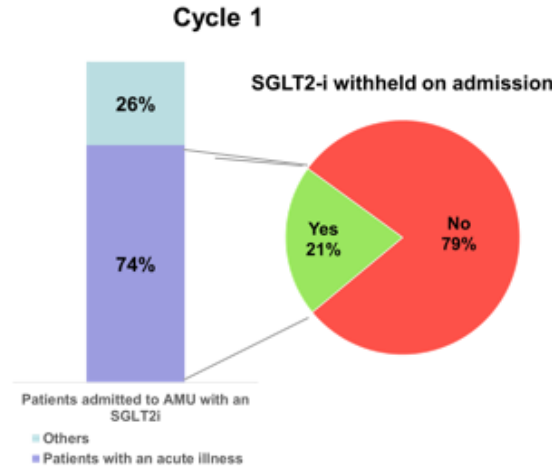


Diagram 1 (Baseline) – total 70 patients
Of patients on SGLT2-i with acute illness (74% of admissions), only 21% had the drug appropriately withheld

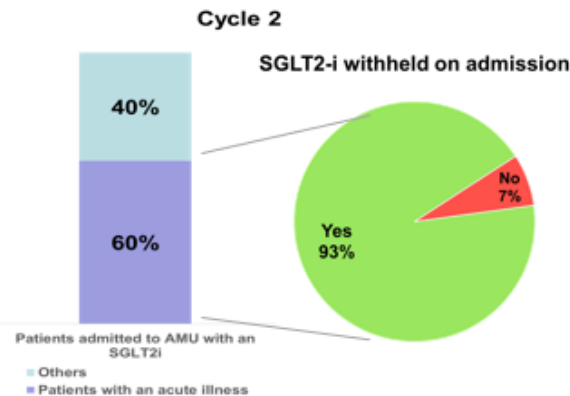


Diagram 2 (Post-intervention) – total 85 patients
Of patients on SGLT2-i with acute illness (60% of admissions), 93% had the drug appropriately withheld

Interventions

Audit: Withholding SGLT2-i during acute illness
Author: Dr Elizabeth Chia
Supervisor: Dr Sadaf Cheema

THE HIDDEN HARMS OF SGLT2-inhibitors

How did we do?

- 100% of patients on SGLT2-i were reviewed
- Only 21% of the 74 who had acute illness had withheld
- The new SGLT2-inhibitor before it was withheld
- 100% of patients on SGLT2-i were reviewed

What defines as an 'acute illness'?

- 1 episode of diarrhoea +/- vomiting
- Inable to maintain oral intake
- Fever with systemic symptoms
- Sepsis, major infections needing admission
- Diabetic ketoacidosis (includes euglycaemic DKA)
- Dehydration, hypotension or light-headedness
- Nil by mouth for planned procedures/surgery
- (perioperative withholding – timing varies – commonly 24–72 hours, some sources 3–7 days for high-risk procedures)

What's the rationale?

SGLT2 causes osmotic diuresis, contributing to severe renal hypoperfusion and precipitate AKI.

↑ risk of euglycaemic DKA during peri-operative stress + periods of fasting.

Recommendations

Flowchart for SGLT2-i withholding:

```

    graph TD
      A[Patient on SGLT2-i] --> B{Acute illness?}
      B -- No --> C[Continue SGLT2-i as usual]
      B -- Yes --> D{SGLT2-i withheld?}
      D -- No --> E[Continue SGLT2-i as usual]
      D -- Yes --> F[Withhold SGLT2-i]
      F --> G[Review patient once clinically improved, eating/drinking normally, and renal function is satisfactory]
      G --> H[Restart SGLT2-i]
  
```

depagliflozin 10mg Tablet

SGLT2 inhibitor Safety Check

Does the patient have an acute illness (e.g. sepsis/shock, AKI, DKA, dehydration, hypotension, diarrhoea +/- vomiting +/- or poor oral intake)?

YES → temporarily withhold in the with national SGLT2i sick-day guidance → Please enter reason in the free text box → proceed to screen on withholding meds (if possible).

NO → continue

Review and restart once the patient has clinically improved, eating/drinking normally, and renal function is satisfactory.

Action

Continue

Withhold

Comment

empagliflozin 10mg Tablet

SGLT2 inhibitor Safety Check

Does the patient have an acute illness (e.g. sepsis/shock, AKI, DKA, dehydration, hypotension, diarrhoea +/- vomiting +/- or poor oral intake)?

YES → temporarily withhold in the with national SGLT2i sick-day guidance → Please enter reason in the free text box → proceed to screen on withholding meds (if possible).

NO → continue

Review and restart once the patient has clinically improved, eating/drinking normally, and renal function is satisfactory.

Action

Continue

Withhold

Comment

Multi-territory Embolic Cerebral Infarction Revealing Silent Inferior Myocardial Infarction Complicated by Left Ventricular Pseudoaneurysm: Early Anticoagulation Guided by Spontaneous Echo Contrast

Taieb S.K.¹, Kirthivasan R.¹, Hegazi M.¹, Keraani L.², Aljanabi F.¹

¹Broomfield Hospital, Mid and South Essex NHS Foundation Trust ²Internal Medicine & Endocrinology, Fattouma Bouguiba Monastir University Hospital

RCP Medicine 2026
Poster Competition

INTRODUCTION

Silent myocardial infarction may remain clinically unrecognised and present through thromboembolic complications rather than typical anginal symptoms. In patients with multi-territory cerebral infarction and normal carotid imaging, early identification of a cardiac source is essential.

Spontaneous echo contrast on echocardiography reflects blood stasis and increased thromboembolic risk. Combined with clinical suspicion, it may support early anticoagulation before definitive thrombus visualisation to reduce embolic burden

CASE PRESENTATION

A 53-year-old male, heavy smoker with hypertension, dyslipidaemia and family history of coronary disease (father: CABG x3), presented 12 days after transient bilateral visual blackout and dizziness. Further episode of diplopia (~20 min) the day before admission. No history of exertional chest pain, dyspnoea or headache.

Key History

- High cholesterol
- Smoker 7–10 cig/day since adolescence
- Previously alcohol-dependent (abstinent)
- Good functional baseline (dog walking, gardening)

Examination

No focal neurological deficit. Palpitations noted.

Management

- Aspirin 300 mg load initially after stroke identified, then DAPT + fondaparinux after Echo findings.
- Transferred to cardiothoracic centre after echo.
- Post-CMR: therapeutic enoxaparin bridged to warfarin anticoagulation (INR 2–3) for LV thrombus
- HFREF therapy: ARNI, beta-blocker, MRA, SGLT2i, high-intensity statin

Outcome

Good neurological recovery. Discharged day 22. Stroke review (10 wks): neurologically intact

INVESTIGATIONS

Bloods

- hs-Troponin T: 913 ng/L, repeat 875 ng/L (ref <5)
- NT-proBNP: 5,906 ng/L (ref <400)
- CRP: 60 mg/L; WCC: $11.4 \times 10^9/L$, normal U&Es
- Blood cultures: negative x3

Neuroimaging

- CT Head: No acute intracranial abnormality
- Carotid Ultrasound Doppler: no stenosis
- MRI Brain (DWI): Innumerable bilateral supra- and infratentorial punctate multi-territory acute infarctions (Fig.2)

ECG (Figure 1)

- Sinus rhythm, inferior Q waves (II, III, aVF)
- T-wave inversion II, III, aVF, V4–V6 in strict absence of chest pain



Figure 1: 12-Lead ECG: Inferior Q waves (II, III, aVF) with inferolateral T-wave inversion. No chest pain reported.

Echocardiography (Figure 3)

- Severely dilated LV (LVIDd 69 mm; EF 36–40%)
- Inferior akinesis with spontaneous echo contrast
- Moderate MR (ERO 0.34 cm²)

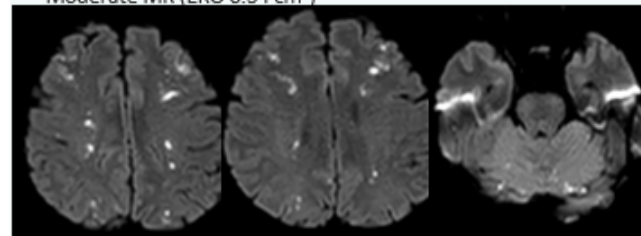


Figure 2: MRI Brain (DWI) Innumerable bilateral supratentorial (L, C) and infratentorial (R) punctate acute infarctions — embolic multi-territory pattern.

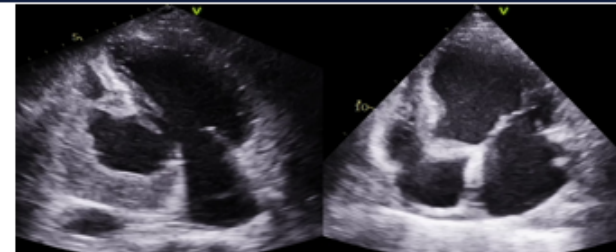


Figure 3: Transthoracic Echocardiography: Apical 2- & 4-chamber views: severely dilated LV, inferior aneurysmal akinesis with spontaneous echo contrast (smoke-like swirling). EF 36–40%.

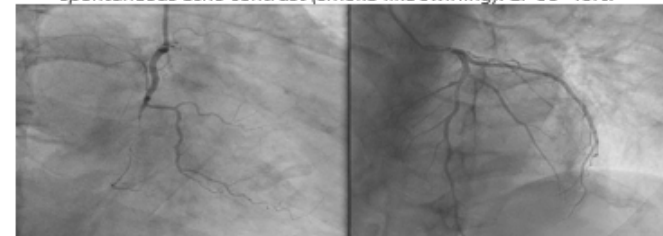


Figure 4: Coronary Angiography: L: Total mid-RCA occlusion (RAO). R: Non-dominant left coronary system. Managed medically.

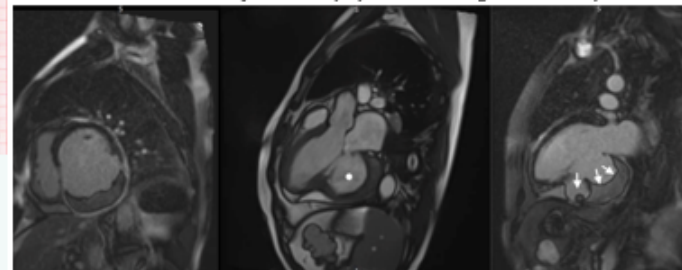


Figure 5: Cardiac MRI A: DE image of the infarcted zone showing pseudoaneurysm. B: False aneurysm dotted C: DE-2C – mural thrombi (arrows). Large basal mid-inferior LV aneurysm. LVEF 34%.

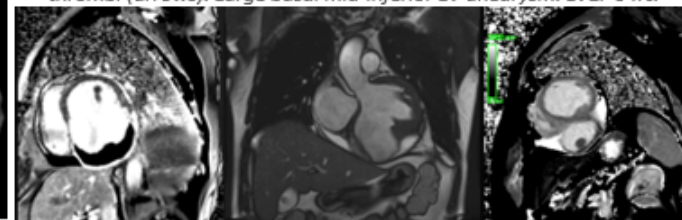


Figure 6: CMR – Additional Views D: HR thrombus. E: false aneurysm. F: 4-ch view showing dilated LV with mural thrombus.

PATHOPHYSIOLOGICAL CASCADE

Silent Inferior MI → LV Wall Disruption → False Aneurysm → Blood Stasis: SEC → Mural Thrombus → Systemic Embolisation → Multi-Territory Cerebral Infarction

DISCUSSION

This case illustrates a 'stroke-first' presentation of clinically silent myocardial infarction.

The MRI phenotype of innumerable punctate infarcts across both supratentorial and infratentorial compartments, with normal carotid duplex, strongly suggested a proximal embolic source.

The diagnostic pivot was recognition of inferior Q waves and inferolateral T-waves inversion on ECG and high troponins despite strict absence of chest pain or dyspnoea.

Echocardiography demonstrated severe LV dilation, impaired systolic function, an aneurysmal akinetic inferior wall and spontaneous echo contrast: indicating high thromboembolic risk even before a thrombus was visualised.

Anticoagulation was initiated early at this stage, guided by the embolic stroke pattern and echocardiographic findings, before CMR provided definitive confirmation of extensive mural thrombus within a large LV false aneurysm.

LEARNING POINTS

- Innumerable acute supra- and infratentorial punctate infarcts on MRI with normal carotid imaging should trigger urgent evaluation for a proximal cardiac/aortic embolic source.
- Silent MI may present without chest pain; ECG evidence of missed infarction (inferior Q waves) can be the critical diagnostic clue in the stroke pathway.
- LV aneurysm/pseudoaneurysm with spontaneous echo contrast indicates high thromboembolic risk, even if thrombus is not visualised on TTE.
- Spontaneous echo contrast, combined with clinical suspicion, can justify early anticoagulation to reduce further embolic burden while awaiting definitive imaging.
- CMR is the gold standard to identify LV thrombus and characterises infarct/aneurysm anatomy when echocardiography is non-diagnostic.
- Identifying LV thrombus substantially changes secondary prevention strategy: anticoagulation rather than antiplatelet therapy alone.

REFERENCES

1. Levine GN et al. Circulation. 2022. 2. ESC ACS Guidelines. Eur Heart J. 2023. 3. Young KA et al. Eur Heart J. 2021;42:3106. 4. Brennan S et al. EHJ Case Rep. 2021;5:rtab203. 5. Zhang Q et al. Heart. 2025.

12-hour NAC is as safe and better tolerated than 21-hour NAC

Abbreviated versus standard-duration intravenous acetylcysteine regimens for paracetamol poisoning: a systematic review and Bayesian meta-analysis

Shiva Sreenivasan¹, Brandon Yair Rodríguez-Tapia², Chris KS Gyan³, Monica Monaghan¹, **Sai Matseti**¹, Naren Gunja⁴

¹Western Health and Social Care Trust ²Antenor Orrego Private University, Peru ³University of Southampton ⁴University of Sydney

PROSPERO CRD420261290104

BACKGROUND

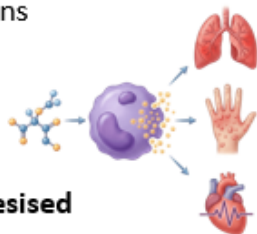
Paracetamol overdose is the main cause of acute liver failure in the developed world.

Acetylcysteine (NAC) usually given IV over 20-21 hours

Anaphylactoid reactions
Acute bed pressures

Short 12-hr regimens in use

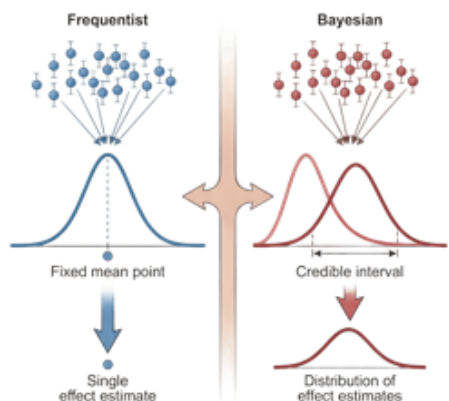
Evidence never synthesised



METHODS



Compared RCTs / cluster-controlled trials



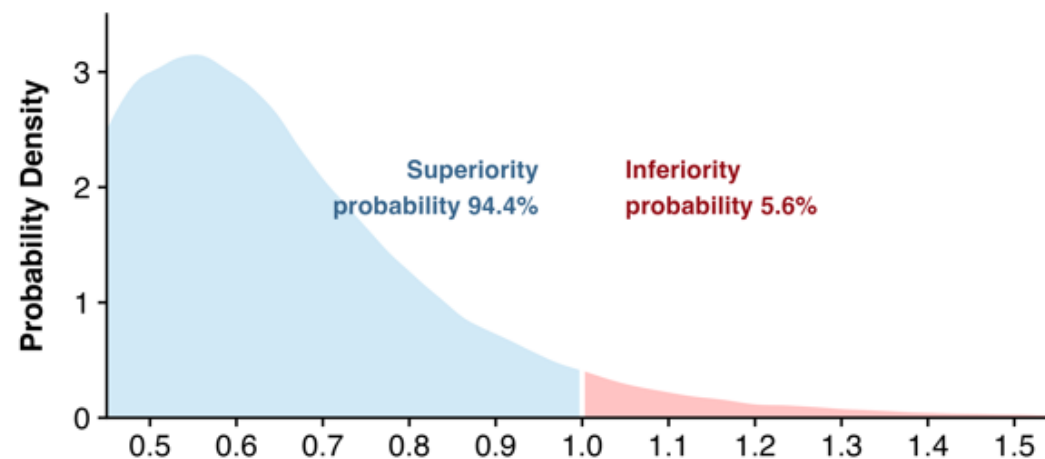
Frequentist and Bayesian methods

RESULTS

Outcome	Studies (n)	Overall OR (95% CrI)	P(OR < 1) Superiority	Frequentist OR (95% CI, p-value)	Interpretation
Hypersensitivity reactions	4	0.61 [0.35–1.16]	94.4%	0.47 [0.25–0.88] p = 0.031	Significant benefit with abbreviated NAC
GI side effects Nausea / vomiting	4	0.87 [0.52–1.51]	70.2%	0.83 [0.30–2.31] p = 0.599	Trend favouring abbreviated NAC; not conclusive
Liver injury ALT ≥ 50% rise	4	0.86 [0.47–1.63]	68.2%	0.77 [0.14–4.34] p = 0.303	No significant difference

Posterior Distribution of Overall Effect Hypersensitivity side effects

Odds Ratio (OR) | Abbreviated NAC vs Standard-duration NAC | Primary Normal(0, 0.5)



Odds Ratio

OR < 1 favors Abbreviated NAC

Bateman *et al.* Lancet 2014; Wong *et al.* Hepatology 2019; Isbister *et al.* J Hepatol 2025; Wong *et al.* Med J Aust 2026

KEY FINDINGS

Liver injury EQUIVALENT
Bayesian OR 0.86 (95% CrI 0.47–1.63)
P(benefit) = 68.2% | I² = 0%

Hypersensitivity reactions HALVED
Bayesian OR 0.61 (95% CrI 0.35–1.16)
P(benefit) = 94.4%
Rising to 96.7% under diffuse priors

GI adverse effects INCONCLUSIVE
Substantial heterogeneity (I² = 67%);
driven by a single trial.

CONCLUSIONS

12-hour and 21-hour NAC provide equivalent hepatoprotection.

Hypersensitivity reactions are halved, with >94% posterior probability of benefit.

Abbreviated protocols could reduce treatment by 8–9 hours for low-to-moderate risk overdoses, easing pressure on acute medical units.

Limitation: generalisability to severe overdose is unestablished.

Feasibility and Educational Impact of Integrating Multiple Long-Term Conditions, Social Determinants of Health and Health Inequalities into Simulation-Based Training in Diabetes



Authors: Saima Kauser-Malik, Balvinder Singh Athwal, Harshin Pallathoor, Akshat Sinha, Aspasia Manta, Mariam Idrissi, Punith Kempegowda, Kalyaani Persad

1

Introduction

Diabetes mellitus (DM) is commonly associated with multiple long-term conditions (MLTCs)¹, which are often influenced by social determinants of health (SDOH)², and health inequalities (HI)³. These factors often influence diabetes care; however, postgraduate training focusses on clinical management. Previous work has demonstrated the effectiveness of simulation-based training in supporting diabetes clinical training.

Aim:

To evaluate the feasibility, acceptability, and educational effectiveness of integrating MLTCs, SDOH, and HI into a simulation-based training programme for HCPs.

2

Methods

Study type: Pre-post intervention study
Population: Healthcare professionals
Evaluation: Pre- and post-intervention questionnaires and semi-structured interviews – 60 participants
Registration: University of Birmingham (ERN_3595_Feb2025)

Figure 1: Overview of the simulation process, including case development, delivery, and debriefing

Cases transcripts reviewed by experts

Trainees simulate 8 cases with MLTCs, SDOH and HI content embedded

Expert-led discussion for each case

3

Results

Figure 2: Participant-reported feasibility and acceptability of the simulation learning session (N=60)

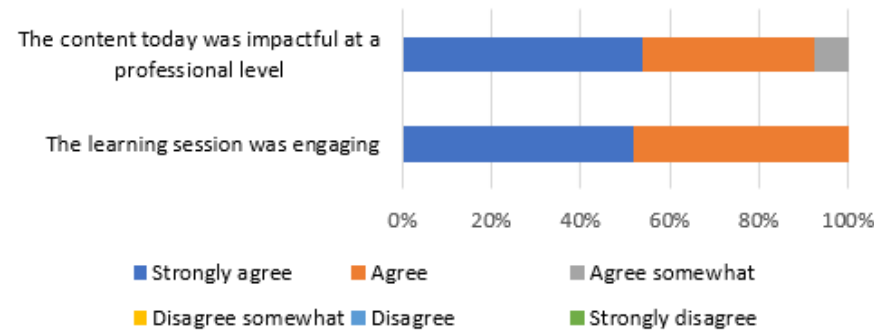
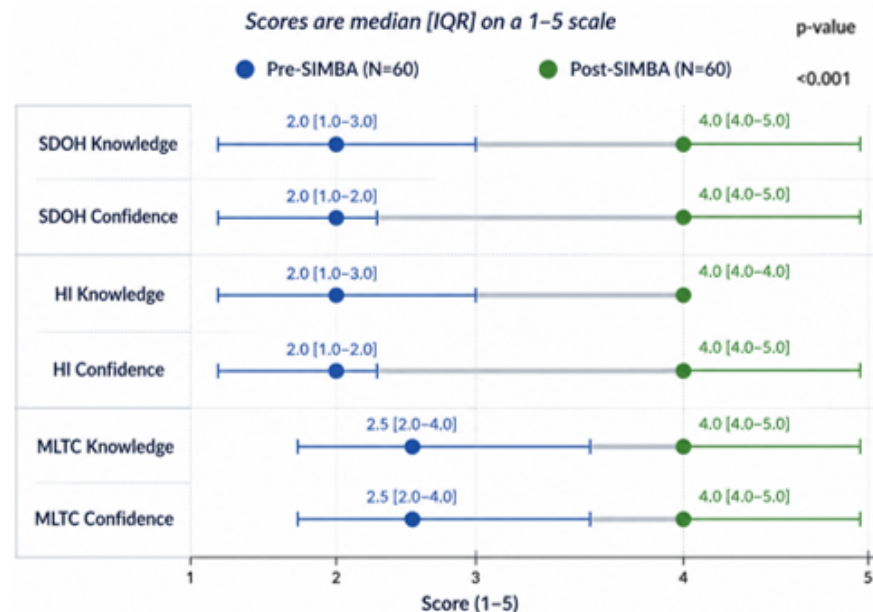


Figure 3: Participants' self-reported knowledge and confidence identifying and managing MLTCs, SDOH, and HI, assessed using a 5-point Likert scale



4

Discussion and Recommendations

- Simulation is a feasible and acceptable method for integrating MLTCs, SDOH and health inequalities into postgraduate diabetes training
- Associated with improvements in:
 - Knowledge
 - Confidence
 - Clinical competence (clinical + contextual)
- Findings supported by both quantitative and qualitative data

LIMITATIONS:

- Self-reported outcomes → may overestimate competence
- No control group
- Short-term evaluation only

5

Recommendations

- Implement simulation-based teaching for MLTCs, SDOH and HI across a wider range of **clinical settings and presentations** to assess generalisability.
- Future research should evaluate the **long-term behavioural change** and **patient outcomes**.

6

References

1. National Institute of Health and Care Excellence. Multimorbidity. 2023.
2. World Health Organisation. Social determinants of health. 2025.
3. The King's Fund. What are Health Inequalities? 2022.



The Challenges

The Clinical Challenge

38 year old female transferred to a tertiary centre for multivisceral transplantation (MVT) assessment following mesenteric ischaemia and septic shock.

- TFTs on admission reflected non-thyroidal illness.
- Prolonged ICU stay with multiple contrast scans, hepatic angiography, and abdominal surgeries in the first 2 months.
- After 4 months, T3 was high with suppressed TSH.
- Developed tachycardia and high stoma output.
- Intensive MDT collaboration between Endocrinology, Surgery, and Critical Care.
- Carbimazole was trialed to optimise her condition for multivisceral transplant.

The Diagnostic Challenge

Distinguishing severe non-thyroidal illness syndrome from primary hyperthyroidism and contrast-induced thyroiditis in the ICU is a significant challenge for the physician.

The Short Bowel Syndrome Challenge

Intestinal failure and short bowel syndrome (SBS) severely limited the absorption of oral medications, rendering high-dose thionamide therapy refractory.

Key Biochemical Shift (FT4 (pmol/L))

2.4 → **53.6**

Normal range: 11.5–22.7

2.5x upper limit of normal over 9 months

The Evidence



Figure 1: Reduced technetium uptake (0.2%) suggesting destructive or iodine-induced aetiology.

Ultrasound Thyroid: heterogeneous with small spongiform nodules bilaterally (BTA-U2), all under 1cm.

Table 1: Three Stage Biochemical Progression

Parameter	Stage 1 NTIS	Stage 2 T3 toxicosis	Stage 3- Overt hyperthyroidism (9 Months)
TSH (0.35–5.5 mU/L)	0.59	< 0.03	< 0.03
FT3 (3.5–6.5 pmol/L)	2.4	7.3	12.9
FT4 (11.5–22.7 pmol/L)	8.5	19.7	53.6
TSI (<56 iu/L)		<10	<10
TPO (<13.8 iu/mL)	<6.6	<6.6	

The Learning

Salvage Strategy

Iopanoic acid was considered to reduce peripheral T4 to T3 conversion, but surgery was arranged at short notice and the medication could not be started.

Outcome

Following successful MVT, thyroid function corrected rapidly. This could be either due to clinical improvement or haemofiltration of iodine contrast

⚠ Take Home Message

When the gut fails, so does your oral antithyroid strategy. Think beyond thionamides.

Learning Points for the Physician

- GI failure compromises oral drug efficacy
- Alternative strategies like Iopanoic Acid are vital for perioperative stability.
- Dramatic biochemical shifts in the critically ill may represent thyroiditis rather than hyperthyroidism.
- Iodine load from contrast can have a “staggering” cumulative effect on thyroid function.
- Haemofiltration may have a role in the management of contrast-induced thyroiditis

References

Newman C, et al. Eur Thyroid J. 2026;15:e260012

Disclaimer

The author confirms that all patient information has been fully anonymised. Appropriate institutional processes for obtaining informed consent, where appropriate, have been followed.

Prognostic Utility of Biochemical Markers in Alcohol-Related Decompensated Liver Cirrhosis: A Retrospective Audit from a UK NHS Hospital

Authors: Dr Sakshi Khaire, Prof Jayantha Arnold

Ealing Hospital, London Northwest University Healthcare NHS Trust

Background

ALD is a major cause of morbidity and mortality in the UK. National guidelines (NICE NG50, BSG, BASL) emphasise early investigations, timely ascitic tap analysis, and structured alcohol-withdrawal assessment.

Audit findings revealed significant gaps in protocol adherence, including delayed INR testing, underuse of PMN analysis, and poor documentation of alcohol intake and CIWA scoring. "Daily alcohol intake was recorded in just 19%, and CIWA scoring in 38%. PMN testing was done in only 11% of ascitic cases."

Aim: To evaluate the prognostic value of biochemical markers and assess compliance with guideline-recommended care in patients admitted with decompensated ALD.

Methods: Retrospective audit (2022–2024) of 100 ALD admissions using Cerner EHR and paper notes. Variables included LFTs, FBC, U&E, INR, magnesium, glucose, ascitic WCC/PMN/cultures, CIWA scoring, and alcohol intake documentation. Outcomes were test utilization, protocol compliance (NICE/BSG/BASL), and in-hospital mortality.

All patient data were anonymized; appropriate permissions were obtained.

Outcomes: In-hospital mortality, test utilisation, compliance with NICE/BSG standards. Anonymised data were extracted, Key variables included LFTs, FBC, U&E, INR, ascitic fluid analysis.

Limitations: Retrospective design and incomplete documentation may underestimate true compliance.

Results

Audit Standards: Audit Standards: NICE NG50, BSG, BASL, NCEPOD, and the Decompensated Cirrhosis Care Bundle.

1. Initial Investigations (<24h) : FBC: 96%, U&E: 96%, LFT: 96%, Magnesium: 86%, INR: 25% (mean delay ~3.5 days) "INR testing was frequently delayed, mean time 5025 minutes (~3.5 days).

2. Ascitic Tap Analysis (n=24) , PMN essential for diagnosing SBP tested in less than half." Tap <24h: 71%, PMN: 46%, WCC: 75%, Cultures: 75%

3. Daily alcohol intake was recorded in just 19%, and CIWA scoring in 38%

4. Mortality:

Category	Percentage
Alive	89%
Died in the hospital	11%

5. Clinical relevance: Delayed INR, underuse of PMN, and poor CIWA/alcohol documentation risk missed SBP, unsafe withdrawal, and delayed intervention.

Consent: All patient data were anonymized & appropriate permissions were obtained.

Recommendations

Discussion: Strong compliance with core blood tests reflects good baseline practice. Critical delays in INR testing risk delayed coagulation management. Underuse of PMN analysis may lead to missed SBP diagnoses. Poor CIWA and alcohol history documentation limits safe withdrawal management.

"The lack of consistent documentation and protocol adherence represents a missed opportunity for early intervention."

Conclusions: FBC, U&E, LFTs, and magnesium were consistently performed and remain essential biomarkers. Significant gaps exist in INR timeliness, ascitic PMN testing, and alcohol-withdrawal documentation. Digital prompts, standardised pathways, and regular audits could improve outcomes.

Recommendations: Real-time INR alerts in EHR. Mandatory alcohol intake field at admission. CIWA scoring prompts for all at-risk patients Standardised ascitic fluid panel (WCC). Implement EHR prompts and re-audit after 6 months.

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Silent Strain: Term Risks of Mortality and Kidney Failure

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Introduction

Small in-hospital changes in kidney function are frequently interpreted as transient "noise". However, accumulating observational evidence suggests that mild creatinine rises and biomarker-positive injury without creatinine elevation (subclinical AKI) are associated with meaningful long-term risks, even when creatinine appears to recover before discharge.¹⁻³ This synthesis evaluates the prognostic significance of "silent" kidney strain during hospitalisation.

Methods

We performed a secondary observational cohort synthesis of contemporary studies (2021–2026) reporting long-term outcomes after

- (i) Mild creatinine increases/trajectory changes during admission
- (ii) Subclinical AKI detected by injury biomarkers (e.g., NGAL; cell-cycle arrest markers) without creatinine-based AKI criteria.

Effect estimates (adjusted hazard ratios/relative risks), follow-up horizons, and outcome definitions were extracted from cohort studies and matched-control meta-analyses. Findings were summarised as risk ranges and consistent directional associations; no de novo pooling was undertaken.

Results

Across large cohorts, even small creatinine changes carried prognostic signal. In a surgical cohort, KDIGO stage 1 sub-phenotypes demonstrated markedly different risk profiles: stage 1b and persistent stage 1 AKI were independently associated with increased in-hospital mortality (adjusted HR 3.06, 95% CI 2.56–3.66; and adjusted HR 2.03, 95% CI 1.61–2.57, respectively), whereas stage 1a and transient stage 1 were not statistically significant.¹

In medical inpatients, creatinine fluctuations during hospitalisation predicted adverse long-term outcomes even when "apparent recovery" occurred. A cohort analysis reported increased 1-year mortality (adjusted HR 1.18, 95% CI 1.11–1.24) and substantially higher long-term ESKD risk (adjusted HR 3.67, 95% CI 2.43–5.54) in patients with decreased presenting eGFR despite discharge with seemingly normal kidney function.^{2,4}

Matched-control evidence further supports sustained risk after AKI: a large matched meta-analysis reported higher long-term mortality among AKI survivors versus controls (RR 1.42, 95% CI 1.13–1.78).^{5,6}

Importantly, biomarker-defined subclinical AKI appears prognostically non-benign. Studies show that biomarker-positive injury without creatinine rise demonstrates molecular signatures comparable to clinical AKI and is associated with adverse prognosis, reinforcing a "creatinine-blind window" in which structural injury may be missed.^{7,10} Mechanistic literature describes maladaptive repair, persistent inflammation, and microvascular loss as drivers of AKI-to-CKD transition even after serum creatinine normalises.^{1,2}

Conclusion

Secondary observational evidence indicates that mild creatinine changes and subclinical biomarker-positive kidney injury during hospitalisation are not trivial findings; they are associated with higher mortality and kidney failure risk over subsequent months to years.

Incorporating trajectory-aware creatinine interpretation and selective biomarker-guided risk stratification may improve identification of high-risk patients for follow-up and prevention of AKI-to-CKD progression.

Figures

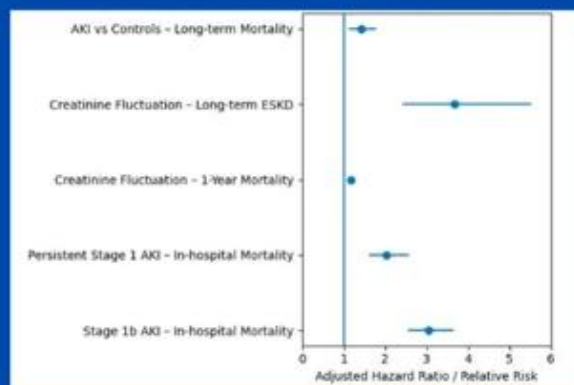


Figure 1: Reported Risk Estimates for Mortality and Kidney Failure After Mild or Subclinical AKI

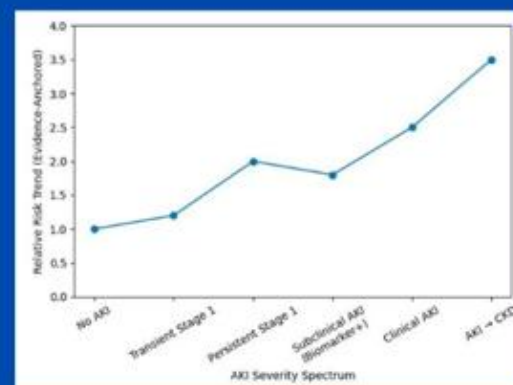


Figure 2: Progressive risk gradient across the AKI spectrum demonstrating increasing long-term mortality and CKD progression risk from transient creatinine elevation to subclinical and clinical AKI.

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Joining the dots: A case of extensive midline facial destruction and recurrent painful skin ulcers

Dr S Anis¹, Q Waleed¹, U Hussain², S Manupati³, Manchester University NHS Foundation Trust

1: Internal Medicine Trainee, 2: Consultant Histopathologist, 3: Consultant Dermatologist

1 Case snapshot

34-year-old male with chronic cocaine use

5-year history of progressive sinonasal destruction

Septal perforation with orbital extension; no intracranial involvement

CT: loss of nasal septum and turbinates with left orbital extension

ENT impression: CIMDL, characterised by progressive midline sinonasal destruction associated with chronic cocaine use², surgery deferred while cocaine use ongoing

2 Skin clues

Recurrent, painful ulcerative lesions, violaceous hue on face, trunk and legs

Healing with cribriform scarring

Flares temporally linked to cocaine use

Clear association of flares with cocaine use, healing with abstinence

No systemic involvement identified

Vasculitic screen including ANCA negative

3 Histology: why PG?

Dense dermal neutrophilic infiltrate

Plasma cells, eosinophils and occasional giant cells present

No vasculitis or malignancy identified

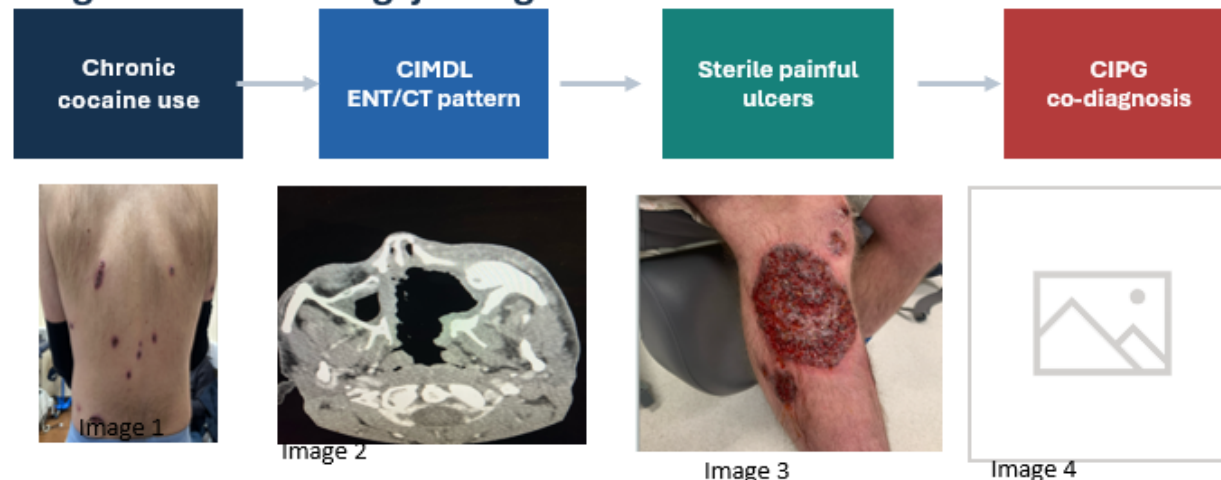
Special stains excluded infection

Findings support a diagnosis of pyoderma gangrenosum¹

Learning points

- 1. Consider possibility of common culprit.** This case demonstrates coexistence of Cocaine-Induced Midline Destructive Lesions (CIMDL) and Pyoderma Gangrenosum associated with cocaine use
- 2. Exclude mimics before immunosuppression:** infection, malignancy and vasculitis.
- 3. Temporal association matters.** Flares with cocaine use and improvement with abstinence support the diagnosis.
- 4. Multifaceted management:** anti-inflammatory therapy, wound care and cocaine abstinence
- 5. Multidisciplinary care is essential** — dermatology, ENT, ophthalmology, tissue viability and de-addiction services

Diagnostic reasoning: joining the dots



Management and outcome

Topical corticosteroids with tacrolimus

Structured wound care

Oral prednisolone

Referral for addiction support

Marked improvement with abstinence and anti-inflammatory therapy

Key distinction: CIPG vs cocaine/levamisole vasculitis

Sterile neutrophilic dermatosis
No vasculitis on biopsy
Improves with abstinence and anti-inflammatory therapy¹

Levamisole associated vasculitis can be ANCA-positive and have systemic features³
Vasculitis on biopsy
Management pathway differs

Appropriate patient consent and permissions were obtained for the collection and use of all data presented.

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Unilateral Hypoglossal and Recurrent Laryngeal Neuropathy After Coronary Artery Bypass Grafting: A Case of Tapia Syndrome

Samay Mehta and Adrian Raybould

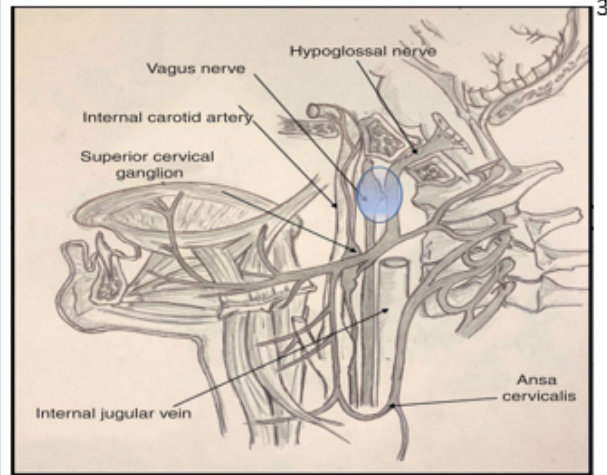
Background

Tapia syndrome is an exceptionally rare condition (< 100 reported cases).¹

Unilateral nerve palsies: hypoglossal (CN XII) + recurrent laryngeal branch of vagus (CN X).¹



Dysphonia, hoarseness, dysphagia and unilateral tongue deviation.¹



Hypoglossal and recurrent laryngeal nerve have a close anatomical relationship along the superficial lateral pharyngeal wall and pyriform fossa, making these specific nerves **vulnerable to compression by the laryngoscope blade against the base of the tongue.**² Asymmetric mechanical forces → unilateral symptoms.

****Patient consent obtained for collecting and sharing patient data****

¹Perillo T, Giorgio C, Perillo S, Pinto A. Iatrogenic Tapia syndrome: case report of a rare condition. *Journal of Medical Imaging and Interventional Radiology*. 2025; 12(1). doi: 10.1007/s44326-025-00086-7. ²Lykoudis EG, Seretis K. Tapia's Syndrome: An Unexpected but Real Complication of Rhinoplasty: Case Report and Literature Review. *Aesthetic Plastic Surgery*. 2011; 36(3):557-9. doi: 10.1097/PHM.0b013e31823286e0. ³Silva-Hernández L, Gil Rojo C, González García N, Porta-Etessam J. Tapia syndrome following orotracheal intubation: a case report. *Neurología (English Edition)*. 2020; 35(6):421-3. doi: 10.1016/j.nrleng.2018.05.014. ⁴Huckabee ML, Mills M, Flynn R, Doeltgen S. The Evolution of Swallowing Rehabilitation and Emergence of Biofeedback Modalities. *Current Otorhinolaryngology Reports*. 2023; 11(2):144-53. doi: 10.1007/s40136-023-00451-8. ⁵Huston MN, Naunheim KS, Naunheim MR. Managing Otolaryngologic Complications in Cardiothoracic Surgery. *The Annals of Thoracic Surgery*. 2020; 110(2):676-83. doi: 10.1016/j.athoracsur.2019.12.022. ⁶Gevorgyan A, Nedzelski JM. A late recognition of tapia syndrome: a case report and literature review. *The Laryngoscope*. 2013 Mar; 123(10):2423-7. doi: 10.1002/lary.24070

72YO
Chest Pain

STEMI

Emergency
CABG

Prolonged ICU
intubation

Extubation

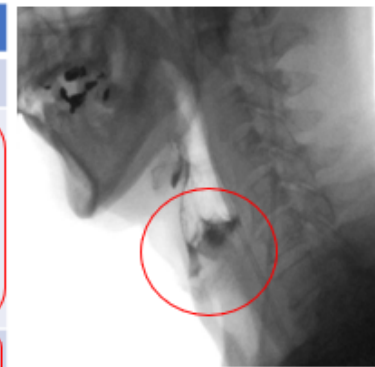
Hoarseness, dysphonia, dysphagia
and left tongue deviation

Presumed stroke
initially

Patient Workup

Investigations	Results
Bloods	No concerns
Neurological Examination	Left tongue deviation (CN XII). Dysphonia + dysphagia (CN X). Normal accessory nerve (CN IX).
Video Fluoroscopic Swallow Study	Initial – PAS 7 aspiration
Flexible Naso endoscopy	Left vocal fold adduction impaired
Plain CT Head (month 1)	Normal
MRI Head (month 2)	Normal
CT Head + Skull Base Contrast (month 2)	Normal

Imaging to exclude more common central causes such as jugular foramen syndromes, skull-base neoplasms, traumatic lesions, carotid pathology, brainstem infarction, infection and meningeal pathology.



1 month: Penetration Aspiration Scale (PAS) 7. ↑↑aspiration. ↓laryngeal elevation, epiglottic inversion, hyoid excursion.

Treatment

- ✓ Multidisciplinary rehabilitation inc. speech & language therapy. (↓disuse dysphagia. ↑adaptive plasticity).^{3,4}
- ✓ Interim enteral feeding - NG/ PEG.
- ✓ Neurology consult

Consider early corticosteroids and ENT-directed injection laryngoplasty.⁵

Patient outcome: Gradual recovery.
7-month review → significant recovery with near normal speech and swallow.



7-month: PAS 3. ↓↓ aspiration. ↑↑laryngeal elevation

Discussion

- ❖ **Tapia syndrome is rare. Diagnosis of exclusion, supported by mechanism and signs of dysphonia, dysphagia, hoarseness and unilateral tongue deviation.**
- ❖ **Risk factors** - prolonged intubation, emergency surgery and hyperextension of neck.
- ❖ **Treatment** - mainly supportive - speech & language therapy.
- ❖ **Prevention** - Careful airway manipulation and cuff inflation.
- ❖ **Prognosis** - depends on extent/mechanism of nerve injury; 26% no recovery, 39% partial recovery & 30% excellent recovery.⁶

A CALL BEFORE CONVEYANCE

Reducing Hospital Attendance for Older Adults with Head Injury

S Ward, J Acharya, A Manzoor, R Lisk

Introduction

- Falls are a common cause of conveyance to hospital of older adults, which often can be avoided.
- A collaborative approach between paramedics and a dedicated frailty team can reduce admissions without affecting outcomes. Thus, reducing risks associated with admission.

Methods

- In this approach, paramedics were able to call a specialist frailty team led by a consultant geriatrician based at the hospital, to get advice based on clinical examination (Figure 1).
- This study looked at patients 65 years of age or older who were referred by SECAMB between 08:00 and 16:00 over a period of 263 days.
- All identifiable patient data was kept anonymous for the cohort.

FIG 1



Key Findings

- 65 patients were referred, and of these, 33 were safely managed outside of hospital while the remaining 32 were conveyed to hospital for further assessment (Figure 2). Of the 32 conveyed, only 3 were admitted (Figure 3)
- Only 2 of the patients non-conveyed reattended ED (Figure 3) and required brain imaging, and none were found to have intracranial pathology.

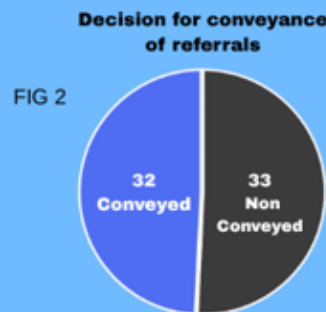
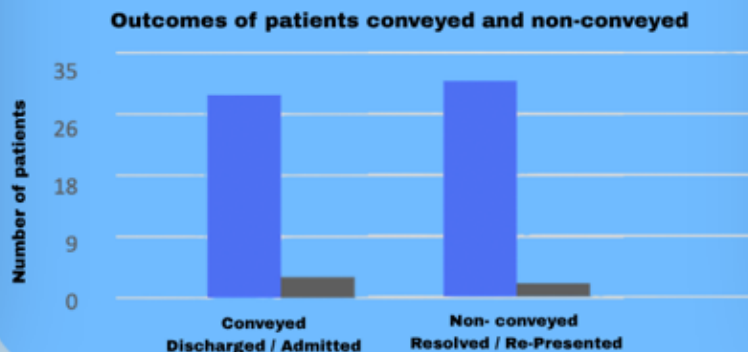


FIG 3



Discussion Points

- Older patients are often more vulnerable to complications of hospital admissions, including hospital-acquired infection.
- The call before conveyance approach in head injury for older adults allowed 49% of patients referred to be managed safely outside of the hospital.
- 94% of patients non-conveyed (30 out of 32) avoided any need for re-attendance in the next 7 days and radiation exposure from CT imaging.
- If this approach were adopted for 24 hours a day at St Peter's Hospital, there is the potential to manage 702 patients without using ED bedspace, and this could be higher in larger hospitals.

Further Research

- To expand on this initial research, we can aim to audit how outcomes compare to the management of frailty head injury patients, who are assessed by the conventional route through A&E.
- We would eventually want to have the frailty service available 24/7 for paramedics to call for advice.
- Furthermore, with more data, we would be able to create a guideline to use as an admission criterion, which could then be used by frailty services for head injury patients.

Treatment Strategies and Outcomes in patients with Type 2 Myocardial Infarction: Our experience in a District General Hospital

S Mehmood, M Nayyar

Background

T2MI – myocardial ischaemia resulting from oxygen supply-demand mismatch rather than plaque rupture – is commonly triggered by physiological stress such as sepsis, arrhythmia, anaemia or hypotension. Despite its frequency, optimal management and the role of secondary prevention remain unclear.

Aim

We examine the role of secondary prevention treatment and outcomes in patients with T2MI.

Methodology

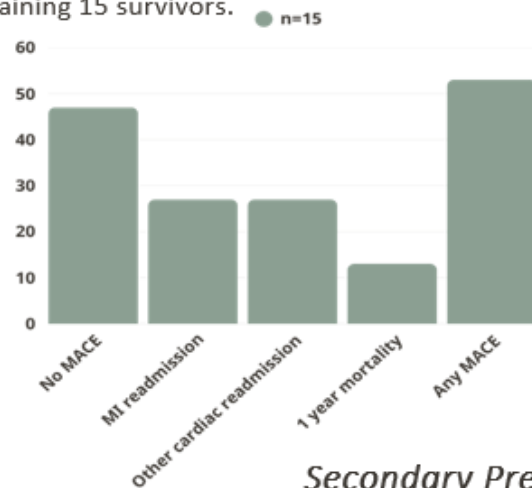
Retrospective review of the case notes of patients with a diagnosis of T2MI over a 12-month period - Jan to Dec 2024
Data collected included patient demographics, primary diagnosis, co-morbidities and treatments.

Outcomes measured

- Re-admission with MI / MACE
- 1 year mortality
- Difference in outcomes with secondary prevention

Results/Findings

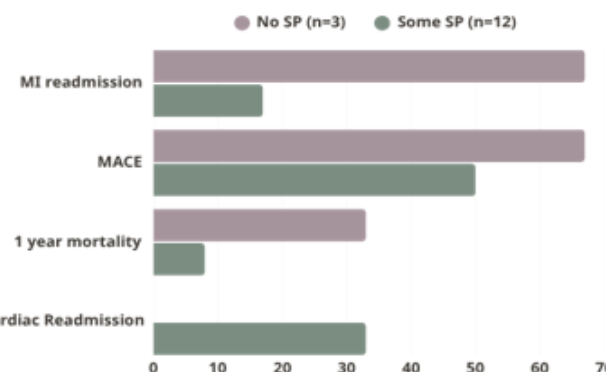
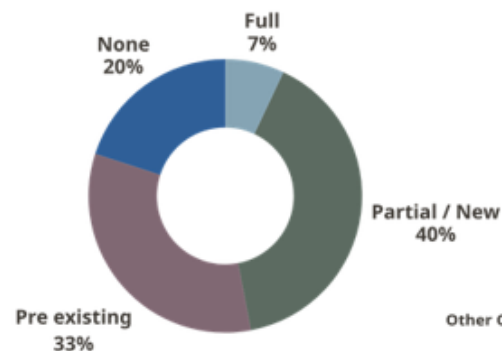
21 patients were identified. 6 (29%) patients died during the inpatient admission. All of these had T2MI secondary to sepsis. Outcome analysis was carried out on remaining 15 survivors.



Demographics

n=21	
Mean age (years)	75.6
15 (71%)	8 (38%)
Prev cardiac hx	12 (57%)
HTN	9 (43%)
T2DM	8 (38%)
CKD	4 (19%)
COPD / Asthma	2 (10%)
Dementia	3 (14%)

Secondary Prevention (SP)



Conclusion

Sepsis is a common cause of T2MI. Underlying co-morbidities increase the risk of T2MI in acutely unwell patients. Patients with T2MI not receiving anti-platelet treatment are more likely to have a further major cardiac event within 1 year. Not starting anti-platelet treatment is also associated with an increased risk of mortality at 1 year. Clinicians should adopt a low threshold to start anti-platelets in patients with T2MI in absence of any contraindications. This may reduce the risk of further ischaemic events and improve long-term survival in these patients.

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Clinical Outcomes and Safety of GPC3-Directed CAR-T Therapy in Advanced Hepatocellular Carcinoma: A Systematic Review of Early-Phase Trials

Author: Serena Sze

Institution: King's College London

Introduction

- Hepatocellular carcinoma (HCC) = major cause of cancer mortality
- Glypican-3 (GPC3) overexpressed in 70-80% of advanced HCC; low in normal tissues → ideal target
- CAR-GPC3 therapy shows early antitumor activity

Methods

- Systemic search: PubMed, Google Scholar → Feb 2026
- Inclusion: Adult advanced HCC, prospective CAR-GPC3 studies
- Outcomes: ORR, DCR, PFS, OS

Clinical Outcomes

Response	Patients
PR	16
SD	16
PD	6

- ORR: 15.3-50%
- DCR: 23.1-90%
- Median PFS: 3.1-7.9 months
- Median OS: 5.1-9.1 months
- Higher CAR-GPC3 copies → greater tumour shrinkage

Aim

- Evaluate clinical outcomes of GPC3-CAR-T in advanced HCC

Study Characteristics

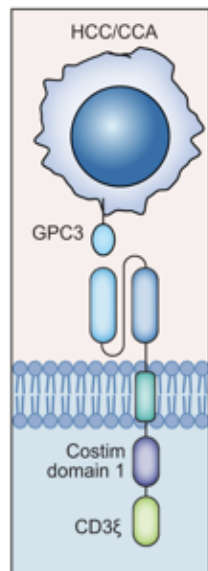
- 5 early-phase trials, 56 patients
- Autologous CAR-GPC3 T cells, tumour GPC3 confirmed by immunohistochemistry

Conclusion

- GPC3-CAR-T shows promising antitumor activity and manageable safety in advanced HCC
- Evidence limited → larger trials needed
- Standardized measures and longer follow-up required

Safety ⚠️

- Cytokine release syndrome: most common (grade 1-2)
- Neurotoxicity: rare



INTRODUCTION



Older adults with HF & frailty experience **fragmented, disease-focused** care that is **ineffective**.

GAPS

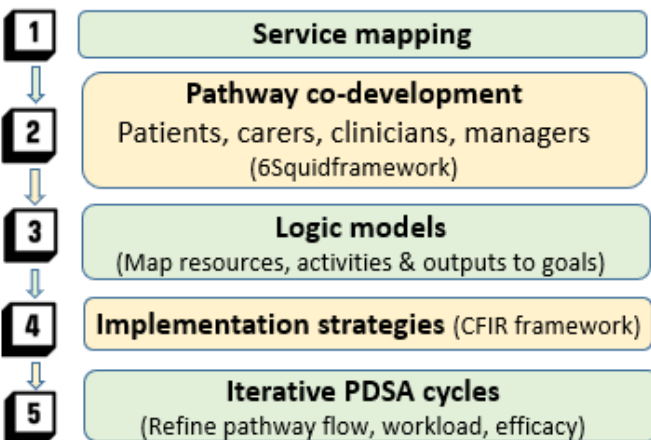
Physical function
Nutrition
Medicines
Comorbidities
Social & environment

Patient priorities
(Independence/QoL) \neq
Clinician goals
(Survival)

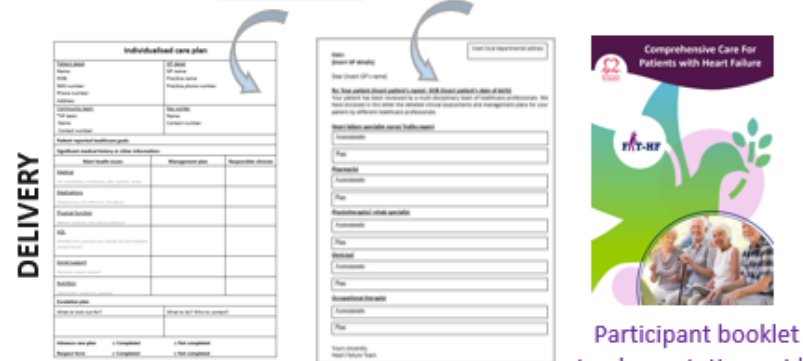
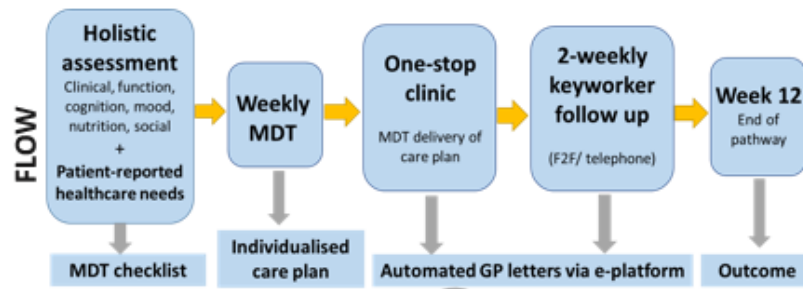
AIM

To co-develop, implement and evaluate a holistic care pathway to improve clinical outcomes of older adults with HF and frailty

METHODS

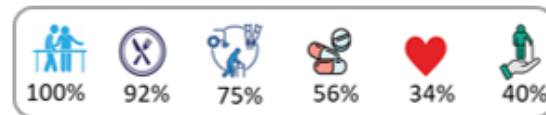


OUR PATHWAY



RESULTS

56 HF patients
2 NHS trusts
Mean age: 82; 60% 40%



Processes

96% Completion rate
100% MDT to clinic < 14 d
100% Care plans delivery

MDT: 50 min/ 5 / week
Mean clinic duration: 96 min/

6m hospitalisation

Total episodes ↓ 35%
Total bed-days ↓ 39%

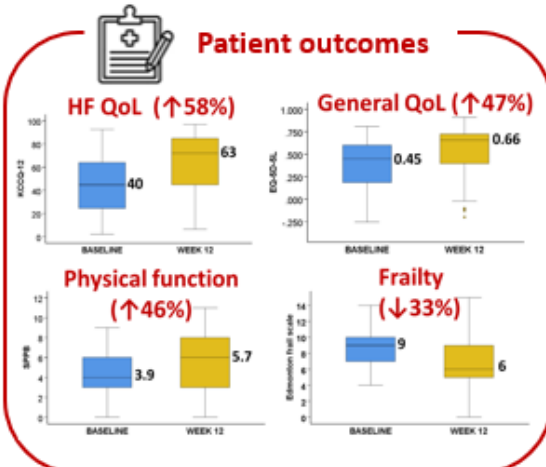
No significant AEs directly linked to pathway

Savings

£750/patient

High acceptability

"Great to speak to all experts in one place", "materials easy to follow", "walking outside everyday"



CONCLUSION

- Our holistic pathway is **feasible, acceptable** with **clinically meaningful improvements in QoL, physical function and frailty**.
- It presents a practical, scalable model transferable to improve outcomes of patients with other long-term conditions.

GC-A'int : a case series on giant cell arteritis mimics

Authors: Dr Shruti Gaikwad, Dr Thomas Nadin, Dr Umair Hafiz, Dr Caroline Zollinger-Read, Dr Stuart Carter

INTRODUCTION

Giant cell arteritis (GCA) is a systemic vasculitis that affects medium and large blood vessels, with the most reported symptom being headache. It may also present with systemic symptoms like fever, sweating, malaise, loss of appetite and weight loss, mimicking infection, malignancy and other inflammatory diseases.¹

METHODS

A retrospective analysis was conducted on patients referred to Rheumatology with suspected GCA who were later found to have different conditions.

DISCUSSION AND CONCLUSION

Diagnosing GCA is challenging due to mimics like ANCA associated vasculitis, malignancies, infections, and Atherosclerosis.² Paraneoplastic syndromes are major mimics, where vasculitis unresponsive to therapy possibly indicates underlying malignancy.³ Infectious vasculitis and conditions like Takayasu arteritis also resemble GCA.^{4,5} GCA should not be missed; careful history and exam help detect mimics, enabling targeted tests and prompt treatment

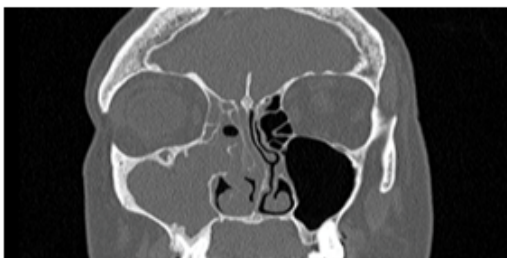


Figure 1: Nasal polyp on CT sinuses

CASE SERIES

• **Angioedema**

A 70-year-old male with ulcerative colitis (UC) was referred for acute bilateral temporal swelling and headache. His UC was managed with mesalazine 1.6g twice daily. Examination showed no temporal artery tenderness, while his bloods showed an ESR of 5 mm/hr, CRP of 6.5 mg/L, elevated eosinophils at $2.56 \times 10^9/L$ and positive p-ANCA (negative MPO/PR3). He was diagnosed with angioedema secondary to mesalazine and his symptoms resolved and eosinophils normalised after stopping the medication.

• **Nasal polyp**

A 75-year-old female was referred with a right-sided temporal headache, worse in the mornings and exacerbated by coughing and leaning forward, accompanied by a 3-year history of nasal discharge. Examination showed tenderness over sinuses but no thickening of temporal arteries. A CT scan identified a maxillary sinus polyp [Figure 1], later diagnosed as an inverted papilloma by MRI. Post endoscopic sinus surgery, her symptoms resolved.

• **CNS vasculitis**

A 72-year-old male had a three-week history of right temporal headache, scalp sensitivity, and transient cloudy vision in a glaucomatous left eye. Examination showed a thready, non-tender right temporal artery. Prednisolone treatment was initiated for suspected GCA. A month later, he developed left-sided weakness and dysphasia. MRI confirmed acute right cortical infarcts, consistent with large vessel vasculitis [Figure 2]. He was p-ANCA positive but negative for PR3/MPO. He was treated with corticosteroids, cyclophosphamide, and antiplatelets, with good response.

• **Multiple myeloma**

A 76-year-old male with a nine-week history of headache, neck pain, and weight loss was referred for suspected GCA. There was no tenderness over bilateral temples and bilateral temporal arteries were easily palpable. The CRP was 9.6 mg/L. An MRI showed a left skull base lesion and spinal abnormalities. CT-TAP revealed a malignant third rib mass with lymphadenopathy. Blood tests and rib mass biopsy confirmed IgA lambda multiple myeloma with associated plasmacytomas. Chemotherapy and radiotherapy were initiated by Haematology.

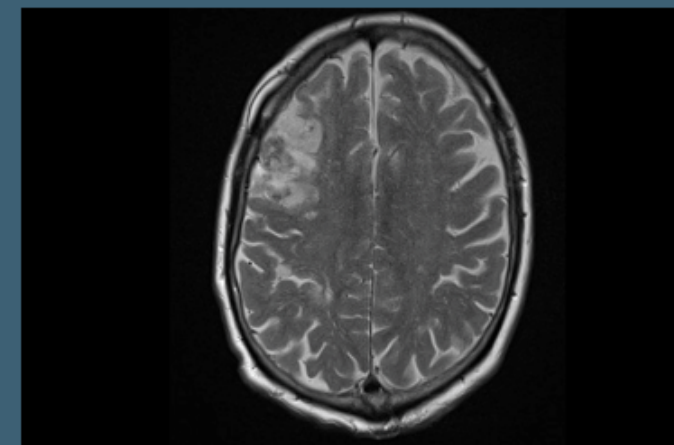


Figure 2: Acute cortical infarct in right frontal and parietal lobes.

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Introduction:

Cancer is a growing health concern around the world and India shares a disproportionate load of cancer morbidity and mortality.

National Program for Prevention & Control of Cancer, Diabetes, Cardiovascular disease and Stroke (NPCDCS) launched in 2010 for early detection of non-communicable diseases. Screening uptake under this program was expected at 70%.

Cancer screening under NPCDCS can be performed by Auxiliary Health/Community workers in primary centers with referral to the district hospital/ medical colleges if needed for diagnosis and treatment.

National Family Health Survey 2019-2021 shows low screening uptake in women aged 30-49 and ineffectiveness of NPCDCS.

Table 1: Low Screening Uptake for Screening under NPCDCS

	Breast Screening uptake	Cervical Screening uptake
Nationwide	0.9%	1.9%
Urban	1.2%	2.2%
Rural	0.7%	1.7%

Systematic Review Aim: To identify barriers and facilitators to cancer screening uptake for Breast and Cervical Cancer in India. This will allow us to propose personalized solutions to increase screening uptake.

Methods:

5735 studies were derived from 4 database. Following study screening, 32 studies were included for the review as they matched the inclusion criteria. This is shown in our PRISMA diagram in figure 1.

Barriers and Facilitators stated by study participants were extracted and grouped into similar themes. Ranges of participants reporting each factor were synthesized to understand the impact on the population.

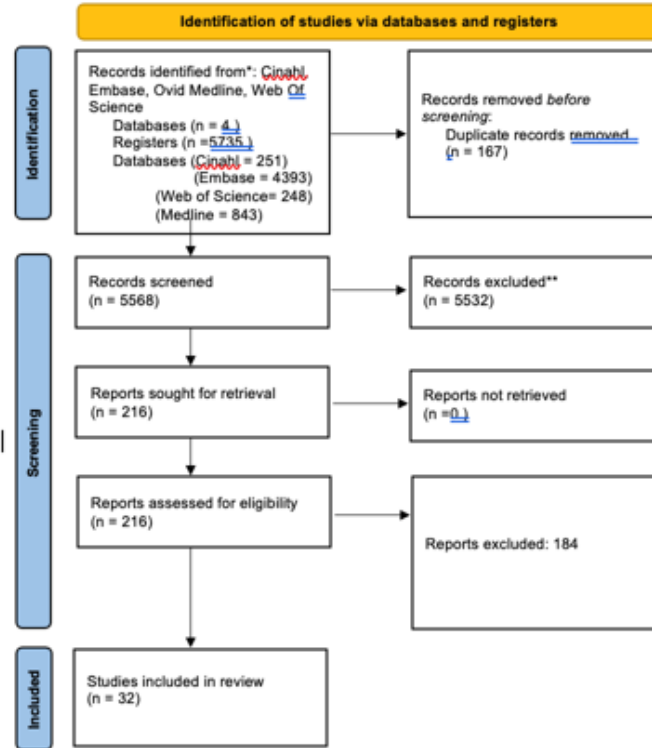


Figure 1: PRISMA diagram demonstrating how 5735 studies were screened to arrive at 32 studies included

Conclusion:

Systematic review of 5735 studies from 4 databases. Narrative analysis of 32 applicable studies.

Key findings: Despite existing NPCDCS program, there are significant barriers impairing screening uptake across the nation. Barriers are lack of knowledge, inadequate, societal stigma and lack of trust in the health system, lack of funding, inadequately trained healthcare staff and accessibility issues to the nearest screening center.

Key facilitators include: Robust social worker system, Increasing level of awareness programs and camps, Doctors/ Senior Healthcare staff being ready to promote screening during routine appointments and at camps.

Results

32 studies were included in this review covering 7962 women from all parts of India. Age ranges between 15-77 years across different aspects of socio-economic strata, backgrounds, occupations, and education levels.

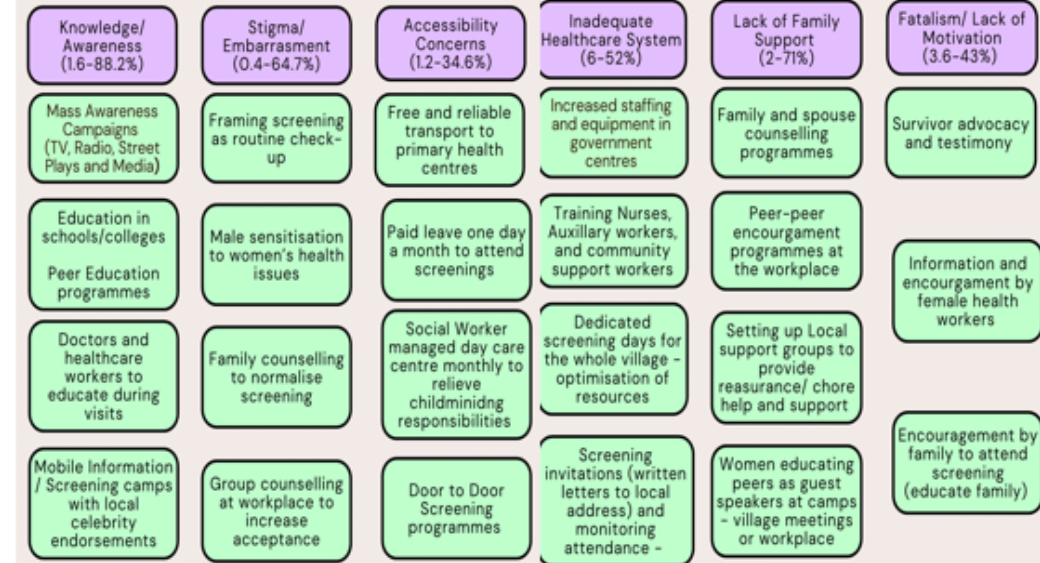


Figure 2: Key Barrier Themes as Synthesized by our Review (Purple) and Key Facilitator themes (Green) which can be factored as interventions to Matching barriers. Ranges of participants affected by each barrier across studies are also listed

Poster references

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SENSE CHECK: IMPROVING SENSORY OPTIMISATION TO REDUCE DELIRIUM RISK IN ELDERLY PATIENTS

Balakrishnan, Krishika¹; Jeyapaul, Siva¹; True, Sarah¹; Peerbux, Fizza¹; Sajjid, Amaan¹; Tchappedu, Franceska¹

¹ University Hospital Birmingham Supervisor: Dr Shayela Sharmeen



University Hospitals Birmingham
NHS Foundation Trust



+ =
SEE BETTER. HEAR BETTER. CARE BETTER.

BACKGROUND

Delirium affects approximately 20–30% of elderly inpatients and is associated with increased morbidity, mortality, and length of hospital stay. >65 years

NICE CG103 highlights visual and hearing impairment as modifiable risk factors.

AIMS

- Assess accessibility and documentation of glasses and hearing aids
- Improve compliance with sensory optimisation to >80%
- Strengthen delirium prevention strategies

KEY GAPS IDENTIFIED

- Poor bedside access to sensory aids
- Inconsistent documentation of sensory needs
- Lack of routine sensory assessment on admission
- No structured prompts or reminders for staff

METHODS

SETTING & POPULATION

- Elderly care wards 9, 10, 12, 15 (Good Hope Hospital)
- No exclusion criteria

AUDIT CYCLE

- Cycle 1 (Baseline): Jan–Feb 2026
- Data collection: Bedside assessment + records review
- Standard: NICE delirium prevention guidelines

PATIENT DEMOGRAPHICS

- Patient identifier (PID)
- Age / Date of birth

DATA COLLECTION DOMAINS

Vision assessment

- Glasses use (Yes/No) & type (Distance/Reading/Bifocal)
- Bedside accessibility
- If not, reason (lost/broken / not brought/refusal/other)

Hearing assessment

- Hearing aid use (Yes / No)
- Accessibility & function
- If not, reason (lost / left at home / care home / don't know)

Delirium assessment

- 4AT recorded
- Current delirium (Yes/No)
- Prevention plan documented

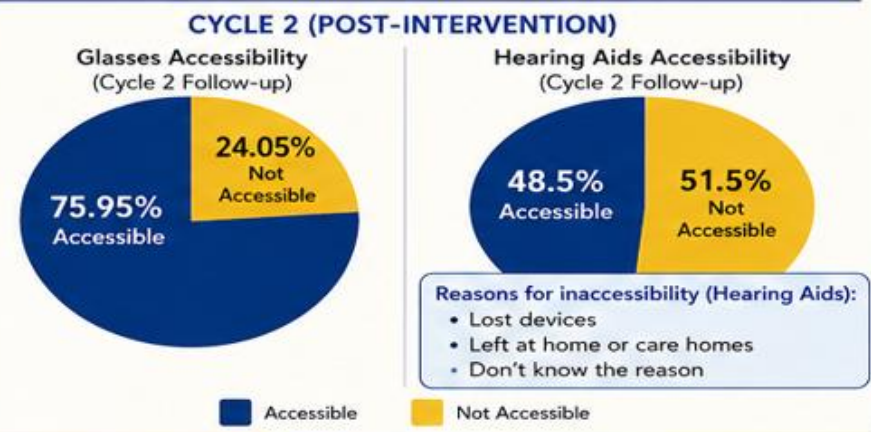
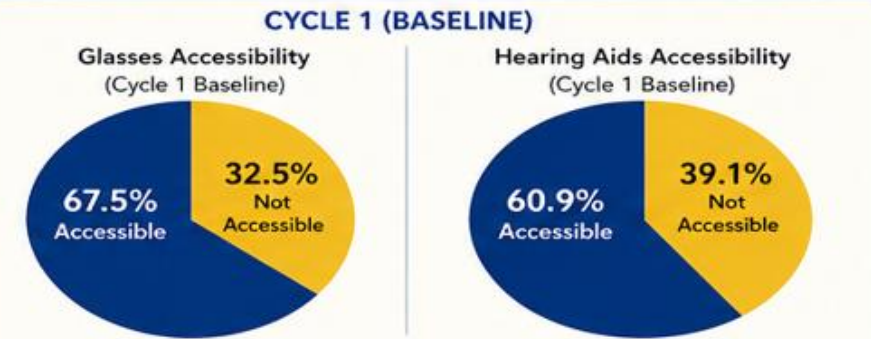
Baseline

- Data used for Quality Improvement Cycle 1&2

INTERVENTIONS – SENSE CHECK INITIATIVE

- Staff teaching sessions
- Ward-based reminders and prompts
- Encouraging documentation in care plans
- Spare hearing aid batteries
- Labelled storage boxes for aids
- Promoting sensory checks during rounds

RESULTS



DISCUSSION & CONCLUSION

- ✓ Sensory optimisation is a simple, low-cost, modifiable factor in delirium prevention.
- ✓ Significant improvement in glasses accessibility.
- ✓ Hearing aid accessibility remains low due to factors beyond immediate ward control (lost, left at home/care homes, unknown reason).
- ✓ We will continue to work this through continuing teaching, MDT involvement, staff education and improved documentation and retrieval processes.

SENSE CHECK: KEY FINDINGS

- Glasses accessibility improved from 67.5% to 75.95%.
- Hearing aid accessibility decreased from 60.9% to 48.5%.
- Main reasons for hearing aid inaccessibility: lost, left at home/care homes, unknown reason.
- Documentation of sensory status and aid use improving.
- Continued focus needed on hearing aid accessibility.
- Include sensory optimisation in ward routines and delirium prevention plans.

REFERENCES

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- UHB Delirium Care Guidelines

Frailty Without Age

Epidemiology and Clinical Consequences of Early Frailty Markers in Adults Under 50 Admitted to Medical Wards

Asif, Salwa; Poreddy Mahendernath, Sneha; Tom, Tobin; AlSaafeen, Abdallah; Zahur ul haq, Zawar ul haq; Hammad, Tehniyat; Thangamuni, Angel Sara

Thumbay University Hospital, UAE | Georgian National University-SEU | Tbilisi State Medical University | North Manchester General Hospital, UK | Brighton and Sussex Medical School, UK

INTRODUCTION

Frailty is traditionally viewed as a geriatric syndrome. However, rising multimorbidity and cardiometabolic burden have led to recognition of frailty phenotypes in **younger adults**.

No validated age-specific frailty definition or screening tool exists for **adults under 50**.

The epidemiology and clinical consequences of early frailty markers in general medical inpatients remain insufficiently defined.

METHODS

Study design: Structured epidemiological narrative review

Literature: Peer-reviewed studies (2019–2025)

Focus: Frailty prevalence, measurement tools & hospital outcomes in adult cohorts aged <60 years

Sources: Acute hospital studies, integrative reviews & observational analyses

Key Message:

Frailty is not exclusively age-bound. Early frailty markers in adults under 50 carry significant clinical consequences and demand age-appropriate validated screening tools urgently.

15–40%

Frailty prevalence in acute hospitals
Pre-frailty often >30%

3–15%

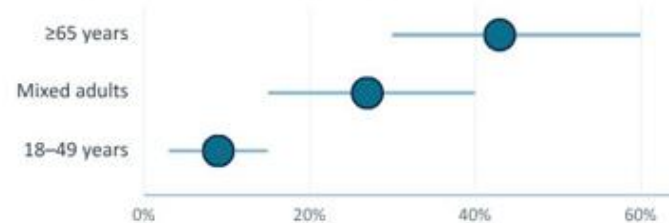
Frailty prevalence in adults under 50
Varies by assessment tool

~2x

Increase in 30-day mortality risk
Frail vs non-frail inpatients

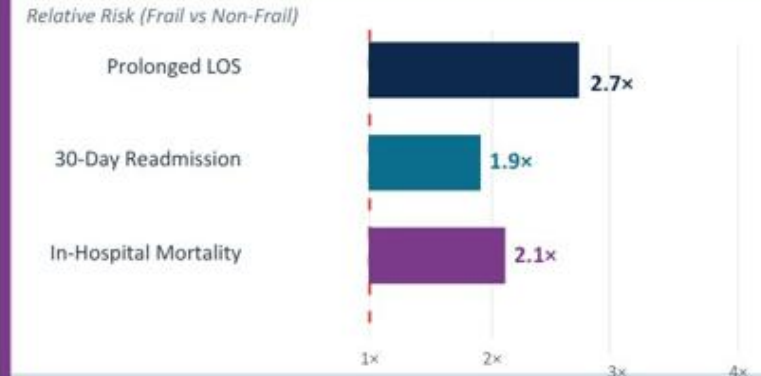
RESULTS & DISCUSSION

Figure 1. Frailty Prevalence Across Age Groups



- ▶ In emergency surgical admissions, frailty **independently predicted mortality**, 30-day readmission and prolonged hospitalisation regardless of age.
- ▶ Frailty interacts strongly with **cardiometabolic disease** — diabetes and hypertension consistently linked to higher frailty indices and accelerated vulnerability.
- ▶ Substantial **measurement heterogeneity**: phenotype models, deficit accumulation indices, FRAIL scale & performance instruments — none age-validated <50.
- ▶ Frailty progression during admission documented — hospitalisation may itself **exacerbate vulnerability**.

ADVERSE OUTCOMES — FIGURE 2



CONCLUSION

Frailty in adults under 50 is measurable, clinically relevant and associated with adverse hospital outcomes, yet remains under-recognised due to definitional inconsistency and limited age-stratified data.

Prospective inpatient studies are required to clarify prevalence and prognostic impact in general medical wards.

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DAPSONE POISONING: A CASE REPORT

“NOT ALL HYPOXIA NEEDS OXYGEN”

Authors: Sneha Poreddy Mahendernath , Madhu Chandana Reddy Pulakanti

INTRODUCTION

Dapsone (diamino-diphenyl sulfone, DDS) is a sulfone antimicrobial drug widely used in the management of infectious and inflammatory disorders. This includes Leprosy, Dermatitis Herpetiformis, Pyoderma Gangrenosum, and Sweet Syndrome. It is also used in the treatment of infections caused by *Pneumocystis jirovecii*, and species of *Plasmodium* and *Mycobacterium*.

Acute Dapsone toxicity is a potentially life-threatening condition due to the development of severe methemoglobinemia and hemolytic anemia^[1]. In a multicentric study, Dapsone has been shown to be a major cause of drug-induced methemoglobinemia^[2]. It is a condition in which the oxygen-carrying capacity of circulating hemoglobin is diminished due to the conversion of some or all of the 4 iron ions in haemoglobin from the reduced ferrous (Fe²⁺) to the oxidized ferric (Fe³⁺)^[3].



This case report explores a rare and potentially life-threatening presentation of acute dapsone poisoning, where an initially subtle clinical picture conceals the development of severe methemoglobinemia and haemolytic anaemia.

CASE PRESENTATION

A 16-year-old female presented with a history of acute shortness of breath since one day, altered behaviour for 6 hrs, and bluish discoloration of the lips and fingers. There was no history of fever, chest pain, wheeze, orthopnoea, or trauma. On assessment, she was tachycardic (128 bpm), tachypnoeic (28 breaths/min), and profoundly hypoxic, with an SpO₂ of 83% on room air and SpO₂ of 85% on NRBM. She had both central and peripheral cyanosis, but respiratory and cardiovascular examinations were otherwise normal.

INVESTIGATIONS AND MANAGEMENT

Initial differential diagnosis included pulmonary embolism, pneumothorax, and acute severe asthma. However, chest radiography, CT pulmonary angiography, and echocardiography were all normal, making significant primary respiratory or cardiac pathology unlikely.

Arterial blood gas analysis provided the key diagnostic clue: despite administration of high-flow oxygen, pulse oximetry (SpO₂) remained low at 85% while the measured partial pressure of oxygen (PaO₂) was markedly elevated at 310 mmHg, demonstrating a clear SATURATION GAP.

Co-oximetry confirmed severe methemoglobinemia, with a methaemoglobin fraction of 53.1%. A Dark brown, “chocolate-coloured” blood was also noted, supporting the diagnosis. (Figure 1,2). Subsequent history revealed intentional ingestion of 1500 mg dapsone with suicidal intent due to psychosocial stress.



Figure 1



Figure 2

Routine investigation of complete blood picture and liver function test showed decreased haemoglobin and increased bilirubin levels. A detailed anaemia workup showed normal iron studies, but the peripheral smear showed mild anisocytosis with predominant macrocytes, with a small number of microcytes, polychromatophils, and bite cells. G6PD assay was normal.

Hence, a final diagnosis of “Dapsone induced acquired methemoglobinemia with haemolytic anaemia” was made. She was treated with intravenous methylene blue (1 mg/kg in multiple doses), ascorbic acid, and supplemental oxygen. A psychiatry consultation was initiated, and the patient received counselling and medication for severe stress-related depression.

Table 1: Response to treatment and progression of haemolytic anaemia

Parameter	Day 1	Day 3	Day 5
MetHb (%)	53.1	2.6	0.9
Hb (g/dl)	11.2	9.8	9.2
Bilirubin (mg/dl)	0.82	1.62	2.36

DISCUSSION

Dapsone toxicity is an important and often under-recognized cause of drug-induced methemoglobinemia, with distinct anti-inflammatory mechanisms contributing to its clinical effects. These effects occur mainly because it is metabolized by cytochrome p-450 into hydroxylamine compounds, which have an oxidative effect leading to a negative impact on neutrophil migration^[4]. This oxidative stress converts iron in haemoglobin from ferrous (Fe²⁺) to ferric (Fe³⁺) state, forming methaemoglobin. It also causes haemolysis by damaging the red cell membrane, all of which together impair oxygen binding and transport, resulting in tissue hypoxia

Normally, methaemoglobin makes up 1–2% of total haemoglobin^[5], and symptoms of hypoxia typically emerge above 15%. In this case, the patient's methaemoglobin level was 51.3%, explaining the persistent hypoxia despite adequate oxygenation. Additionally, the classical saturation gap shows preserved oxygenation of plasma (PaO₂) but impaired oxygen carriage at the haemoglobin level (SpO₂), suggesting a functional haemoglobin abnormality rather than impaired oxygenation. This highlights the severity of dapsone-induced methemoglobinemia and the importance of early recognition and intervention.

CONCLUSION

This case highlights the classic saturation gap as a critical, life-saving indicator of dapsone-induced methemoglobinemia, underscoring the need for early recognition, prompt multidisciplinary management, and psychiatric evaluation in cases of suicidal intent to prevent severe hypoxia.



Assessing Quality, Readability, and Transparency of Online and Artificial Intelligence-Generated Information on Type 2 Diabetes Mellitus: A Cross-Sectional Study

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¹University Hospital Southampton NHS Foundation Trust, ²Cardiff University School of Medicine, ³Imperial College Healthcare NHS Trust, London, ⁴National Heart and Lung Institute, Imperial College, London



INTRODUCTION

The management of Type 2 Diabetes Mellitus (T2DM) relies heavily on patient education¹. With the emergence of online health information and artificial intelligence, patients are increasingly sourcing medical information independently online².

AIMS

To compare the quality, readability, and transparency between websites and AI-generated leaflets (AIGLs) on T2DM.

MATERIALS AND METHODS

Websites

Four search terms for type 2 diabetes were entered into Google, Bing, and Yahoo, and the top 20 results were retrieved.

AI-generated leaflets

A standardised prompt was put into ChatGPT 4.0, Gemini, DeepSeek and Grok to create four AI-generated leaflets

Quality: DISCERN score (out of 80)

Transparency: JAMA score (out of 5)

Readability: Flesch Reading Ease Score (FRES) & Flesch-Kincaid Grade Level (FKGL)

Figure 1: Flowchart representing how data was collected

RESULTS

	Source	Mean	Standard Deviation	p-value
Website	Author rated	43.64	10.9	<0.0001
	AI rated	58.49	11.5	
AIGL	Author rated	43.75	2.986	0.125
	AI rated	61	2.944	

Figure 2: Table highlighting the DISCERN scores rated by the author vs AI

	Source	Mean	Standard Deviation	p-value
JAMA	Website	2.738	0.9645	<0.0001
	AIGL	0	0	
FRES	Website	50.63	14.37	0.5604
	AIGL	48.98	9.164	
FKGL	Website	8.664	2.225	0.7725
	AIGL	8.3	1.922	

Figure 3: Table highlighting the JAMA, FRES and FKGL scores of websites vs AIGLs

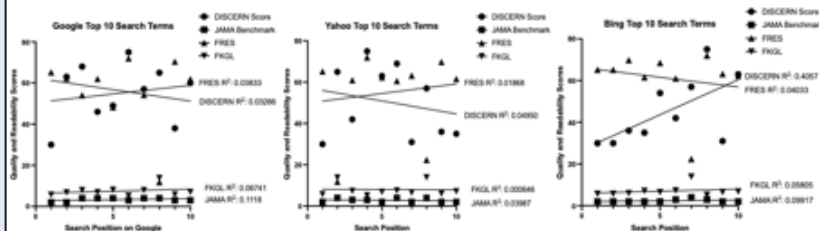


Figure 4: DISCERN, JAMA, FRES, and FKGL scores for based on website's position in the search engine results

CONCLUSION

- No significant quality difference between websites and AI-generated leaflets.
- Author-rated DISCERN scores indicated poor quality of both websites and AIGLs, while AI-rated DISCERN scores indicated both as fair quality.
- AI-rated quality higher than a human reviewer, suggesting quality overestimation by AI³.
- AI-generated leaflets showed poor transparency (JAMA score 0); websites more reliable (JAMA mean 2.7).
- Both sources exceeded recommended readability levels for UK public (4th-5th grade): AI content at college level; websites at high school level - limiting accessibility⁴.

LIMITATIONS

- Single human evaluator – subjective bias.
- Single standardised AI prompt – does not accurately capture user patterns.
- Only text-based resources assessed.
- Cross-sectional design – does not capture updates.

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What Factors Influence Disease Modifying Treatment of Choice for Multiple Sclerosis in the West Yorkshire Multiple Sclerosis Treatment Programme?

Fyodora Sarok¹, Stephanie Da-Silva¹, Linford Fernandes², Helen Ford²

Background

- Multiple sclerosis (MS) is a chronic neurodegenerative condition characterised by the demyelination of axons that results in a range of motor and sensory impairments.
- The Expanded Disability Status Scale (EDSS) can be used to monitor the progression of MS.
- It is treated with disease modifying therapies (DMTs), a range of drugs which can be split into high efficacy treatment (HET) and low efficacy treatment (LET).
- Treatment can follow a stepwise escalation method or early intensive therapy.

Aims & Objectives

- To identify patterns in prescribing DMTs across the West Yorkshire MS Treatment Programme (WYMSTP).

Methodology

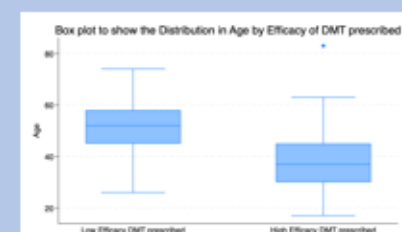
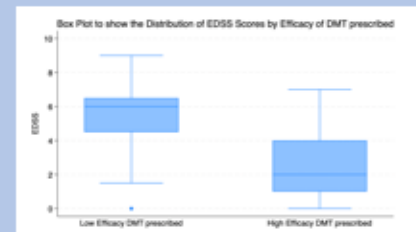
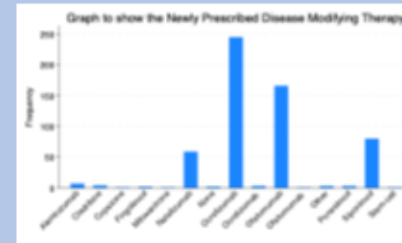
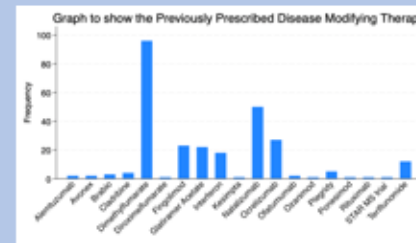
- Retrospective service evaluation
- All patients under the WYMSTP seen between 1 January 2022 – 30 September 2024
- Data collected from monthly MDT meetings and online patient records (PPM+)
- No formal ethical approval required

Results

576 patients were included, of which 51% were previously on treatment, the most common being Dimethyl fumarate (35%) – a LET.

The most common newly prescribed DMT was Ocrelizumab (n=226) followed by Ofatumumab (n=165), both monoclonal antibodies and HETs. 85% of patients were prescribed a HET over the course of the study.

Increasing age and EDSS were both found to have a lower likelihood of HET prescription.



Conclusions

- In the past only 30% of pts were prescribed HET, this can be seen as a reflection of the success of clinical trials leading to the approval and evidence basis for these drugs.
- Patients with higher EDSS scores are likely to represent the population of patients with SPMS, which is not treated with HETs.
- Older patients are more likely to have more co-morbidities unrelated to their MS.
- Prescribers are less likely to prescribe the high efficacy treatments in this population due to the increased risk of infections.
- Results from this study are important for future identification of the need for DMTs in the West Yorkshire region.
- Examination of trends influencing prescribing choice can also be used to guide local policy.

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Why internal medicine training fails to deliver generalism: structural barriers and implications for educational reform

Stephen Joseph¹, Jonathan Birns² & Clifford Lisk¹

1. Royal Free London NHS Foundation Trust, 2. Guy's & St. Thomas' NHS Foundation Trust

BACKGROUND

UK policy positions **generalism** as the response to multimorbidity and increasing service demand

National surveys report lower satisfaction in internal medicine (IM) than specialty training

Trainees report IM commitments **limit specialty development**

METHODS

Semi-structured interviews with **16 registrars** (from 4 different specialty groupings) and **7 trainers** across **17 hospitals** in London and the South East

Data analysed by **reflexive thematic analysis**

Core
AIM, Geris

Procedural
Cardio, Gastro

Traditional
Clin Pharm, Endo, ID, Renal, Resp, Rheum

New
GUM, Neuro, Palliative Medicine

FOUR THEMES – STRUCTURAL & CULTURAL BARRIERS TO GENERALIST DEVELOPMENT

Conceptual Ambiguity

Participants could not define what a generalist consultant was

Some questioned whether generalism was feasible with increasingly complex knowledge

"I would definitely want a specialised person managing my mother's whatever-it-is rather than a generalist" (TPD 1)

Cognitive & Emotional Overload

The acute take was cognitively and emotionally overwhelming

Incessant interruptions left no space for reflection or higher-order learning

"Take a deep breath... It's only 12 hours. It will end. Even if it's really bad" (New SpR 2)

Fragmented Educational Structures

IM training felt opportunistic rather than designed

Protected supervision rarely happened as mandated

"If I was going to work with you once, I would be less invested than if I was going to work with you 10 times" (Traditional SpR 2)

Specialty-IM Conflict

IM displaced specialty learning

Trainees did not reject generalism; they rejected the conditions it was practiced under

"If I was able to practice general medicine adequately staffed... without 30 patients I was worried were dying in the corridor, potentially I would enjoy it much more" (Traditional SpR 4)

CONCLUSIONS

The current lived reality of IM training promotes trainee **disengagement** with generalism

Suggested priorities:

1. Clarify generalist outcomes
2. Protect specialty training by capping IM training time
3. Deliver IM in defined blocks including on-call and non-on-call activity
4. Rebuild apprenticeship by reducing inter-hospital rotation
5. Reduce cognitive overload through staffing and rota design
6. Strengthen transparency & accountability for educational funding

TAKE HOME MESSAGE

Generalists are more likely to be shaped by the conditions of their training than by the rhetoric surrounding it

Improving Prescribing Rates of Guideline-Directed Medical Therapy (GDMT) in the Management of Heart Failure with Reduced Ejection Fraction (HFrEF) Amongst Medical Inpatients

Dr S Aggarwal¹
¹Croydon University Hospital

Introduction

Prevalence of HFrEF and its associated disease burden continues to increase worldwide.¹ GDMT involves the prescription of four key medications: ACEi/ARNI, Beta Blocker, MRA and SGLT2 inhibitors. GDMT demonstrates significant improvements in mortality and future hospitalisations.²

Despite this, a suboptimal number of patients are optimised on these treatments.³ Those managed outside of cardiology wards tend to poorer outcomes with lower rates of GDMT prescribing partially accounting for this discrepancy⁴

Aims

1. Evaluate **local GDMT prescription rates** amongst **medical inpatients** with HFrEF compared to national standard of 90%*
2. Attempt to **improve overall compliance** through multi-cycle assessment and intervention

*set by National Heart Failure Association

Methods

- Data from monthly referrals to the local heart failure service
- 'Appropriate' vs 'inappropriate omission' determined after **retrospective case review** by a heart failure clinician
- 2 x cycles completed **12-months apart** (Oct 2024 and Oct 2025)
- QI cycles performed using a **PDSA framework**

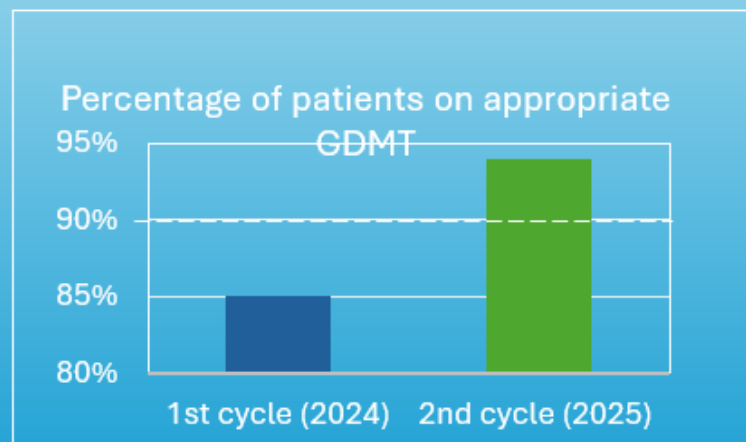


Figure 1 - Graph displaying the percentage of patients discharged on optimal GDMT after review compared. Dotted line indicates 90% standard set by NHFA

Results

1st cycle n =27 , 2nd cycle n= 34

Q1

- 44% of patients on all 4 pillars, **85%** were on optimal therapy

Q2

- 37% on all 4 pillars, **94%** on optimal therapy (Figure 1)

Discussion

Reasons for omissions:

- **Failure to action advice** from inpatient HF team
- **Failure to restart medication** once condition improved (eg renal function or infection)

Key interventions:

- **Educational sessions** with AMU doctors around the importance of GDMT prescribing in HF
- **Poster with a flowchart** detailing a management pathway for HFrEF + common side effects of medications

Future interventions:

- **Integrate** educational sessions into postgraduate programmes eg IMT teaching
- **Involve** pharmacy teams to advise on GDMT prescription and reinitiation

Conclusion

Education of medical inpatient teams around the importance of GDMT prescribing in HFrEF improved overall compliance with optimal therapy. This is an easy, low-cost intervention which has applicability to trusts nationwide.

Emerging Vector-Borne Diseases in Europe: A Comparative Assessment of UK Preparedness in a Changing Climate

SUSHMA PANDURANGAN

Sri Narayani Hospital & Research Centre
Sripuram, Vellore, Tamil Nadu, India.



References List:



1 Background & Introduction

- Climate change is altering infectious disease ecology, enabling **expansion of mosquito and tick vectors across Europe** and **increasing the emergence of vector-borne diseases (VBDs)**, including dengue and malaria, in previously non-endemic regions⁽¹⁻⁴⁾.
- The **UK operates within a highly interconnected global system** characterised by increased international travel, tourism, and migration facilitating continuous disease importation and **increasing the relevance of VBDs in routine clinical practice**^(1,6).
- Lyme disease**, the most common VBD in the UK, remains **under-recognised in primary care**, highlighting **gaps in knowledge and clinical confidence**⁽⁷⁾ showing UK healthcare pathways remain structured around non-endemic disease patterns, **contributing to delayed recognition of VBDs** in primary and acute care settings.

2 Methods

- To assess emerging vector-borne disease risk in Europe and evaluate UK preparedness across **health services, workforce capability, and policy**, with comparison to endemic health system models, particularly India⁽⁷⁻⁹⁾.
- Analysis of European dengue surveillance data (2014-2019) and UK malaria and vector surveillance reports to assess disease trends and national exposure⁽⁴⁻⁶⁾.
- Workforce preparedness evaluated** using Lyme disease evidence in UK primary care⁽⁷⁻⁹⁾.

3 Global and Public Health Implications

1. European surveillance demonstrates increasing dengue incidence and geographic spread, with **over 4,000 cases reported across the EU/EEA in 2019**, alongside evidence of local transmission, indicating a shift beyond isolated importation (Figure 1)⁽⁴⁾.

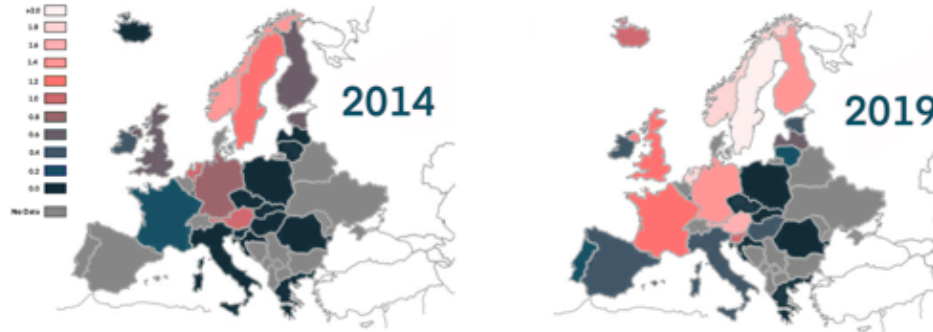
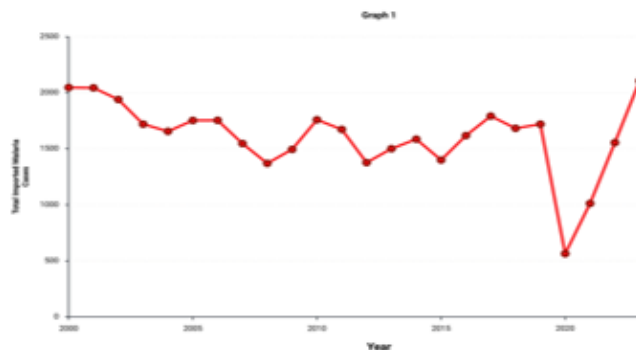


Figure 1. Reported dengue incidence rate per 100,000 population in EU/EEA countries in 2014 and 2019.⁴ Made in BioRender¹⁰



Graph 1. Imported malaria cases into the UK between 2000-2023 highlighting post-pandemic increase.⁶ Made in BioRender¹⁰

2. Imported malaria cases in the UK demonstrate marked temporal variation, with a **decline during the COVID-19 period** followed by a **sharp increase, reaching 2,106 cases in 2023**, the highest level in over two decades (Graph 1)⁽⁶⁾.

3. VBDs represent a significant component of UK healthcare demand with **implications for frontline clinical recognition, diagnostic pathways, and service delivery**.

4 Health System Comparisons

ASPECT	UK HEALTHCARE SYSTEM	INDIAN HEALTHCARE SYSTEM
EXPOSURE	LOW	HIGH
AWARENESS	LIMITED	STRONG
CLINICAL SUSPICION	VARIABLE	HIGH
SYSTEM RESPONSE	REACTIVE	PROACTIVE
INFRASTRUCTURE	FRAGMENTED	INTEGRATED

Figure 2. Comparison of UK and Indian Healthcare System Preparedness for Vector-Borne Diseases.

- Preparedness is driven by **long-term infrastructure, system experience, and coordinated public health delivery**, enabling rapid and scalable response.
- The COVID-19 vaccine rollout in India was enabled by **pre-existing large-scale immunisation infrastructure**, including polio vaccination programmes^(8,9).

5 Conclusions

- VBDs represent an **emerging UK health systems challenge** driven by climate change and globalisation.
- Improving recognition of Lyme disease is key to preparing for **neglected tropical diseases and emerging infections**⁷.
- Sustainable response depends on **proactive system adaptation**, embedding infectious disease preparedness into routine healthcare delivery and workforce planning.
- Endemic systems highlight the importance of **infrastructure, workforce familiarity, and integrated public health response**.

Using the Five-Domain Standard

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Dept. of Acute Medicine, Gloucester Royal Hospital

Introduction

Same Day Emergency Care (SDEC) enables rapid assessment and treatment to reduce avoidable admissions. Transitions of care are high risk for medication errors, which can cause preventable patient harm¹⁻².

A 7-day baseline review (October 2025) of SDEC discharge summaries at Gloucester Royal Hospital demonstrated only 32% included complete documentation of medication names, dose, route, frequency, and duration.

Aim

To increase 5 domain documentation in discharge summaries from 32% to over 60% with 4 months using low-cost human factor interventions (See Figure 1)

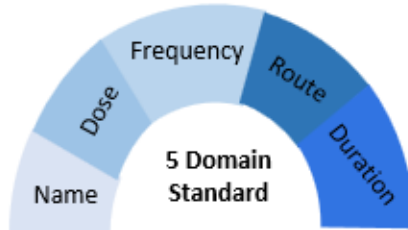


Figure 1: The 5 Domain Standard

Methods

Two 7-day PDSA cycles were conducted. In each cycle, 70 random discharge summaries (10/day) requiring FP10 prescriptions were retrospectively analysed for compliance with the five-domain documentation standard

PDSA Cycle 1

- Visual prompts at workstations highlighting non-auto-populated section
- Reinforce 5 domain standard with example (see Figure 2)

PDSA Cycle 2

- Visual prompts at workstations + Daily Board Round Reminders

Outcome Measure: Percentage of discharge summaries with complete medication documentation

Process Measure: Percentage compliance per domain

DISCHARGING SDEC PATIENT WITH FP10?

The "Plan for Today" section in an SDEC Clinical Assessment DOES NOT automatically pull through into the discharge summary.

Be Sure to COPY PASTE your plan into the discharge summary and include:

Drug Name, Dose, Route, Frequency, & Duration

Ex: Amoxicillin PO 500mg TDS 7 days

Figure 2: Visual Prompts used in Cycle 1

Results & Discussion

Figure 3: Percentage Compliance with Five Domain Documentation Standard

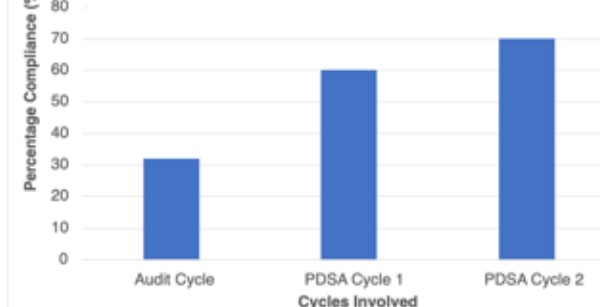


Figure 3 demonstrates baseline compliance of 32% (32/70) after the first audit cycle.

This increased to 60% (42/70) after PDSA Cycle 1 and to 70% following PDSA Cycle 2.

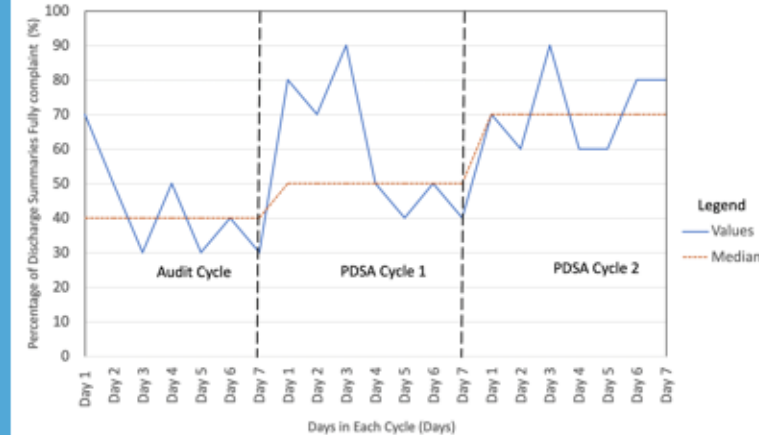


Figure 4: Run Chart of Daily Compliance with Five Domain Medication Standard

Figure 4 shows daily compliance with the 5-domain standard. Baseline median was 40%. Post both interventions, all values were on or above the baseline median, indicating a sustained non-random improvement with low-cost human interventions

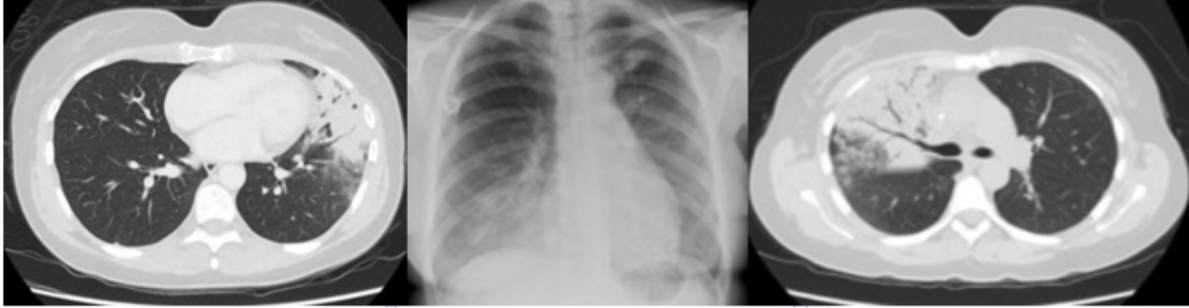
Conclusion

Simple, cost-effective interventions improved five-domain medication documentation compliance in SDEC within 2 months.

These findings demonstrate that sustainable improvement can be achieved through simple interventions without reliance on system-level change.

Challenging Case of Organizing Pneumonia following Radiotherapy, COVID-19 Infection and Pembrolizumab

Dr Anjana Sirivella¹, Dr Tasvee Karania¹, Dr Charlotte Moss², Dr Ravi Reddy³, Dr Naveen Sharma⁴
¹ Internal Medicine Trainee, ² Consultant Medical Oncologist, ³ Consultant Respiratory Physician, ⁴ Consultant Radiologist

INTRODUCTION	Episode 1	Episode 2	Episode 3	KEY LEARNING POINTS
<p>Organizing pneumonia (OP) is a subtype of diffuse interstitial lung disease triggered by viral infections, paclitaxel, radiotherapy, and immune checkpoint inhibitors (ICIs) etc.^{1,2} Typical symptoms like cough, exertional dyspnea, fever, and flu-like illness often mimic infection.³ Radiological findings include consolidations, ground-glass opacities, and migratory infiltrates on sequential imaging.³ The atoll or reverse halo sign is a well recognized CT feature.^{1,3} We present a diagnostically challenging case of OP in a patient with multiple potential triggers. Patient has given her written consent for this case report.</p>	<p>Received Pembrolizumab whilst COVID-19 positive</p> <p>Presentation Fever, fatigue, headache and cough</p> <p>Investigations CRP 165 COVID-19 positive Negative blood & sputum culture</p> <p>Imaging CT Chest: Left-sided consolidation and ground-glass densities consistent with pneumonia</p>	<p>Pembrolizumab re-started after resolution of symptoms</p> <p>Presentation Fever, cough and dyspnoea on exertion</p> <p>Investigations CRP 202 Negative Flu & COVID-19 Negative atypical screen</p> <p>Imaging HRCT: Left ground-glass opacity with small reverse halo lesions CXR: Right-sided consolidation</p>	<p>Normal bronchoscopy and bronchoalveolar lavage</p> <p>Presentation Dyspnoea on exertion</p> <p>Investigations CRP 113 Negative autoantibody screen</p> <p>Imaging HRCT: New dense consolidation in right lobe with with reverse halo within left lobe</p>	<ul style="list-style-type: none"> Consider OP when pneumonia fails to respond to antibiotics in high-risk patients. Migratory or bilateral opacities and reverse halo signs can indicate OP. Maintain high suspicion for ICI toxicity in patients with prior immunotherapy adverse effects. Prompt steroid therapy improves outcomes once infection is excluded. Diagnosis involves multidisciplinary input with HRCT and bronchoscopy correlation.
<p>PATIENT BACKGROUND</p> <p>51-year-old woman with no previous medical or medication history</p> <ul style="list-style-type: none"> → Triple-negative left breast cancer and synchronous oligometastatic vertebral disease → Treated with Carboplatin, Paclitaxel, and Pembrolizumab → Followed by Wide Local Excision and Axillary Node Clearance → Radiotherapy to the left breast and to vertebral metastasis → On maintenance Pembrolizumab and Denosumab → Developed adrenal insufficiency secondary to ICI toxicity, requiring lifelong hydrocortisone 				<p>DIAGNOSTIC APPROACH</p> <ul style="list-style-type: none"> Step 1 Infection screen for atypical infections Step 2 Imaging: HRCT for atoll/reverse halo sign Step 3 Bronchoscopy with bronchoalveolar lavage for PCP, TB and fungal infections Step 4 MDT Discussion with Oncology, Respiratory and Radiology Step 5 High-dose steroids once OP confirmed
<p>REFERENCES</p>	<p>Management</p> <ul style="list-style-type: none"> ✓ Antibiotics x2 courses ✓ Pembrolizumab held temporarily 	<p>Management</p> <ul style="list-style-type: none"> ✓ Antibiotics x1 course ✓ Pembrolizumab stopped permanently 	<p>Management</p> <ul style="list-style-type: none"> ✓ High dose steroids leading to rapid clinical improvement ✓ Normal spirometry afterwards 	

- Chandra D, Maini R, Hershberger DM. Cryptogenic Organizing Pneumonia [Internet]. PubMed. Treasure Island (FL): StatPearls Publishing; 2020. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK507874/>
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Recurrent ischaemic stroke in the setting of variable heart block: diagnostic reassessment and evolving mechanism

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INTRODUCTION

- Recurrent ischaemic stroke → major morbidity and mortality
- Accurate identification of stroke subtype and mechanism is essential
- Complex or evolving presentations may require repeat diagnostic reassessment
- Management strategies often need to adapt as new information emerges

CASE PRESENTATION

- **88M** → CABG, IHD, HTN, dyslipidaemia
- **Day 0** → TIA clinic → multifocal infarcts → DAPT
- **Day 12** → dense R weakness → infarct (L capsule) → Tenecteplase (TNK) → NIHSS 7 → 5
- **Day 14** → aphasia + neglect → basilar thrombus → 90 mL penumbra → NIHSS 21
- **Reperfusion** → Tenecteplase (TNK) ×2 → failed MT (vasospasm) → thrombus migrated → NIHSS 5
- **Cardiac monitoring** → AV block → pacemaker

CLINICAL COURSE

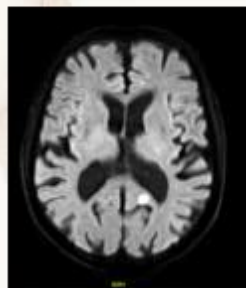


Figure 1. MRI (Day 0) showing a subacute perforator infarct of the left splenium of the corpus callosum. (First stroke)

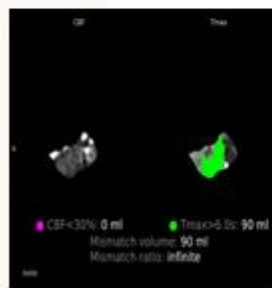


Figure 2. CT perfusion (Day 14) showing a 90 mL posterior circulation penumbra. (Third stroke)

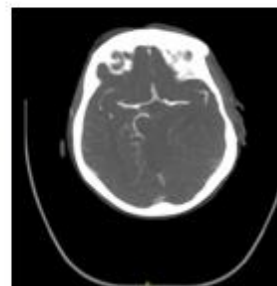
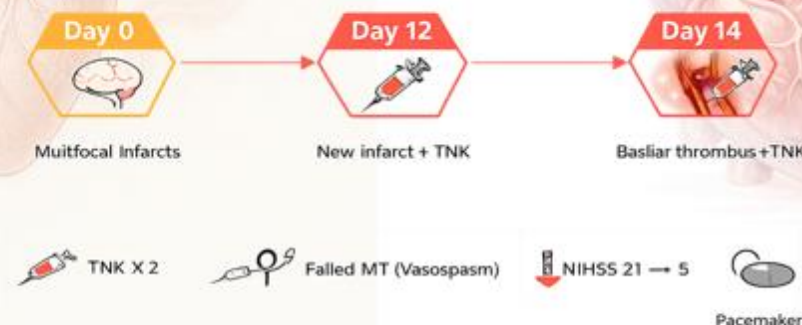


Figure 3. CTA (Day 14) showing Distal basilar thrombus extending into the left PCA. (Third Stroke)



DISCUSSION

- Multifocal infarcts indicate an embolic mechanism
- Dynamic deficits support large-vessel thromboembolism
- Intermittent high-grade AV block provides a credible cardioembolic source.
- Distal basilar occlusion caused sudden decline and required urgent, imaging-guided reperfusion.
- Pacemaker implantation addressed a treatable cause of recurrent embolisation.

LEARNING POINTS

- Recurrent stroke may have multiple or evolving mechanisms
- Diagnostic reassessment is essential
- Repeat thrombolysis may be appropriate in selected cases

CONCLUSION

- Recurrent stroke requires comprehensive vascular + cardiac evaluation
- Mechanisms may evolve → management must remain flexible
- Early recognition and reassessment are key to preventing further events

References

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- Etgen T et al., 2023
- Liang D et al., 2023

Consent: Written informed consent for publication was obtained.

Beyond the lungs: unmasking the diverse clinical spectrum of *Mycoplasma pneumoniae* in a critical care setting

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INTRODUCTION

- *Mycoplasma pneumoniae* → common cause of community-acquired pneumonia
- Usually mild respiratory illness
- Extrapulmonary involvement in 5–10%
- Immune-mediated disease can mimic septic shock
- Severe cases may progress to multiorgan dysfunction syndrome (MODS)

CASE PRESENTATION

- 77-year-old man
- PMH: HTN, IHD (post-CABG)
- 1-week history: fever, cough, vomiting, profound fatigue
- Shock physiology: BP 80/50 mmHg
- Tachycardia, tachypnoea
- High-anion-gap metabolic acidosis
- Elevated lactate
- Required ICU admission for presumed septic shock

KEY FINDINGS

Initial Findings

- Bi-basal consolidation • Leukocytosis
- Transaminitis (AST/ALT >2×) • Hyponatraemia
- Acute kidney injury • Low procalcitonin

Early Complications

- ↑ CPK + urine myoglobin (rhabdomyolysis)

Microbiology

- 4-fold rise in *Mycoplasma pneumoniae* titres

Encephalopathy Work-up

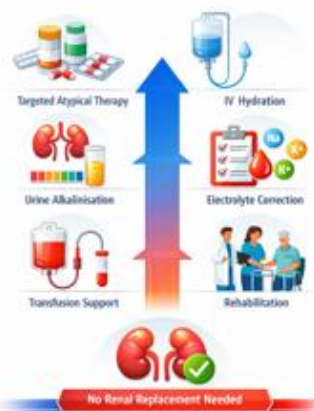
- CT brain: no acute pathology • CSF: non-diagnostic
- EEG: generalised slowing

CLINICAL COURSE



Fig. 1. Chest X-ray showing air space shadowing seen in the right mid and lower zone with air-bronchogram. Evidence of obliteration of both costo-phrenic angles

MANAGEMENT



- Targeted atypical therapy
- Aggressive IV hydration
- Urine alkalinisation
- Electrolyte correction
- Transfusion support
- Multidisciplinary rehabilitation
- Recovered without RRT

DISCUSSION

Immune-Mediated Multisystem Disease

Severe *Mycoplasma* infection can trigger immune-driven injury through:

- Molecular mimicry
- Cytokine-mediated inflammation
- Immune-complex deposition

Multiorgan Involvement

Cardiac arrhythmias • Rhabdomyolysis → AKI
• Encephalopathy • Transaminitis • Cytopenias
Simultaneous multi-system involvement is rare in older adults.

Sepsis-Like Presentation

Clinical picture may mimic bacterial sepsis, creating diagnostic uncertainty.

Diagnostic Clues

Low procalcitonin + negative cultures → supports immune-mediated pathology rather than active infection.

CONCLUSION

- *M. pneumoniae* has a broad and protean clinical spectrum
- Can present as sepsis with multisystem involvement
- Early recognition and targeted therapy are essential for optimal outcomes

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ACKNOWLEDGEMENTS

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Consent: Written informed consent for publication was obtained.

More Than Skin Deep: Are We Missing Skin Disease in the A&E?

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INTRODUCTION

Dermatological conditions account for ~4% of emergency attendances nationally (2024/25)¹, yet recognition of skin disease among non-dermatology clinicians is frequently suboptimal — attributed to limited dermatology exposure during training².

Aims:

- Quantify the standard of dermatology management in a DGH A&E lacking on-site dermatology provision
- Identify patient-safety gaps
- Develop evidence-based recommendations to above

MATERIALS & METHODS

Design: Retrospective multi-source service evaluation

Population: 481 consecutive adults (≥18y) with dermatology-coded presentations to Peterborough City Hospital (PCH) A&E since January 2025

Data sources:

- eTrack A&E documentation
- Epro Clinic letters
- Structured patient telephone questionnaire

Benchmarking: Cases classified and benchmarked against NICE, BAD, BMJ best practice and PCDS guidance. Diagnostic accuracy assessed by comparing initial A&E diagnoses against specialist diagnoses.

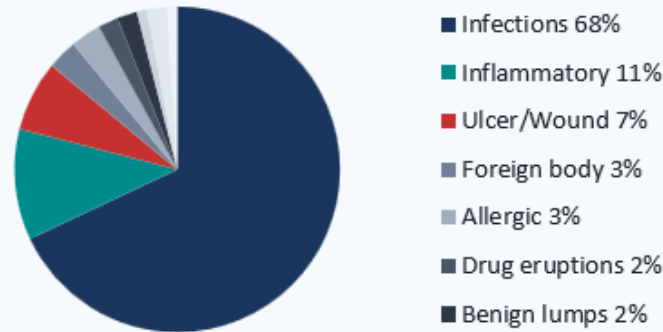
RESULTS

Of 38,412 attendances (Jan–Mar 2025), only **701 (2%)** were coded as skin-related — well below the expected 4%, suggesting most dermatological presentations are managed in primary care.

Of 481 patients evaluated: 73% aged <65y; 53% male, 47% female.

Infections predominated (68%), followed by inflammatory dermatoses (11%) and ulcers/wounds (7%).

Distribution of dermatological conditions (n=481)



Diagnostic accuracy (n=172 with specialist follow-up):

- 79% diagnostically accurate
- 20% minor discrepancies (no safety impact)
- **1% major discrepancies — direct patient safety implications, including misdiagnosis of neoplastic lesions**

Overall guideline compliance (n=481): 97%

Non-compliance: **Delays in initiating antibiotics, inconsistent management of dermatitis subtypes, incomplete trigger identification, missed specialist referrals**

KEY OUTCOME MEASURES

Outcome	Result
Diagnostic accuracy	79%
Overall guideline compliance	97%
Clinical photography documentation	43%
Dermatology referral rate	4%
Mean inpatient waiting time	26.5 hrs
Mean outpatient waiting time	78 days
Patient satisfaction (waiting times)	5.1 / 10

CRITICAL GAPS IDENTIFIED

- Missed diagnoses and inconsistent management
- Limited dermatology referral practices and follow up
- Inadequate clinical photography limiting remote specialist input
- Prolonged specialist waiting times driving poor patient experience and recurrent attendances
- **90% of patients reported prolonged delays as a key concern!**

CONCLUSION & INTERVENTIONS

Three targeted interventions implemented:

1. Routine clinical photography for remote specialist advice
2. Trust-approved derm guidelines on hospital intranet
3. Structured & regular derm education for A&E clinicians

Optic disc swelling in Behçet's syndrome: a case series from a specialist multidisciplinary service

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Background

Behçet's syndrome can present with optic disc swelling due to:

- Inflammatory optic neuropathy
- Raised intracranial pressure (ICP) due to cerebral venous thrombosis (CVST).^{1,2}

Clinical diagnosis and overlap with other inflammatory and neurological conditions delay diagnosis.^{3,4}

Aims:

- Describe presentations of optic disc swelling in Behçet's syndrome
- Highlight practical diagnostic pitfalls
- Summarise outcomes from a specialist multidisciplinary pathway.

Methods

- Retrospective review of four patients managed at the National Behçet's Centre with bilateral optic disc swelling attributed to Behçet's syndrome.
- Between July 2023 and January 2026
- Anonymised data were extracted from clinical records

Investigations included:

- Multimodal ocular imaging consisting of Optical Coherence Tomography (OCT) and fundal fluorescein angiography (FFA)
- Neuroimaging with venography such as magnetic resonance imaging (MRI) and/or Computed tomography venography (CTV)
- Lumbar puncture (LP) where clinically indicated.

Patients were managed by a multi-disciplinary team (MDT) in line with European League Against Rheumatism recommendations, with treatment tailored to the suspected mechanism.⁵ (Figure 1)

References

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Results

	CJ	FR	HF	KR
Age & Sex	42 years old, Female	38 years old, Female	40 years old, Female	24 years old, Male
Behçet features	Nil	- Genital ulcers - Known diagnosis of Behçet's syndrome	- Mouth & Genital ulcers	Nil
Presentation	In-patient referral	Optician referral	External patient referral	External patient referral
Presenting symptoms/signs	Optic disc swelling & panuveitis	Asymptomatic papilloedema Repeat presentation: Blurred vision	Blurred vision, headache, systematically unwell, nausea & vomiting, central scotoma	Bilateral reduced vision, disc swelling and Cystoid Macular Oedema (CMO)
Visual acuity at presentation	Right 1.06 unaided Left 0.30 unaided	Right 0.16 unaided Left 0.12 unaided	Right 0.04 unaided Left 0.02 unaided	Right 0.54 unaided Left 1.00 unaided
OCT Finding (Right Eye)	New Branch retinal vein occlusion (BRVO).	Disc swelling with circumferential Paton's lines	Circumferential Frisén grade 3 disc swelling with vitreous debris/cells.	Mild vitritis without Cystoid Macular Oedema (CMO) and normal disc
OCT Finding (Left Eye)	Subretinal fluid and retinal thickening	Disc swelling without Paton's lines, some macula oedema	Circumferential Frisén grade 3 disc swelling with vitreous debris/cells.	Disc swelling with macular oedema and a patch of retinitis temporal to disc
RNFLT (3.5mm) at presentation	Right eye: 96.42µm Left eye: 107.71µm	Right eye: 58.77µm Left eye: 56.29µm	Right eye: 204.44µm Left eye: 186.13µm	Right eye: 189.58µm Left eye: 175.70µm
FFA Finding	Extensive retinal non-perfusion in all temporal half of retina with collaterals. No trace of NVE	Not carried out	Non-occlusive periphlebitis	Not carried out
MRI/CTV	Normal	CT Head: Bilateral transverse sigmoid junction stenosis and Cerebral venous sinus thrombosis (CVST)	Perivascular sheathing and periphlebitis. No intracranial mass	Normal
LP Opening pressure	Not measured	34mmHg >35mmHg 62mmHg	34mmHg	Not done
Final phenotype	Inflammatory	Idiopathic intracranial hypertension (IIH) like pattern with an inflammatory picture	Inflammatory	Inflammatory
Treatments	Prednisolone Cyclophosphamide IV Methylprednisolone Infliximab	Acetazolamide VP Shunt Prednisolone Infliximab Methotrexate	Prednisolone Azathioprine Infliximab	Prednisolone Azathioprine Adalimumab
Visual Acuity outcome	Right 0.90 Unaided Left 0.08 Unaided	Right 0.50 unaided Left 1.34 unaided	Right 0.04 unaided Left 0.00 unaided	Right 0.08 unaided Left 0.08 unaided
Visual Fields after treatment	Enlarged blind spot worse in right eye	Small loss inferior temporarily in right eye	Full	Full
RNFLT (3.5mm) after treatment	Right 28.21µm Left 44.17µm	Right 47.96µm Left 44.71µm	Right 121.73µm Left 136.21µm	Right 104.18µm Left 116.11µm

Table 1: Patient demographics, treatments and visual outcomes.



Presented with reduced visual acuity



Retinal Nerve Fibre Layer Thickness & Visual Fields normalised



Required holistic visual rehabilitation

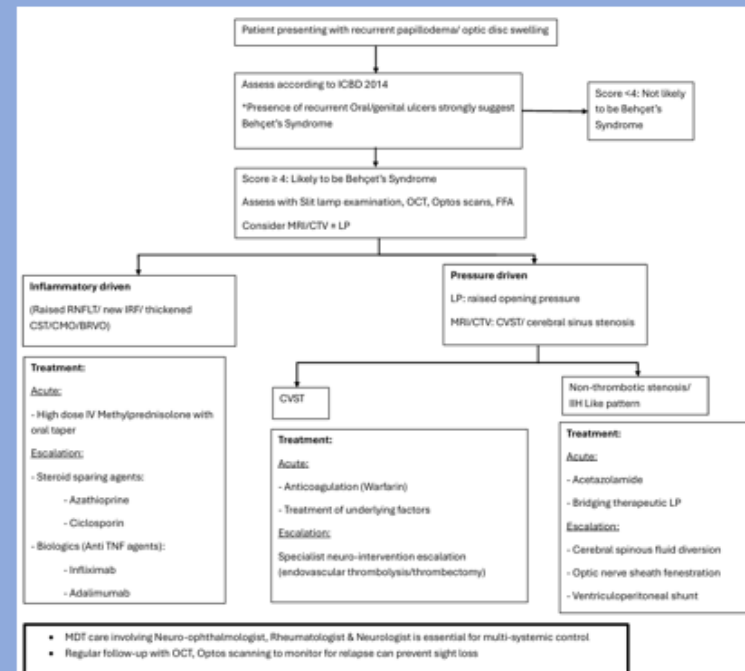


Figure 1: Flowchart of diagnostic algorithm and treatment options

Conclusion

Optic disc swelling in Behçet's syndrome may reflect inflammation, raised ICP, or mixed pathology. Early recognition, prompt neuroimaging/venography (and lumbar puncture when indicated), and MDT-led treatment escalation are key to preventing avoidable visual loss.

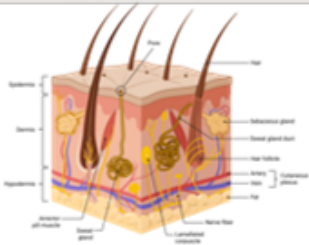
Key take home points:

- Image patients early
- Differentiate inflammatory vs pressure mediated swelling
- Early escalation to steroid sparing agents and biologics can prevent vision loss.

Closed-Loop Quality Assurance in Mohs Micrographic Surgery: Longitudinal Diagnostic Concordance and Documentation Governance

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Introduction

Mohs micrographic surgery (MMS) is a high-precision oncological procedure requiring accurate intraoperative frozen section interpretation and robust documentation to ensure patient safety.

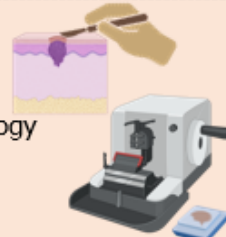
As surgery and pathology occur in real time, structured quality assurance is essential to minimise diagnostic variation and maintain governance standards within specialist services.

Aim

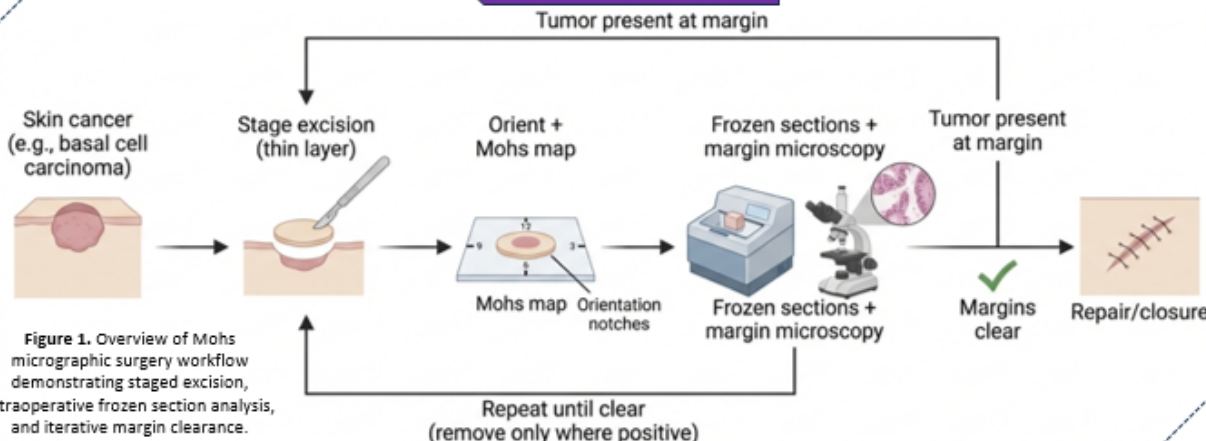
To evaluate longitudinal diagnostic concordance and documentation quality within a tertiary MMS service as part of a closed-loop quality improvement programme.

Methods

- 1) Multi-cycle clinical audit conducted between 2021-2025
- 2) Included four audit cycles: 2021, 2022, 2023, 2025 (no audit in 2024)
- 3) Intraoperative frozen section diagnoses compared with final paraffin histopathology
- 4) Concordance defined as agreement on presence/absence of malignancy
- 5) Longitudinal comparison performed across cycles
- 6) Used to identify variation, trends, and areas for improvement



Mohs Workflow



Concordance



2021 2022 2023 2025
- Total tumours analysed: 90 across all audit cycles
- Overall concordance: 89/90 (98.9%)

Single discordant case (2023) reviewed & contextualised

2025 cycle:

- 100% concordance (30/30 tumours)

Tumour Diagnosis
documented on forms



Mohs layer
documented on forms



Results

% concordance

Repair
documented on forms



Wound care
documented on forms



Tumour subtype
documented on forms



Diagnostic accuracy:

- Consistently **high across all cycles**

Documentation quality:

- Showed **variability over time**

Declines observed in:

- **Wound care** documentation
- **Tumour subtype** recording

Improvement noted in:

- **Operative layer** documentation

Action taken:

- Structured feedback provided to clinicians
- Governance reinforcement implemented
- Areas flagged for ongoing monitoring and re-audit

Conclusion

This longitudinal, closed-loop audit demonstrates sustained diagnostic accuracy within a high-risk cancer surgical pathway while highlighting the importance of documentation governance alongside technical precision.

Embedding repeated audit cycles into routine practice supports early detection of variation, continuous quality improvement and strengthens patient safety and service governance within specialist procedural oncology services.

Key Takeaways

- ✓ High diagnostic accuracy maintained (98.9%), with 100% in 2025
- ✓ Closed-loop audit supports patient safety
- ✓ Documentation - not accuracy - is the main area for improvement

Acknowledgement

Dermatol-Onco-Surgical consultants **Dr Elizabeth Kulakov & Dr Seshi Manam** and Lead Biomedical Scientist **Josh Christian** for their assistance during this audit.

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When Asthma Meets the Abdomen: Gastrointestinal Manifestations of Eosinophilic Granulomatosis with Polyangiitis

Background

- EGPA (formerly Churg-Strauss syndrome) is an ANCA-associated vasculitis of small/medium sized blood vessels.
- Clinical features include eosinophilia, asthma, sinusitis, nasal polyps, mononeuritis multiplex, myocarditis, glomerulonephritis, and GI symptoms.
- Only 30-35% are ANCA-positive.
- Annual prevalence: 10.7 to 17.8 per million people.
- Diagnostic challenge: GI-predominant EGPA mimics eosinophilic gastroenteritis, infectious gastroenteritis, and IBD.

Case presentation

- 66-year-old female, multiple A&E attendances in 2021.
- Symptoms: abdominal pain, diarrhoea, vomiting - repeatedly labelled as viral gastroenteritis.
- New diagnosis of adult-onset asthma requiring prior hospitalisations.
- Chronic rhinosinusitis, new onset urticaria, 10 kg weight loss in 4 months.
- Co-morbidities: hypertension, T2DM, hypercholesterolaemia.

Investigations

- Marked eosinophilia: $3.8 \times 10^9/L$ (normal $0-0.4 \times 10^9/L$)
- Normal CRP and ESR.
- Autoantibodies: ANCA negative, ANA and RF positive, raised IgE.
- CT chest: diffuse bronchial wall thickening.
- CT AP: no significant abnormality.
- OGD: chronic gastritis, normal biopsies.
- Nasal polyp histology: oedema, mixed inflammatory infiltrate with eosinophils, focal ulceration.

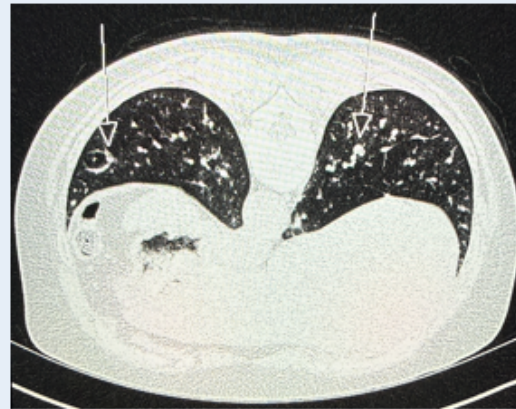


Figure 1. Prone HRCT: bilateral bronchial wall thickening with partial plugging of bronchi (supports asthma/EGPA diagnosis)

Diagnosis

- 2022 ACR/EULAR criteria supported diagnosis of EGPA due to presence of asthma, nasal polyps, eosinophilia.

Management

- No initial high-dose steroid induction therapy.
- First treated with azathioprine, later switched to mycophenolate mofetil (MMF) due to low TPMT.
- Rescue course of prednisolone and PPI used infrequently for acute flares.
- Eosinophilia normalised on MMF.
- No recent hospital admissions or GI symptoms whilst on MMF.

Discussion

- **Diagnostic pitfall:** EGPA can masquerade as infectious gastroenteritis - consider vasculitis in recurrent, unexplained GI symptoms.
- **ANCA-negative phenotype** is characteristically associated with eosinophilia and GI involvement.
- **ANCA-positive phenotype** linked to 'vasculitic features' (peripheral neuropathy, glomerulonephritis).

Learning points

- Negative ANCA + normal CRP/ESR do not exclude EGPA.
- Unexplained GI symptoms + asthma or eosinophilia is a red flag for EGPA.
- Early recognition prevents diagnostic delay and allows prompt immunosuppressive therapy.

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Authors: Dr Yasmine Rezagholikhani, Dr Angad Singh, Dr Anna Nuttall. Whittington Hospital.

Written patient consent obtained for display of case and CT image.

Incidental Microcytic Anaemia and Hyperferritinaemia Revealing Late-onset X-linked Sideroblastic Anaemia – A Case Report

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What is X-linked Sideroblastic Anaemia (XLSA)?

Sideroblastic Anaemia (SA) = a group of disorders of **defective haem synthesis** causing **mitochondrial iron accumulation** and **ineffective erythropoiesis**.^[1]

Most cases are acquired. **XLSA** is the commonest inherited form,^[2] caused by **ALAS 2 mutations**.^[3]

XLSA typically presents in **younger males**, late onset is rare.

XLSA is often **pyridoxine responsive**. Iron overload occurs due to increased intestinal absorption, treated with chelation or venesection.^[4]

Case Presentation

- **Patient:** 41 y/o male presenting with mild fatigue and intolerance of endurance exercise.
- **Incidental Finding:** Discovered anaemic during a routine blood donation.
- **Initial Labs:**
 - Hb: 91 g/L | MCV: 63 fL | MCH: 15.6 pg
 - Ferritin: 2388 µg/L | ALT: 54 IU/L
 - Normal B12 & folate | Tsat 92%
- **HFE Gene:** Wild type (ruling out Haemochromatosis)

Diagnostic Workup

- **Peripheral Blood Film:** Basophilic stippling, widened RDW
- **Hb Electrophoresis:** No abnormal Hb detected
- **MRI T2* (FerriScan):** Hepatic iron overload (35mg/g)
- **Bone Marrow:** Presence of Ring Sideroblasts
- **Genetics:** Confirmed ALAS 2 c.1354C>T (p.Arg452Cys)^[4]

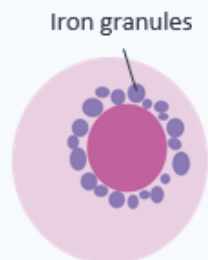


Diagram 1.
Ring sideroblast



Figure 1. (Left) Siderotic granules in immature erythrocyte.
(Right) Siderotic granules in mature erythrocyte.

Management Timeline

- **Initial treatment**
Started **Pyridoxine & Folic Acid**
- **Month 2**
Hb improved but Ferritin remained high
Started **therapeutic Venesections**
- **Month 19**
Hb dropped and Ferritin increased
Stopped Venesections and started **Deferasirox**
- **Month 22**
Hb dropped
Stopped Deferasirox
- **Month 32**
Hb rebounded
Venesections cautiously restarted
- **Month 60 onwards**
Well-controlled on Pyridoxine + 2 monthly Venesections

Learning Points

Diagnostic Clue: Raised ferritin + hypochromic, microcytic anaemia should prompt consideration of SA when common causes are excluded.

Rare Presentation: Late-onset male XLSA is rare; this case highlights it can present asymptotically in adults into their 5th decade.

Management Dilemma: Pyridoxine corrects anaemia but does not address iron overload. However, fixing Hb allows for option of venesection.

Therapy Choice: Venesection is often preferable given potential side-effects from iron chelation therapy.

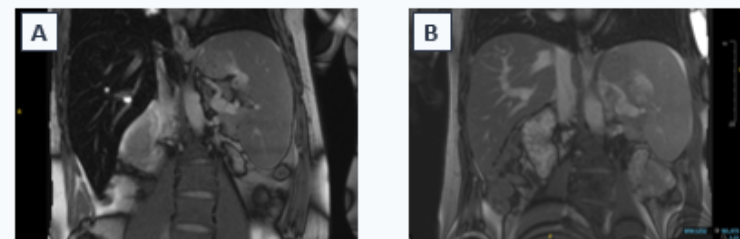


Figure 2. (A) Pre-treatment FerriScan MRI: Marked hepatic iron overload
(B) Post-treatment FerriScan MRI at 6 years: Marked reduction in hepatic iron

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CASE

A 40-year-old man with a known bicuspid aortic valve developed a **flu-like illness** followed by acute severe aortic regurgitation and was treated as infective endocarditis with metallic aortic valve replacement. Over the subsequent months, he underwent **four further aortic valve surgeries** for recurrent paravalvular regurgitation and prosthetic dehiscence, each episode again managed as **culture-negative** endocarditis, due to persistent negative blood and intra-operative cultures. During later episodes, he was noted to have a **pustular rash and a painful lump on the foot**, raising concern for an underlying systemic inflammatory or autoimmune process.

At the fifth operation, **aortic root and ascending aortic were found to be inflamed** hence, replaced. Aortic histology demonstrated IgG4-related aortitis, with up to 60 IgG4-positive plasma cells/hpf and an IgG4:IgG ratio of 60%. Immunosuppressive therapy was commenced, leading to stabilization of aortic inflammation and valve function.

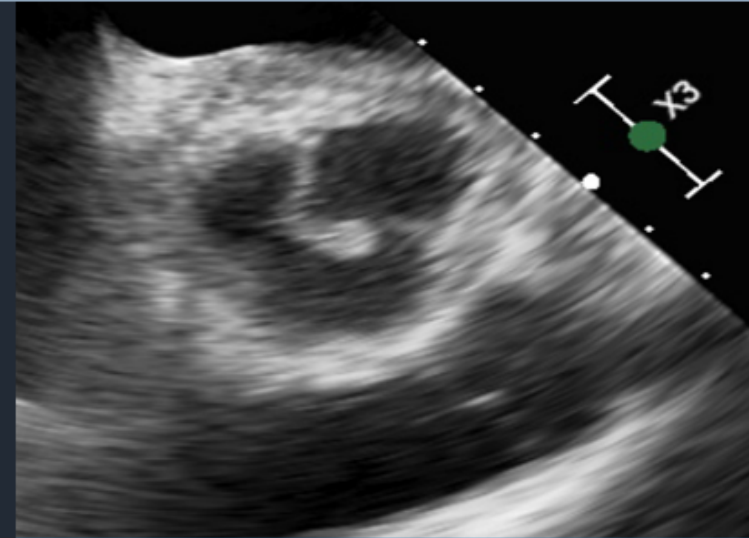


Figure 1: aortic valve vegetation

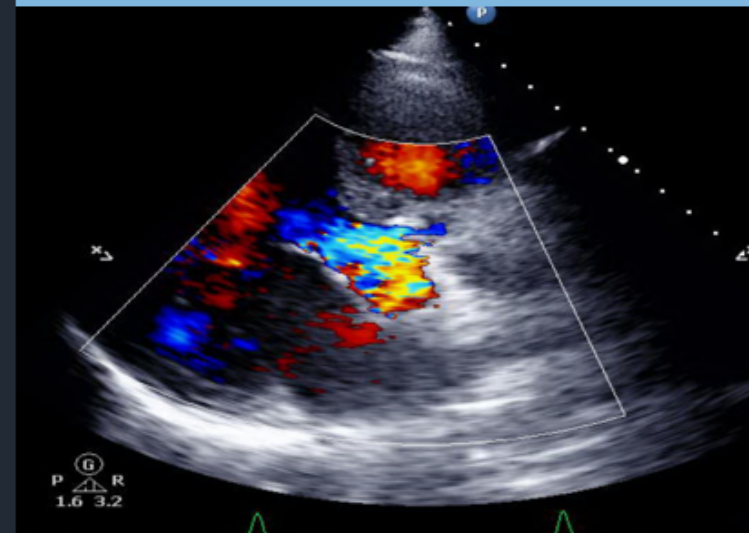


Figure 2: Severe aortic regurgitation

DISCUSSION

This case represents an unusual, **early-onset presentation** of IgG4-related aortitis in a 40-year-old man¹, whereas the condition is more typically reported in **older adults** (mean age 58 years²) and more often involves the **abdominal rather than the thoracic aorta**³. It highlights the importance of reconsidering the diagnosis when prosthetic valves fail repeatedly with paravalvular leak and negative cultures, especially in the presence of extra-cardiac inflammatory features and supportive histology and imaging, and of early multidisciplinary involvement to identify non-infective aortic disease so to institute timely immunosuppression.

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