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IMPROVING ANTICOAGULATION REVERSAL IN ACUTE INTRACEREBRAL HAEMORRHAGE: A QUALITY IMPROVEMENT PROJECT

Presenting author: Dr Ashna Arif, FY2, Mersey and West Lancashire Trust
Co-lead author: Dr Isaac Thevarajan, JCF, Mersey West Lancashire Trust
Supervising Clinician: Anastasia Liaritedou (Senior Clinical Fellow), MWL
Supervising Consultants: Dr Fathalla Elnagi, Consultant Stroke Physician, Mersey and West Lancashire Trust &
Dr Latheef Kalathil, Consultant Stroke Physician, Mersey and West Lancashire Trust

NHS
Mersey and West Lancashire Teaching Hospitals
NHS Trust

SCAN ME

Introduction

Intracerebral haemorrhage (ICH) accounts for 10–15% of all strokes in the U.K. and carries high morbidity and mortality rate of up to 50% within one month, with only 20% regaining functional independence[1]. Stroke care costs approximately £26 billion annually to the NHS, with long-term care adding a further burden to families and healthcare services[2]. Rapid reversal of anticoagulation in ICH with Prothrombin Complex Concentrate (PCC), has been linked to a 20% reduction in mortality[3].

Aims & Objectives

Our main reason for this study was to identify delays in treatment for anticoagulation reversal

- ❑ Create an ICH Fast-Kit on the Stroke Ward for quicker interventions – **optimize DTN time**
- ❑ To meet standards of our ABC-ICH protocol 3.2
- ❑ Improve education and awareness about the protocol and the importance of anticoagulation reversal within the recommended timeframe

Methods

We obtained our retrospective data using the **SSNAP database** (Sep 2023 – Aug 2024)

Patient selection criteria

- Admitted to our Stroke Unit <24h
- On anticoagulation
- Received a dose of anticoagulation 24h prior to admission

Exclusion criteria

Patients commenced on our end-of-life pathway or died within 24h of admission

Measured parameters

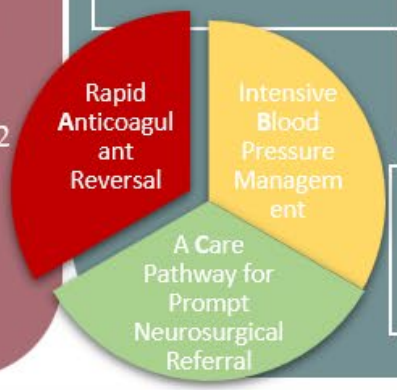
- Time of symptom onset
- Time of initial presentation
- Anticoagulant type
- Time of CTb scan
- Time taken to reverse anticoagulation
- Reversal agent used

1ry outcome measure: Door-to-Needle time (DTN)

2ry outcome measure: Door-to-Scan Time (DTS)

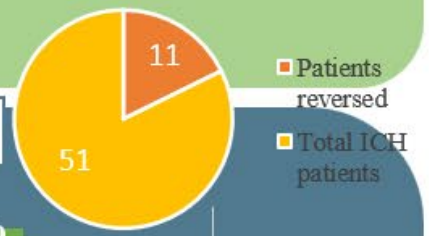
Interventions

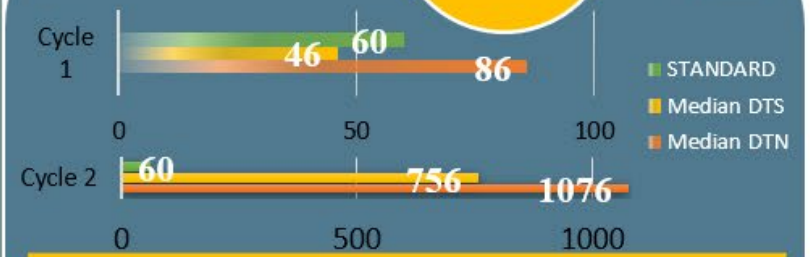
- Posters
- Education – Trust/Ward staff teaching
- Educational video on our Intranet
- ICH FAST-Kit



We then conducted a prospective study for 8 months using the same criteria from Oct 2024 – May 2025

Results





	Retrospective Study	Prospective Study
Total ICH Patients	51	73
Total Patients on Acg	13	12
Eligible Patients	11	1
Reversal <60min	1	0

Discussion/Conclusion

- Protocol standards not being met – 1 patient reversed <60 min
- No valid conclusion due to lack of sufficient data in 2nd cycle,
- Limited awareness about the protocol, documentation issues, and delayed access to reversal agent
- Ongoing 3rd cycle audit – updating stroke proformas, integrating ABC-ICH protocol into departmental teaching, and ultimately, working towards ICH Fast-Kit on the Stroke ward– logistics i.e conditions required for Octaplex storage

Transforming handover practice: A paired electronic and verbal approach aligned with RCP standards

Authors: Dr Gabriela Bodero Jimenez, Dr Stephen Ho, Dr Faiz Shaikh, Dr Maisy Bowen and Dr Peter Hanna.

NHS
University Hospitals Coventry and Warwickshire
NHS Trust

Introduction

Efficient handovers are essential for safe patient care. The Royal College of Physicians (RCP) recommends standardised, dynamic handovers with digital and face to face components[1]. With the NHS 10 Year Health Plan driving transitions from analogue to digital[2], EPR systems are becoming an increasingly ubiquitous resource[3].

This Quality Improvement Project (QIP) examined local practice against RCP recommendations and analysed resident doctor's experiences to identify barriers to best practice. Analysis was used to devise targeted improvements that utilised a newly introduced EPR system.

Methods

Two Plan-Do-Study-Act cycles were conducted and their outcomes are outlined in Figure 1.

Cycle 1 began with a survey of resident doctors to assess views of existing practice. The results were analysed using COM-B methodology[4]. Cycle 1 implemented an EPR integrated handover and Cycle 2 added an in-person element. Following a 6-week implementation period, staff were re-surveyed to assess intervention impact.

8 and 13 resident doctors were surveyed during the first and second cycle respectively. Figure 1 illustrates the outcomes of the PDSA cycles.

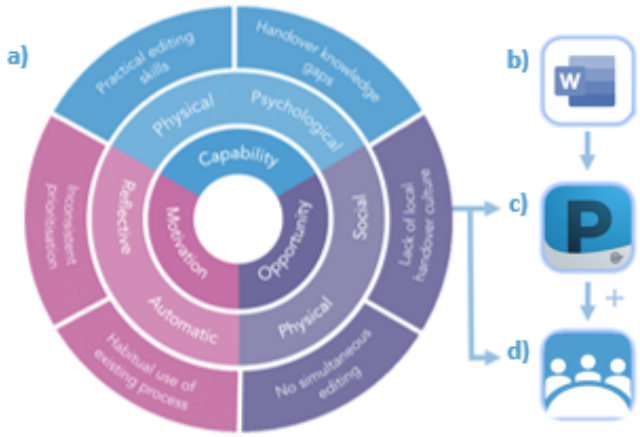


Figure 1. Methodology overview. COM-B data analysis represented as a wheel figure (a). Handover progresses from a word document on a shared file (b) to become EPR integrated (c) and then an in-person element is added (d)

Results

100%
of doctor's rated EPR integrated handover as average or above (Cycle 1)

15 minutes
time saving per shift reported by 71% by ward doctors (Cycle 1)

100%
of doctor's felt the EPR integrated handover improved their experience (Cycle 1)

-28%
Reduction in access issues (Cycle 2)

84.6%
of doctor's felt the paired digital & in-person handover improved their experience (Cycle 2)

Conclusion

This two-cycle QIP improved our handover process in line with best practice. Digital integration improved efficiency and usability with high user satisfaction, while the in-person element requires streamlining.

Our data generated local interest in a digitally integrated handover process. This led to collaboration with clinical informatics teams and our EPR provider to develop the platform to help us address unmet barriers to change.

Wider Impact

This project demonstrates that resident doctors, as frontline users, are uniquely positioned to help shape how digital systems are used in practice.

We hope our work can encourage other resident doctors to actively participate and lead on projects that optimise and develop the way trusts use digital health technology.

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Haematoma estimation in Intracerebral Haemorrhage (ICH), the difference between Brainomix (AI-based software) and the ABC/2 formula: A Single Centred, Retrospective Review.

Dr B Khan (FY2 JCF), Dr A Arif (FY2), Dr F Elnagi (Stroke Consultant), Dr G Retnasingam (Consultant Radiologist)
Whiston Hospital, Mersey West Lancashire Trust

Mersey and West Lancashire Teaching Hospitals NHS Trust

Introduction

- Haematoma size is a key factor in determining the severity and outcome of intracerebral haemorrhage (ICH)
- UK guidelines define a haematoma **>30mL** as *severe*
- Such cases warrant urgent neurosurgical discussion for possible surgical evaluation (1,2)
- Brainomix is an AI-based imaging software that uses machine learning algorithms to segment and quantify brain lesions, including ICH, providing rapid haematoma volume estimates to aid clinical decision making.

Method

- Retrospective review of **47** patients with confirmed ICH at Whiston Hospital
- Data was collected for patients admitted with an ICH between January 2024 and June 2025
- Haematoma volumes were calculated using the ABC/2 formula
- All measurements were reviewed and confirmed by a Consultant Radiologist
- Results compared the ABC/2 formula calculations to AI-based software (Brainomix) volume estimates.

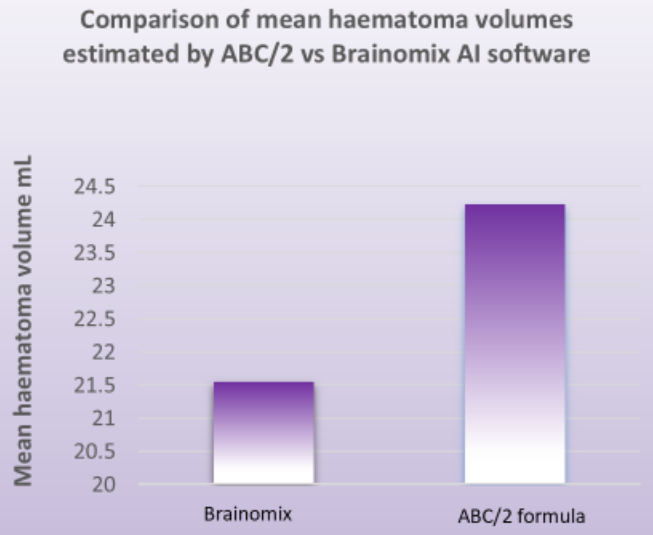

Figure 1 *Graph showing comparison of mean haematoma values estimated by the ABC/2 formula vs Brainomix AI software*

Results

- Brainomix successfully calculated haematoma volume measurements for **31** out of **47** patients
- ABC/2 gave larger estimates in **16** patients.
  - Of these, **8** patients had differences **>5mL**, which could be clinically significant
- Brainomix produced larger volume estimates in **5** patients
  - All differences were **<5mL**
- In **10** patients, both methods gave nearly identical volumes **(<1mL difference)**
- Mean haematoma volumes were calculated for both ABC/2 formula and Brainomix *(see figure 1)*
  - ABC/2: **24.23mL**
  - Brainomix: **21.55mL**
- Most discrepancies occurred in large haematomas **(>20mL)**
- Small haematomas were generally estimated similar by both methods

Conclusion

- AI based software should be used with caution for haematoma estimation
- More studies are needed to standardise estimation tools for ICH
- Using multiple methods helps ensure accurate haematoma volume measurements until AI tools are fully validated

References

1) National Advisory Committee for Stroke. Neurosurgical referral in intracerebral haemorrhage. www.naccs.org.uk/resource/intracerebral-haemorrhage [Accessed 1 Sep 2025].

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Use of modernised methods to encourage adherence to a standardised acute medical handover proforma

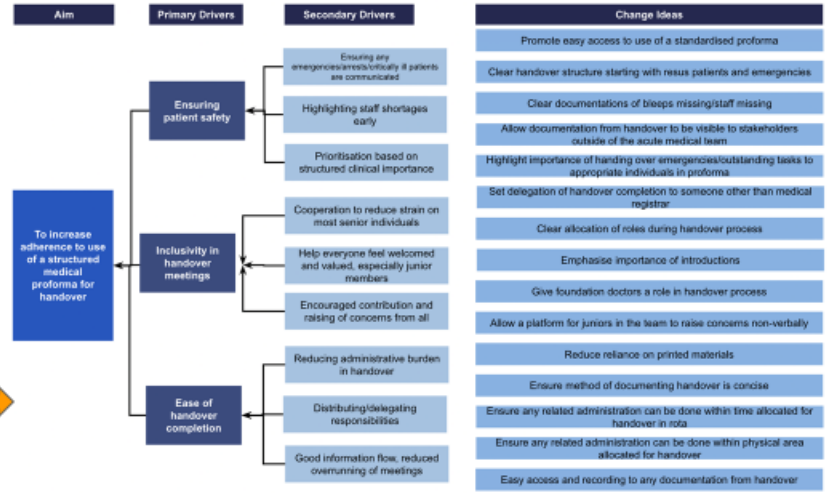
Immy Stringer, Andrew Quarrell, Daisy Manning, Kasper Weber, Rizwan Khan

Scunthorpe General Hospital/Humber Health Trust

Introduction

Without structured medical handover, information about unwell patients may be missed, on-call clinicians feel unprepared to take over care and patient safety suffers. **NICE guidance and RCP acute care tool-kits** highlight the importance of adoption of a **standardised handover process** to ensure smooth transition of care.

Initially, we implemented documentation with a paper proforma developed beyond the RCP 'Handover proceedings sheet' to encourage use of a structured process. Over four months, poor completion rates were identified; 64% (34/53) of handover periods produced **no handover process documentation.**

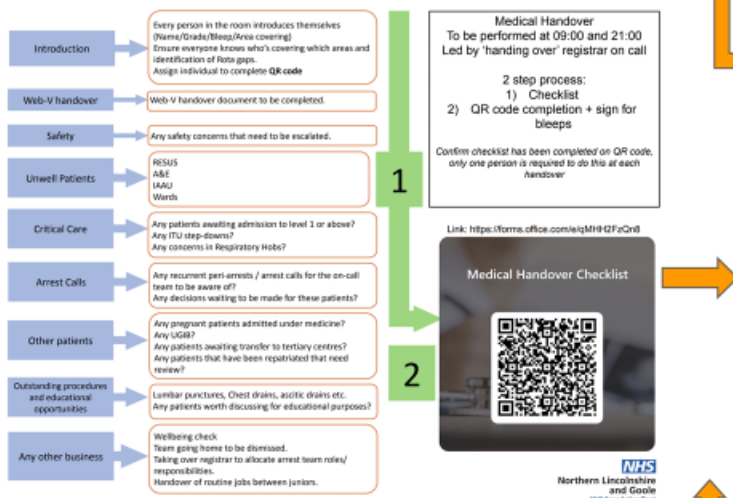


The problem - engaging consistently in good quality, safe and guideline-led handover requires a systems approach to increase accessibility and ease of handover completion.

Figure 1 (left): Driver Diagram *tool detailing key drivers in delivering the three main project aims. These were used to develop a SMART framework.*

Methodology

A QR code (see right) connected to a visual aid covering the same handover domains was implemented in acute medicine areas to encourage use of the structured handover. Responsibility for form completion was assigned to the on-call foundation doctor; the form output was available to QIP leads and rota coordinators to enable identification of missing bleep-holders.



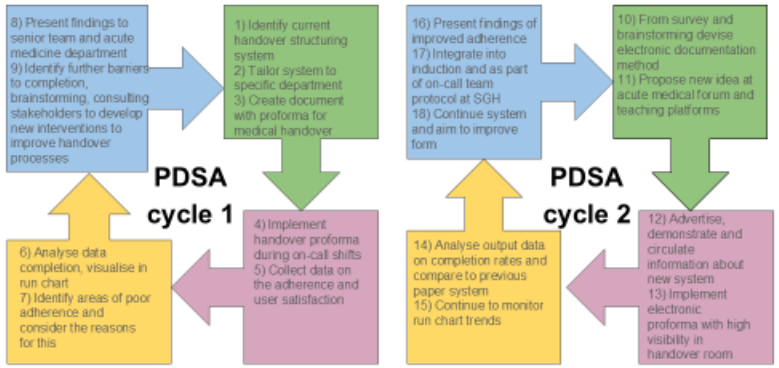
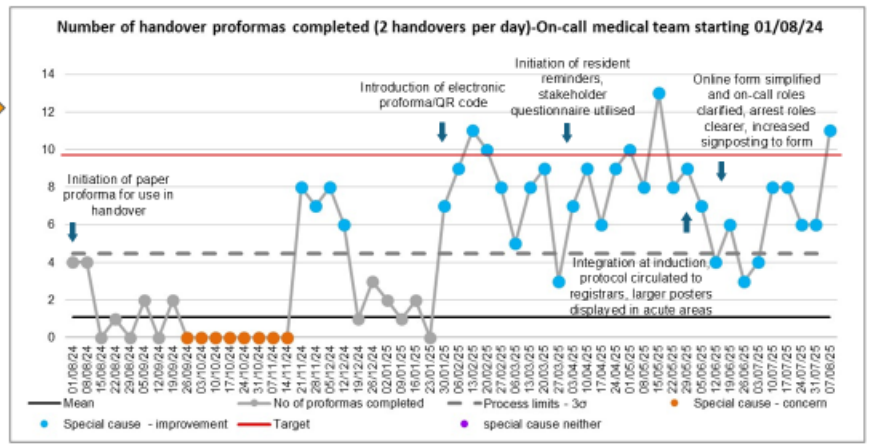


Figure 2 (above)*: Visual Aid displayed as large posters in acute medicine areas.*

Figure 3 (left): *visual representation of PDSA cycles used in the project.*



Results: ***SPC Run-chart (above)*** showing number of completed proformas per week. Evidence of improvement and special cause variation shown by >7 blue dots over process line. Red line represents the original project target of completion in 70% of handovers. Interventions plotted along run-chart as horizontal annotations.

Conclusions and lessons learned

Results demonstrate increased use of the structured proforma and adherence to a handover process when converted to an **easy-use electronic format, with modernisation of documentation and better visibility** of the process.

Compliance and completion of more domains within our proforma can be improved further; the project is now in its second year with a focus on streamlining the form, whilst the system is being implemented at another hospital site.

Mismatch Repair Immunohistochemistry and Germline Pathogenic Variants in Lynch Syndrome-associated Endometrial Cancer: A Retrospective Audit

Malcolm Scott[1,2], Tunch Akmandor[1,3], Nikhil P. Ganeshram[4], Damneet Thind[1], Rupali Arora[1]

[1] Department of Cellular Pathology, University College London Hospitals NHS Foundation Trust
[2] Department of Women's Cancer, EGA Institute for Women's Health, University College London
[3] Advanced Diagnostics, Health Services Laboratories [4] Newstead Wood School

UCL EGA Institute for Women's Health

NHS University College London Hospitals NHS Foundation Trust

Introduction

Endometrial cancer (EC) is frequently the first clinical manifestation of Lynch syndrome in women, sometimes preceding colorectal cancer [1,2].

Universal screening with mismatch repair (MMR) immunohistochemistry (IHC) is recommended to identify patients at risk [3]. Concordance between IHC and germline pathogenic variants (PVs) is critical to guide genetic counselling and family cascade testing.

Discordance may result in missed diagnoses or unnecessary investigations. Audits are essential to evaluate the reliability of IHC, highlight diagnostic gaps, and support pathway improvement.

Aim

To audit concordance between MMR IHC and germline genetic results in Lynch syndrome associated endometrial cancer, and to identify areas for diagnostic optimisation.

Methodology

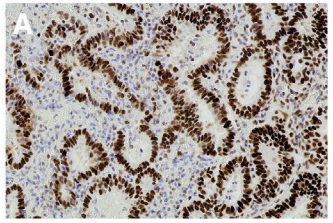
We retrospectively analysed 15 women with confirmed Lynch syndrome who developed endometrial cancer between 2008 and 2024. Clinical variables included age, body mass index (BMI; categorised as <30, ≥30, or unknown), FIGO stage, and histology.

IHC for MLH1, PMS2, MSH2, and MSH6 was compared with germline PV status. Expected loss patterns were defined per gene. Positive stromal internal control was identified in every case, confirming optimal staining quality.

Concordance was defined when IHC results matched the germline PV. Discordant cases were highlighted for further evaluation.

Results

The median age at diagnosis was 41 years (range 31-57). BMI distribution included eight patients with BMI <30, five with BMI ≥30, and two with unknown values. Most tumours were Stage IA (13/15), with one Stage IB and one Stage IIIB. Histology across 15 cases was predominantly (80%) endometrioid, with one mixed cases: endometrioid/clear cell.



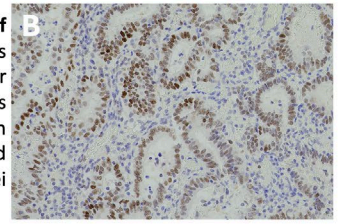
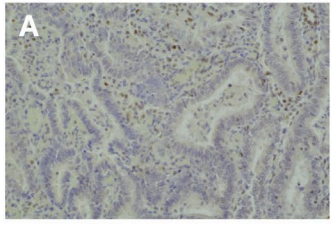
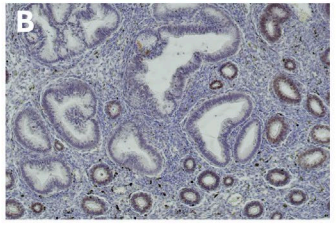


Figure 1. Retained nuclear expression of MMR in EC. *(A)* IHC for **MSH2** shows diffuse, strong nuclear staining in tumour cells. *(B)* IHC for **MSH6** demonstrates similarly strong nuclear staining. Both consistent with ***retained expression***, and internal stromal with lymphocytic nuclei serve as positive internal controls (×20).

Table 1: Concordance between MMR IHC and germline pathogenic variants (n=15)

Gene (PV)	Cases (n)	Concordant % (*n*)	Typical IHC pattern observed	Special Notes
MLH1	6	100%	MLH1 & PMS2 loss	-
MSH2	8	87.5%	MSH2 & MSH6 loss	1 case with isolated MSH6 loss only (possible point mutation in MSH2)
MHS6	1	0%	Isolated MSH6 loss expected	Case showed dual MSH2+MSH6 loss despite MSH6 PV (possible 2º MSH2 alteration or variant misclassification)
Total	15	86.7%	-	2 discordant cases (13.3%)





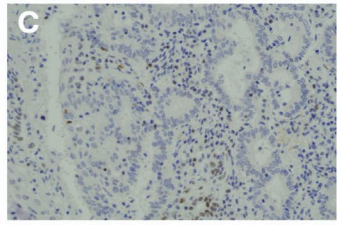


Figure 2. Loss of MMR protein expression in endometrial carcinoma. *(A)* **MSH2 loss:** tumour nuclei show complete absence of staining, while adjacent normal glands retain strong nuclear expression (×20). *(B)* **PMS2 loss:** tumour nuclei are negative with retained staining in non-neoplastic stromal and lymphocytic nuclei (×20). *(C)* **MLH1 loss:** tumour cells demonstrate complete nuclear absence of MLH1 with preserved staining in surrounding benign glands (×20).

Discussion

Overall concordance was 86.7% (13/15). MLH1 PVs were fully concordant (6/6), while one MSH2 PV case showed isolated MSH6 loss.

The single MSH6 PV case demonstrated dual MSH2+MSH6 loss, suggesting a possible secondary MSH2 alteration or misclassified variant. These findings highlight the reliability of IHC but emphasise the need for confirmatory germline testing in discordant cases due to the heterodimeric nature of MSH2-MSH6 [4,5].

Reflex MLH1 promoter methylation testing should be incorporated into standard workflows. Repeat IHC, MSI-PCR, or tumour sequencing may be performed in discordant or equivocal cases [6-8].

Conclusion

This audit demonstrates that MMR IHC is highly concordant with germline PV status in Lynch syndrome associated endometrial cancer, supporting its use as a frontline screening tool.

Discordant cases underline the importance of molecular confirmation and multidisciplinary review. Regular audits strengthen diagnostic quality, safeguard patient safety, and optimise Lynch syndrome detection and counselling.

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"CLOSE ENOUGH?"- EVALUATING THE ACCURACY OF CONDITIONING REGIMEN PRESCRIPTION AGAINST THE PROTOCOL AND STANDARD OPERATING PROCEDURES.

Dr. Gloria Quansah
Dr. Edna Mensah

Imperial College Healthcare NHS Trust
University Hospital Southampton NHS Trust

Introduction

- Stem cell transplantation is a form of management with curative potential for many haematological disorders. It has changed the course of disease progression since its inception with its benefits vast.
- Conditioning regimens are therapy administered to the patient prior to receiving the transplant. It functions to eradicate haematological malignancies pre-transplant, provide sufficient immune suppression, ensure engraftment & to prevent both rejection and graft-versus-host disease (GvHD) [1].
- A wide variety of conditioning regimens are available including chemotherapy which may aim at myeloablation or lymphodepletion depending on the agent, and in some instances requiring total lymph node irradiation or even total body irradiation.
- There are protocols designed to ensure that patients are receiving the appropriate conditioning regimen based on their disease, functional state and other factors such as age, weight and renal function. Prescription of the conditioning regimen must tally with patient's specific protocol to prevent errors and ensure a successful transplant.

Objective

To assess the adherence of conditioning protocols to standard operating procedures and to determine the accuracy of prescriptions of conditioning regimen versus the protocols designed.

Methodology

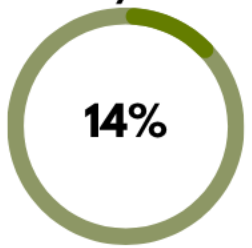
01 Retrospective data was gathered over a period of 6 months

02 Sample size consisted of 95 patients;
44- autologous stem cell transplants
46- allogeneic stem cell transplant
5 - CAR-T cell therapy

03 The conditioning regimen stated on the transplant protocol for each patient was assessed against the SOP to see if it tallied, and if not if there was any deviation from procedure documented.

04 The prescription was then checked on the electronic prescribing platform against the patient's specific protocol to see if they matched and if there were any errors in the prescription.

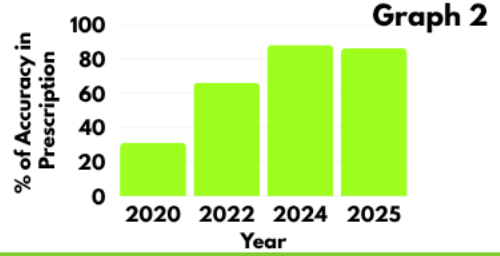
% of Prescription Errors in this Audit Cycle



Graph 1

Accuracy in prescription in the last 5 years

Graph 2



Results

Prescription errors were found in 14% of cases examined. Out of the errors found, 85% were due to dose banding. The remainder were complete deviations from protocol and the reason for deviation not stated. Similar overall rate of errors was seen in a previous audit done a year ago, which had an error rate of 12.5%. There has however been a general improvement when compared with previous years during use of paper prescriptions. (Accuracy levels: 31% in 2020, 66% in 2022, 88% in 2024

85% of errors were due to dose banding discrepancies

Figure 1

Conclusion

There is room for improvement to increase the accuracy of prescriptions. There has been a general improvement when compared with previous years during use of paper prescriptions. Collaboration between the transplant team & pharmacy is needed to reduce errors due to dose banding and to ensure patients are receiving the right medications and at the right dose.

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Role of Thoracic Ultrasound in Early Diagnosis: A Safer & Quicker Approach

Dr Asjad Ahmed Eitezaz, Dr Muhammad Usama, Dr Abu-Bakr Ahmed, Dr Arwa Jibril, Dr Nadia Sayeed

Walsall Healthcare NHS Trust

Introduction

Pleural effusions are a common cause of hospital admission and morbidity. Delays in confirming diagnosis and scheduling procedures extend hospital stays and increase radiation exposure when CT is used as first-line imaging.

- **BTS 2023 guidance** recommends **thoracic ultrasound (TUS)** before pleural procedures, highlighting its diagnostic role.
- Despite its established pre-procedural value, diagnostic TUS remains underutilized.
- Bedside TUS offers **rapid confirmation**, enabling **earlier intervention and safer care**.

Aims

- Assess timeliness and compliance with **BTS standards** for inpatient pleural procedures.
- Identify causes and contributing factors to procedural delay.
- Develop improvement strategies to enhance **efficiency and patient safety**.

Materials and Methods

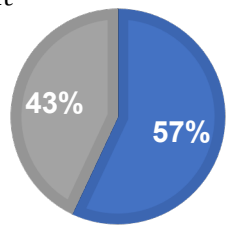
- Walsall Manor Hospital, UK
- Quality Improvement Project (first **PDSA** cycle)
- 50 inpatient pleural procedures (retrospective review)
- Demographics, indications, imaging modality, timing, and cause of delay
- Compliance with BTS standards assessed

Results

BTS Compliance: 57 %

Contributors to delay:

- Anticoagulation management
- Weekend service gaps
- Referral inefficiencies
- CT-capacity dependence
- Limited ultrasound-trained workforce



Results and Discussion

Case vignette: Suspected effusion—11-day delay from repeated CXR/CT while O_2-dependent; day-1 bedside TUS could confirm and allow immediate drainage

Why delays happen:

Imaging pathway and workforce bottlenecks.

Why bedside TUS:

Faster, safer, and more cost-effective; reduces radiation and shortens stay.

Implementation:

Cross-train ED, GIM, and Acute Medicine to expand access; aligns with ARCP competency requirements.

Conclusion

Delays in pleural procedures are multifactorial; imaging workflow is central. TUS is under- utilized as a diagnostic tool. Embedding TUS as the initial diagnostic step offers a safer, quicker and more cost effective approach which shortens stay.

Planned interventions: education and training, expanded TUS competence, pathway redesign, and re-audit.

APPROPRIATENESS OF ECG UTILISATION IN THE EMERGENCY DEPARTMENT

Anand Sunil[1], Chris Alphonse [1], Saleem Farook[1]

[1]Department of Emergency medicine, Wythenshawe Hospital, Manchester University NHS Foundation Trust, Manchester, UK

INTRODUCTION

Electrocardiography (ECG) is an essential diagnostic tool in the Emergency Department (ED). However, inappropriate use can lead to wasted resources, delay interpretation, and affect patient care. We undertook a two-cycle quality improvement project (QIP) to assess ECG utilisation, documentation of rationale, timeliness of interpretation, seniority of reviewer, and related outcomes.

OBJECTIVES

Determine the appropriateness of ECG's Performed in the ED based on clinical indications
Analyse the time please and proportion of
1.ECG's requested
2.ECG's performed
3.ECG's interpreted
-Subgroup Analysis of time taken to perform ECG on chest paint patients
-Analyze which grades of clinicians are performing and interpreting ECGs
-Assess the documentation of ECG interpretation on EPR(HIVE)

METHODOLOGY

Retrospective data were reviewed from the electronic patient record (EPR) across two randomly chosen 24-hour periods: December 2023 (Cycle 1) and March 2025 (Cycle 2). Data were benchmarked against departmental standards and the Care Quality Commission (CQC) requirement for ECG interpretation by a senior decision maker (ST3+) within 30 minutes. Interventions introduced between cycles included standard operating procedures (SOPs) for ECG requesting and interpretation, clearer triage criteria, and education sessions for nursing, auxiliary, and medical staff.

ANALYSIS

SUBGROUP ANALYSIS OF PATIENTS WITH CHEST PAIN *(cycle 1 vs cycle 2)*

	Cycle 1 9/12/23 (weekend)	Cycle 2 30/03/25 (weekend)	Cycle 1 11/12/23 (weekday)	Cycle 2 24/03/25 (weekday)
Ratio of chest pain ECGs out of all ECGs	19%	32%	21%	19%
Repeat chest pain ECGs	13%	15%	34%	50%
Interpretation overall	81%	96%	80%	85%
Interpretation (ST3+)	50%	51%	53%	81%
ECG with findings	18%	58%	46%	53%

Fig 1

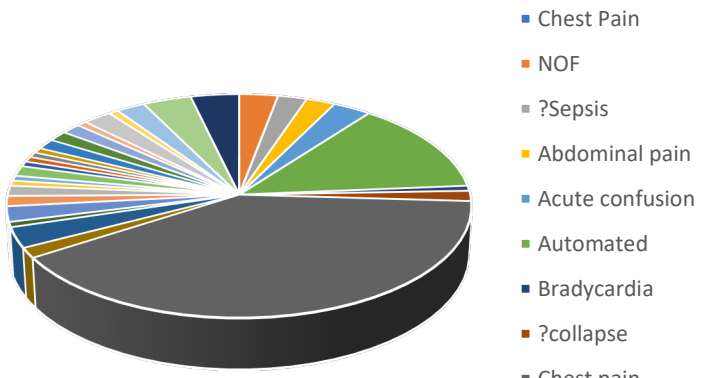


Fig 2

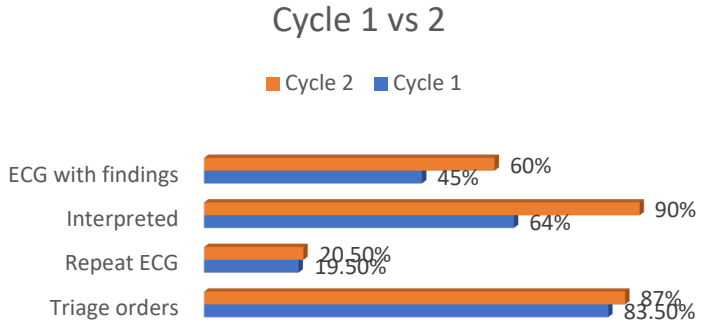


Fig 3

KEY POINTS

Rate of ECGs remains mostly unchanged – approx. 40% of patients get ECGs
Interpretation rates have improved in cycle 2 (90% compared to 65% in cycle 1)

Consultant Interpretation rate doubled from 27% to 50% of overall interpretation
SPR (ST3+) rate remains steady at 24% of overall interpretation.

Time to interpretation is variable:

Remains long over the weekend day (70mins cycle 1 vs 66 mins cycle 2) improved on weekday (209mins cycle 1 vs 73 mins cycle 2)

90% of Chest pain ECGs are interpreted
Out of the total 2444 patients in the whole week, 998 had ECG's done which is 39%(24 Mar- 30 Mar,2025)
Chest pain is the most frequent indication 39% and 33% corresponding to both days.
20% of the ECGs were repeated on both cycles.
Majority of the ECGs still ordered at triage.

RECOMMENDATIONS

2014 UK ED based audit in the BJC1 – the ECG rate is around10%, compared to our 40%
Implement triage criteria as agreed in the ECG SOP
Raise awareness of the importance of ECG interpretation AND documentation particularly at nights and in chest pain patients – Further Qip Cycles
Re-audit to look in more detail: chest pain patients and machine interpretation
CQC standard: Chest pain patients should have ECGs done and interpreted by ST3 or above within 30 minutes of arrival

NHS Manchester University NHS Foundation Trust

Improving TAVI Referrals

Quality & Consistency Audit

Dr. Hilda Akinrinade – University Hospitals Dorset NHS

21 Oct 2025

Background & Aim

TAVI treats severe symptomatic AS when surgery isn't suitable, requiring multidisciplinary care. At UHD, referrals lacked structure: missing essential tests, unnecessary investigations & inconsistent documentation. The aim was to evaluate the quality and consistency of TAVI referrals, by introducing a structured referral checklist with a re-audit to measure improvements.

Methods

Cycle 1 (baseline): Retrospective review of 30 consecutive referrals.
Investigations checked: echocardiogram, CT TAVI, ECG, angiogram, carotid Doppler, pulmonary function tests.
Intervention: Introduction of a structured referral checklist with targeted departmental teaching.
Cycle 2: Re-audit following intervention.

Results & Conclusion

Work-up improved: CT 75→100%, ECG 55→87%, Angiogram 38→43%, Doppler 10→0%, PFTs 15→6%, ECHO 100%; checklist boosted documentation, reduced unnecessary tests & facilitated smoother MDT triage; future: more data & trainee involvement.

Over a 9-month period, 30 baseline and 16 re-audit referrals were reviewed. Future cycles could include a larger sample size and longer data collection period to provide more statistically robust results and allow comparisons between elective and acute referrals. A bigger dataset would strengthen conclusions on the checklist's impact on referral quality, efficiency, MDT decision-making, and time to treatment

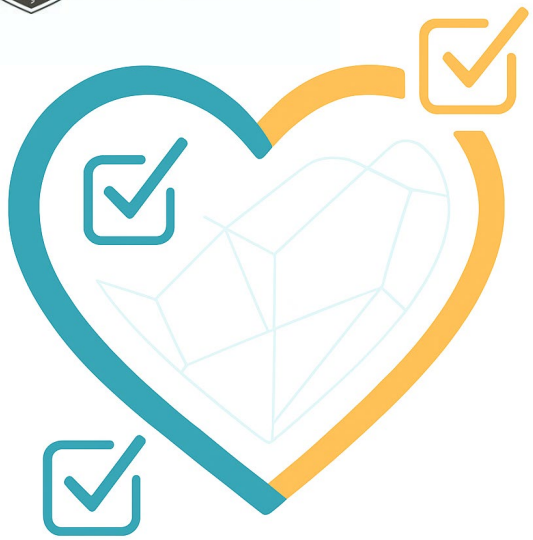
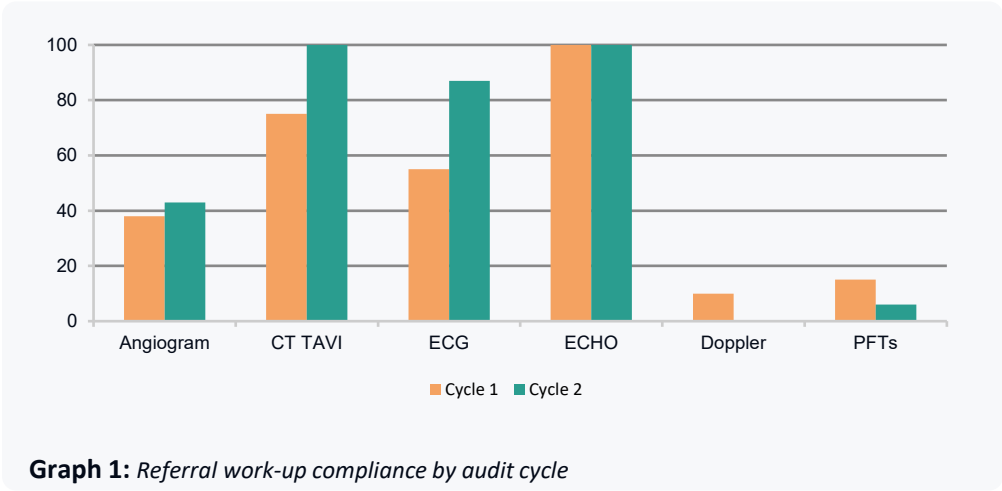


Fig. 1: *Checklist illustration*



Graph 1: *Referral work-up compliance by audit cycle*

[1] [2]

“Let’s talk about bowels and document them”

Ensuring Reliable Electronic Bowel Documentation: A Quality Improvement Project

The Shrewsbury and Telford Hospital NHS Trust

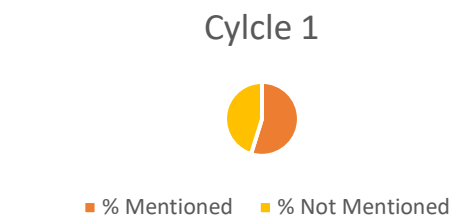
Sabha Nadeem[1] (Presenting Author) · Mohamed Asma[2] · Doaa Khafagy[2] · Khalid Abozaid[2] · Chinarisam Chuku[2] · Dr Oosama Choudhry[2] [1] Lead author; [2] Co-authors – The Shrewsbury and Telford Hospital NHS Trust*

Introduction:
Documentation of bowel movement is a fundamental yet understated aspect of inpatient care, given additional importance in older adults and patients with prolonged admissions.
Delays in identifying or acting on constipation, diarrhoea or obstruction can lead to complications and extended hospitalisation or avoidable morbidity and mortality.
Reliable documentation also underpins communication across the multidisciplinary team and allows for timely escalation and consistent monitoring.
Electronic documentation systems have been introduced to our hospital system, such as Vital PAC; however, there continues to be inconsistency in this recording.[1],[2] Our aim was to address this and improve documentation.

Materials and methods:
This was a 2-cycle quality improvement audit of a general medical ward, with each cycle including a 15-day admission period.

Cycle 1 reviewed bowel documentation rates retrospectively on the electronic platform VitalPAC, followed by targeted interventions:
(1) Posters displayed around ward highlighting clinical importance of bowel documentation;
(2) Daily board round reminders and
(3) Reinforcement of these interventions at regular ward meetings over a 6-week period.

Cycle 2 repeated the same data collection process to assess for impact of the interventions. We also conducted subgroup analysis for patients with admission >3 days and those aged ≥65 years.[3],[4]



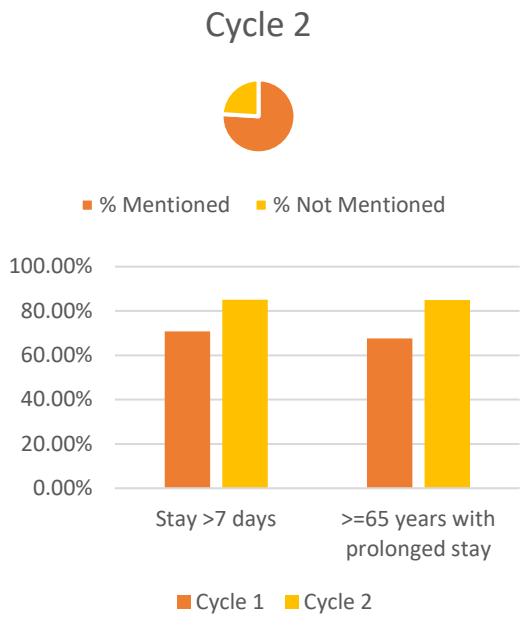


Table 1. Bowel documentation rates before and after interventions

Category	Cycle 1	Cycle 2
Overall compliance	40/73 (54.8%)	60/79 (76.0%)
Stay >7 days	17/24 (70.8%)	40/47 (85.1%)
≥65 years with prolonged stay	23/34 (67.6%)	34/40 (85.0%)

Conclusion:
This project demonstrated that simple, low-cost interventions such as posters, reminders during board rounds, and reinforcement in ward meetings can significantly improve compliance with electronic bowel documentation.

Reliable documentation enhances early recognition of bowel dysfunction, facilitates escalation, and strengthens communication among healthcare staff. Sustaining these measures and embedding prompts into electronic systems could further improve practice and reduce avoidable complications.

Future work should explore links between improved documentation and patient outcomes such as reduced length of stay and complication rates.

Not just a tick box.

References: 1) RCP. NEWS2 (2017). 2) NICE. Constipation in adults (NG12, 2021). 3) BGS. Improving bowel chart documentation (2023). 4) Lee A et al. BMJ Open 2022;12:e059545. 5) O’Connor S et al. BMC Med Inform Decis Mak 2016;16:120. 6) Wachter RM. Making IT Work (DoH, 2016). Contact: sabha.nadeem@nhs.net

East Sussex Healthcare NHS Trust

Headache to Haemorrhage: Are We Following the Subarachnoid Haemorrhage Pathway?

S.NAWAZ | M.ABOUHASAN | A.HASIB | L.DOTEL | M.SULTANA

BACKGROUND

- Subarachnoid haemorrhage (SAH) is a neurological emergency in which rapid diagnosis is critical to reduce morbidity and mortality.
- NICE guideline NG228 recommends non-contrast CT head within 6 hours of headache onset, with lumbar puncture (LP) if CT is negative and the patient presents later.
- Clinical experience suggested that unnecessary LPs were being performed in SDEC.
- This audit evaluated adherence to NICE standards, aiming to improve documentation and reduce unnecessary LPs.

METHODS

-A retrospective audit was conducted at Eastbourne DGH SDEC (July–Dec 2024) using electronic patient records (E-Searcher, Nerve Centre).
-Five resident doctors collected data under consultant supervision.
-Inclusion: patients with acute headache and suspected SAH.

Standards (NICE NG228):

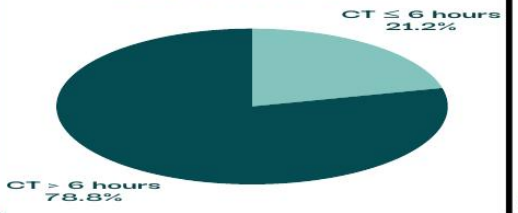
- CT ⩽ 6 h with alternative diagnosis documented if negative.
- CT > 6 h followed by LP if negative.
- LP ⩾ 12 h after onset.
- SAH confirmed if bilirubin detected in LP sample.

RECOMMENDATIONS

- Improve documentation of headache onset and differential diagnoses.
- Reinforce guideline-based decision-making through departmental teaching and checklists on LP proformas.
- Collaborate with ED and Radiology to achieve CT within 6 hours where possible.
- Ensure LPs are performed ⩾12 hours after onset to avoid false negatives.
- Re-audit planned after interventions.

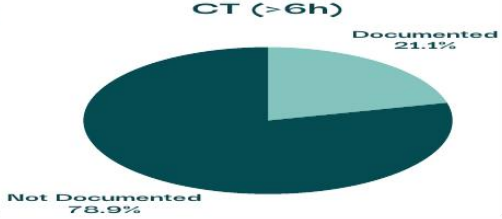
RESULT 1

Timing of CT Head in Suspected SAH



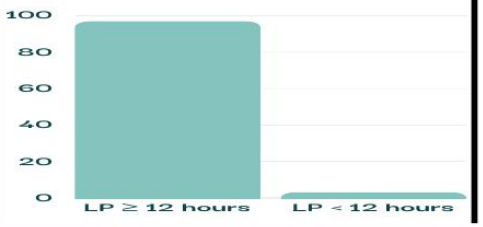
RESULT 2

LP Performed Following Negative CT (>6h)



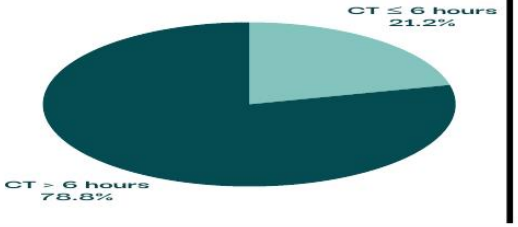
RESULT 3

Timing of LP Relative to Headache Onset



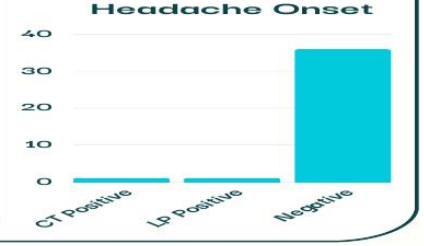
RESULT 4

Alternative Diagnosis Documented Before LP



RESULT 5

Timing of LP Relative to Headache Onset



KEY MESSAGE

Accurate documentation of symptom onset and timely CT scanning are essential to avoid unnecessary lumbar punctures and ensure safe, guideline-driven care.

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2. Perry JJ, Alyahya B, Sivilotti ML, et al. Differentiation between traumatic tap and aneurysmal subarachnoid haemorrhage: prospective cohort study. BMJ. 2015;350:h568.

ReSPECT Forms on Discharge as a Representation of DNACPR/TEP Decisions During Admission

A Retrospective Audit from a UK District General Hospital

Elhawary A, Chima O, Majeed M, Razik A, Vangani B, McCallum D, Khoso E, Fatima M, Almzaini O, Arefin S, Hossain M, Chohan B

Introduction

The Recommended Summary Plan for Emergency Care and Treatment (**ReSPECT**) process records both clinical recommendations and patient preferences to guide emergency decision-making across care settings[1,2].

During hospital admissions, DNACPR and treatment escalation plans (TEPs) are frequently completed. However, their translation into ReSPECT forms at discharge is poorly studied.

Inadequate documentation risks[3]:

- Fragmented care
- Inappropriate treatment plans
- Unnecessary readmissions
- Reduced patient autonomy

Aim: To assess how often inpatient DNACPR/TEP decisions are documented in ReSPECT forms on discharge and evaluate the completeness of these records.

Methodology

Design: Retrospective audit of discharges in April 2025.
Setting: UK District General Hospital.
Population: 1,137 adult inpatients discharged after ≥1 day (obstetrics/midwifery excluded).

Data collected:

- DNACPR/TEP status prior to admission
- DNACPR/TEP decisions made during admission
- Presence of a ReSPECT form at discharge
- Completeness of ReSPECT documentation (all sections)

Analysis: Identification of missed opportunities where DNACPR/TEP decisions were not translated into ReSPECT on discharge.

Results

Figure 1. Patient flow from discharge to ReSPECT form completion, highlighting missed opportunities.

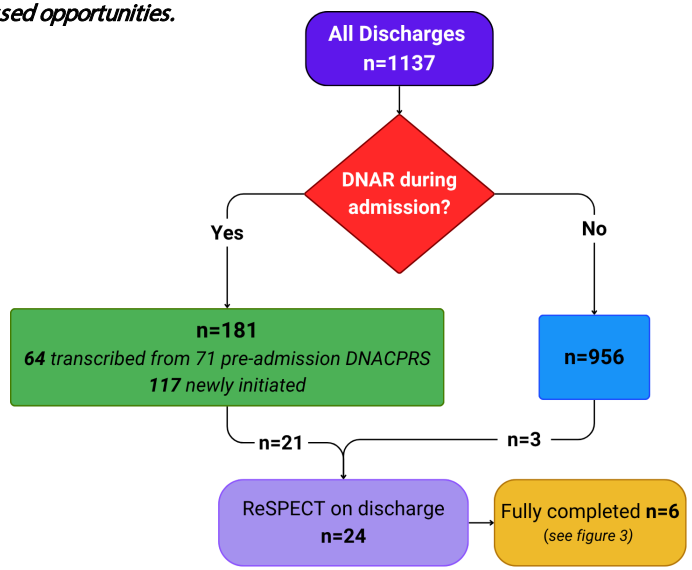


Figure 2: Proportion of ReSPECT forms on discharge and missed opportunities.

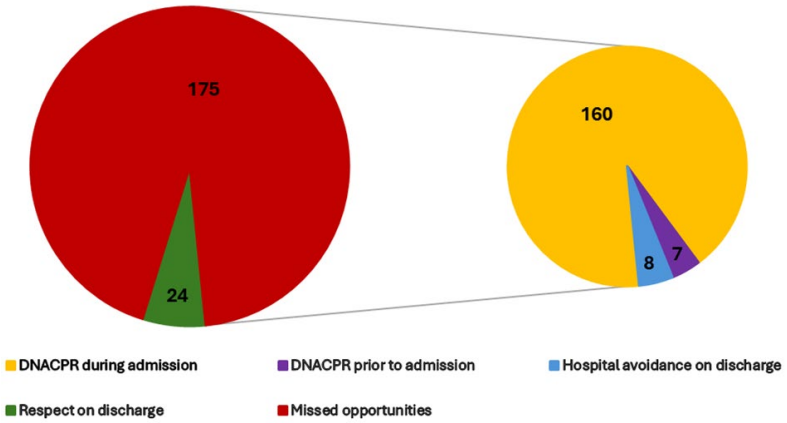
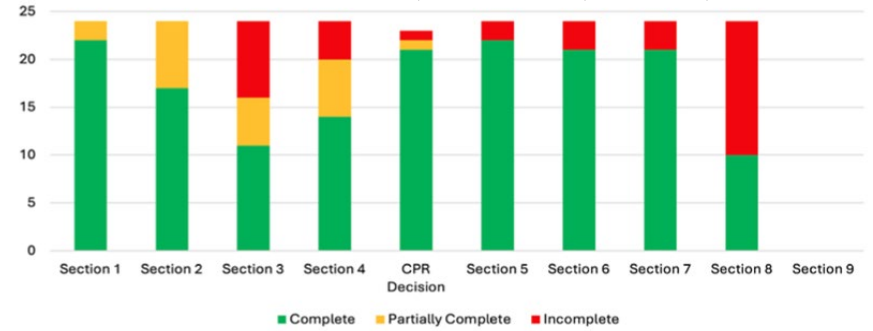


Figure 3: Completeness of ReSPECT form sections at discharge (n=24).

Note: Section 9 was not applicable for any patients as they were newly implemented.



Conclusion

There is a substantial gap between in-hospital DNACPR/TEP decisions and their documentation in ReSPECT forms at discharge. We estimate 175 missed opportunities for ReSPECT documentation. Having found 24 patients discharged with a ReSPECT form from a potential 199 in-hospital DNACPR/TEPs, and 75%of these being incomplete, there is considerable scope for improvement

Ensuring ReSPECT completion at discharge would help to:

- ✓ Improve continuity of care[1,2]
- ✓ Support personalised decision-making[4]
- ✓ Align practice with national end-of-life priorities[4,5]

Discussion

Clinicians appeared to prioritise treatment recommendations while often neglecting patient values, with Section 8 ("Wishes and Fears") being frequently omitted. Variability in DNACPR practices suggest challenges in clinician confidence, time constraints and documentation processes[6,7].

Suggested recommendations:

- ❖ Research into barriers to ReSPECT completion
- ❖ Staff education and training
- ❖ Electronic prompts within discharge systems
- ❖ Multidisciplinary review at discharge planning

References

1. Hawkes C, et al. Development of the Recommended Summary Plan for Emergency Care and Treatment (ReSPECT). Resuscitation. 2020;148:98–107.
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3. Do-not-attempt-cardiopulmonary-resuscitation decisions: an evidence synthesis. Health Serv Deliv Res. No. 4.11. [Institutional synthesis].
4. Resuscitation Council UK. Policy Briefing: ReSPECT (Recommended Summary Plan for Emergency Care and Treatment). March 2023.
5. Freeman K, Field RA, Perkins GD. Variation in local trust Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) policies: a review of 48 English healthcare trusts. BMJ Open. 2015;5(1):e006517.

BREAKING BARRIERS TO TIMELY DISCHARGE

BACKGROUND

Stroke is a clinical syndrome of presumed vascular origin characterized by rapidly developing signs of focal or global disturbance of cerebral functions which lasts longer than 24 hours or leads to death (NICE guidelines). It remains a leading cause of morbidity in the UK, with approximately 126,000 admissions in England every year. Prolonged hospital stays are associated with increased costs, reduced patient flow, in-hospital complications and delayed rehabilitation.

AIM

To evaluate length of stay (LOS) of stroke patients admitted to our stroke unit, identify factors contributing to discharge delays, and suggest interventions to improve patient flow.

METHODS

A retrospective review of case notes and records of 62 patients admitted with stroke between October and November 2023, Data included age, gender, comorbidities (AF. HTN, DM, hyperlipidaemia, IHD), NIHSS on admission, modified Rankin Scale pre-- and post-admission, discharge pathway, and causes of delay in discharge after MFFD

RESULTS

Delays in discharge were due to medical, social and rehabilitation reasons. Social causes for delay were more prominent about 50% which included awaiting package of care, best interest meeting, transfer planning and awaiting fast track discharge.

CONCLUSION

-Recommendations: Identifying high risk patients using predictive tools and implement early tailored discharge planning.
-Enhanced coordination between stroke team, social services and the families to expedite actions on patient care pathways.
-For stable patients (e.g., low mRS), need a rapid discharge pathway that prioritizes early discharge within 3 days.

Audit of Endometrial Biopsies in Post-Menopausal Patients Aged 50+: Defining Adequacy Standards for Safer Diagnosis

Badia Ahmed[1,2], Tunch Akmandor[1], Damneet Thind[1], Rupali Arora[1,2]

[1] Department of Cellular Pathology, University College London Hospitals NHS Foundation Trust
[2] Department of Cellular Pathology, Whittington Health NHS Trust

Whittington Health NHS Trust

University College London Hospitals NHS Foundation Trust

Introduction

Endometrial biopsy is a key investigation for post-menopausal bleeding (PMB). Specimen adequacy is critical for accurate diagnosis, yet no universally accepted criteria exist.

The Royal College of Pathologists (RCPath) guidance states adequacy depends on clinical context and tissue volume [1] while the British Gynaecological Cancer Society (BGCS) guidelines highlight that transvaginal ultrasound (TVS) demonstrating endometrial thickness (ET) <4 mm carries a high negative predictive value for endometrial malignancy, and in most cases such biopsy is not required unless there are recurrent symptoms or irregular ultrasound features [2].

Ensuring adequacy of sampling is essential for reliable diagnosis and appropriate patient management, as variation in practice may result in unnecessary procedures or missed pathology.

Aims

- To audit adequacy of endometrial biopsies in women aged ≥50 years.
- To identify areas for improvement and propose a standardised adequacy framework for endometrial pathology.

Methods

A retrospective audit was conducted on the first 350 endometrial biopsies from women aged ≥50 years (Jan-May 2024).

Data included clinical details, ET documentation, adequacy of glandular architecture, and repeat biopsy rates.

Data were benchmarked against RCPath tissue pathways & BGCS guidelines.

Results

Table 1: Summary of audit findings (*n = 350*)

Variable	% (n)
Clinical information (hysteroscopy/imaging) provided	76.9 (269)
ET measurement provided	8.6 (30)
Adequate for glandular assessment	74 (259)
Atrophic / ET <4mm	29.7 (104)
Sufficient tissue in atrophic cases	52.9 (55)
Repeat biopsies received (inadequate cases)	9.9 (9)

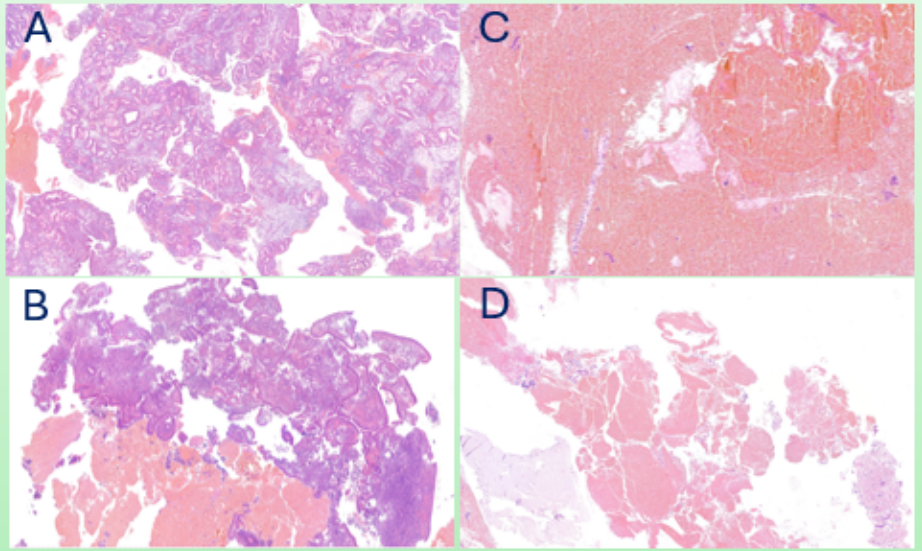

Figure 1. Representative histological examples of endometrial biopsy. **(A)** and **(B)** show sufficient endometrial tissue containing well-preserved glands and stroma, allowing assessment of glandular architecture. **(C)** and **(D)** demonstrate inadequate samples composed mainly of blood, fibromuscular tissue, and debris without identifiable endometrial glands, rendering the specimen not assessable for diagnostic interpretation.

Discussion

Prior literature advises reserving the term "inadequate" for cases without any endometrial tissue and using "not assessable" where tissue is scant [3] while strip-based adequacy thresholds may provide objectivity [4].

Improving adequacy standards will reduce repeat procedures and ensure timely diagnosis, directly benefiting patient safety and outcomes.

Conclusion

This audit identified inconsistent documentation of ET and atrophy. In the absence of standardised adequacy criteria, terminology was applied inconsistently across reports. There was limited adherence by the clinical team to repeat biopsy recommendations noted in pathology reports.

Planned actions include disseminating findings, implementing a uniform adequacy framework within the gynaecological pathology team, and conducting a re-audit within 18 months to assess improvement.

References

[1] Ganesan R, Singh N and McCluggage WG. Tissue pathways for gynaecological pathology. London: The Royal College of Pathologists, 2023. Available at: https://www.rcpath.org/profession/guidelines/cancer-datasets-and-tissue-pathways.html [Accessed 2 Sept 2025].

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Leading improvements for an effective patient-centred discharge process

Dr Zehra Irshad, Philippa Colenutt, Hardeep Bagga and Dr Asad Ali

University Hospital Coventry and Warwickshire, CV2 2DX

NHS University Hospitals Coventry & Warwickshire

Introduction and Aims: Discharge process is an essential part of patient care and safety. Patient survey revealed dissatisfaction with discharge process and delays in TTO (To Take out medications). Therefore, I aimed to deliver change and lead improvements with collaboration from Medicine Group and Pharmacy specialty. The aims included:
(a) Understanding discharge processes.
(b) Identifying area of improvements.
(c) Removing waste.

Method: Process was mapped to identify areas of improvement including when we can tell patient the time of discharge. Process waste was identified. Interventions were planned keeping patients at centre and 'Proof of concept' was ran with 4 wards for 3 weeks.

Figure 1: Process Mapping

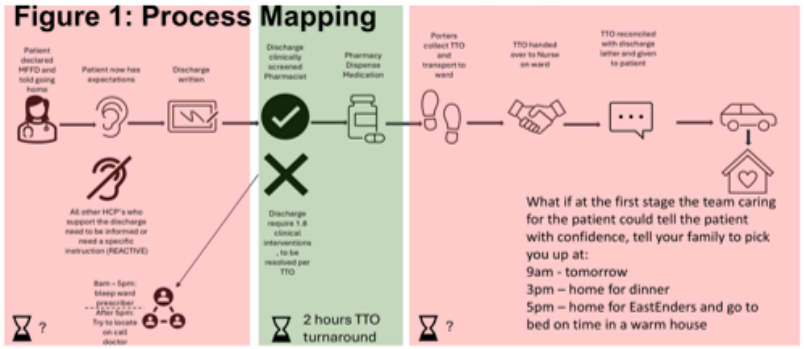
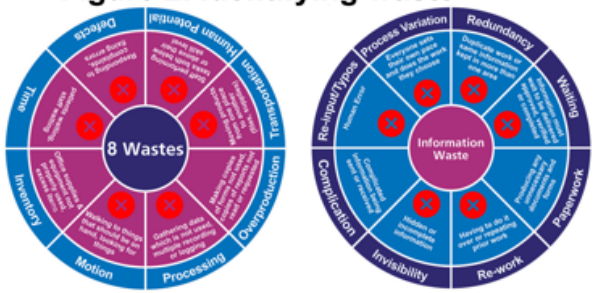


Figure 2: Identifying waste



Interventions: Multi-disciplinary approach was utilised for change to include nurses, doctors, pharmacists, managers and patients.

- Standard operating procedure for discharge process
- Discharge standards for TTO processing by Pharmacy

Submitted by Prescriber	Clinically Screened by Pharmacist	Dispensed by Pharmacy
Before 15:30*	Same Day	Same Day
Between 15:30 and 17:00	Same Day	Next Day
After 17:00	Next Day	Next Day

- Digitally live patient status board access
- TTO champions for each ward
- Pharmacy assistant to review every patient awaiting discharge and avoid medication duplication

Results: (n=300) -Figure 3: Behaviour change

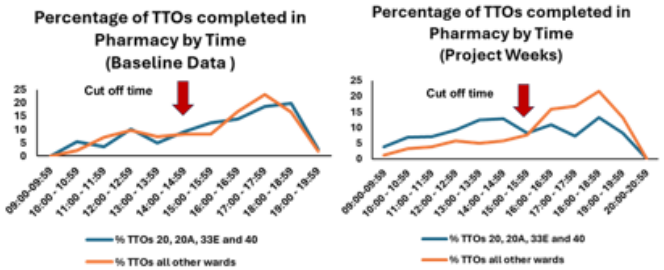
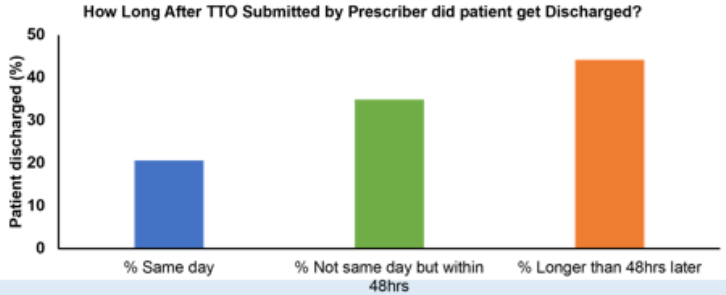


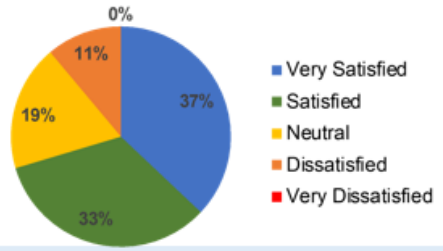
Figure 4:Waste removed

Results: (n=300) -Figure 5: Impact



Significant improvement was noticed in TTOs being submitted before cut off-(Figure 3) leading to 60% patients being discharged within 24-48 hours of being declared medically optimised-(Figure 5).Using patients own medication and non-duplication avoided £3407.62 in costs during the project. Patient feedback (n=27) showed 70% satisfaction rate-(Figure 6). Digitally live patient status board enabled easy access to updated data to all teams as per staff feedback.

Figure 6 How satisfied were you with the overall discharge process?



Conclusion: Patient-centred discharge standards and collaboration between teams allowed for the removal of waste, process and monetary. It also showed positive change in behaviour with TTO submission and processing, length of stay and patient and staff satisfaction. The project was widely recognised and has now rolled out to the wider-trust to improve patient care and safety.

Real world experience with Nintedanib in patients with PF-ILD

Dahlia Abdul-Rahman[1*], Vanessa Titmuss[2], Suresh Babu[3]

*Corresponding author dahlia.abdul-rahman@ouh.nhs.uk

[1]Respiratory Registrar, Oxford University Hospitals NHS Trust, [2]ILD CNS, Portsmouth Hospitals University NHS Trust, [3]Respiratory Consultant, Portsmouth Hospitals University NHS Trust

Portsmouth Hospitals University NHS Trust

Introduction

Progressing fibrosing ILD (PF-ILD) is a clinical phenotype characterised by progressive decline in lung function despite standard therapy. **Nintedanib**, an antifibrotic agent, has shown efficacy in slowing FVC decline (as per **INBUILD trial**[1]). This audit reviewed **real-world outcomes** in patients treated with Nintedanib for PF-ILD at a UK ILD centre.

Primary outcome: Change in FVC and DLCO pre- and post-Nintedanib.
Subgroup focus: Connective tissue disease-related ILD (CTD-ILD), chronic hypersensitivity pneumonitis (CHP), fibrotic non-specific interstitial pneumonitis (NSIP), unclassified, and 'other' (incorporating sarcoidosis, asbestosis and exposure-related ILDs).

Methods

Design: Retrospective audit (June 2022–June 2024)
Analysis:
Microsoft Excel and online statistics calculator
Wilcoxon signed-rank test for paired comparison
Subgroup analysis according to figure 1.

Results

Population: 37 patients (21 female)
Mean age: 71.5 years
Monitoring bloods: complied in 30, missing in 3 patients
Tolerance: Good overall; 21 experienced side effects, most commonly diarrhoea (18), other adverse effects: hypertension (2), anaphylaxis (1)

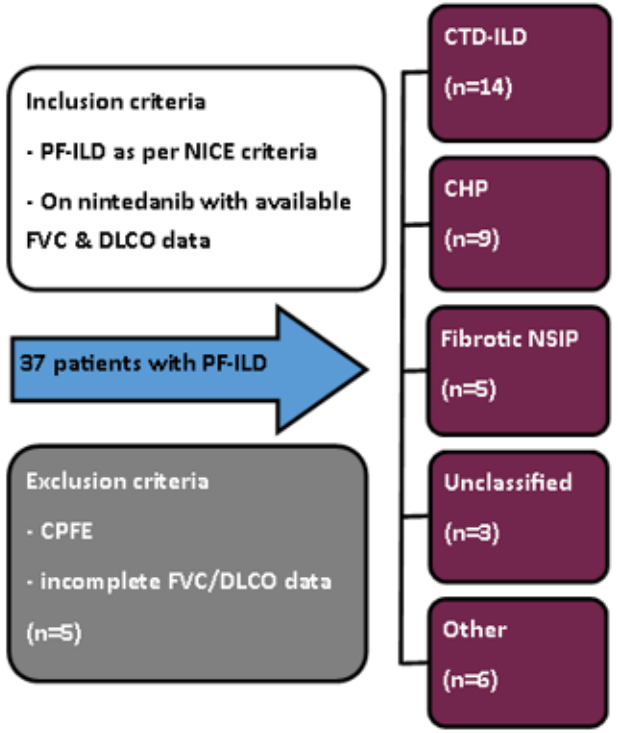


Figure 1 – schematic illustrating inclusion and exclusion criteria and subsequent patient groupings for analysis

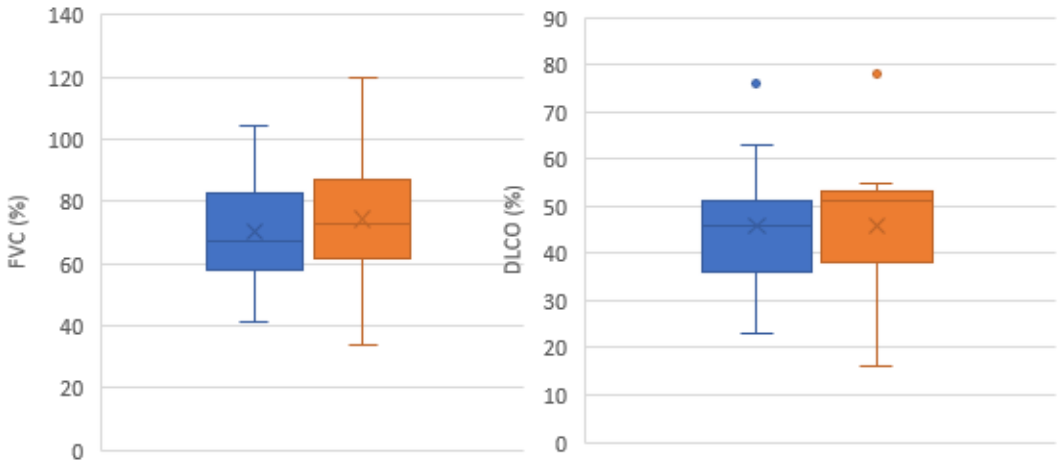


Figure 2 – FVC (%)* and DLCO (%) in CTD-ILD subgroup both before Nintedanib treatment (blue) and after (orange). *Please note that FVC change is statistically significant ($p<0.05$)

Conclusion

Nintedanib appears to slow or prevent lung function decline in PF-ILD
CTD-ILD patients may derive the most measurable benefit

Real-world findings align with **INBUILD trial** results.
Well-tolerated with manageable side effects.
Limitations: Single-centre, retrospective design, small sample size.

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Drain Safely, Document Safely – Standardising Pleural Procedure Documentation To Improve Post Procedure Care

Dr Shriddha Bhatkal MBBS MRCP[1], Dr Thomas Orpwood MBChB iBSc[1], Dr Elspeth Potton MA FRCP[1]
[1]East Surrey Hospital, Surrey and Sussex Healthcare NHS Trust

Introduction

Pleural procedures are not without risk. Technology such as ultrasound guidance helps mitigate these risks yet serious incidents are still occurring. The majority of these incidents seem to occur outside of respiratory settings and lack of clear documentation has been highlighted as a key problem area in such incidents[1].

Our pre-intervention audit of pleural documentation against local safety standards for invasive procedures (LocSSIPs) demonstrated that[2]:

- **17%** of cases did not document use of imaging techniques
- **34%** had no documented post procedure care plan
- **57%** did not mention observed side effects, or lack thereof.

We therefore developed an e-proforma to autogenerate prompts to document the key safety aspects of pleural procedures.

Methodology

The e-proforma was created based on the safety issues previously raised as well as the British Thoracic Society (BTS) guidance for pleural procedures, investigations and aftercare[1,3]. These include:

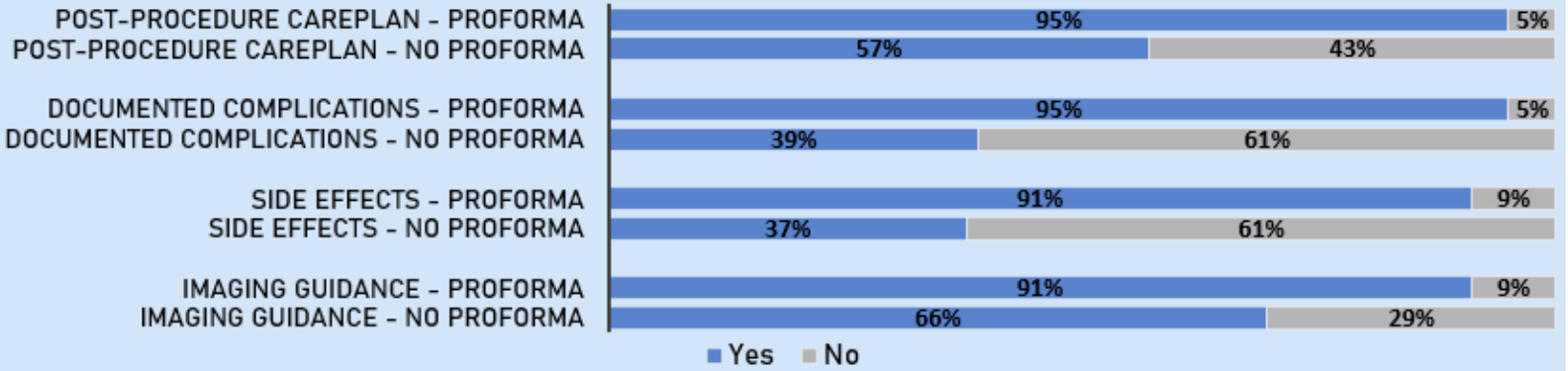
- Anticoagulation, INR, platelet count
- Ultrasound imaging findings
- Procedural technique
- Side effects and any immediate complications
- Post procedure care plan (investigations, analgesia, observations, CXR, drain management +/- clamping instructions)

PDSA cycles were staged over 4 months to implement the proforma and involved a pilot launch on the respiratory ward, departmental teaching on AMU, posters in key medical areas and a grand-round presentation.

NHS Surrey and Sussex Healthcare NHS Trust

Scan the QR code to see the plural e-proforma template

Results



In those who used the pleural proforma, procedures done documented use of imaging guidance and its findings 25% more often when compared to those that did not use the proforma. It was also observed that there was a 38% increase in the documentation of a post-procedure care plan. Furthermore, the documentation of complications and side effects (or lack thereof) was 56% and 54% higher respectively when compared to those who did not use the proforma to document their pleural procedures.

In the 4 month period observed, the respiratory department used the proforma for 24% of their pleural procedures and AMU for 54%. There was no use of the proforma in the emergency department, interventional radiology, ITU, surgery or care of the elderly department.

Discussion and Conclusion

As pleural procedures are being increasingly carried out in the non-respiratory setting, having a standardised e-proforma improves the documentation of key safety aspects. This also enables opportunities to document clear post-procedure care plans as well as informing non-specialists of key investigations to request as per BTS guidelines.
Further work is required to streamline the proforma to make it easier to use in emergency situations as well as increasing other, non-medical, department's familiarity with the proforma.

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Lipid Management: 'Fire and Forget' - A Quality Improvement Project

Dr Jia Wei Tan *IMT* | **Dr Su Maung** *IMT* | **Dr Eswaran Rajaratanam** *SpR* | **Dr Clint Maart** *Consultant*

Norfolk and Norwich University Hospitals NHS Foundation Trust

Introduction

- Lipid management is a cornerstone of secondary prevention in ACS. However, in clinical practice, follow-up testing and lipid optimisation are often inconsistent.
- This audit explores adherence to guidelines and opportunities for improvement.
- Both European Society of Cardiology (ESC) and NICE guidelines recommend that patients should have fasting lipids checked on admission, though they differ on recommended intervals for subsequent follow up checks.

Objective

To assess adherence to lipid management guidelines in ACS patients at NNUH during admission and post-discharge, and to implement targeted interventions to address identified gaps.

Methods

Patients admitted with ACS (NSTEMI/STEMI) were audited against 4 standards:

1. **Full fasting lipid panel on admission**
2. **High-dose statin prescribed**
3. **Discharge summary includes lipid follow-up recommendation**
4. **Lipid profile rechecked at 3 months post-discharge**

- First cohort: 166 patients recruited between April to May 2023
- Second cohort: 169 patients recruited between May to June 2024

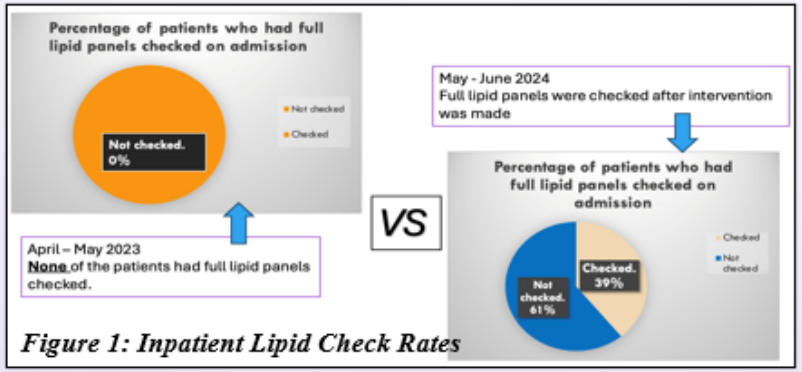

Figure 1: Inpatient Lipid Check Rates

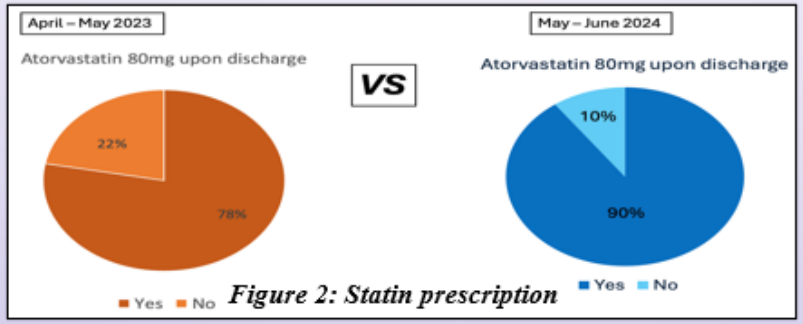

Figure 2: Statin prescription

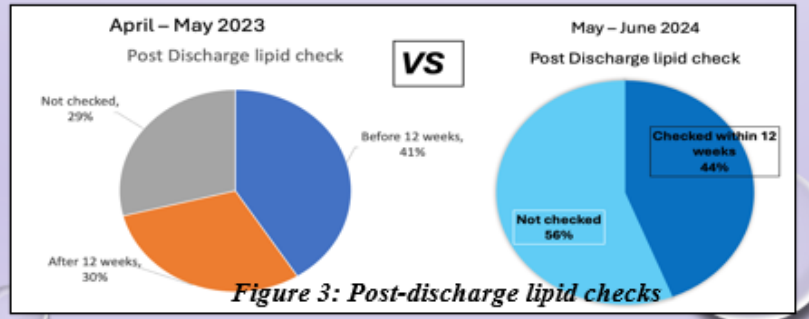

Figure 3: Post-discharge lipid checks

Discussion

- **Improved inpatient lipid checks (0% → 39%)**
- **Improved discharge summary advice (84% → 100%)**
- **Statin prescription remains high (~84%)**
- **No significant improvement in 3-month post-discharge lipid checks (41% → 44%)**

- Interventions such as embedding prompts into angiogram forms and updating discharge summaries led to measurable improvements in inpatient lipid monitoring and communication with GPs.
- However, community lipid follow-up remained low, highlighting challenges in cross-sector collaboration and patient adherence.

Conclusion

- This QIP demonstrated that simple, low-resource interventions can significantly improve inpatient adherence to lipid management guidelines.
- Improving community follow-up requires further system-level changes, such as dedicated post-MI clinics or better integration with primary care.

Proposed interventions

1. Ensure full lipid panel is taken on admission ✓
2. Amend the advice on statins in the discharge letter that is in line with the guidance ✓
3. Provide more information to GP ✓
4. Prompt on angiogram forms to state full fasting lipid levels as part of the investigation ✓
5. Advocate statin intolerance guidelines ✓
6. Organise teaching for junior doctors and nurses, as well as in other department ✓

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2. Cardiovascular disease: risk assessment and reduction, including lipid modification. NICE Guidelines Dec 2023

A quality improvement project to increase awareness and utilisation of weight loss services among patients with chronic liver disease and the metabolic syndrome

Dr Rachel Perry[1], Dr Ghulam Dahri[1]. 1. United Lincolnshire Teaching Hospitals NHS Trust

Background

For patients with a diagnosis of metabolic dysfunction-associated steatotic liver disease (MASLD) or metabolic and alcohol-associated liver disease (MetALD), and who are obese, weight loss is an essential part of their management[1]. Weight loss can also prevent the development of MASLD and MetALD[1]. In Lincolnshire, where obesity rates are among the highest in the country[2], several free weight loss services exist. A two-cycle quality improvement project was undertaken to increase awareness and utilisation of these services among patients who have either been diagnosed with, or are at risk of developing, MASLD or MetALD.



Methods

1. Twenty inpatients with a body mass index (BMI) greater than 30, admitted to Pilgrim Hospital, Boston, were asked three questions about their interest in weight loss services.
2. A five-question quantitative questionnaire was sent to all hepatology consultants at Pilgrim Hospital, to define current practice regarding counselling patients on weight loss and knowledge of weight loss services.
3. Information about weight loss services was displayed in poster form around inpatient and outpatient areas, consultants were made aware of services that patients can be referred to and 'Z' leaflets were posted to outpatients who would benefit from these services.

Results

CHARACTERISTICS OF PATIENTS SURVEYED:

Male patients	Mean average age	Mean average BMI
55%	67.7 years	38.3

KEY FINDINGS FROM PATIENT SURVEY:

45% of patients surveyed were not aware of any free local weight loss services	**50%** of patients surveyed would consider enrolling in a weight loss service if they had further information.

I'm interested in finding out about services, especially if I can refer myself.

When my health has improved, (weight loss services) are something I'd like to think about.

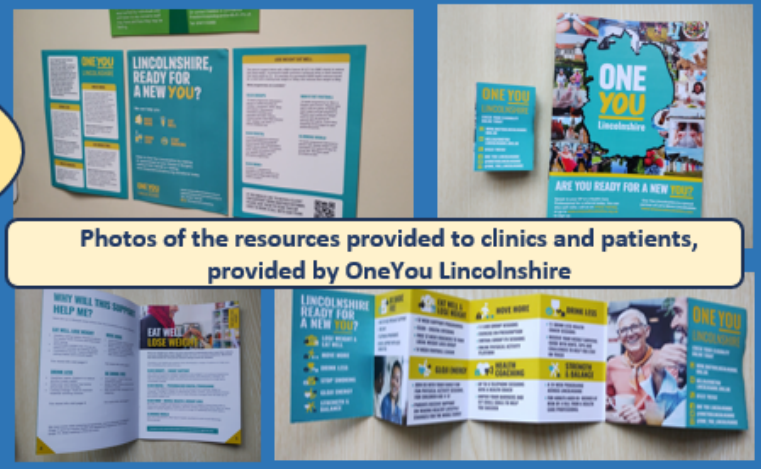
Results

KEY FINDINGS FROM CONSULTANT SURVEY:

Qualitative feedback and self-reported uptake regarding leaflet distribution was good, with 60% on consultants having started distributing leaflets prior to the follow-up survey.

Discussion

1. The patient survey results suggest that patients with obesity are often interested in attending weight loss services, but infrequently have the required information. Further work could include following up with patients in six months to monitor enrolment in such services.
2. Ensuring that consultants managing patients with obesity have information about weight loss services is important in ensuring that patients can access these services.
3. This project could be extended to patients with other conditions for which obesity is a risk factor.



Photos of the resources provided to clinics and patients, provided by OneYou Lincolnshire

References

1) European Association for the Study of the Liver. EASL-EASD-EASO Clinical Practice Guidelines on the management of metabolic dysfunction-associated steatotic liver disease (MASLD). *Journal of Hepatology* 2024. 81 (3), 492-542.

2) Office for Health Improvement and Disparities (OHID) 2024. Public Health Profiles. https://fingertips.phe.org.uk/search/obesity#page/1/gid/1/ati/502/iid/20601/age/200/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1 [Accessed 02/09/2025].

Improving Infection Prevention in Haemodialysis A Quality Control Project Korle Bu Teaching Hospital, Ghana.

Richard E. Baidoo, Leroy Dotse, Ellen Okyere-Dankwa, Akua N. Williams, Isaac B. Dwamena and Edward Kwakye

INTRODUCTION

Patients on dialysis rely on healthcare providers to adhere to best practices to prevent infection-related complications, which constitute a major cause of dialysis-related morbidity and mortality[1].

To minimise these infections, the Centers for Disease Control and Prevention (CDC) has developed a list of nine core interventions to prevent bloodstream infections (BSIs).

One of the core interventions is the quarterly performance of vascular access care observations, including catheter connections, disconnections, and exit-site care[2]. Adherence to these core interventions has demonstrated a reduction in BSIs, according to studies[3,4].

MATERIALS AND METHODS

The audit aimed to enhance adherence to CDC-recommended protocols for catheter and AV fistula care during hemodialysis to reduce infection risks. Conducted at the Haemodialysis Unit of Korle Bu Teaching Hospital in Ghana, the study used an observational cross-sectional design with data collected through a CDC-based Google Forms checklist.

Nursing staff were observed across two cycles before and after an intervention period, and performance was assessed by comparing the percentage of correctly performed procedures between the two cycles.

RESULTS AND DISCUSSION

A total of 174 observations were recorded in the first cycle and 214 in the second, covering AV fistula and central venous catheter procedures. Adherence improved markedly across most areas, with the greatest gains in AV fistula site cleaning (+70.5%) and hand hygiene (+25.7% to +51.2%).

Only glove use for site compression showed a slight decline (–1.2%), while steps that already had high compliance remained stable.

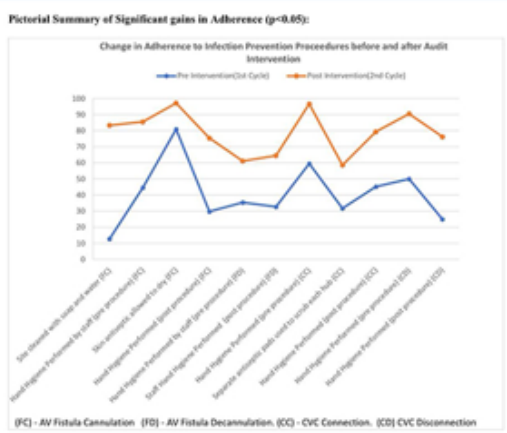


Figure one

CONCLUSION

The audit successfully resulted in significant positive changes in the percentage of adherence to the CDC protocol for infection prevention across all the sections tested, except for one section.

This emphasises the need to implement frequent clinical audits, especially in low resource settings, to improve adherence to infection prevention protocols.

	Before Intervention (%)	After Intervention (%)	Change in Percentage	p-value
AV Fistula /Graft Cannulation				
Site cleaned with soap and water	12.8	83.3 (n=60)	+70.5	<0.00001 **
Hand Hygiene Performed by staff (pre procedure)	44.7	85.5	+40.8	<0.00001**
New clean gloves worn	100	100	0	0.7794
Skin antiseptic applied appropriately	97.9	98.6	+0.7	0.7718
Skin antiseptic allowed to dry	80.9	97.1	+16.2	0.0034**
No contact with Fistula/Graft site after asepsis	91.3 (n=46)	98.6	+7.3	0.0588
Cannulation performed aseptically	95.7 (n=46)	98.5 (n=68)	+2.8	0.3576
Connect to Blood Lines Aseptically	95.7	98.6	+2.9	0.3320
Gloves Removed	95.7	98.6	+2.9	0.3320
Hand Hygiene Performed (post procedure)	29.8	75.4	+45.6	<0.00001**
AV Fistula / Graft Decannulation				
Hand Hygiene Performed by staff (pre procedure)	35.4	61.1	+25.7	0.0014**
New clean gloves worn	100 (n=64)	100	0	0.7795
Disconnect from bloodline aseptically	95.3 (n=64)	96.8	+1.5	0.6312
Needle Removed Aseptically	90.6 (n=64)	97.9	+7.3	0.0394
Clean Gloves worn (by staff/patient) to compress site	67.2 (n=64)	66	-1.2	0.8729
Clean Gauze applied to site	98.4 (n=63)	100	+1.6	0.2150
If other activities performed between needle removal, asepsis maintained	56.7 (n=60)	60.8 (n=74)	+4.1	0.6312
Gloves Removed	83.1	86.3	+3.2	0.5755
Staff Hand Hygiene Performed (post procedure)	32.8 (n=64)	64.5 (n=93)	+31.7	0.0001*

Table 1

AV Fistula cannulation , AV Fistula Decannulation

	Before Intervention (%)	After Intervention (%)	Change in Percentage	p-value
Central Venous Catheter Connection				
Mask Worn Properly	66.7	79.3	+12.6	0.2460
Hand Hygiene Performed (pre procedure)	59.5	96.6	+37.1	0.0004*
New clean gloves worn	100	100	0	0.7872
Catheter Hub Scrubbed	97.6	100	+2.4	0.4009
Separate antiseptic pads used to scrub each hub	31.7	58.6	+26.9	0.0244*
Hub Antiseptic allowed to dry	95.2	96.6	+1.4	0.7283
Catheter attached to bloodlines aseptically	81	93.1	+12.1	0.1499
Gloves Removed	90.5	100	+9.5	0.0873
Hand Hygiene Performed (post procedure)	45.2	79.3	+34.1	0.0041*
Central Venous Catheter Disconnection				
Mask Worn Properly	55	81	+26	0.0735
Hand Hygiene Performed (pre procedure)	50	90.5	+40.5	0.0044*
New clean gloves worn	100	100	0	0.9681
Catheter disconnected from bloodline aseptically	95	100	+5	0.2983
Catheter Hub Scrubbed	95	100	+5	0.2983
Separate antiseptic pads used to scrub each hub	20	42.9	+22.9	0.1164
Hub Antiseptic allowed to dry	80	95.2	+15.2	0.1362
New caps attached aseptically	90	95.2	+5.2	0.5222
Gloves Removed	80	90.5	+10.5	0.3421
Hand Hygiene Performed (post procedure)	25	76.2	+51.2	0.0010*

Table 2

Central venous catheter connection and central venous catheter disconnection

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Meropenem use in Emergency Department and Acute Medical Units: A QIP of Antimicrobial Stewardship

A Rubbani[1] , A Mohanan[1], M Ben[1], P Pandhya[1],NA George[1,2]

[1]University Hospitals of Leicester NHS Trust [2] Department of Microbiology, Norfolk and Norwich Hospital

University Hospitals of Leicester NHS Trust

Royal College of Physicians

1. Background

Antimicrobial resistance (AMR) is a rising global problem, which can be overcome with judicial use of antibiotics. This is even more relevant with the rise in Carbapenemase producing Enterobacterales (CPE) nationally.

Meropenem is initiated empirically for Red Flag Sepsis (RFS) as per UHL protocol. The guideline mandates a single 1g stat dose followed by a switch to a narrower-spectrum agent upon source identification. Inappropriate continuation drives AMR and incurs significant financial costs.

2. Objectives

- Analyse the association between key indicators and meropenem use
- Evaluate adherence to early switch guidelines for antibiotics
- Assess financial implications of prolonged meropenem treatment

3. Methodology

Design: Retrospective

Sample: 100 patients across 4 acute medical units at Leicester Royal Infirmary

Data Collected: Initiation location, NEWS, diagnosis, culture results, and Meropenem duration

4. Findings:

- No correlation between Meropenem use and clinical severity markers nor any association between Meropenem use and diagnosis was observed across both cycles
- **~20%** microbiological samples collected and sent
- Patients were given Meropenem despite penicillin drug allergy (angioedema/rash)

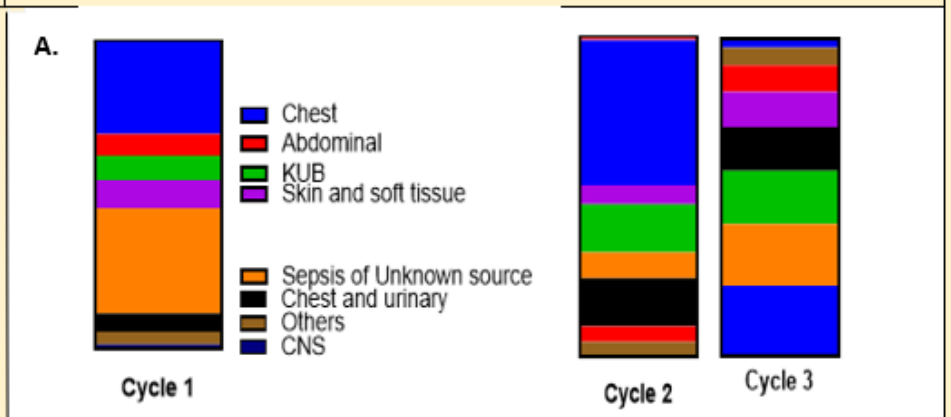
Cycle 1:

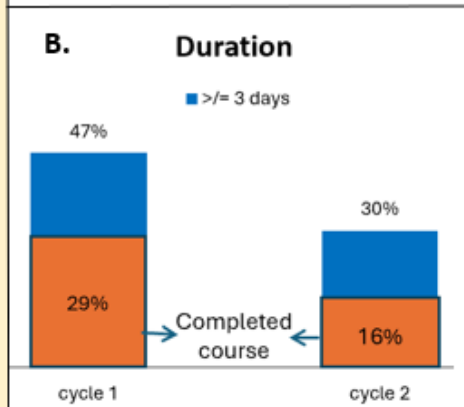
- 47% over-prescription rate despite identified source of infection in 66% patients with 29% completing the course with Meropenem
- £6875- £9625 overspent on 26 patients in 2 weeks

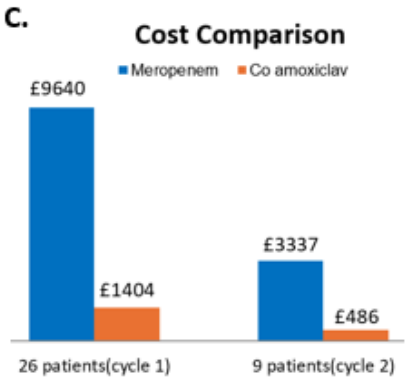
5. Highlights

Cycle 2:

- 17% reduction in over-prescription.
- £7560 saved through better source identification and earlier switch
- Subsequent Cycle 3 – saw a rise in the use of Meropenem by 35% compared to cycle 2; with a rise in costs by £3287







6. Conclusion

1. Send cultures before initiating antibiotics- using appropriate microbiology help guiding abx treatment
2. Adhere to "Start Smart and Then Focus" which is the NHS policy to ensure antimicrobial stewardship
3. Broader spectrum of abx does not mean better healthcare; it leads to greater health inequality
4. Utilisation of biometric parameters should be considered before initiation of abx
5. AMS rounds should be done regularly.

TAKE HOME MESSAGE:

Non-adherence to the UHL/NHS antibiotic switch protocol is a significant issue.

CPE pose a growing threat in the UK, with increasing prevalence in recent years associated with higher morbidity, mortality and healthcare costs

The prompt antibiotic de-escalation and mandatory guideline re-enforcement are critical steps for effective stewardship.

7. References

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Virtual on-call Simulation; Does Higher Fidelity Simulation Enhance The Preparedness At The cost of Confidence for Final year Medical Students Transitioning to Foundation Doctors

By Dr Nada Bassiony [1], Dr Hakam Jabouri [1], Dr Collin Weeks[1]

[1]*Darent Valley Hospital, Kent, United Klngdom*

INTRODUCTION

- The GMC National Trainee Survey 2024 found only 57% of foundation doctors in 2023 and 61.9% in 2024 felt adequately prepared for their first post
- Key areas of concern included low confidence in emergency management, clinical reasoning and teamwork
- To address these gaps we developed the Virtual On-Call (VOC) simulation program—a high fidelity, immersive experience designed for final-year medical students.

OBJECTIVE

- Strengthen core competencies such as clinical decision-making, prioritisation and communication under pressure
- Integrate theoretical knowledge to realistic high pressure on-call scenarios
- Improve student percieved preparedness, and in turn contribute to improved patient care

METHODOLOGY

01

Pilot study 2023 - 18 medical students

- 18 medical students
- 6 weekly, 2 hour evening sessions to provide a safe learning environment
- Pre and post evaluation of self perceived confidence and preparedness of medical students across 7 domains, providing rich **qualitative** and **qualitative data**

02

January 2024 - 13 students

- **Digital feedback forms with QR codes** - able to read all feedback with ease, and track each student's pre and post surveys across 7 different domains
- **Anonymous feedback** - encourage open and honest feedback
- **Refreshments** - recognising the role of well-being during learning, especially after a long placement day (Maslow's Hierarchy of Needs)
- **Distractor cases** - to increase cognitive load and encourage task prioritisation and effective communication under pressure

03

May 2024 - 15 medical students

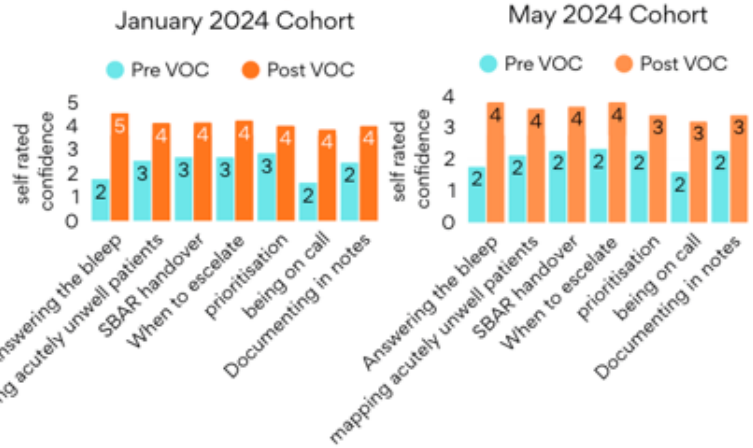
- **Mirroring clinical environments:** By developing high fidelity simulation- such as prescribing on physical drug charts, incorporating A-E assessments , death verification using manikins, realistic patient notes and additional functional landline phones to simulate real on-calls
- **Pre and post Brief** - provided for all faculty members, and students to make expectations clear, and provide dedicated time for dialogues of feedback
- **Increased faculty:** to improve the student-to-facilitator ratio and ensure more effective supervision and feedback.

RESULTS

- 100% of students felt this course increased preparedness for foundation training, across all 7 domains
- 100% of all students of both the January and May groups would recommend the session to a friend
- 100% of all students of both the January and May group would like the opportunity to repeat this simulation
- 36% and 30% improvement in performance in January and May cohort respectively
- Overall, participants' post-simulation confidence rating was higher among the January cohort with the greatest interval differences found in their confidence using the bleep (55%) and being on-call (45%)
- Qualitatively, most students described the programme as 'useful' and 'realistic'

Figure 1: Word Cloud With Concerns Students Expressed Regarding Medical On-Calls, prior to the Virtual On-Call Simulation

SELF REPORTED SELF CONFIDENCE SCORES IN 7 DOMAINS, BEFORE AND AFTER VOC



Graph 1 and 2: Comparing Pre and post sef-evaluated confidence across 7 domains in January and May Cohorts

CONCLUSIONS

- VOC simulation emphasised the importance of interprofessional faculty involvement and high-fidelity simulation to enrich the training experience
- Multi-task and prioritisation simulation should be integrated across medical schools.
- The course is generalisable and can be adapted to meet the needs of different institutions
- The high-fidelity environment enhanced engagement and realism but may have contributed to reduced perceived confidence in the May cohort, potentially reflecting the Dunning–Kruger effect.
- An objective assessment of performance and student perceived confidence should be considered to further assess this simulation model

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NHS
Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

DKA in patients on SGLT2 inhibitors: A retrospective case series focusing on risk factors and management

Dr E Hughes, Dr V Hebblethwaite, Dr S Pearce

Introduction

Sodium-glucose co-transporter-2 inhibitors (SGLT2i) are being increasingly used to manage type 2 diabetes, heart failure and chronic kidney disease. However, they are associated with an increased risk of **diabetic ketoacidosis (DKA), including euglycaemic DKA**[1]. Therefore patients should be instructed to omit the drug if unwell.

Recognition and management of DKA in this group can be challenging. Delayed discontinuation of the SGLT2i, and failure to adhere to DKA management guidelines, can all worsen outcomes.

Materials and methods

We retrospectively reviewed DKA cases in patients on SGLT2i, from August 2022 to June 2024, in a 513-bed acute district general hospital.

32 patients were identified

- 26 hyperglycaemic DKA cases
- 6 euglycaemic DKA cases

Records were analysed to look at:

- Presence of known risk factors for SGLT2i associated DKA
- Adherence to trust guidelines
- Appropriate withholding of the SGLT2i by the patient and clinician

Results and discussion

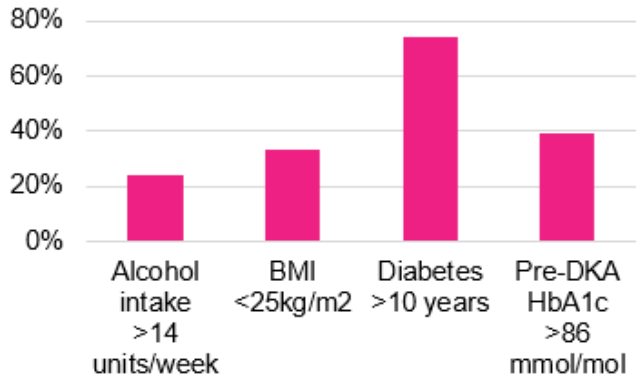
DKA episodes amongst SGLT2i-treated patients peaked in the 60–69 age group, with equal gender distribution. **81% of our patients had at least 1 of the recognised risk factors for developing SGLT2i associated DKA**[2-3], shown in graph 1. Therefore, the majority of our cases occurred in susceptible patients.

Deviations from national and trust DKA guidelines were common:

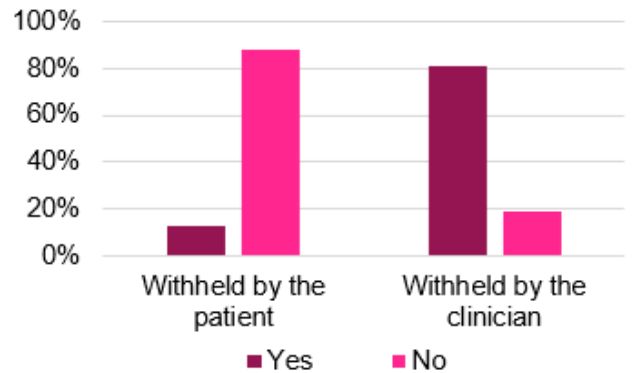
- A fixed rate intravenous insulin infusion was started promptly in 80% of hyperglycaemic DKA compared to just 33% of euglycaemic cases, with many managed incorrectly using variable rate insulin infusions.
- Intravenous glucose was omitted or delayed in 16% of hyperglycaemic and 75% of euglycaemic cases, with subsequent hypoglycaemia occurring in 75% of the euglycaemic cases.
- Long-acting basal insulin was continued in only 43% of hyperglycaemic and 0% of euglycaemic cases.

The atypical presentation of euglycaemic DKA can delay diagnosis and complicate management, highlighting the need for proactive risk reduction by teaching patients to stop their SGLT2i when they become unwell[2]. In our case series, **88% of patients failed to stop their SGLT2i when unwell**, and **19% did not have their treatment stopped appropriately by the clinician** (graph 2).

Graph 1: Percentage of cohort with recognised DKA risk factors



Graph 2: Was the SGLT2i appropriately withheld by the patient or clinician?



Next steps

These findings highlight gaps in both staff adherence to management guidelines and patient understanding of sick day rules. To address these issues, we have:

- Delivered **targeted staff education** on hyperglycaemic & euglycaemic DKA recognition and management.
- **Updated our local DKA guideline** with clear, practical recommendations.
- Developed a **patient information card** for those starting SGLT2i therapy in the secondary care setting, outlining sick day rules and guidance on when to restart treatment safely. We plan to dispense these cards with discharge medications.

These interventions aim to improve both inpatient management and patient self-care, with the goal of reducing the risk of SGLT2i-associated DKA, a potentially life-threatening complication.

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Evaluating the Function and Effectiveness of the High Acuity Unit within the Emergency Assessment Unit at Colchester General Hospital

Dr Amy Lebby[1], Dr Abdurrahman Yusuf[1], Dr Calum Connolly[1], Dr Frederick Jarvis

East Suffolk and North Essex NHS Foundation Trust

Background:

The High Acuity Unit (HAU) at Colchester Hospital is a key area which manages patients at high risk of clinical deterioration and who require more intensive monitoring and intervention than is available in a general medical ward.

The objective of this audit was to assess the effectiveness of the HAU as an intermediary between the acute medical unit and the critical care unit (CCU).

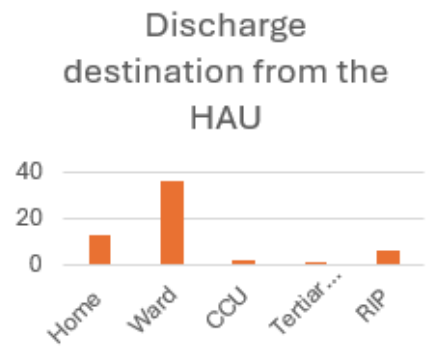
Methods:

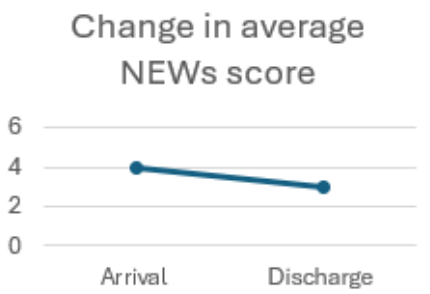
This was achieved by analysing the electronic records of patients admitted to HAU over a one-month period. Data was collected, including referral source, NEWS score on admission vs discharge and their discharge destination.

Results:

60 patients were admitted to the HAU over a 4-week period. 4 were excluded due to incomplete records.

- Average length of stay was 2 days
- The most common discharge destination was a medical ward
- The average NEWS improved from 4 to 3 – the highest NEWS on arrival (of included patients was 12 and the lowest was 0)
- Most patients were referred from ED, 1 patient from AMSDEC





The most applied interventions in HAU:

1. Non-invasive ventilation
2. Telemetry
3. Closer monitoring by nursing team with smaller nurse to patient ratios

Discussion:

The HAU at CGH performs a crucial intermediary role and effectively manages a diverse range of acutely unwell patients. A high percentage of patients admitted to the HAU experience clinical improvement, reflected by a significant reduction in NEWS scores and a high rate of safe step-downs to general medical wards or direct to home.

Low escalation rates to CCU and mortality highlight the effectiveness of early intervention in improving patient outcomes. This is particularly true with the use of interventions such as non-invasive ventilation.

Non-invasive ventilation is only otherwise available in the Resuscitation area of ED, critical care and in the respiratory ward so use of NIV in HAU frees up capacity in these areas.

Overall, the HAU enhances patient safety, optimises resource utilisation and contributes significantly to the continuity and efficiency of acute medical care pathways.

With thanks to the HAU team for collecting data for patients admitted during this period.

Utilization of FRAX Tool for Primary Prevention of Fragility Fracture in Older Person Assessment Unit at Morriston Hospital

M Danish[1], A Awuzie[1]; H Y Sanda[2]; A Slowinski[1]; Y Mon[1]; S Chenna[1]
Morriston Hospital, Swansea Bay University Health Board; [2]University Hospital of Llandough, Cardiff and Vale University Health Board

Introduction

- Osteoporosis is a major public health concern, particularly among frail older adults.
- Fragility fractures increase morbidity, mortality, and hospital admissions.
- The FRAX tool estimates the 10-year fracture risk and guides prevention strategies.
- This audit assessed the use of FRAX scoring and primary prevention treatments in an older person assessment unit .

Aim

- To evaluate the utilization of the FRAX tool in assessing fracture risk and guiding primary prevention of fragility fractures among older adults admitted to the older person assessment unit at Morriston Hospital.

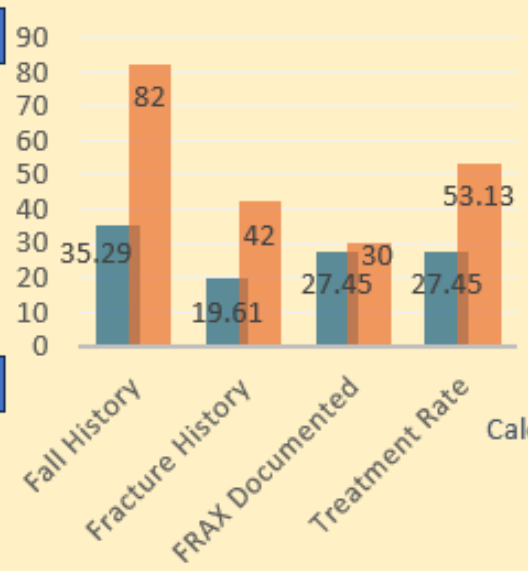
Method

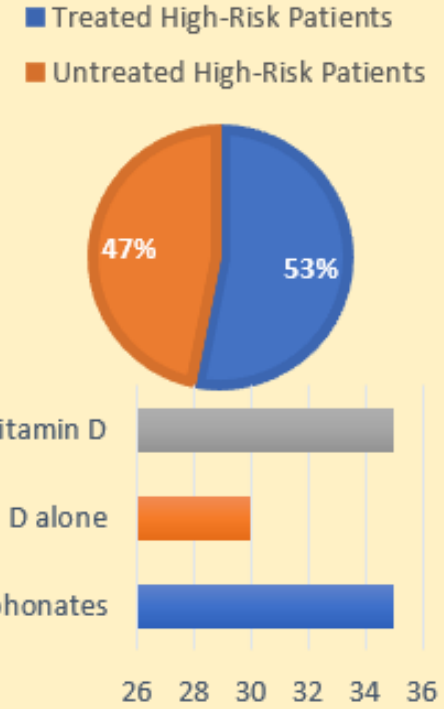
- Two retrospective audit cycles were conducted. The first included 51 patients (May–August 2024), and the second 50 patients (January–April 2025), admitted with falls. Data collected included age, sex, Clinical Frailty Score (CFS), fall/fracture history, FRAX score completion, and osteoporosis treatment status.

Results

In the first cycle, patients averaged 82.8 years old, with 60.78% female and a mean CFS of 5.43. Prior fractures were noted in 19.61%, and 35.29% had previous falls. Only 27.45% received osteoporosis treatment, and FRAX scoring was rarely used.

The re-audit showed a mean age of 83, with equal gender distribution. Fall history rose to 82%, and fracture history to 42%. FRAX scores were recorded in just 30% of cases. Among high-risk patients, 53.13% received treatment, while 46.88% did not. Treatments included bisphosphonates (35%), vitamin D alone (30%), and calcium/vitamin D combinations (35%).





Recommendation

- Implement FRAX tool as part of admission checklist.
- Provide training sessions for junior doctors and nurses.
- Establish multidisciplinary reviews (geriatrician, pharmacist, physiotherapist).
- Audit again post-intervention to evaluate improvement.

Conclusion

. Due to underutilization of FRAX tool and undertreatment od osteoporosis ,this study highlights the importance of better education, standardization of protocols and integration of FRAX into routine assessments in both primary and secondary care settings.

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Improving Smoking Cessation Referrals for Hospital Inpatients in the Peri-Operative Setting: A Quality Improvement Initiative

Authors- Dr Rahil Omar Tai Valappil, Dr Muhammad Hussein Alhafez . Supervised by – Dr Stephanie Wells (University Hospital of Wales)

Introduction

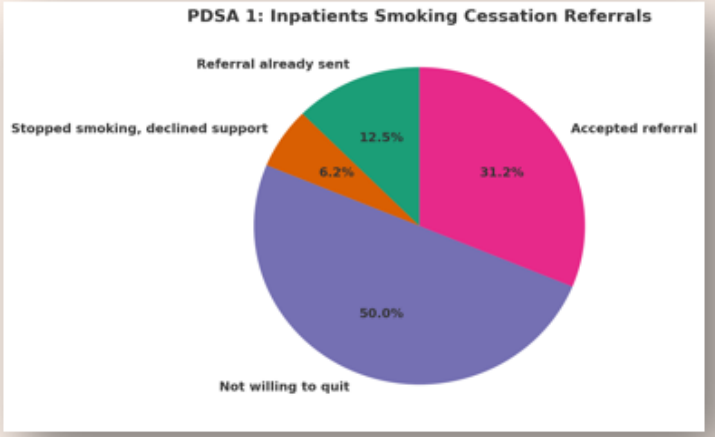
Smoking remains as the most significant modifiable risk factor of vascular disease despite a gradual decline in its use and plays a major role in the development and progression of multiple vascular diseases. [1] Physicians very often encounter patients in their perioperative period, highlighting the importance of a holistic & comprehensive perioperative care. The inpatient stay and perioperative period represent a "teachable moment," during which patients may be more motivated to improve their health.[2] Medical events that have been highlighted as teachable moments include ICU admission, ACS , stroke, surgery, cancer diagnosis, and lung cancer screening.[3] We conducted service evaluation at the University Hospital of Wales, reviewing current practices, quantifying the numbers of referrals and identifying barriers to referral to smoking cessation services.

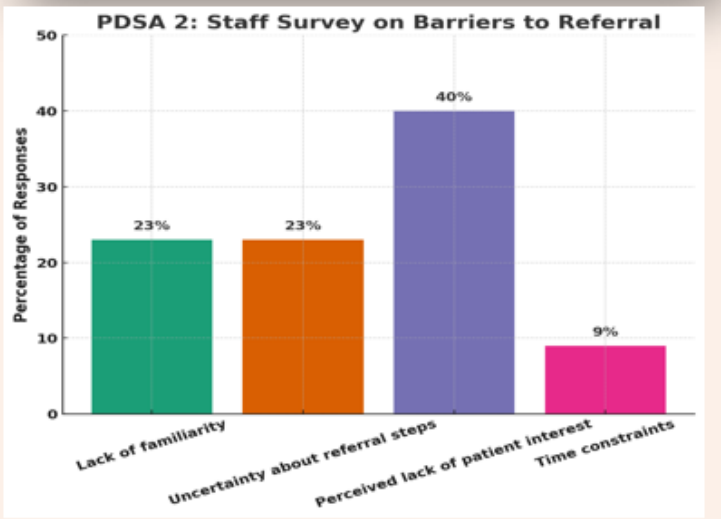
Methods:

We used PDSA (Plan do study act) methodology across two cycles.

PDSA 1: A snapshot data collection of smokers was undertaken to identify the number of smokers and the proportion being referred to the smoking cessation services. Findings were suggestive of low referral rates prompting the need to find out why the referrals were low.

PDSA 2: To identify barriers to referral, we used staff questionnaire. Based on the responses, interventions including PowerPoint presentation & a video demonstrating the referral process were created and presented at the local meeting. Posters of NRT prescription & 'Ask, Advice & Act' have been put for display on the ward to remind & also increase staff awareness. A re-audit is planned to assess the impact.





Results-

PDSA 1- 16 inpatients in their perioperative period were identified as smokers; of these, 2 referrals had already been sent, 1 patient stopped smoking on admission and declined support, and 8 were not willing to quit. We successfully encouraged 5 of these patients to attempt quitting and accept a referral to smoking cessation services.

PDSA 2- A survey of 36 staff found that over half of respondents (53%) were unsure how to refer to the smoking sedation services. The most cited reasons for not referring included lack of familiarity with the service (23%), uncertainty about referral steps (23%), perceived lack of patient interest (40%) & time constraints during consultations (9%).

Conclusion-

This project demonstrated that the perioperative setting provides an effective teachable moment to encourage smoking cessation, with structured conversations resulting in successful referrals. Low referral rates were due to a combination of factors such as staff uncertainty about referral processes and perceived patient disinterest. Interventions including education & visual prompts have been used to increase awareness and confidence among staff. Combination of factors led to low referrals. Future PDSA cycles is planned to focus on how to sustain the change (Eg; Challenges of junior doctor changeover).

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Improving Adherence to Inpatient Hyperglycaemia Protocols: A Qualitative and Quantitative, Multidisciplinary QIP

Authors: Sherin Thambu; Mohammed Anas Mohiuddin; Syed Shezal Hussain; Syed Saad Karim; Ramandeep Kaur; Aditi Verma. Supervised by Dr Shujah Dar.

BACKGROUND AND GUIDELINES

Hyperglycemia is common in hospital inpatients and is linked to adverse outcomes including prolonged hospital stays and higher morbidity and mortality rates.

Our hospital guidelines outline the recognition and management of hyperglycaemia, with focus on:

I. Appropriate ketone testing
II. Administration of insulin correction, dosed according to capillary blood glucose (CBG) levels
III. Follow-up CBG monitoring

Proper management of inpatient hyperglycaemia plays a crucial role in ensuring glycaemic control and improving overall patient outcomes.

AIMS AND METHODS

Aim: to evaluate and improve adherence to local inpatient hyperglycemia management guidelines.

Quantitative data was collected across two cycles, from four wards, at an acute general hospital. Data was collected from electronic records, of all patients present on the ward.

Hyperglycaemia was defined as **CBG levels requiring further action:**

>11mmol/L in non-diabetic patients
>14mmol/L in type 1 diabetes
>20mmol/L in type 2 diabetes

Qualitative analysis in the form of a digital questionnaire, was completed between cycle 1 and 2. It assessed resident doctors' knowledge on hyperglycaemia management guidelines.

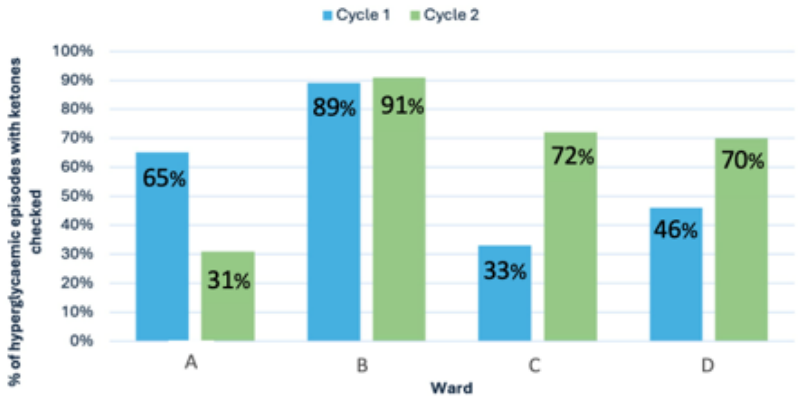
Interventions implemented between cycle 1 and 2

- **Educational presentations at each assessed ward**
- **Informative posters displayed in hot-spot areas of wards**
- **Presentation of findings at resident doctors' induction**

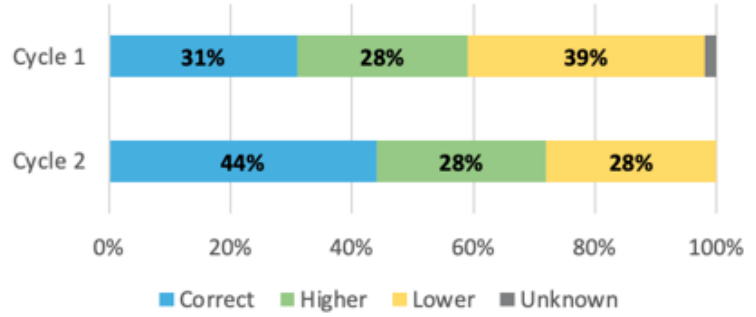
RESULTS

	Number of patients with hyperglycaemia	Number of hyperglycaemic episodes	Prevalence of hyperglycaemia
Cycle 1	31 patients	121 episodes	12%
Cycle 2	28 patients	124 episodes	11%

Graph 1 below: Ketone checking compliance in hyperglycaemic episodes



Graph 2 below: Percentage of cases where, if correction dose was given, it was correct, higher or lower



Rechecking of CBG following insulin administration was consistently high (98%-100%) across both cycles.

RESULTS

Key findings from resident doctors' questionnaire (n=34):

74% were aware of trust guideline → **62%** actively used trust guidelines → **Lack of knowledge** on CBG checking protocols

Diabetes training; completion rates amongst nursing staff

- 22% had completed the "Essential Diabetes" course
- 44% had not completed any diabetes-related training

DISCUSSION

Qualitative data showed that although doctors were aware that guidelines were available, they were not used to the same extent- which was evident through the lack of knowledge on key protocols. Our interventions therefore focused on education through presentations and making the guidelines more accessible, through ward posters.

Ketone testing rates remained stable overall (64% in cycle 1, 65% in cycle 2), however we saw improvement across three wards (graph 1). This enhances patient safety through the prompt recognition of diabetic emergencies such as DKA.

More correct doses of insulin correction were administered during hyperglycemic episodes (graph 2). Safe and accurate insulin prescribing, in line with trust guidelines, prevent hypoglycemia as a complication of overcorrection of blood glucose.

CONCLUSION AND RECOMMENDATIONS

Overall, our interventions were successful in improving adherence to local inpatient hyperglycaemia management guidelines.

- **Future efforts will address nursing staff training competencies.**
- **We will also investigate the consequences of a delay in hyperglycaemia management on length of stay.**

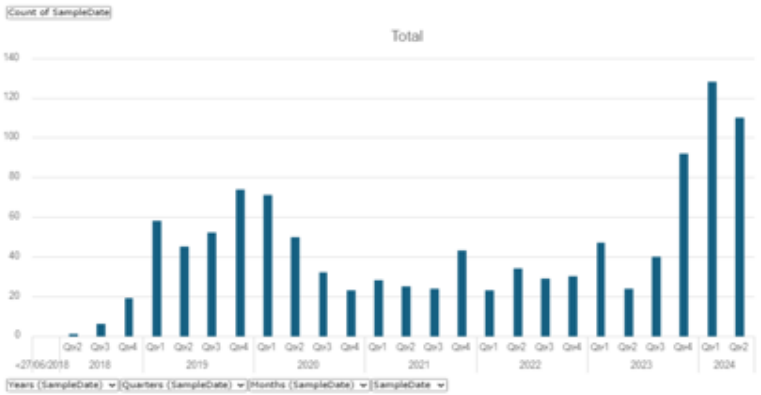
Clinical and Radiological Features of patients hospitalised with Mycoplasma pneumoniae

Bala, Sithu; Absar, Shazia; Waicus, Sarah; Mallia, Patrick
Royal Free London NHS Foundation Trust – London (United Kingdom)

Introduction

Mycoplasma pneumoniae causes respiratory infections including upper respiratory tract infection, acute bronchitis and community acquired pneumonia. Epidemics usually occur at 3 to 5-year intervals. Last UK epidemic was in 2019.

The aim of this retrospective study is to review epidemiological, clinical and radiological features of Mycoplasma infection in adults in the first post-pandemic epidemic.



Graph 1: Patients tested positive with mycoplasma infection over a 5-year period between 2018 and 2024 (Royal Free Trust)

Methods

68 patients (27 males and 41 females) diagnosed with mycoplasma infection (either serology or PCR positive results) between October 2023, and May 2024 were included.

Mean age was 39.9 years, and median was 38.5 years.

We analysed and reviewed the data under 4 domains: smoking status, radiological features, associated co-morbidities, and complications post mycoplasma infection.

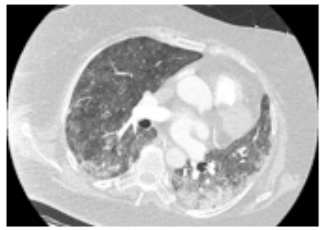


Figure 1: Ground-glass changes

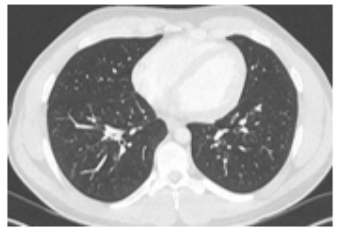


Figure 2: Tree-in-bud nodularity

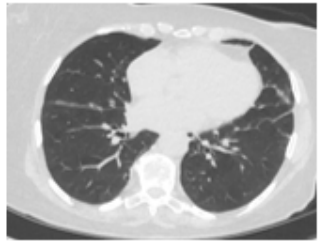


Figure 3: Atelectasis

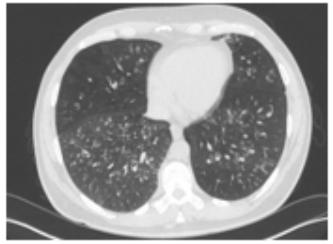


Figure 4: bilateral Infiltrates

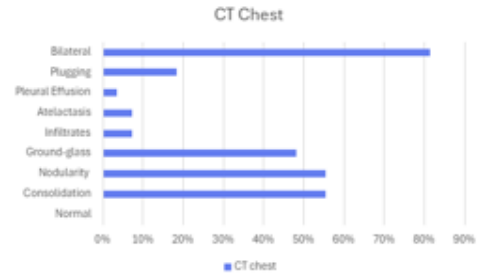
Results

11.8% were current smokers, 13.2% ex-smokers and 75% non-smokers, on review of smoking status in the cohort.

Radiological abnormalities are shown in Graph2. Bilateral involvement was more commonly noted on CT Chest compared to Chest X-ray. Tree-in-bud nodularity was noted in 55%, ground-glass opacities note in 48.2%, and pleural effusion was only noted in 3.7% of all the patients who had CT imaging. 25 patients reviewed at 6 weeks follow up, all patients had radiological resolution and 60% had persistent symptoms.

A total of 38.2% of patients diagnosed with mycoplasma infection have associated comorbidities, and the rest (61.8%) do not.

In terms of noticeable complications, 4 patients had a rash, one of which presented with erythema multiforme, 1 had haemolytic anaemia, and 1 patient suffered acute inflammatory demyelinating polyneuropathy (AIDP) as a complication post infection.



Graph 2 : Different Radiological patterns on CT Chest

Conclusions

Our review suggest that the epidemiology of Mycoplasma pneumoniae is different compared to a review on BMJ Best Practice, as all our patients lived at home, were older and a minority smoked.
Common radiological appearances were bilateral involvement, nodularity and ground-glass opacities, and were more commonly detected with CT.
Complications are rare but can be serious. Complete symptomatic recovery can be prolonged but radiological recovery is usual.

Less Is More: A Two-Cycle Audit on Compliance with NICE Guidelines for Once-Daily Oral Iron Therapy

Amir Hassan: IMT 2 Sheffield Teaching Hospital, **Gurjit Singh**: Consultant Gastroenterology Bassetlaw District General Hospital.

INTRODUCTION

- Iron Deficiency Anemia (IDA) is common in hospitalized patients.
- Traditionally treated with split doses (BD/TDS) of oral iron.

New evidence supports once-daily dosing:

Equal Efficacy | Fewer Side Effects | Better compliance

Mechanism:

Hepcidin inhibits iron absorption, levels rise after each iron dose → reduced fractional absorption with multiple daily doses.

AIM AND AUDIT STANDARD

- To assess compliance with NICE guidance on once-daily or iron prescribing.
- To implement interventions to improve prescribing practic

NICE Guideline: 65 mg elemental iron (Ferrous Sulfate 200 mg) once daily on an empty stomach.

METHODOLOGY

Design: Prospective two-cycle clinical audit

Cycles: Cycle 1: 3 months, Cycle 2: 2 months

Sample Size: 80 patients per cycle

Inclusion: Inpatients prescribed oral iron

Data Source: Electronic records (WellSky)

Tool: Audit proforma: compliance (Yes/No) + commen

RESULTS

Cycle	Compliant	Non-Compliant
1	62.5%	37.5%
2	75%	25%

➡ 12.5% increase in compliance with NICE

Source of Compliance	Cycle 1	Cycle 2
Started in Hospital	34 (68%)	36 (60%)
Already OD at Home	12 (24%)	13 (21.7%)
Changed from BD to OD	4 (8%)	11 (18.3%)

Comment: Resident doctor awareness increased after 1st cycle= **Compliance improved, especially in patients adjusted during admission (8% → 18.3%).** Non compliance decreased by 12.5% in 2nd cycle.

References:
Stoffel N et al. *Haematologica* 2017;102(4):646–652.
NICE CKS: *Anaemia – Iron Deficiency* (2024).

INTERVENTION AFTER 1ST CYCLE

✅ **Education:**
- Presented findings at clinical governance
- Circulated summary to pharmacy
- Included reminders in junior doctor induction

✅ **System Improvements:**
- Advocated for changes in WellSky defaults
- Improved documentation during admission & discharge

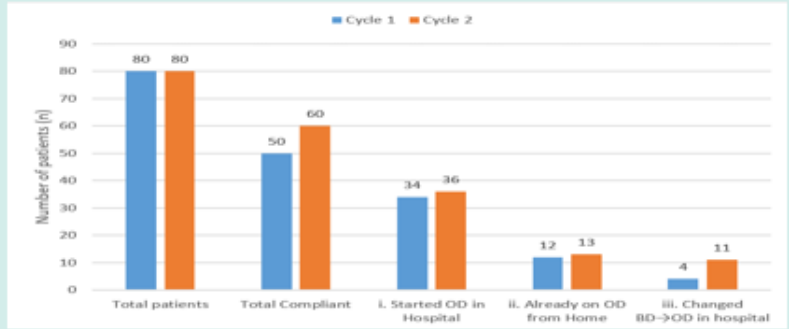


Fig 1: Compliance Comparison & Breakdown of Compliance Reasons (i, ii, iii) by each cycle.

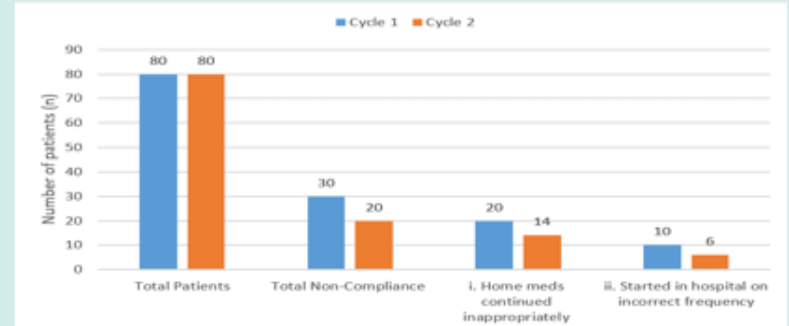


Fig 2: Non-Compliance & Breakdown of Non-compliance Reasons (i, ii) by each cycle

This audit highlights the impact of education, governance, and system changes, with continued focus needed on medication reconciliation and prescriber awareness.

Paediatric Oral Food Challenges: A UK Retrospective Review with International Comparison

L. Heeringa, F. MacCarthy

Fig. 1

Introduction:

Oral food challenges (OFCs) are the gold standard diagnostic tool for food allergies. Before undergoing an OFC, children often have a skin prick test (SPT). However, no UK national guidelines specify cut-off points for patient selection or target positivity rates to avoid anaphylaxis. Physicians need to use clinical judgement to balance the risk of adverse reactions with the need for diagnosis.

To assess our patient selection, we benchmarked our rates of positive challenges and anaphylaxis against published cohorts. We concurrently assessed anaphylaxis recognition and treatment to inform future service changes.

Methods:

We conducted a retrospective service evaluation using electronic patient records to review all OFCs from September 2024 to August 2025. For benchmarking, we conducted a structured search (PubMed) from 2005 to 1st September 2025 to extract data

Results:

A total of 300 OFCs were reviewed. The overall reaction rate was 33% (99/300), and anaphylaxis occurred in 1% (4/300) (Fig. 2).

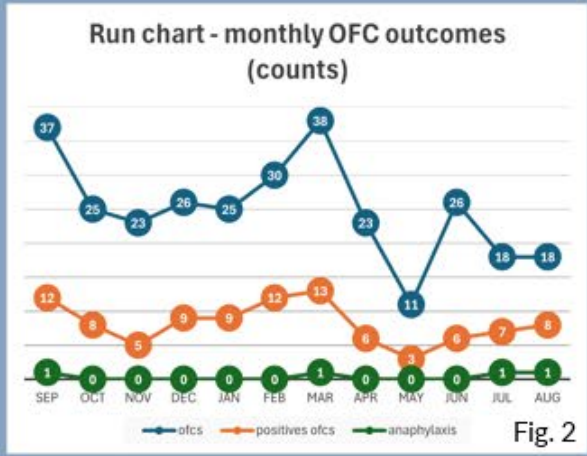
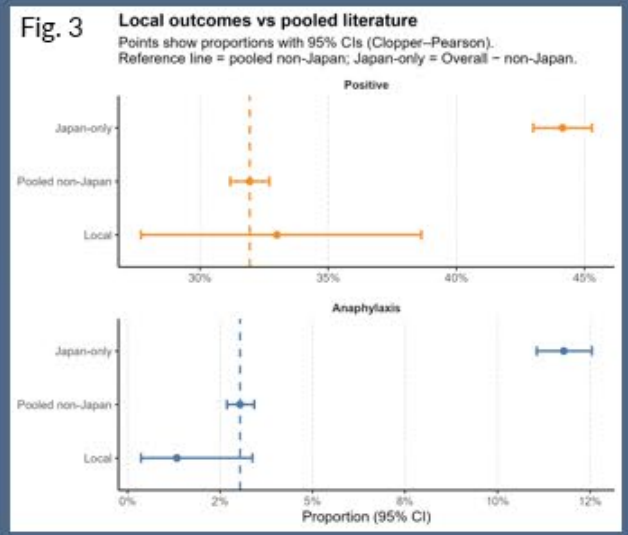


Fig. 2

This was lower than the international average of 36% for positive challenges and 7% for anaphylaxis. However, when excluding Japanese studies, which had significantly higher rates of adverse outcomes, the averages were 32% and 3% respectively (Fig. 3).

Our results were not statistically different from these averages (RR = 1.03 (95% CI 0.88–1.22), p = 0.7436; Anaphylaxis 0.44 (95% CI 0.17–1.18), p = 0.116).

Fig. 3



SPT diameters were a moderate predictor for a positive OFC (SPT per 1 mm: OR 1.29, 95% CI 1.13–1.50, p<0.001, AIC 373, R^2 0.032) but not for anaphylaxis. The model improved when food groups were taken into account (SPT per 1 mm: OR ≈ 1.13; 95% CI 1.03–1.24; p ≈ 0.01, AIC 368.3075, R^2 0.194). Milk was significantly less likely to lead to a reaction (OR 0.17 (0.04–0.66), p-value 0.004, AIC 364, R^2 0.022) (Fig. 4). We found that a 2.5 mm or larger wheal is a sensible risk indicator but should not be used as a hard cut-off. Out of the four potential anaphylactic reactions, only one child received adrenaline.

Conclusions:

We have shown that our OFC outcomes do not vary significantly from most international studies. SPT results could aid patient selection but given the small sample size of this study we cannot confirm whether these predictors would persist in a larger cohort. The low adrenaline use for anaphylaxis highlights a safety gap; next steps include local teaching, visual prompts in OFC settings, and prospective evaluation. It would also be beneficial to explore the global definitions of anaphylaxis, particularly Japan. We were limited as a single-centre dataset, but collaboration across centres could enable evidence-based guidelines and standardise practice in the UK.

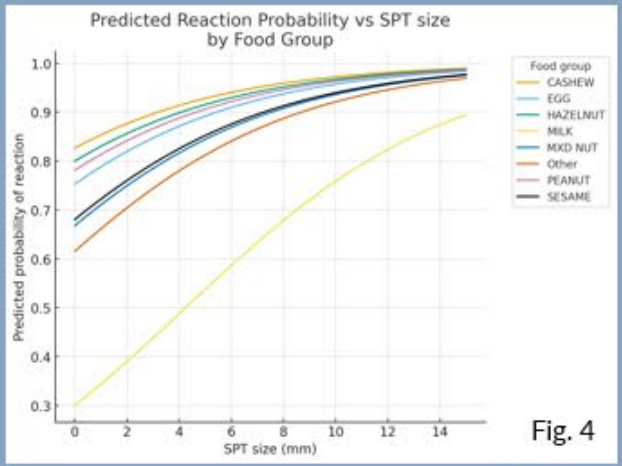


Fig. 4

References:
Fig. 1 created in https://BioRender.com

NHS
Ashford and St. Peter's Hospitals
NHS Foundation Trust

Impact of a 24-hour Critical Care Outreach Service on the Identification and Management of Deteriorating Surgical Patients in a Rural District General Hospital (DGH): A Human Factors Approach

Kenny Ling[1,2], Justin Choo[2,3], Alana Tang[2,3]

[1]Department of Public Health and Primary Care, University of Cambridge, UK; [2]Hereford County Hospital, Wye Valley NHS Trust, UK; [3]Faculty of Life Sciences & Medicine, King's College London, UK

BACKGROUND

- Surgical patients often deteriorate post-operatively.[1] Strained communication between surgical and intensive care teams during out-of-hours periods can delay vital interventions,[2] particularly in DGH settings.
- This study aimed to assess if implementation of a 24/7 CCOT service in a rural DGH may bridge this gap to facilitate timely review, management and improve outcomes.

METHODS

- A retrospective observational study was conducted in a rural DGH focusing on critically ill surgical patients admitted to ITU.
- The frequency of out-of-hours (17:00 - 08:00) reviews, adverse outcomes and 30-day mortality was measured across 15 patient records over one-month periods before and after the implementation of a 24/7 CCOT (Figure 1).

RESULTS

- ITU review rates significantly increased, with a reduction in adverse outcomes and 30-day mortality rates (Figure 2).
- Other points of note:
  - More frequent documentation by CCOT, ITU and surgical teams.
  - Increased adherence to hospital VTE prophylaxis guidelines.
  - More CCOT reviews for patients who were not admitted to ITU.

CONCLUSIONS

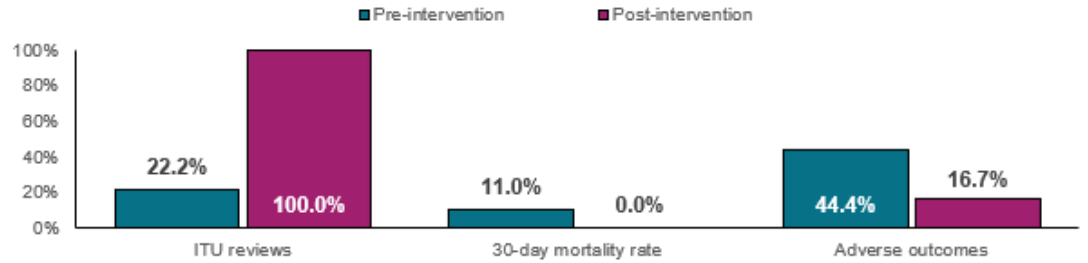
- A 24/7 CCOT service acts as an effective intermediate step for escalating care in deteriorating patients, including timely identification and management.
- Human factors interventions may play significant roles in improving clinical response and patient safety during critical out-of-hours periods in rural DGHs.

FIGURE 1.

Summary of research approach

FIGURE 2.

Proportion of patients records by frequency of out-of-hours ITU reviews, adverse outcomes and 30-day mortality rate, pre- and post-intervention



Abbreviations: DGH: District General Hospital; CCOT: Critical Care Outreach Team; ITU: Intensive Therapy Unit; VTE: Venous Thromboembolism.

References:

1. Mohammed Iddrisu S, Considine J, Hutchinson A. Frequency, nature and timing of clinical deterioration in the early postoperative period. J Clin Nurs 2018; 27: 3544–53.
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Acknowledgements: No funding sources to declare. We would like to thank the ITU Department in Hereford County Hospital and Miss Alexandra Quinn-Savory (School of Public Health, Imperial College London, UK) for supporting this QI project.

Presented at RCP Med+ Conference | London, England | 11-12 November 2025

Optimising Prognostic Therapies in Hospitalised Patients with Heart Failure with Reduced Ejection Fraction (HFrEF): A Quality Improvement Project

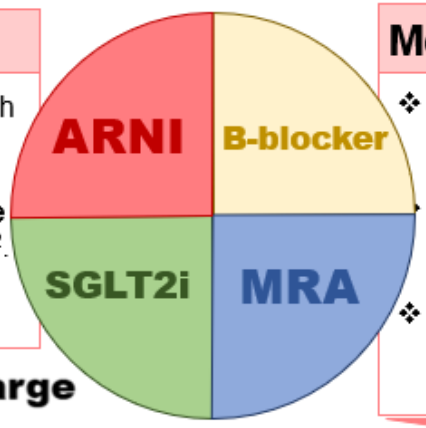
Rahul Sethi, Zak Jefferson-Pillai, Faizah Lubna, Usman Ahmed, Georgios Karagiannis, Omur Choudhury.

The Hillingdon Hospitals NHS Foundation Trust

ESC

Background:

- Four medication groups **reduce mortality** in patients with HFrEF[1,2].
- Updated **2023 ESC Guidelines** recommend the rapid **initiation** of prognostic therapies, **up-titration** and **close follow-up within 6 weeks** following HF hospitalisations[2].
- These actions reduce both the risk of HF readmission and death[1,2].



Methods:

- **Retrospective data collection** from patients with **LVEF < 50%** (n=47) admitted over one month at a district general hospital.
- Data collected included basic demographics, LV ejection fraction, discharge medications and evidence of onward referrals in discharge summaries.
- **Infographic poster** (*Figure 1*) created to promote ESC guideline adherence was subsequently displayed in doctors' offices and data was recollected.

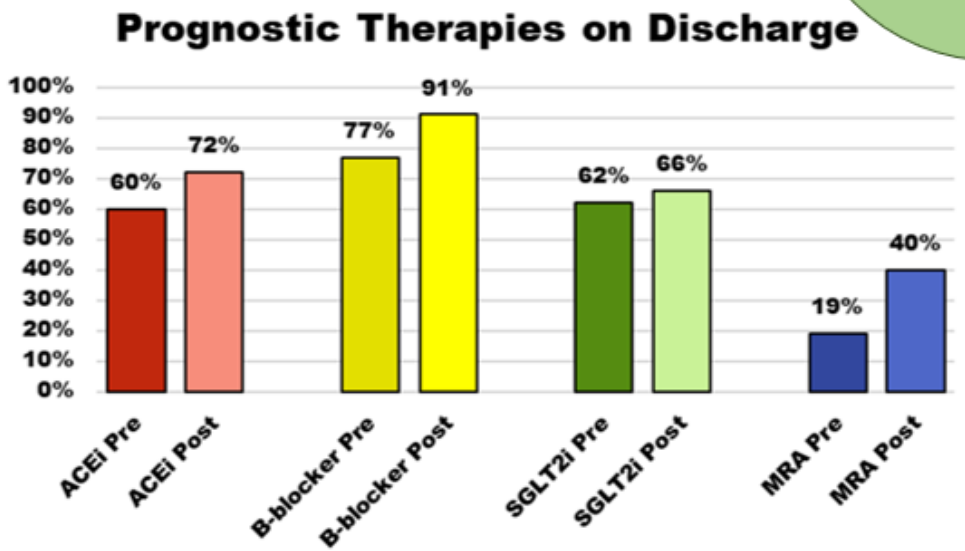


Figure 2**: Bar chart illustrating the rates of prescribing on discharge of each of the four pillars of prognostic therapies in HFrEF, pre- and post-intervention. (**ACEi = Angiotensin-converting enzyme inhibitors/angiotensin receptor blockers/angiotensin receptor and neprilysin inhibitors, B-blockers = beta-blockers, SGLT2i = sodium/glucose co-transporter 2 inhibitors, MRA = mineralocorticoid-receptor antagonists).

Results:

- **Improved Prescribing:** significant post-intervention improvements *(Figure 2)*, most notably the MRA prescribing rates rose from **19%** → **40%**
- **Medication rationale documentation:** improved documentation for holding ACEi, from **32%** → **54%,** post-intervention.
- **Onward referrals:** close follow-up via HF nurse specialists on discharge improved from **47%** → **64%.**

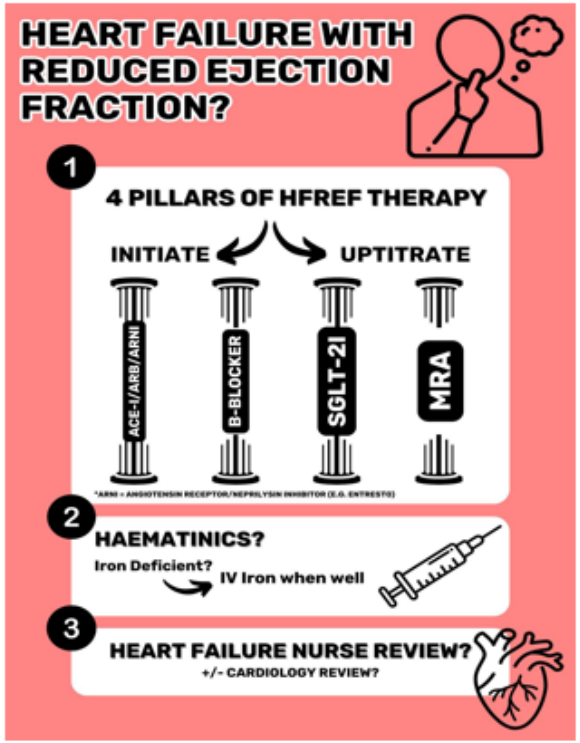


***Figure 1:** Infographic poster, the primary intervention for our QIP.*

Discussion:

- Our QIP led to a **significant improvement in adherence to the ESC guidelines** and ultimately more patients received guideline directed medical therapy.
- **Opportunities for optimization:** every clinical encounter offers a chance to optimize HFrEF therapy.
- **Replicable method:** our educational poster illustrates a simple, feasible tool for improving guideline compliance.
- **Future plans:** further cycles and education efforts planned to expand these improvements across the hospital, focussing on improving documentation on discharge summaries.

References:

1) Medazaa A, et al. (2022). Safety, tolerability and efficacy of up-titration of guideline-directed medical therapies for acute heart failure (STRONG-HF): a multinational, open-label, randomised, trial. *Lancet,* 406.
2) McDonagh TA, et al. (2023). 2023 Focused Update of the 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: Developed by the task force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) With the special contribution of the Heart Failure Association (HFA) of the ESC. *European Heart Journal*, 44.

Impact of Colour Coded Lanyard implementation in a clinical setting (Quality Improvement Project)

Dr YuenKang Tham; Dr Ayoade Adesanya; Dr Alice Barnes; Dr Danyal Usman; Dr Siobhan Lewis
University Hospital of Wales

GIG CYMRU NHS WALES Bwrdd Iechyd Prifysgol Caerdydd a'r Fro Cardiff and Vale University Health Board

Introduction

Time is of essence in influencing optimal patient outcomes.

The frequent lack of **effective identification** methods within the multidisciplinary settings of healthcare facilities lead to delays in **task delegation** and completion in situations ranging from medical **emergencies** (e.g. Cardiac Arrest, Trauma calls) to **routine** jobs (e.g. Discharge letters, cannulation).

Unnecessary stress, effort to identify staff, increased workload, poor patient outcomes, poor staff (+ public) experience and increased expenses arise from this.

We set out to improve these factors via introduction of colour coded lanyards within the medical department of Cardiff and Vale University Health Board.

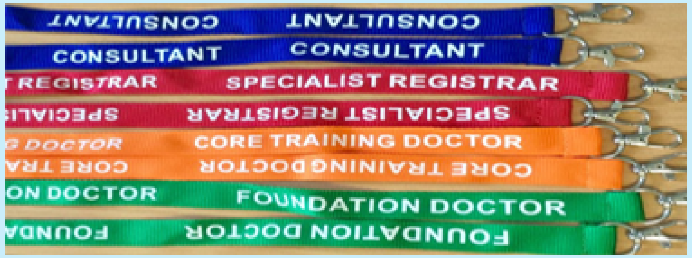
Method

Coloured lanyards with **inscribed** grades ('Foundation Year Doctor', 'Senior House Officer', 'Specialist Registrar' and 'Consultant') were purchased.

Medical clinicians and patients were surveyed on their abilities to identify different clinician grades and how this is thought to affect them.

We then distributed the lanyards throughout the medical department, in accordance to on-call equivalent roles.

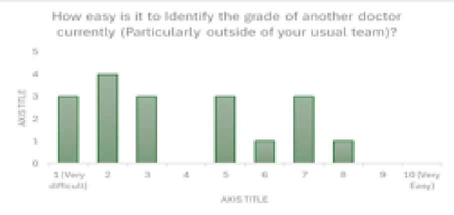
After a period of 3 months the survey was repeated.

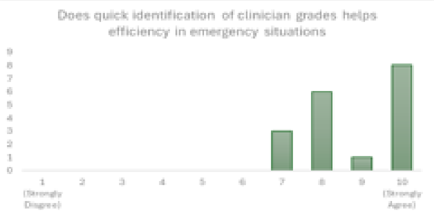


Picture: Courtesy of Z.Burton Queen Alexandra Hospital

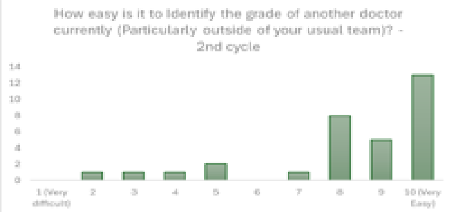
Results

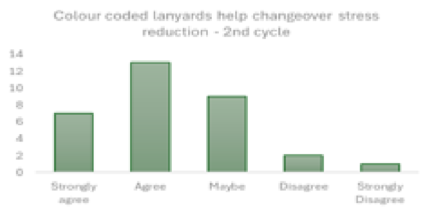
Clinicians (Initial Survey):

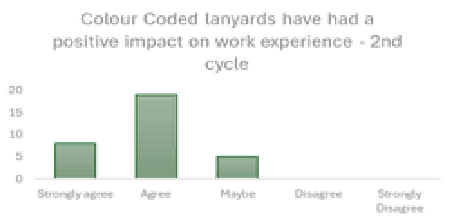




Clinicians (Survey after Lanyards distributed):

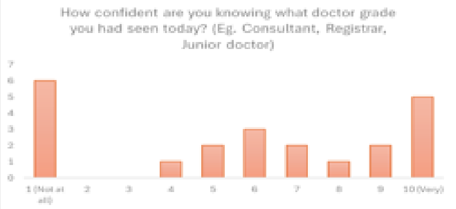


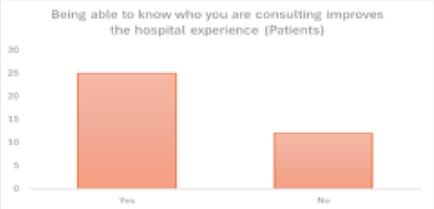




Clinicians:
1. Lanyards significantly improved ease for staff identification of clinician roles
2. Clincians uninamously report that quick identification of clinician grades help management efficacy
3. Strong consensus that lanyards reduced stress and improved work experience

Patients (Initial Survey):





Patients (Survey after Lanyards distributed):

Patients:
1. There was strong consensus that being able to know who they had consulted during their time in hospital improved their experience within the hospital
2. The lanyards significantly improved their ability to do so.

Discussion

Timely management significantly affect patient outcomes especially within an emergency settings.[1-4]

The reality is that medical emergency settings are chaotic and there is usually little opportunity for adequate formal introductions of individual roles.

Working in a **Multidisciplinary Team (MDT) environment** with regular staff rotation in the NHS predisposes to the same issues during non-emergency settings.

This study shows that the lanyards are an **effective** measure to mitigate these.

Improving hospital staff experience and stress levels is likely to motivate and attract staff to the local workforce. Also improve public perception with the sense of order.

The lanyards are inexpensive, hence **cost effective** (£1.08 each). They are **logistically viable** in all hospital and healthcare settings (Compared to acquiring specific badge printing machines)

They are widely accepted **culturally**, without affecting an individual's chosen outfit (For cultural or personal reasons) – as in the instance of coloured scrubs.

Additionally, prior work from West Hertfordshire backed by the **BMA** has shown that such lanyards are effective in reducing workplace discrimination such as sexism.[5]

Contrary to popular belief, lanyards have not been shown to be of significant infection risk, with **no evidence of increased infection spread** (In particular of MDR pathogens) – unlike Mobile phones and stethoscopes do. It is prudent we are proportionate in our assessments of weighing the potential benefits of this effective tool with perceived risks with available data.

References:
1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

Antimicrobial Stewardship Concerns in the Management of Influenza and Influenza with Associated Bacterial Pneumonia

NHS Somerset NHS Foundation Trust

Andrew Chan, Katie Wiles, Megan Markey-Wells, Eleanor Davey and Ian Head

Somerset NHS Foundation Trust, Taunton, United Kingdom

Background

Distinguishing influenza infection from influenza with associated bacterial pneumonia is a significant clinical challenge as the clinical presentation may be similar and there is no single definitive differentiating test. Bacterial coinfection may present at initial evaluation or manifest later as clinical deterioration, particularly with new or worsening respiratory symptoms, hypoxia, or sepsis.

This creates an antimicrobial stewardship dilemma because antibiotics have no benefit in the management of influenza infections occurring alone.

Methods

We performed a retrospective analysis using a standardised proforma of Influenza cases confirmed by positive respiratory multiplex PCR from December 2024 to January 2025, reviewing the factors used by clinicians to aid in their decision-making and antimicrobial prescribing. These included observation charts, radiological, microbiological and biochemical investigations. All-cause mortality was assessed at 30-days.

Results

114 cases of Influenza infection were identified. The median age was 70 (interquartile range 55-79). 8 patients required admission to a high dependency or intensive care unit. 30-day all-cause mortality was 8 (7%). A summary of patient demographics, comorbidities and observation chart records are summarised in table 1.

78 cases (68%) had a National Early Warning Score (NEWS)≥5. Radiological investigations, either X-ray or CT, were done on 99 (87%) cases with 36 (32%) showing evidence of consolidation. 3 (3%) cases had a positive microbiological sample, either a positive blood or sputum culture. These 3 cases also had concomitant radiological consolidation.

45 (39%) cases had elevated white cell count (WCC) and 95 (83%) had elevated C-reactive protein (CRP). 2 patients in intensive care settings had a procalcitonin (PCT) both of which were >0.80µg/L. Both these cases had radiological consolidation, and one case had a positive sputum sample.

We evaluated the use of WCC and CRP in our cohort illustrated in Figure Although we found a statistical significance comparing cases with positive radiological or microbiological investigation to those without; p=0.01 for WCC and p=0.00002 for CRP in all patients. The level of significance decreases in the subgroup of patients with a NEWS≥5; p=0.15 (NS) for WCC and p=0.01 for CRP.

83 (73%) patients were started on antibiotics as illustrated in table 2. 17 patients had their antibiotic stopped prior to completion of the course following confirmation of influenza. There was a combined cumulative 678 days of antimicrobial therapy used for these cases.

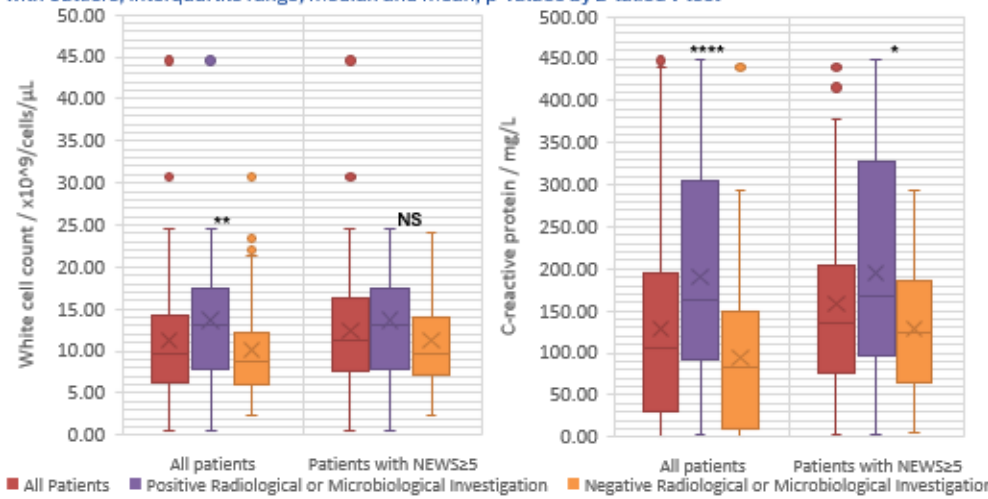
Table 1: Summary of demographics, comorbidities and main findings during episode (numbers, percentage in brackets unless otherwise specified)

Variable	Number (%)
N, patients	114
Age, median (25-75% IQR) (years)	70 (55-79)
Gender, male	55 (52%)
Long term care facility / nursing home resident	11 (10%)
Influenza Strain	
- Influenza A	104 (91%)
- Influenza B	8 (7%)
- Influenza A and B co-infection	2 (2%)
- Co-infection with other respiratory virus	1 (1%) [SARS-CoV2]
Healthcare associated Infection	12 (11%)
Community acquired Infection	102 (89%)
Charlson comorbidity index, median (25-75% IQR)	4 (2-5)
Immunosuppressed	8 (7%)
Solid organ transplant recipient	1 (1%)
Underlying Lung Disease including asthma, COPD, Bronchiectasis	48 (42%)
NEWS Score ≥ 5 during episode	78 (68%)
- Tachypnoea (RR>20)	62 (54%)
- O2 requirement	74 (65%)
- Tachycardia, HR>100bpm	67 (59%)
- Significant Hypotension, SBP≤90 or DBP≤60	31 (27%)
- Confusion	31 (27%)
Acute Kidney Injury	28 (25%)
HDU / ITU Admission	8 (7%)
Radiological evidence of consolidation	36 (32%)
Positive microbiological culture	3 (3%)
30-day all-cause mortality	8 (7%)

Table 2: Summary of antibiotic prescribing and days of antimicrobial therapy for each agent used (numbers, percentage in brackets based as proportion of patients receiving antibiotics)

Antibiotics prescribed	83 (73% of all patients)	Total Days of Antimicrobial Therapy
Amoxicillin	38 (46%)	191
Doxycycline	34 (41%)	152
Trimethoprim-sulfamethoxazole	29 (35%)	142
Flucloxacillin	19 (23%)	96
Other antimicrobials	27 (33%)	97
Antibiotic stopped following positive influenza sample	17 (20%)	

Figure 1: Box plot comparing biochemical markers in different patient groups, indicated in chart are range with outliers, interquartile range, median and mean, p-values by 2-talied t-test



Discussion & Conclusion

Influenza can cause multiple systemic decompensations that can present similarly to bacterial infection and raise concern for sepsis. In our hospital the most common agents used were targeted towards covering respiratory pathogens and influenza-associated pneumonias. However, there are many occasions when broader spectrum antimicrobials including beta-lactam/beta-lactamase combinations, carbapenems, fluoroquinolones and aminoglycosides are used.

Further investigations may aid clinical judgement but have limitations. Radiographic imaging is required for diagnosing pneumonia but cannot reliably differentiate viral from bacterial aetiologies based on the pattern of consolidation[2,3]. Microbiological testing should be performed though negative results do not exclude bacterial involvement, as testing may be affected by specimen quality and prior antibiotic administration[1]. Other studies have shown that among biochemical markers, only procalcitonin has proven utility in differentiation[4,5], other markers of inflammation such as WCC and CRP are unreliable as illustrated in Figure 1 and other guidelines[1].

In our study, although 83 patients (73%) received antibiotics and 66 completed a full course, only 36 (32%) met investigation thresholds of having at least one of the following: radiological consolidation, positive microbiological culture or raised procalcitonin. Based on current evidence, this suggests that antibiotics are being over-utilised for uncomplicated influenza infections. This issue has led to a combined cumulative use of 678 days of antimicrobial therapy.

References

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3. Thomas M. File Jr, Ramirez JA. Community-Acquired Pneumonia. O'Malley PG, ed. New England Journal of Medicine. 2023;389(7):632-641. doi:10.1056/NEJMCP2303286

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5. Wu MH, Lin CC, Huang SL, et al. Can procalcitonin tests aid in identifying bacterial infections associated with influenza pneumonia? A systematic review and meta-analysis. Influenza Other Respir Viruses. 2012;7(3):349. doi:10.1111/J.1750-2659.2012.00386.

University Hospitals Birmingham NHS Foundation Trust

Audit of Peritoneal Dialysis Peritonitis: Incidence, Organisms, and TDM Efficacy in Relation to ISPD 2022 Standards at Birmingham Heartlands Hospital (2024)

S. Mahajan[1] , R. Karkar[1]

Building healthier lives

Introduction:

Peritoneal Dialysis Peritonitis - at least two out of the below :

- Clinical features consistent with peritonitis – cloudy fluid and/or abdominal pain.
- Dialysis effluent WCC >100 UL (after a dwell time of at least 2 h) with >50% PMN
- Positive dialysis effluent culture

Aim:

To study the rates, causative organisms and outcomes of Peritoneal Dialysis Peritonitis in patients seen in the PD unit at Birmingham Heartlands Hospital in 2024 and to compare results to the clinical standards outlined by the ISPD 2022 Guidelines.
Also, to study the efficiency of therapeutic drug monitoring in these patients.

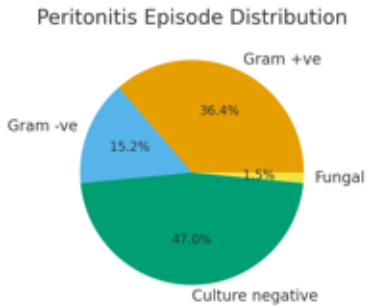
Methods:

Retrospective data collection from PICs online systems.

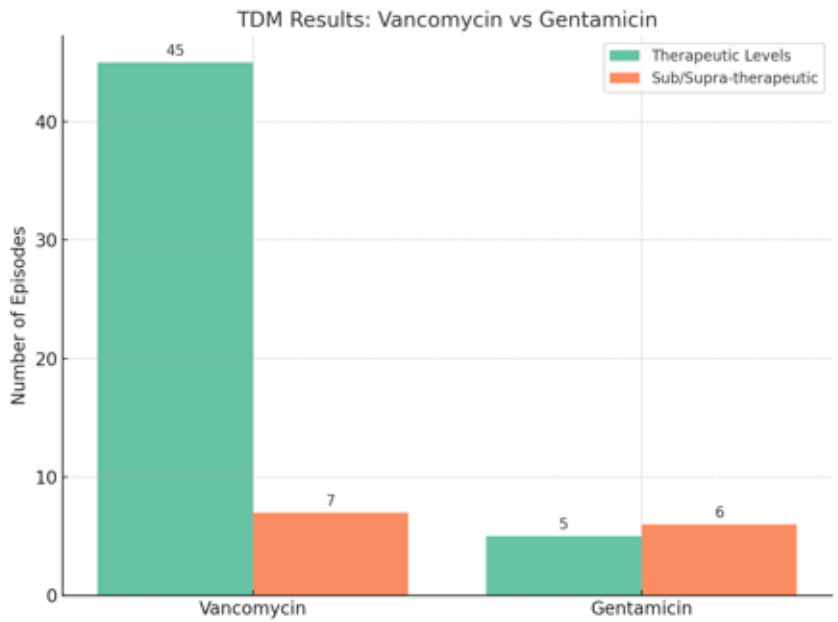
Inclusion: All PD-related peritonitis episodes.
Parameters: Organism, antibiotics, drug levels, outcomes.

ISPD 2022 Guidelines Overview

- Cause-specific peritonitis: culture-defined, catheter-related, enteric.
- Time-specific: pre-PD, PD-related, insertion-related.
- ISPD targets:
  - Peritonitis rate ≤ 0.4
  - Culture-negative < 15%
  - ≥ 80% patients, peritonitis-free per year.



Outcome	Episodes
Medical cure	42 (65.6%)
Repeat peritonitis	4 (6.2%)
Relapsing Peritonitis	3 (4.7%)
Catheter Removal due to peritonitis and eventual switch to HD	14 (21.9%)
PD peritonitis associated death	1



Results Summary

- Total peritonitis episodes: 63 (49 patients)
- peritonitis Rate per year : 0.54–0.63 per year (target ≤0.4)
- •Culture-negative: 48% (target <15%)
- Proportion of patients free from peritonitis per year - 54.5% (target 80%)
- Gram-positive most common: Staphylococcus spp.
- 86.5% had therapeutic vancomycin levels.
- 45.5% had appropriate TDM for gentamicin levels.

Pioneer Measures:

-Recommend PD technique and knowledge to be regularly re-assessed and updated with emphasis on direct inspection of technique.

-Accurate initiation and therapeutic drug monitoring for antibiotics in all episodes of PD Peritonitis.

-Secondary Prevention: Recommend anti-fungal prophylaxis to be prescribed regardless of indication of antibiotics use in PD patients(Nystatin/ Fluconazole)

-Suggest pets not be allowed in the room where PD exchange takes place, and where dialysis tubing, equipment and machine are stored

-Suggest drainage of PD fluid prior to invasive gynaecological procedures and colonoscopy.

Improving Documentation of Treatment Escalation Plans in the Infectious Diseases Department of Sheffield Teaching Hospitals NHS Foundation Trust

Dr Joseph Delahunty, Dr Patrick Copley, Dr Vivak Parkash

BACKGROUND

This quality improvement project aimed to increase the proportion of patients with a documented Treatment Escalation Plan (TEP) within our department. Our goal in doing this was to support clear communication between healthcare workers and patients and facilitate advanced decision-making.

Previous quality improvement work has shown that the addition of a TEP to a DNAR reduced harm, non-beneficial interventions and "problems" for patients (1).

METHODS

PDSA cycles were used to review the current levels of documented TEPs and following two interventions to improve completion rates for documentation of escalation plans from September-October 2024.

Our results were generated by reviewing the clinical notes for all patients on the ID wards for that day in a snapshot data collection and answering:

1. Was there a decision regarding escalation made within 48 hours of admission?
2. What was the overall time taken to make a decision regarding escalation following admission under ID?

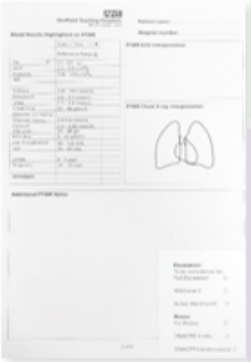
Results were recorded using an excel workbook and then analysed using a standard statistical approach.

Repeat cycles were measured having allowed several days for the interventions to take effect.

Two interventions were implemented:

1. Daily Safety Huddle Reminders led by the senior nurse (Cycle 2).
2. Sticker Prompt in PTWR Notes to remind clinicians to document TEPs (Cycle 3) (Figure 1).

Figure 1



RESULTS

Table 1

	% of patients with TEP completed <48 h	Overall TEP Completion rate	Mean average time to complete TEP	Median time to complete TEP	Longest TEP completion duration at time of data collection (days)
Cycle 1	26.1%	82.6%	114.9 hours (4.8 days)	61 hours (2.5 days)	16
Cycle 2	38.9%	88.9%	66.1 hours (2.8 days)	56.5 hours (2.4 days)	6.6
Cycle 3	59.3%	84.4%	66.9 hours (2.8 days)	29.5 hours (1.2 days)	12.8

Results indicated a significant improvement in TEP documentation rates within 48 hours—from 26.1% at baseline (cycle 1) to 59.3% after both interventions. The first intervention (daily safety huddle reminders) improved overall completion rates, while the sticker prompt led to more timely documentation.

A QIP by the Royal United Hospital, Bath showed an increase in documentation rates from 30% to 90% with the addition of a ceiling of treatment proforma to the existing DNAR paperwork (2). Whilst our study didn't have this degree of success, it did show an increased adherence with a similar intervention.

CONCLUSION

Although limited by factors such as the use of a snapshot data collection due to patient medical record availability, the interventions showed that simple, targeted strategies can effectively increase TEP documentation. Future improvements could focus on implementing digital tools to ensure more consistent documentation practices following the implementation of the new IT system within the trust.

REFERENCES:

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2. Dahill, et al. Improving documentation of treatment escalation decisions in acute care. *BMJ Qual Improv Rep*. 2013;2(1):u200617.w1077. Published 2013 Aug 21. doi:10.1136/bmjquality.u200617.w1077

Quality Improvement Audit of GRACE Score' Documentation and Clinical Justification for Withholding Angiography in NSTEMI Patients: Implications for Patient Safety

By
Dr. Queenett Brinemugha

Background

Early invasive management improves outcomes in non-ST elevation myocardial infarction (NSTEMI). Risk stratification with the Global Registry of Acute Coronary Events (GRACE) score is recommended by NICE (GRACE >88) and ESC (GRACE >109) guidelines for angiography within 72 hours. Variation persists in its use and the management of high-risk patients.

Objectives

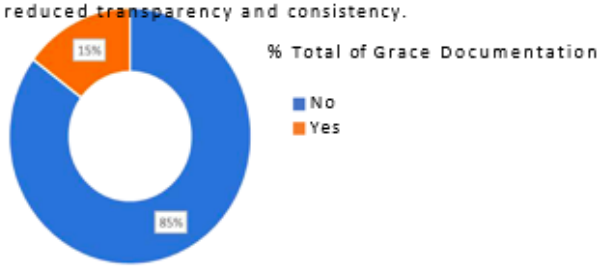
To evaluate GRACE documentation and the justification for withholding coronary angiography in NSTEMI patients in a UK district general hospital.

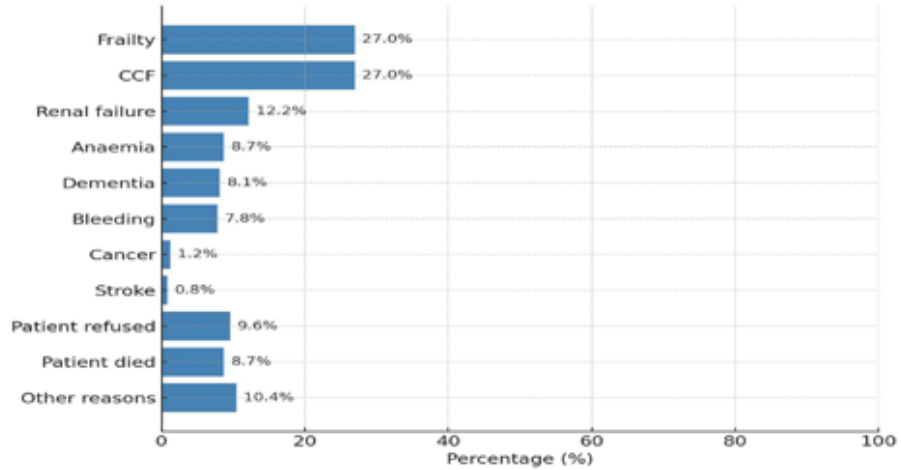
Method

A retrospective audit over 6 months included patients ≥18 years with NSTEMI/unstable angina who did not undergo angiography. STEMI and those undergoing angiography were excluded. Data included GRACE documentation, comorbidities, and reasons for conservative management. Standards: 100% GRACE documentation and ≥90% justification in GRACE >88.

Results

A total of 121 eligible cases were identified. GRACE scoring was documented in only 15% of cases. Among patients with GRACE >88, 98.3% did not undergo angiography; in those with GRACE >109, 83.5% were managed conservatively. The leading reason was comorbidity burden (71.3%), notably frailty (27%),congestive cardiac failure (27%), renal failure (12%), anaemia (9%), dementia (8%),bleeding risk (8%), cancer (1%), and stroke (1%). Other reasons included refusal (9.6%),death before angiography (8.7%), and recent elective or negative CT coronary angiography (10.4%). Clinical judgement often considered frailty and multimorbidity appropriately, but limited GRACE documentation reduced transparency and consistency.





Conclusion

- The audit found that GRACE scoring is routinely underutilised and high-risk NSTEMI patients are often managed too conservatively, with clinical decisions heavily influenced by comorbidities such as frailty and multimorbidity.
- This inconsistent application of guideline-based risk stratification poses real patient safety risks and contributes to unwarranted variation in care.
- To close these gaps, the study recommends system-level changes — such as structured GRACE templates, decision-support prompts, and integration of comorbidity assessment into care pathways—with a follow-up re-audit planned to assess their impact.

Reference

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Fox KA, Clayton TC, Damman P, et al. Long-term outcome of a routine versus selective invasive strategy in patients with non-ST-segment elevation acute coronary syndrome: a meta-analysis.Lancet. 2010;375(9719):1904–15.

Improving warfarin management: Reducing sub-therapeutic INR in hospitalized patients on maintenance-dose warfarin

Authors: M Salma, M Tahir, I Moukas, A Ali, N Tabassum

NHS
Warrington and Halton Teaching Hospitals
NHS Foundation Trust

Introduction

Warfarin remains a key anticoagulant, particularly when DOACs are contraindicated but it poses challenges due to its narrow therapeutic index and interactions.[1]

Hospitalised patients face additional difficulties with INR control due to polypharmacy, acute illness, kidney injury, infection, and nutritional variation.[2]

Aims & Objectives

This project was aimed to enhance INR control among hospitalised patients on maintenance dose of warfarin.

Materials and methods

A baseline audit (September 2023–March 2024) assessed Time in Therapeutic Range (TTR) for patients on warfarin. Mean TTR was 39.6% (NICE target of ≥65%.[3])

A Quality Improvement Project (QIP) was initiated with the aim to increase TTR to >60%

References

1. Lee LH. DOACs – advances and limitations in real world. Thromb J. 2016 Oct 4;14(S1):17.
2. Nutescu E, Chuatrisorn I, Hellenbart E. Drug and dietary interactions of warfarin and novel oral anticoagulants: an update. J Thromb Thrombolysis. 2011 Apr 27;31(3):326–43.
3. National Institute for Health and Care Excellence (NICE). Atrial fibrillation: diagnosis and management. London; 2021.
4. Dawson NL, Porter IE, Klipa D, Bamlet WR, Hedges MA, Maniaci MJ, et al. Inpatient warfarin management: pharmacist management using a detailed dosing protocol. J Thromb Thrombolysis. 2012 Feb 13;33(2):178–84.

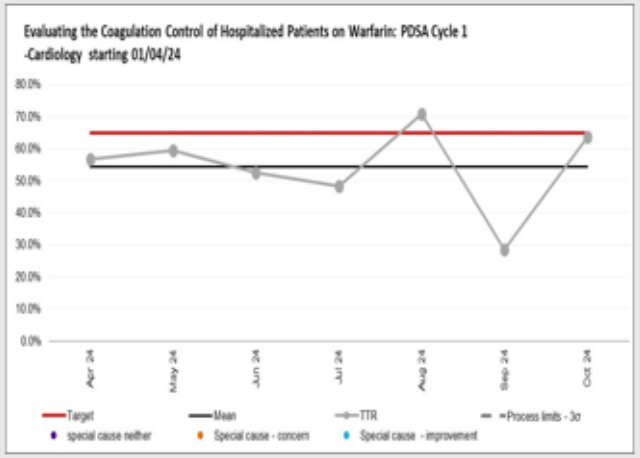
Results

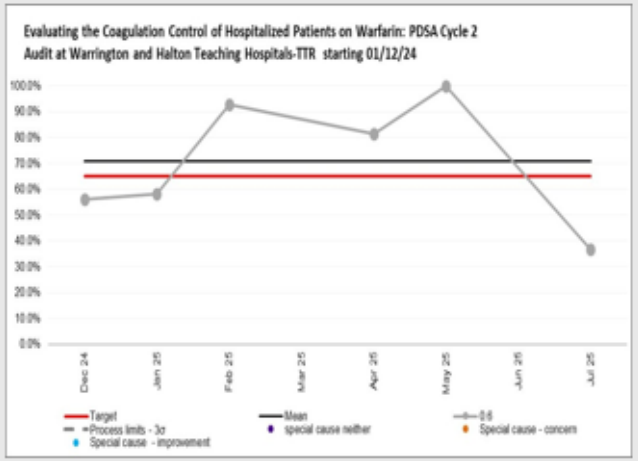
PDSA Cycle 1:

The administration time was changed trust-wide to 2 p.m. Data from April–October 2024 (n = 60) showed improvement in mean TTR to 56.2%, up from 39.6%.

PDSA Cycle 2:

In the ACCU Dawson algorithm[4] was introduced to enhance prescribing consistency. Data from December 2024–July 2025 (n = 13) demonstrated further improvement, with mean TTR reaching 61.9%.





Conclusion

- Small, practical changes improved INR control.
- Standardized dosing algorithm enhanced consistency.

Next step: develop Trust-wide maintenance dosing policy

Diagnosis and Management of Haemophagocytic Lymphohistiocytosis (HLH) within Liverpool University Hospitals Foundation Trust (LUFHT): a Quality Improvement Project

Nicholson, Martha[1] , Dunnett-Kane, Victoria[1], Liuzzi, Francesca[1,2], McLaren, Zoe[1], Mewar, Devesh[1], Syratt, Tom[1], Williams, Stella[3], Harborow, Charlotte[1], Atkin, Mike[1], Lavery, Mark[1], Simpson, Phillip[1,2]

[1] University Hospitals of Liverpool Group, [2] School of Medicine, University of Liverpool, [3] Clatterbridge Cancer Centre

Background

- **HLH** is a **rare, life-threatening hyperinflammatory syndrome** with various triggers
- Mortality is ~50% at 1 year[1]
- Presentation is non-specific, marked by the **"3 Fs"**:
  1. **Fever**
  2. **hyperFerritinaemia**
  3. **Falling blood counts**
- Recent national **GIRFT guidance**[2] (2024)
  - Recommendations re: **H-score**, early specialty referral & immunosuppression

Scan for H-score calculator

Methods

- Initial retrospective baseline data collection (Feb 2022–Sep 2024)
- HLH patients identified - review of clinical records for all patients with **ferritin >2000** or relevant **ICD-10 coding**

- **Cycle 1 (Dec 2024–Apr 2025):** Electronic **ferritin alert** (>2000 µg/L) with **H-score prompt**
- **Cycle 2 (Apr–Oct 2025):** **HLH order set** in clinical requesting system (ICE)
- **Cycle 3 (in progress):** Local **HLH guideline**
- **Cycle 4 (in progress):** Establishment of a **multidisciplinary HLH team** (MDT)
- **Cycle 5 (planned):** Local outreach/clinician education sessions on HLH

Context

- Multiple HLH patients admitted under Infectious Diseases team, Royal Liverpool Hospital
- Delayed diagnoses leading to delayed treatment

SMART Aims

1. Reduce time to HLH diagnosis
2. Reduce time to steroid/Anakinra initiation
3. Improve identification of HLH triggers
4. Reduce HLH-related mortality

Planning stages

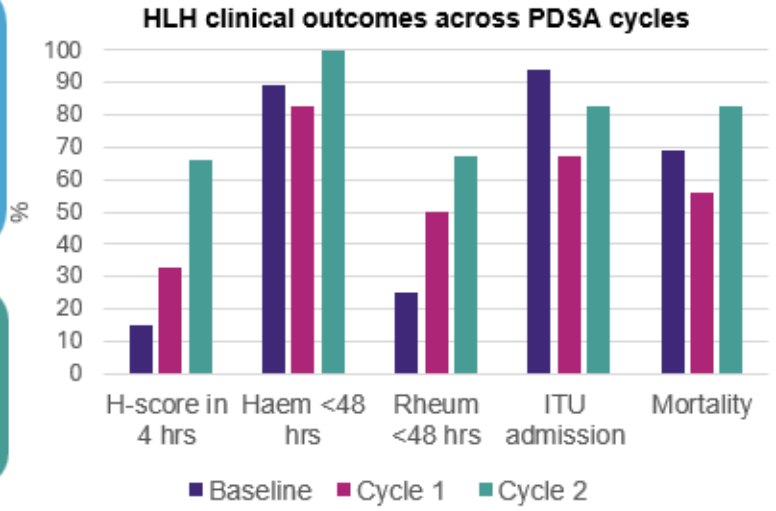
- Stakeholder analysis & engagement
- Process mapping
- Problem analysis & development of change ideas – Ishikawa & driver diagrams

Results

Demographics:
- 15 patients identified at baseline, 9 in Cycle 1, and 6 in Cycle 2 (ongoing)
- Median age 48.5 years (range 18–78)
- 57% male

Mean time to treatment:
- *Baseline*: 0.91 ± 1.1 days
- *Cycle 1*: 2.6 ± 3.2 days
- *Cycle 2*: 0.16 ± 0.4 days

(p = 0.42)



Conclusions

- HLH associated with **high mortality** despite relatively **young patient cohort**
- Need for streamlined diagnostic and management pathways
- **Trust merger** presents both challenges and opportunities to embed and sustain **region-wide HLH care improvements**
- Increased mortality from baseline likely due to ascertainment bias from **improved HLH recognition,** supported by increased H-score calculation

Next steps

Patient Experience Team to develop "*patient stories*" from interviews to inform future QI cycles and enhance clinician education

References

1. West J, Card TR, Bishton MJ, et al. Incidence and survival of haemophagocytic lymphohistiocytosis: A population-based cohort study from England. *J Intern Med*. 2022; 291:493–504.
2. Lanyon P, Manson J, Tattersall R, Kay L, Hyde P. Haemophagocytic Lymphohistiocytosis (HLH) Guidance on the diagnosis, treatment, management and governance. [Internet] 2024 Jul. Available from: https://gettingitrightfirsttime.co.uk/wp-content/uploads/2025/06/HLH-Guide-final-version-v1.3-June-2025.pdf

Contact:
Martha.Nicholson@liverpoolft.nhs.uk

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An Audit to Highlight the Benefit and Importance of Pre-populated Consent Forms in Glaucoma Surgery

Deborah Charlesworth-Benedict, Alexander Delaney, Tasmin Berman
Countess of Chester Hospitals NHS Foundation Trust, Chester, UK

NHS Countess of Chester Hospital NHS Foundation Trust

Background

Informed consent is an essential part of ophthalmic surgery[1]. Recent advancements in glaucoma surgery have led to a significant increase in the number of different procedures which may be offered. In addition, patients often undergo phacoemulsification cataract surgery both as a standalone procedure and in combination with glaucoma surgery which can further impact visual prognosis.

It is therefore essential that patients are well informed about the risks and benefits of their specific procedure, and expectations about post-operative outcomes are appropriately managed.

To this end, generic paper consent forms are often insufficient. They require the clinician to populate the blank space with the risks and benefits of the procedure at the point of consent. This has the potential to cause significant variation in the explained risks and benefits for a particular procedure between patients. Moreover, the significant time cost in already busy clinics can often lead to the consent process being put off until the day of the procedure, against national guidance[1].

Aims

- Evaluate local consent processes to identify deviations from best practice and areas for improvement with reference to when they were completed and whether all appropriate risks were included.
- Introduce procedure-specific prepopulate consent forms to the service.
- Re-audit the consent outcomes after the introduction of the new forms to determine if there has been an improvement to the service.

Methods

Retrospective review of electronic patient records of all 57 patients who underwent glaucoma or cataract surgery under a single consultant at one site between September and November 2024.

The following parameters were reviewed; procedure, laterality, date of listing, date of consent, whether surgical risks were complete or not, and what was missing from the risks if not. Consent form risks were deemed complete if they included all risks as per the patient information from Glaucoma UK[2].

Procedure-specific pre-populated consent forms were then produced inclusive of additional risks. Consent processes were then re-audited over a similar period of time, following a period of implementation, to determine the impact of the pre-populated forms.

References
1. The Royal College of Ophthalmologists. Consent for ophthalmology procedures. 2020. [cited 2025 Jun 29]. Available from: https://www.rcophth.ac.uk/wp-content/uploads/2020/05/Standards-Of-Consent-For-Ophthalmology-Procedures-COVID-19.pdf.
2. https://glaucoma.uk/about-glaucoma/treatments-surgery/trabeculectomy-surgery/

Results

Pre-intervention results:

- Fifty-seven patients were included in the initial review. 32% of these were undergoing glaucoma surgery and 68% were undergoing cataract surgery.
- Of those undergoing glaucoma surgery, no consent forms met the standard for a complete list of appropriate risks.
- Commonly omitted risks were ptosis, suprachoroidal haemorrhage and worsening or development of cataract.

Post-intervention results:

- Forty-two patients were included in the re-audit. Overall, 97% of patients had the complete risks documented on the consent form, 62% patients were consented prior to the day of surgery and 38% were consented on the day of surgery. A similar number of patients had different types of surgery pre and post intervention.
- The main reason patients not being consented in clinic was patients being seen by allied health care professional who are unable to consent, a bilateral patient that was seen in the nurse led clinic (not approved to consent for bilateral surgery) and patients that had been listed for emergency surgery e.g. cyclodiode from casualty or medical retina clinic but needed to be discussed with consultant first. Additionally, one patient contacted the department wishing to be listed after discussion in clinic.
- Of those patients that were seen in the clinic and listed for surgery by someone who was able to consent appropriately 92% of patients were consented prior to surgery
- For glaucoma surgery and cataract surgery 100%, and 94% of patients respectively, had the complete risks documented on the consent form. The one patient who had incorrect consent was because an old non populated form was used.

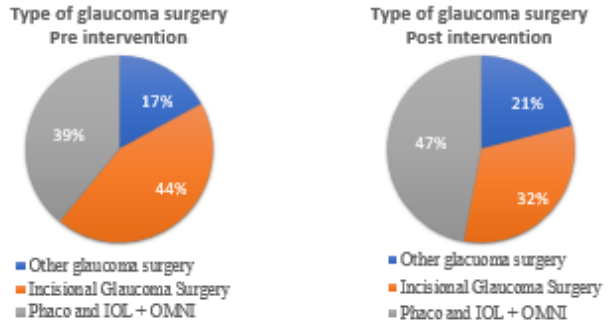


Figure 1: Types of Glaucoma Surgery

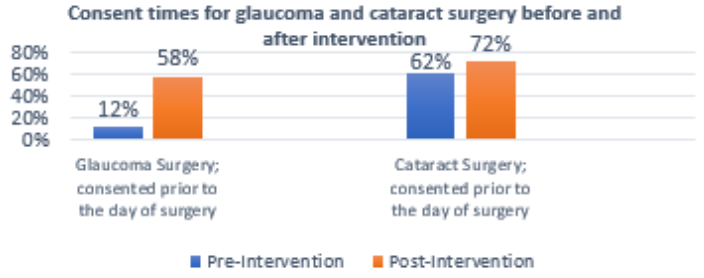
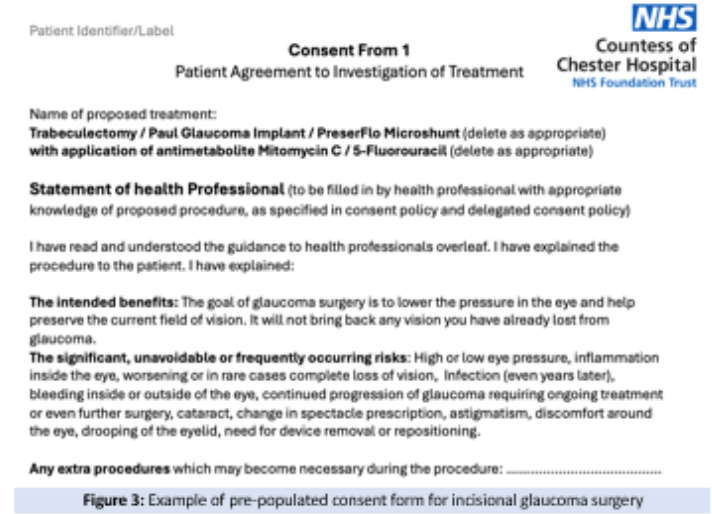


Figure 2: Consent times for glaucoma and cataract surgery before and after pre-populated consent forms implemented



Patient Identifier/Label

Consent From 1
Patient Agreement to Investigation of Treatment

NHS Countess of Chester Hospital NHS Foundation Trust

Name of proposed treatment:
Trabeculectomy / Paul Glaucoma Implant / PreserFlo Microshunt (delete as appropriate)
with application of antimetabolite Mitomycin C / 5-Fluorouracil (delete as appropriate)

Statement of health Professional (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy and delegated consent policy)

I have read and understood the guidance to health professionals overleaf. I have explained the procedure to the patient. I have explained:

The intended benefits: The goal of glaucoma surgery is to lower the pressure in the eye and help preserve the current field of vision. It will not bring back any vision you have already lost from glaucoma.
The significant, unavoidable or frequently occurring risks: High or low eye pressure, inflammation inside the eye, worsening or in rare cases complete loss of vision, Infection (even years later), bleeding inside or outside of the eye, continued progression of glaucoma requiring ongoing treatment or even further surgery, cataract, change in spectacle prescription, astigmatism, discomfort around the eye, drooping of the eyelid, need for device removal or repositioning.

Any extra procedures which may become necessary during the procedure: .....

Figure 3: Example of pre-populated consent form for incisional glaucoma surgery

Discussion

This audit has highlighted the benefit for pre-populated consent forms to ensure that patients are being consented appropriately, as well as mitigating against potential litigation. It may also help support allied health care professionals' consent with appropriate training.

Prepopulated consent forms also facilitate consenting at the time of listing in clinic rather than on the day of surgery, as less time is needed to complete the form.

Assessing and Improving Resident Doctors' Knowledge of Diabetic Ketoacidosis Management: A Single-Centre Educational Quality Improvement Study

Fatima Zahoor, Ammara Naeem (Supervising Consultant)

Diabetes & Endocrinology Department, Croydon University Hospital NHS Trust

NHS Croydon Health Services NHS Trust

Introduction

Diabetic ketoacidosis (DKA) is a life-threatening complication of diabetes that requires urgent recognition and prompt management by the resident doctors as they are usually the first responders managing DKA. Gaps in their knowledge poses a direct risk to patient safety. Enhancing resident doctors' understanding of guideline-based DKA management is therefore essential.

Aims & Objectives

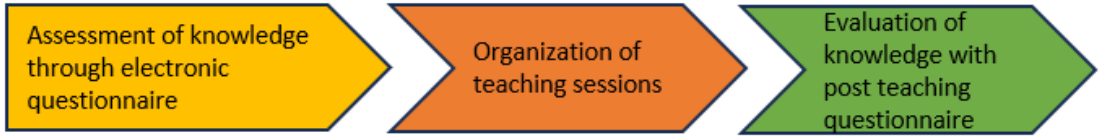
To assess the knowledge and confidence of resident doctors in DKA management in line with national guidelines, identify gaps in practice, and deliver targeted education sessions to improve knowledge and practice.

References

- Joint British Diabetes Societies for Inpatient Care. (2023, March). *The management of diabetic ketoacidosis in adults (Updated March 2023).* https://abcd.care/sites/default/files/site_uploads/JBDS_Guidelines_Current/JBDS_02_DKA_Guideline_with_QR_code_March_2023.pdf

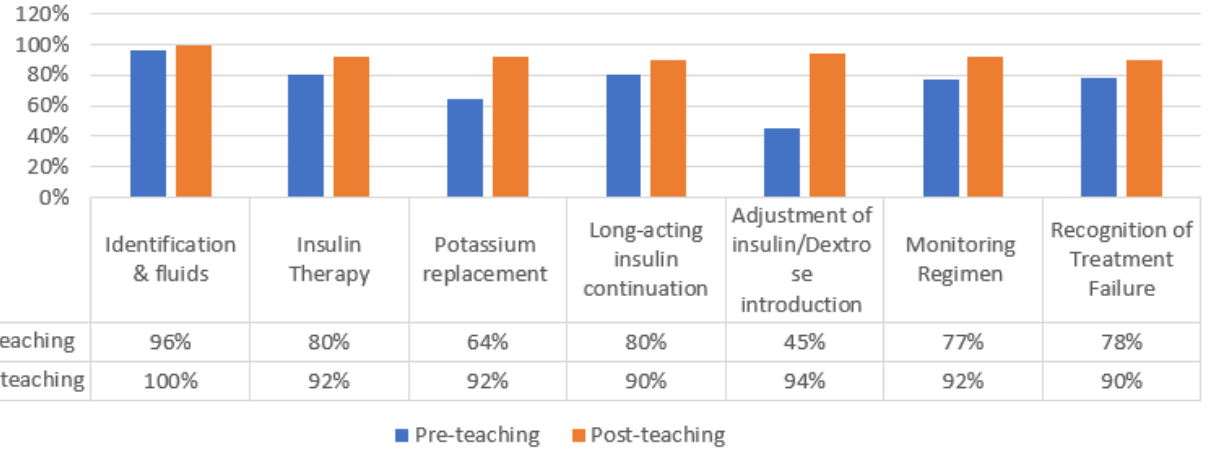
Methodology

- An electronic questionnaire assessing knowledge of DKA management was distributed to resident doctors of all grades at Croydon University Hospital (April 2025–August 2025)
- Based on results, interactive teaching sessions were arranged and delivered to resident doctors across the Trust by the authors.
- A follow-up questionnaire was then used to evaluate changes in knowledge and confidence.



Results

31 doctors completed the pre-teaching questionnaire, and 38 completed the post-teaching questionnaire. Prior to teaching, only 42% reported confidence in managing DKA; this rose significantly to 92% following the sessions.
The following areas regarding management of DKA were assessed and the results obtained pre and post teaching session are summarized below:



	Identification & fluids	Insulin Therapy	Potassium replacement	Long-acting insulin continuation	Adjustment of insulin/Dextrose introduction	Monitoring Regimen	Recognition of Treatment Failure
Pre-teaching	96%	80%	64%	80%	45%	77%	78%
Post-teaching	100%	92%	92%	90%	94%	92%	90%

Problems identified

- Absence of local Trust guidelines
- Reliance on outdated JBDS guidelines on intranet

Future Directions

- Local Trust protocol is being developed in alignment with JBDS guidelines, ensuring standardised and evidence-based DKA management.
- The established rolling education programme to be sustained to reinforce ongoing clinical competence.
- Real-time analysis of DKA case data is being undertaken, with a structured evaluation cycle every six months to monitor outcomes and drive continuous improvement.

Conclusion

- Targeted educational interventions markedly strengthened resident doctors' confidence and competence in DKA management.
- Given the clear clinical benefits and potential to improve patient outcomes, this initiative merits national adoption, embedding structured DKA education within the Foundation and IMT curriculum as a standard of training.

Evaluating the Diagnostic Yield of CT Coronary Angiography in a Rapid Access Chest Pain Clinic: A Quality Improvement Project at a DGH

Dr Basant Kashyap[1],Dr Supriya Sharma[2],Dr Sadaf Shaikh[3]

1,2,3 : George Eliot Hospital NHS Trust

INTRODUCTION

Rapid Access Chest Pain Clinics (RACPCs) are central to the early identification and management of suspected coronary artery disease (CAD). CT Coronary Angiography (CTCA) is recommended by NICE as the first-line diagnostic tool for stable chest pain due to its high sensitivity and negative predictive value (1). However, its real-world diagnostic yield, particularly the positive predictive value (PPV), varies across centres. This Quality Improvement Project (QIP) aimed to evaluate the PPV of CTCA in detecting CAD in patients attending the RACPC at George Eliot Hospital NHS Trust, and to assess its clinical relevance for service optimisation.

AIM AND METHODOLOGY OF THE STUDY

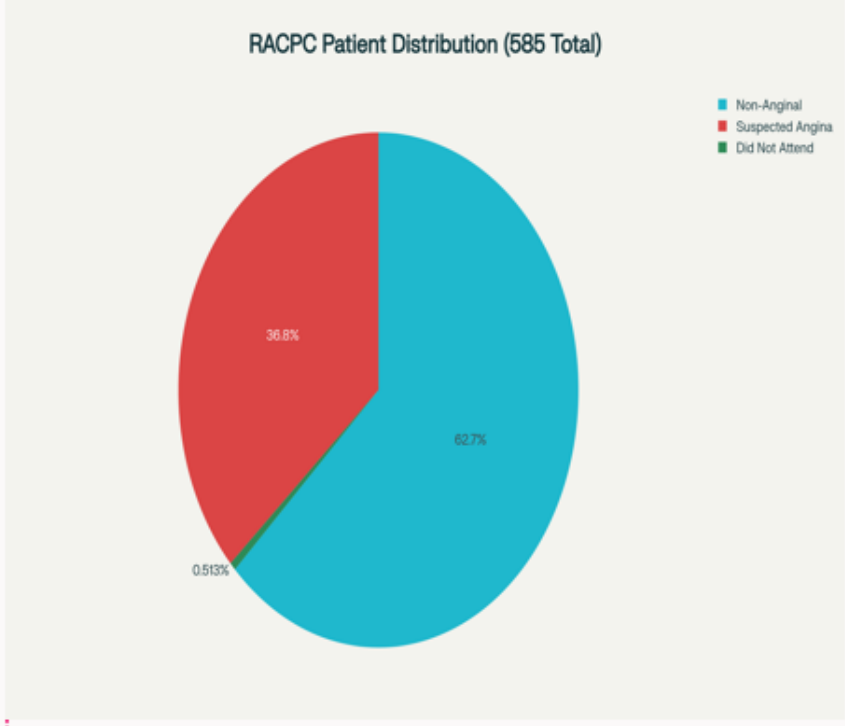
Aim of the study : To identify the positive predictive value (PPV) of CTCA in rapid access chest pain clinic assisting in identifying underlying coronary artery disease.

Materials and Methods :

The data for the QIP was collected based on all patients referred to RACPC at GEH between 2nd June 2023 and 31st July 2024. Demographic details, clinical classification (anginal vs. non-anginal chest pain), CTCA utilisation, and subsequent diagnostic confirmation of CAD were collected. The primary outcome was the PPV of CTCA for detecting CAD. Secondary outcomes included the proportion of patients undergoing CTCA relative to clinic referrals and stratification by symptom classification.

RESULTS

A total of 585 patients attended the RACPC during the study period (male: 308; female: 277). Of these, 215 were suspected clinically to have angina, 367 were classified as non-anginal, and 3 did not attend. CTCA was performed in 151 patients, among whom 71 were confirmed to have underlying CAD. The positive predictive value (PPV) of CTCA in this cohort was 47.0% (71/151). Stratified analysis showed higher diagnostic yield in patients with anginal symptoms compared with non-anginal presentations.



CONCLUSIONS

This QIP demonstrates that in a real-world RACPC setting, CTCA has a PPV of 47% for detecting CAD. While CTCA remains a valuable first-line investigation due to its sensitivity and ability to rule out CAD, its predictive accuracy is enhanced when integrated with clinical risk assessment. Careful triage of patients with higher pre-test probability can optimise resource utilisation, reduce unnecessary imaging, and improve clinical outcomes. These findings support ongoing pathway refinement and highlight the importance of regular audit to ensure alignment with NICE recommendations.

Clinical relevance:

This QIP highlights the potential of optimising CTCA use within RACPC to enhance diagnostic efficiency, minimise unnecessary imaging in low-risk patients, and expedite timely management of confirmed CAD. Its clinical relevance lies in supporting evidence-based practice , refining referral pathways, improving resource allocation, and ultimately delivering superior patient care outcomes.

REFERENCES

1.National Institute for Health and Care Excellence. *Chest pain of recent onset: assessment and diagnosis (CG95)*. NICE; 2016.Available from: https://www.nice.org.uk/guidance/cg95

Hospital-Wide Improvement of Fast Track Discharges with a Targeted Focus in Old People's Services

Royal London Hospital
E. Thompson, S. Al-Hashimi, P. Anekwe, S. Nelson-Piercy, G. Lumley

Barts Health NHS Trust

Introduction

The Fast Track (FT) pathway should facilitate fast hospital discharge for patients in the terminal phase, Despite the NHS's target of 48 hours, data from the Royal London Hospital (RLH) revealed it takes 13-14 days to implement a FT discharge (1). Teams have attempted to improve efficiency but face challenges. MDT feedback on prior QI efforts was negative due to impact on workload and obstacles relating to high staff turnover. We needed to improve FT efficiency through engagement of a busy and rotational workforce.

Methods/Materials

A PDSA approach was followed with the aim to decrease mean days from decision to implementation of a fast track (FT) discharge by 30% from January –May 2025.

Plan:
-Audit of Old People's services (OPS) August 2024–January 2025
-Doctors' Survey January 2025
-Process mapping and driver diagram
Do:
-Cycle 1 (Mar 5–19, 2025): Flowchart and QR code to key resources
-Cycle 2 (Mar 20–Apr 17, 2025) :Three teaching sessions to physicians
Study/ Act: Post-cycle audits with results presented at QI, Governance and End of Life meetings. Valuable stakeholder feedback steered the project forward.

Figure 1: Driver diagram detailing change ideas

Results and Discussion

Cycle 1:
-OPS achieved a 28% reduction in days to implement a FT discharge (14 to 10 days). Days to submit applications in OPS improved by 75%
-Hospital-wide, rejected applications fell from 31% to 20%, though time to discharge increased by 14% and document submission times worsened

Cycle 2:
-OPS sustained improvements, with a 22% decrease in time to FT implementation and continued rapid document submission. Rejection rates in OPS remained unchanged
-Hospital-wide, rejection rates improved. The successful FT rate rose from 50% to 80%. No further efficiency in application submission observed

OPS showed clear progress reflecting strong departmental engagement. However, application rejections- in part due to incorrectly filled forms- persisted. Secondary data analysis highlighted that external delays e.g. bed availability significantly impacted timelines.

In summary, the QI project has driven positive change particularly in OPS, where application submission averages one day. Hospital-wide, application success rates improved, though meeting the 48-hour target remains unrealistic. Future steps include educating nursing staff, engaging with the local Continuing Health Care team and uploading FT resources to the intranet.

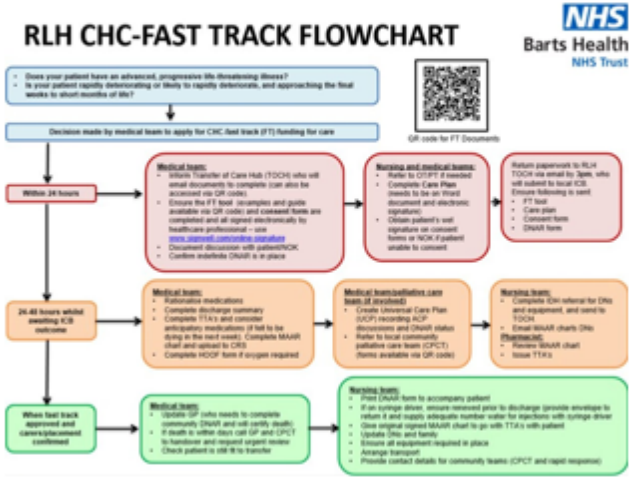


Figure 2: Fast track flowchart and QR code

1.NHS continuing healthcare - Social care and support guide. https://www.nhs.uk/social-care-and-support/money-work-and-benefits/nhs-continuing-healthcare/ Accessed 1 September 2025]

'BREATHE – QI'

Breathlessness Evaluation with CPET-SE: Assessing Clinical Effectiveness. A Quality Improvement Project

Selda Ahmet, William Ricketts & Guy Lloyd - St Bartholomew's Hospital, Barts Health NHS Trust

NHS Barts Health NHS Trust

1. Introduction

Chronic breathlessness is associated with increased morbidity, mortality and healthcare utilisation. Obtaining a diagnosis is challenging when the cause is unclear (i.e., 'undifferentiated breathlessness'). There is a need for early and accurate diagnosis for prompt initiation of treatment. Cardiopulmonary exercise test (CPET) combined with stress echocardiogram (SE)– 'CPET-SE'- provides a comprehensive evaluation of cardiopulmonary and metabolic mechanisms of breathlessness with direct visualisation of the heart.

2. Materials & Methods

A Quality Improvement Project (QIP) using PDSA methodology introduced (i)upfront CPET-SE for all referrals and (ii)a joint cardiorespiratory multi-disciplinary team (MDT) to agree diagnoses and streamline care (Figure 1). Twelve-month outcomes included diagnostic distribution, RTT, cost savings, and patient feedback. QIP designed with Patient and Public involvement.

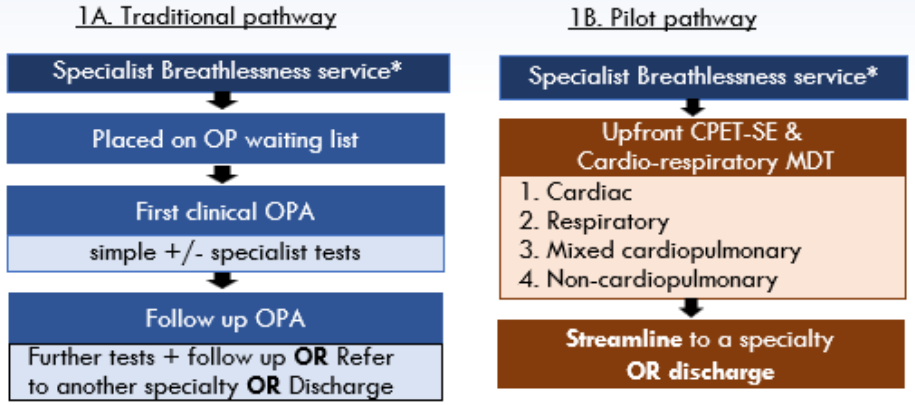


Figure 1: Comparison of tradition vs pilot pathway. Referral by primary & secondary care providers. **1A Traditional Pathway.** lengthy series of appointments and tests before reaching a diagnosis +/- referral to other service specialty. (*OP= Outpatient; OPA = Outpatient appointment*). **1B Pilot pathway.** Upfront CPET-SE with joint cardiorespiratory MDT review assigns a diagnostic domain (cardiac/respiratory/ mixed cardiopulmonary/non-cardiopulmonary) and enables onward referral or discharge.

3. Results & Discussion

- **72 patients** in the pilot study. Age-range 18-88 years (mean 54.6 years).
- **Female-to-male ratio 5:3.**
- **Diagnosis made in 93%.** Significant **cardiopulmonary disease ruled out** in the remaining 7% (*Figure 2A*).
- **CPET-SE guided MDT outcomes:** Non-cardiopulmonary, Respiratory, Mixed cardiopulmonary, and Cardiac (*Figure 2B*).
- **Most non-cardiopulmonary causes were breathing pattern disorders (BPD)** (*Figure 2C*).
- **25% discharged from pathway;** remainder had **targeted tests** and **fast-track of lung physiotherapy for BPD.**
- **Referral-to treatment time (RTT) expedited in 63%.**
- Estimated savings of **£1,077[1] / patient.** [1]*Calculation based on costs incurred in traditional vs new pathway*
- **100% positive** feedback from service users.

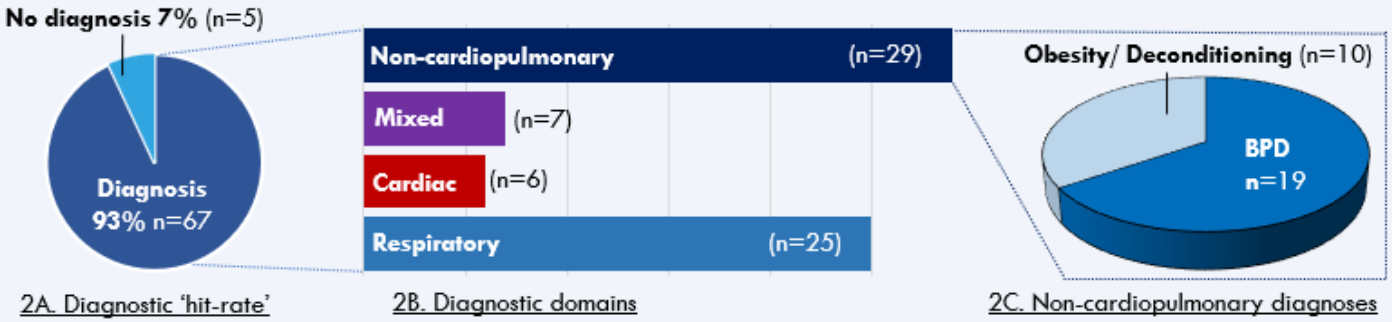


Figure 2. Proportion of diagnoses obtained and the spread of diagnoses within each diagnostic domain. 2A Diagnostic 'hit-rate'. CPET-SE was abnormal in 93% (n=67) and a diagnosis was obtained. CPET-SE was normal in 7% (n=5). **2B Proportion of diagnoses.** Respiratory 37% (n=25); Cardiac 9% (n=6); mixed-cardiopulmonary 10.4% (n=7); non-cardiopulmonary diseases 43% (n=29). **2C Non-cardiopulmonary diagnoses.** Breathing Pattern Disorder (BPD) 40% (n=29); obesity/deconditioning 35% (n=10).

A higher proportion of females entered the pathway, likely reflecting differences in health-seeking behaviors. Most diagnoses were respiratory in origin, consistent with referral bias. The combination of CPET-SE's high diagnostic yield and a joint cardio-respiratory MDT enabled streamlined triage to the appropriate service and reduced RTT with possible significant cost-savings.

4. Conclusion

Upfront CPET-SE provides a comprehensive assessment for undifferentiated breathlessness, unmasking underlying mechanisms that may not be detected with traditional diagnostic tests. This work highlights the value of an early, collaborative cardio-respiratory approach to complex breathlessness. Streamlining care pathways enables timely treatment and reduces healthcare utilisation.

Why, as Clinicians, we need to get 'Good' at Prescribing Varenicline for Hospitalised Patients with Tobacco Dependence: Effectiveness of Varenicline in Combination with Nicotine Replacement Therapy and Specialist Support in Treating Inpatients with Tobacco Dependency

S. Patel, E. Doran, L. Restrick

Background

- Tobacco dependence remains a leading cause of preventable illness and death, and remains prevalent in patients admitted to hospital
- The 2016 Ottowa study showed that diagnosing and treating inpatients with tobacco dependence, combined with post-discharge support, significantly reduced 30-day readmission and 1 year mortality rates
- This has led to its adoption & increasing use as the NHS model
- Varenicline, one of the key medications to treat tobacco dependence, was unavailable between 2021 and late 2024
- This study aimed to evaluate the impact of reintroducing varenicline for adult inpatients, prescribed alongside nicotine replacement therapy (NRT) and specialist tobacco dependence treatment (TDT) team support, in an inner-city hospital with 19% inpatient tobacco dependence prevalence

Methods

- Retrospective review of inpatients prescribed newly-available varenicline between December 2024 and March 2025
- Outcomes assessed were 4-week and 3-month contact rates, self-reported quit rates and varenicline prescription use

Results

- 73 inpatients prescribed varenicline (mean age 58 years)
- **High Tobacco Dependency:** 42% had raised Carboxyhaemoglobin on admission and 19% also smoked cannabis
- **High risk of harm from smoking** with average 53 pack years exposure to tobacco
- 1 in 4 were also alcohol dependent
- In those with previous CT chest, 77% showed emphysema
- 48% of patients had diagnosed COPD
- > 1 in 5 had cardiovascular disease or hypertension
- Varenicline was prescribed by all medical teams (Figure 1)

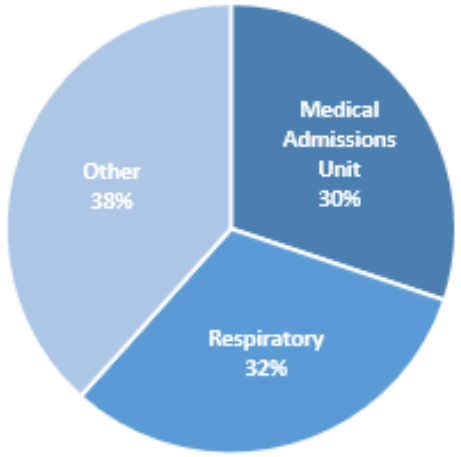


Figure 1: Wards where inpatients were prescribed varenicline (n = 73)

- 65/73 (89%) were prescribed varenicline with combination NRT
- All were seen as inpatients by the TDT team and follow-up offered
- 46/73 (63%) had a 3-month TDT team follow-up review
- **Self-reported 3-month quit rate was 52%**
- 13/24 ex-smokers (54%) had previously tried to quit without success
- Overall **'intention-to-treat' 3-month quit rate was 33%**
- Figure 2 shows 4-week and 3-month outcomes in both groups

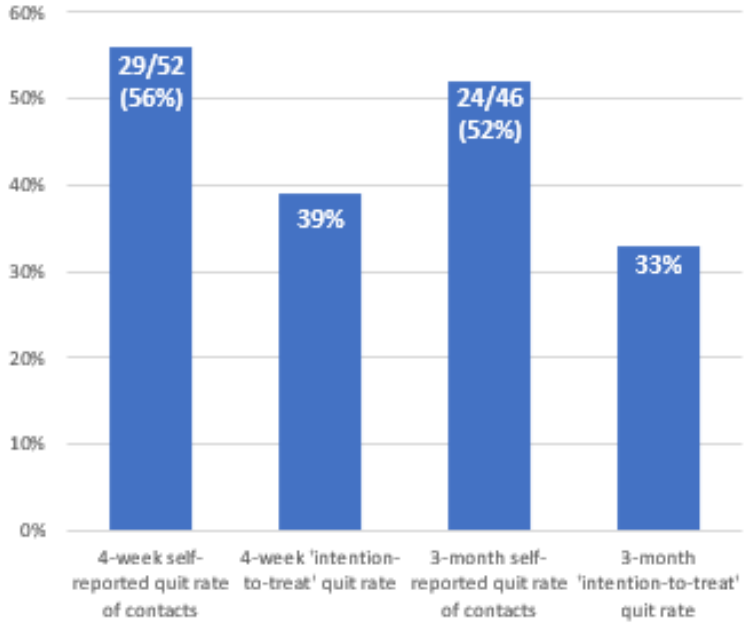


Figure 2: 4-week and 3-month outcomes for inpatients with tobacco dependency prescribed varenicline

Discussion

- Patients admitted to hospital with tobacco dependence have a high prevalence of respiratory and cardiac disease as a result of tobacco smoke exposure over years
- Patients with tobacco dependence also have an increased prevalence of alcohol and smoked drug dependence
- Varenicline, used in combination with NRT and TDT team support, is easy to prescribe, safe, well-tolerated and an effective treatment in this group of multi-morbid highly tobacco dependent patients, many of whom have previously tried to quit unsuccessfully, with a 33% 'intention to treat' 3-month quit rate
- This is higher than previously reported outcomes from Manchester and South London when varenicline was not routinely available

Conclusions

- Diagnosing tobacco dependence should be something we do for all inpatients
- Treating tobacco dependence improves patient outcomes and reduces readmission
- We have effective medications to treat tobacco dependence - now including varenicline
- Given how easy it is to prescribe, and this evaluation demonstrating effectiveness in inpatients, we recommend becoming 'confident' and 'good' at prescribing varenicline
- Inpatient varenicline prescribing should be with combination NRT and TDT support and follow-up
- Hospitals increasingly have funded TDT teams who work with ward teams and make this easier

Improving The Diagnostic Pathway For Patients Admitted Under General Internal Medicine With A Suspected New Cancer Diagnosis

Florence Fenner, Aaisha Saqib, Judit Prokaj, Stephanie O'Brien, Lydia Pascal

Guy's and St Thomas' NHS Foundation Trust

Introduction

Background:

- For patients with a new cancer diagnosis, timely diagnosis is essential for initiating prompt treatment[1].
- Reliable diagnostic pathways are required to optimise this process and are well established in outpatient settings[2].
- However, no such pathway exists for *inpatients* admitted under general internal medicine (GIM) at St Thomas' Hospital.

Objective

To analyse the outcomes of patients admitted under GIM with a suspected new cancer diagnoses, to identify areas of delay in the diagnostic process for improvement.

Methods

By consulting with the acute oncology service (AOS), we identified key stages required for diagnosis:

- Performing a completed CT Chest, Abdomen and Pelvis (CTCAP)
- Obtaining a tissue biopsy of the suspected tumour for histopathological analysis

We also identified that AOS should receive an electronic referral for all patients with new suspected cancer.

Data Collection.

- We identified 132 patients admitted to hospital under GIM in 2024 and referred to AOS with a suspected new cancer diagnosis.
- 95 were included in our analysis (patients already on a diagnostic pathway before admission were not included).
- We used electronic patient records to retrospectively record the dates of key events during their admission (date of AOS Review, date of CTCAP, date of biopsy request, date biopsy performed - and reason why if not performed, date initial pathology results returned).

Results

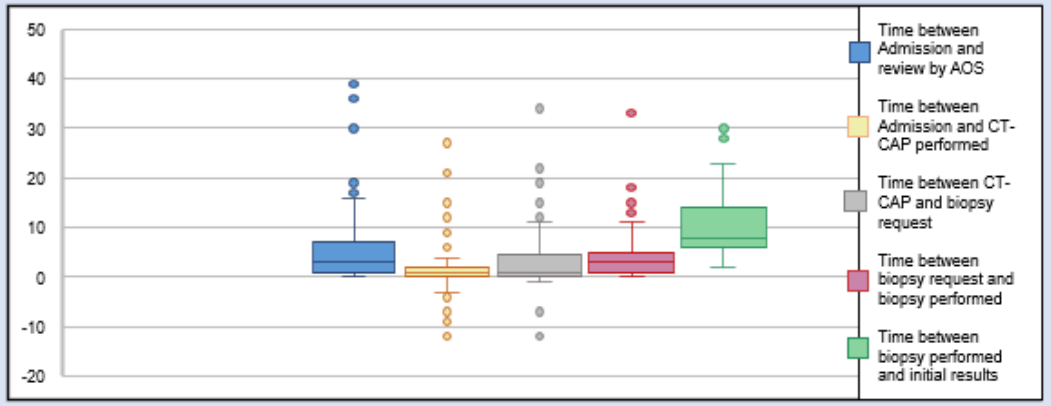


FIG. 1 - Boxplot Showing time (days) to events in diagnostic pathway for patients admitted under GIM with a suspected new cancer diagnosis

Greatest time taken in the diagnostic pathway:

- Return of pathology results once a tissue biopsy had been taken (mean = 10.34 days).
- Time taken for the biopsy to be performed once it had been requested (mean = 4.54 days) (FIG 1).

Greatest variance in the timings:

- Days between the CTCAP being performed, and the date the biopsy was requested (Var= 51.17),
- Date from admission to review by AOS (Var=49.48) (FIG 1).

Conclusions and Future Interventions

- The increased variance in the time to AOS review and between CTCAP and biopsy request dates suggests that there is uncertainty about the diagnostic process within GIM, as these actions are usually performed by GIM doctors.
  - → A **clear guideline** for these cases may improve understanding of the pathway and reduce delays in requesting investigations. We will therefore implement a guideline within the department (FIG 2), and re-audit following its introduction to assess effectiveness.
- The greatest areas for delay in diagnostics for GIM patients with a new cancer diagnosis lie within the IR and histopathology departments.
  - → These results will be **presented to the IR and pathology departments** to identify opportunities to reduce diagnostic time.

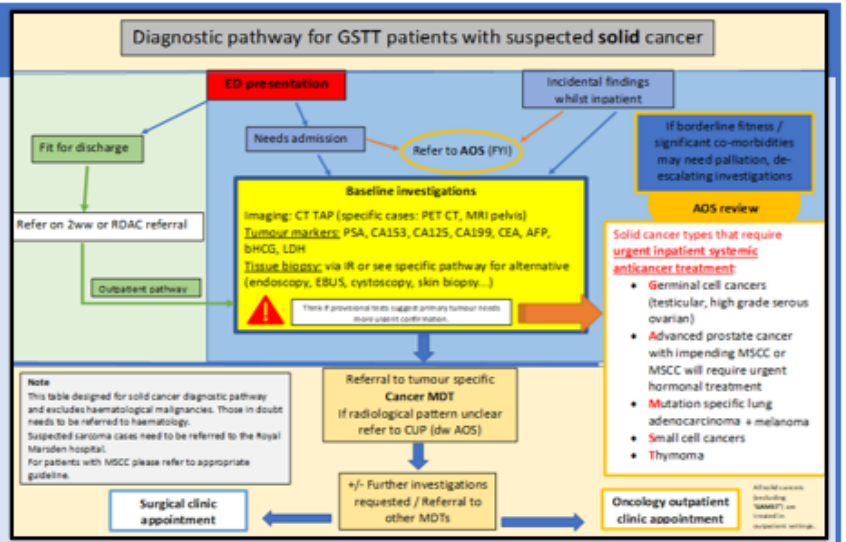


FIG. 2 – Proposed pathway for inpatient cancer diagnosis for GIM patients with suspected solid cancer

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Right Tests, Right Time: A Digital Bundle Boosts Early Hyponatremia Investigation and SIADH Identification

Authors: Dr Kundan Thakur[1], Dr Ruma Raut[1], Dr Hayder Al-Khalafawi[2]
[1]Southend University Hospital | [2]Kingston & Richmond NHS Foundation Trust

Introduction

Hyponatremia is one of the *most frequent electrolyte disturbances* in hospitalised patients.
It causes effects ranging from **mild confusion → seizures → coma → death**, and is linked to **increased morbidity, mortality, and longer hospital stays**.

🧠 **Problem:** Early investigations are **often incomplete**, delaying diagnosis and resulting in **suboptimal management**.

📊 **Baseline (Kingston Hospital, June 2023):**
Only **10.53 %** of patients with **Na < 129 mmol/L** had a *full hyponatremia bundle* completed within 48 hours.

QIP Aim:

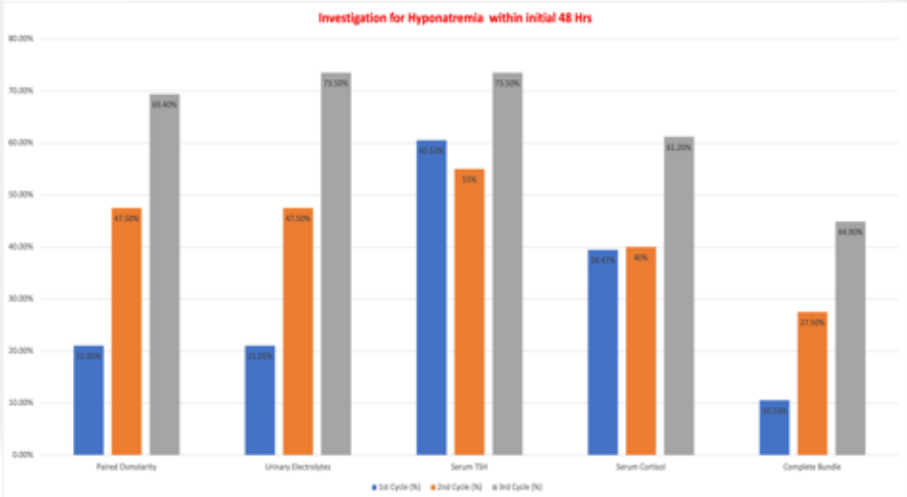
To enhance early and complete investigations through a **digital, standardised bundle**, incorporating : Paired **serum + urine osmolality**, **Urinary electrolytes**, **Thyroid function**, **Cortisol.** Enabling **earlier SIADH identification** and improved patient outcomes.

Careset - Hyponatremia

Component
Urine Electrolytes
Osmolality Serum
Cortisol Serum
Thyroid Function
Urine Osmolality (Osmolality Urine)

Materials and Methods

1. **Setting:** Kingston Hospital, three-cycle QIP.
2. **Cycle 1 (June 2023):** Retrospective review of 38 patients presenting to the medical take with hyponatremia (Na <129 mmol/L) to establish baseline investigation rates.
3. **Intervention:** Development and implementation of a **digital CRS hyponatremia bundle**.
4. **Awareness strategies:** educational posters, informal teaching, departmental meetings, and targeted A&E engagement to promote use of the bundle.
5. **Cycle 2 (Jan–Feb 2025):** Retrospective review of 40 patients under identical criteria to evaluate improvement post-intervention.
6. **Cycle 3 (Jun–Aug 2025):** Review of 49 patients to assess **sustainability and adherence** following full CRS integration.



Results & Discussion

1. **Marked improvements** were observed across all three QIP cycles.
2. **Paired osmolality and urinary electrolyte completion** rose from **21.05 % → 47.5 % → 69.4 %**.
3. **Full bundle completion** improved from **10.53 % → 27.5 % → 44.9 %** within 48 hours of admission.
4. Five patients in Cycle 2 and three patients in Cycle 3 were diagnosed early with **SIADH**, demonstrating the clinical value of complete testing.
5. Early identification of underlying causes enabled **safer prescribing**, avoided **inappropriate fluid therapy**, and reduced **complications from rapid or delayed correction**.

Conclusion

Embedding a **standardised digital hyponatremia bundle** within the CRS system significantly improved early investigation rates within 48 hours of admission. This QIP demonstrates that **system-based digital interventions**, combined with staff engagement, can **bridge practice gaps** and promote **safer, more timely patient care**.

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Acknowledgements - We thank **Dr Geetha Natarajan** (Supervisor) and **Dr Darshi Shivkumaran** from Kingston Hospital for their guidance and continuous support throughout this QIP. Grateful thanks to the AAU, Endocrinology Department and IT team for their assistance in CRS integration.

A closed Loop Audit on Monitoring Visual Infusion Phlebitis score and Timely Removal of Peripheral Intravenous Cannulas

Introduction:

Phlebitis is an inflammation of the vein typically seen as pain, redness and warmth around IV cannula insertion sites. We care about phlebitis because it disrupts treatment, causes pain, extends stays, and can lead to complications like infection or thrombosis. **Early recognition and timely removal** are key to improving outcomes. Both NICE and Trust guidelines recommend documentation at insertion, thrice-daily monitoring using the Visual Infusion Phlebitis (VIP) score, and removal at **72 hours** or up to 96 hours if clinically indicated. This audit aimed to assess and improve compliance with these guidelines.

Materials & Methods:

We assessed compliance by reviewing records for all cannulas (**n=74 in cycle 1**) over a two-week period, auditing records for insertion, VIP score monitoring, and removal times. Following the first cycle, **staff feedback forms** identified key systemic

- barriers including inconsistent computer system prompts, poor records of cannulas from other departments and operational challenges like understaffing and variable shifts. This guided our interventions of daily educational huddles for two weeks, **visual posters** around the wards, and discussions with IT to resolve the prompt issue.

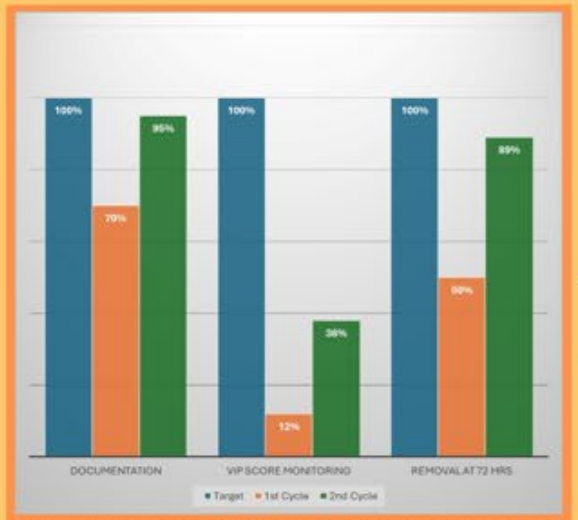

Table 1: Compliance with documentation, VIP score monitoring and timely removal before and after intervention

Image 1:Poster used for visual reinforcement.

NHS
University Hospital Southampton
NHS Foundation Trust

Conclusion:

This audit successfully improved the quality of care by enhancing compliance with cannula monitoring and timely removal. It highlighted that small changes can significantly affect patient experience, with even minor discomfort impacting overall perception of care. The project also demonstrated that poor compliance was not solely due to knowledge gaps but reflected wider systemic barriers. Sustaining improvement will require ongoing education, systemic support, and trust-wide application to ensure patient safety and improved outcomes.

Results:

In the initial cycle **(n=74)** VIP score monitoring compliance was only **12%**, and timely removal at 72 hours was **50%**. In subsequent cycle **(n=66)** after introduction of change showed significant improvement to **38% and 89%** respectively. This enhancement in full protocol compliance was statistically significant, with a **p-value of 0.00065 per Fisher's Exact Test**

The improvements seen following our interventions showed that small, targeted changes can lead to meaningful improvements in patient care. Educational huddles and visual prompts proved effective in raising awareness, while addressing IT barriers further supported practice change.This was the first audit on the topic within our trust, providing valuable baseline data and demonstrating the potential for trust-wide application. However, the project was limited by its relatively small sample size and short time frame. Future work should include repeating the audit across multiple wards, integrating systemic solutions, and ensuring continuous education to maintain compliance.

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THE UHS WAY

Hamza Naveed Virk
Jeshwin Thamburaj
Hamna Manan

Evaluation of Investigations in Suspected Nitrous Oxide-Induced Neuropathy at a UK Tertiary Centre

Dr Umang Thakrar, Dr Mohammed Farghal, Professor Farzad Fatehi

University Hospitals of Leicester NHS Trust

Introduction

- In the United Kingdom, 3.3% of 16–24-year-olds report using nitrous oxide recreationally, making it the third most commonly used drug amongst this age group.[1]
- Excessive use can lead to severe neurological complications, most notably subacute combined degeneration of the spinal cord (SACD).[2]
- National guidelines set out by the Royal College of Emergency Medicine and the Association of British Neurologists were introduced to standardise investigations.[3,4]
- Accurate and timely investigations are essential to confirm nitrous oxide-related neuropathy, as well as exclude alternative causes of similar presentations. [5]
- This audit evaluated the adherence to recommended investigations for patients with suspected nitrous oxide-induced neuropathy at University Hospitals of Leicester (UHL).

Methods

- This retrospective audit reviewed electronic records of patients at UHL coded with nitrous oxide neuropathy between 2023 and 2025. Ten cases were identified.
- Records were analysed to determine whether patients underwent the recommended investigations, whether appropriate vitamin B12 treatment was given and if neurology follow up was arranged.
- Investigations included: full blood count, urea and electrolytes, thyroid function tests (TFTs), vitamin B12, MMA, homocysteine, and HIV and syphilis serology.

Results

- One out of ten patients received the full recommended set of investigations.
- TFTs and HIV and syphilis serology were the most frequently omitted.
- TFTs were not performed in 50% of cases.
- 30% of patients lacked HIV and syphilis serology, with syphilis testing alone omitted in 30%.
- MMA testing was omitted in 30% of patients.
- 60% of patients had appropriate neurology follow-up arranged upon discharge.
- All patients received appropriate treatment.

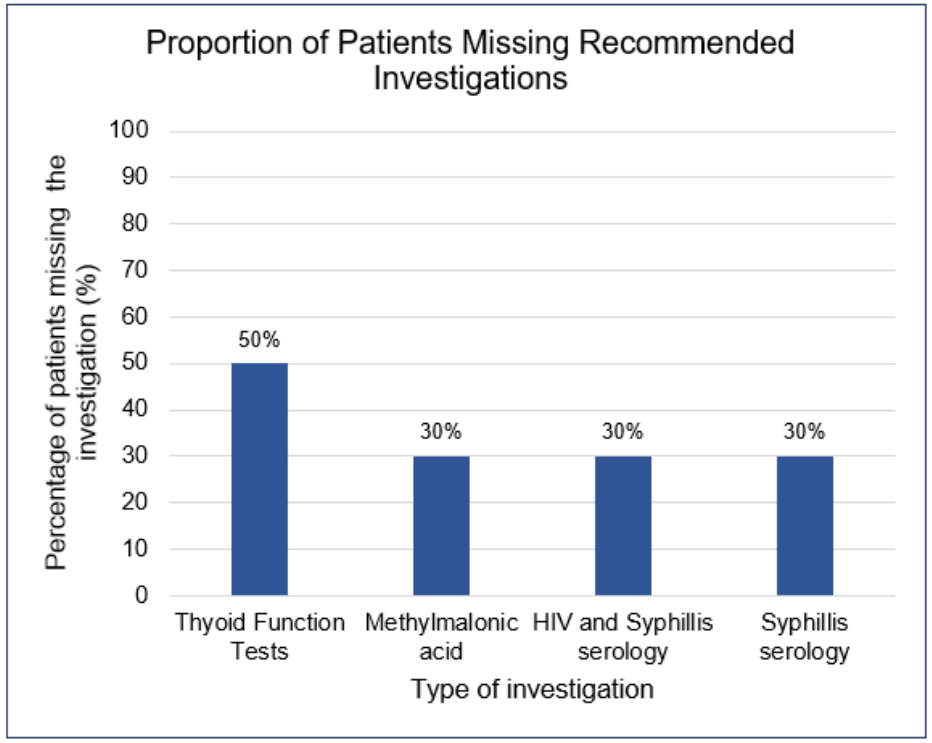

Figure 1. *Bar chart showing the proportion of patients with suspected nitrous oxide–induced neuropathy who did not receive thyroid function tests (TFTs), HIV/syphilis serology, methylmalonic acid (MMA), or syphilis serology alone.*

Discussion

- Thyroid function tests, as well as HIV and syphilis serology, should be routinely performed in patients presenting with distal sensorimotor neuropathy or myelopathy, as these conditions may mimic SACD.[4,5]
- MMA is a sensitive marker of functional vitamin B12 deficiency and is often raised in nitrous oxide related SACD, even when serum vitamin B12 levels are normal, and should therefore be investigated in patients with suspected nitrous-oxide toxicity.[2]

Conclusion

- A clearly defined local protocol is essential to ensure standardised care for patients with suspected nitrous oxide-induced neuropathy.
- Future work should focus on evaluating regional adherence to recommended guidelines and assessing patient compliance with intramuscular vitamin B12 injections in the community, exploring the impact on patient outcomes.

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CHANGING HABITS

An evaluation of usage of the eConsent platform for procedures in Vascular Surgery

H. Mohamed, M. Howells, T. Mohideen, D. Mittapalli

NHS University Hospitals Plymouth NHS Trust

Introduction

Informed consent is vital for surgery. Electronic consent improves patient understanding, integrates with EPR, and reduces errors from paper forms. Our trust adopted eConsent to standardize practices and progress digitalization.

Objectives

Primary: Evaluate the use of eConsent for surgical procedures within the vascular department with a view to identify areas for improvement and compliance.

Secondary: Consider financial benefits.

Methodology

01 Retrospective review of all patients who underwent a vascular surgical procedure between January and March 2025 was conducted in the initial cycle. IR and non-surgical procedures were excluded.

02 Data collected included demographics, procedural details, admission pathway and compliance with eConsent.

03 Further review of patients was conducted between May and June 2025 for the second cycle, after the recommendations of the first cycle were implemented.

Figure 1: Cycle 1 compliance

Figure 2: Cycle 2 compliance

Figure 3: eConsent Compliance

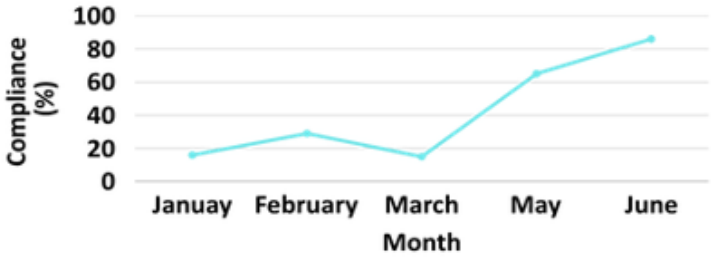

Figure 4: Estimated Cost Savings from eConsent £ per year

- Per case £0.90
- Cycle Total £61.20
- Trust-wide £61,200
- NHS england £11,000,000

Results

Cycle 1 included 124 procedures (124 patients; median age 71, 62% male) with **20%** eConsent compliance (25/124). Awareness was raised through meetings, education, posters, and a dedicated iPad for exclusive use for consenting.

Cycle 2 included 93 procedures (93 patients; median age 70, 75% male), compliance improved **73%** (68/93).

Switching to electronic consent saved £0.90 per case, totaling £61.20 during the cycle. With 68,000 procedures annually at our center and 12 million across NHS England, potential yearly savings could reach £61,200 locally and over £11 million nationally.

Conclusion

This audit showed substantial improvement in the use of eConsent platform after implementation of simple measures to enhance compliance.

Possible cost saving opportunities for trusts using paper-based systems with a switch to eConsent.

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Adherence to Gentamicin Prescribing and Monitoring Guidelines: Factors affecting Patient Outcomes in a Single Centre

Authors: Dr. Ikenna Ibeanusi, Dr. Fazna Rahman, Mr. Deepak Singh-Rangher

1. Background

Gentamicin is an antibiotic used to treat intra-abdominal infections (1-3). Due to its' nephrotoxic profile, Gentamicin is associated with increased AKI and mortality rates (4-5). Hence, there are detailed guidelines to ensure safe gentamicin prescribing and monitoring (6-8).

2. Aims

1. Assess adherence of Gentamicin prescribing and monitoring to local guidelines
2. Compare outcomes (AKI recurrence, length of hospital stay (LOS)) patients with good vs poor adherence to guidelines

3. Methods

This was a single-centre retrospective cohort study.
Patient selection: Patients who received Gentamicin in the General Surgery department between February - May 2025 were identified using EPMA prescribing software. Patients admitted electively or received only prophylactic course of gentamicin were excluded. 63 patients were included.
Data collection: Demographics; gentamicin dose (prescribed vs correct dose); level monitoring details; Serum data: Full Blood Counts, and Albumin; LOS.
Analysis: Patients were grouped as correct/over-dose vs under-dose. Statistical analysis was performed on Microsoft Excel and Rstudio™.

4. Results

Adherence to local guidelines: 34% of patients were prescribed correct doses. 22% had levels checked timely.
Patient outcomes: 1. A single patient acquired an AKI.
2. The median LOS for patients in the "Underdosed" group was significantly higher than patients with "correct/ Overdosed" doses (Wilcoxon-rank sum test = W=627.5, p = 0.036) (**Figure 1**).
Univariate analysis (Event = discharge) showed that: Dose groups were not significantly associated with LOS. Age >=50, Albumin <= 33 and NLR >=11 were all associated with patient LOS. (**Figure 2A**).
Multivariate analysis: Age >=50 and Albumin <= 33 were associated with patient LOS (**Figure 2B**)

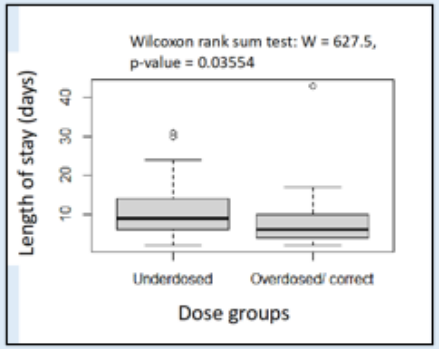

Figure 1: **A:** – Box plot showing length of stay by Dosing group.

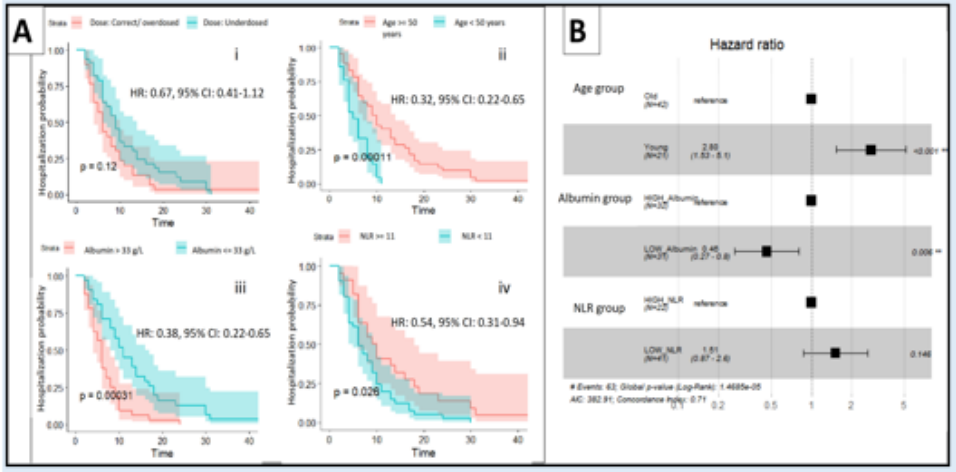

Figure 2: A: (i) Kaplan Meier (KM) curve of correct/overdosed group vs Underdosed; (ii): KM curve of patients Age >=50 years vs Age <50 years; (iii): KM of patients with initial serum Albumin > 33 g/L vs Albumin <= 33g/L; (iv) KM of patients NLR >= 11 vs NLR <11. B: Forrest plot for cox proportional Hazards Model: Age_group, Albumin_group, and NLR.

5. Conclusions & Recommendations

Conclusions: Overall adherence to Trust guidelines is suboptimal. The impact this has on clinical outcomes is ambiguous. Patient Age, and Albumin were significant determinants of patient LOS. However, initial gentamicin dose was not.
Recommendations:
Factors affecting clinican decision making will need to be explored and addressed. Further interrogation stratified by patient age, albumin levels, dose amendments and clinical indication will need to be performed.

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Secondary Prevention in N-STE ACS

Isa Alshamsan[1], Reem Al-Ameri[2], Munder Khashkusha[1], Akhil Tomy[1], Faisal Ahmad[1], A.K.M Imtiaz Akand[1]
[1]Betsi Cadwaladr University Health Board (BCUHB), [2]Royal College of Surgeons in Ireland (RCSI)

Background

Non-ST Elevation Acute Coronary Syndrome (NSTE-ACS) is a frequent presentation in acute medical settings and carries a high risk of recurrent cardiac events. Effective secondary prevention, initiated during the index admission, plays a crucial role in improving long-term outcomes. According to NICE Guideline NG185 (2023), all patients with NSTE-ACS should: Be started on high-intensity statin therapy (Atorvastatin 80 mg) unless contraindicated. Have HbA1c and lipid profile measured during the admission to guide risk stratification and future management[1]. Local observation suggested that adherence to these standards was variable, particularly among patients admitted under the acute medical team. This audit aimed to evaluate local practice and assess the impact of targeted educational interventions.

Aims

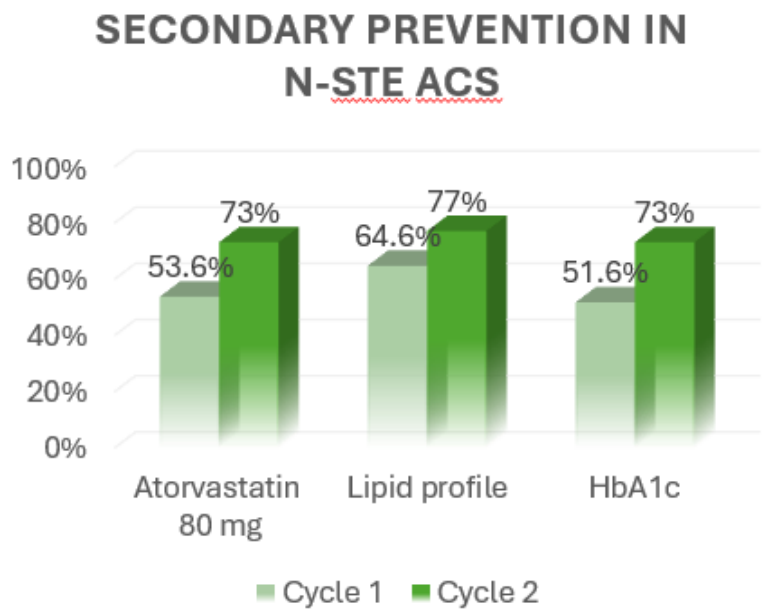
- To evaluate adherence to NICE NG185 recommendations for secondary prevention in NSTE-ACS patients.
- To implement low-cost, practical interventions to improve compliance.
- To assess the effectiveness of these interventions through a re-audit cycle.

Methods

Retrospective data were collected for patients admitted with NSTE-ACS in July 2024 (Cycle 1, n=31) and October 2024 (Cycle 2, n=30). STEMI and statin-intolerant cases were excluded. Parameters audited: prescription of Atorvastatin 80 mg, lipid profile, and HbA1c testing. Interventions after the first audit cycle included posters in clerking rooms, flyers in doctor offices, and targeted teaching for junior doctors.

Results

Cycle 1 results showed: 53.6% Atorvastatin 80 mg, 64.6% lipid profiles, 51.6% HbA1c testing. Cycle 2 improved to 73%, 77%, and 73% respectively following interventions, reflecting enhanced awareness and practice.



Discussion

Improvement across all parameters indicates that low-cost, education-based interventions can drive adherence to NICE guidance. Engagement during clerking and use of reminders helped reinforce prescribing and testing habits among acute medical teams.

Conclusion

Embedding NICE NG185 recommendations into daily practice through education, electronic prompts, and re-auditing can sustainably improve early secondary prevention for ACS patients.

Key Learning Points

- D-dimer is sensitive but non-specific; elevated levels require context.
- Early adherence to NICE guidance prevents cardiovascular complications.
- Simple educational measures can yield sustained improvement.
- Regular re-auditing ensures continuous quality enhancement.

Next Steps

- Incorporate electronic prescribing prompts for Atorvastatin 80 mg.
- Develop automatic lab order sets for lipid and HbA1c testing.
- Incorporate ACS guideline reminders into the clerking proforma.
- Extend audit cycles across other BCUHB sites to ensure system-wide improvement.

Reference

1.NICE. Acute coronary syndromes. NICE guideline [NG185]. Upd ated Nov 2023. Available at: www.nice.org.uk/guidance/ng185

Full Abstract

Urinary Tract Infection Outcomes in Older Adults: Hospital-at-Home versus Acute Hospital Admission

Niazi Khairi[1]; Ruqaiyah Behranwala[2]; Michelle Carr[1]
[1]Frimley Park Hospital; [2]Buckinghamshire Healthcare NHS Trust

Frimley Health NHS Foundation Trust

INTRODUCTION

Hospital admission exposes older adults to harms, including delirium, acute kidney injury (AKI), and mortality. Hospital-at-Home (HAH) services allow treatment of acute illnesses, such as infection with IV antibiotics in the home setting.

OBJECTIVE

To evaluate whether Hospital-at-Home care for older adults with UTI reduces complications and admission duration compared to inpatient management.

METHODS

A 12-month retrospective comparison was conducted between older adults with urinary tract infection (UTI) managed under Hospital-at-Home (HAH) and those admitted to an acute frailty ward.

HAH patients received daily IV ceftriaxone at home, while inpatients were treated per hospital protocols.

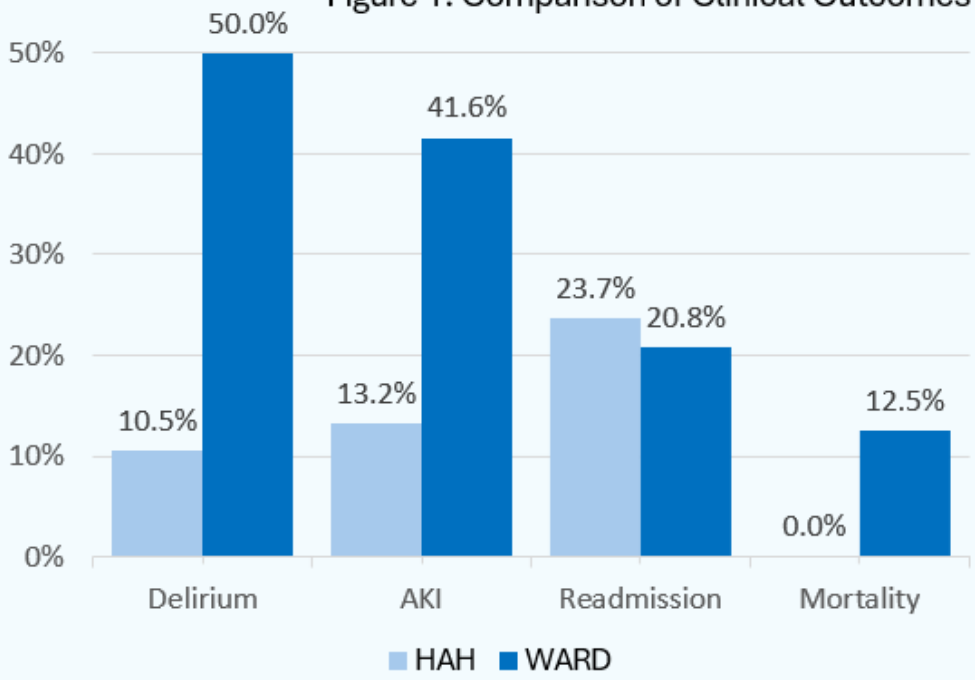
Outcomes assessed included **length of stay**, **delirium**, **AKI**, **mortality**, and **readmission** rates.

RESULTS

Table 1: Patient's Demographics

	HAH	WARD
Number of patients	38	24
Male: female ratio	13:25	6:18
Mean age (years)	84	84
CFS	6	5
Length of stay (days)	3.3	21.3

Figure 1: Comparison of Clinical Outcomes



CONCLUSION

- HAH care shortened length of stay by 18 days and was associated with lower rates of delirium, AKI, and mortality, with comparable readmission rates (within 2 months after discharge).
- HAH therefore represents a safe and effective alternative, offering better outcomes than acute hospital admission for appropriately selected older adults.

Closing the Loop: An Audit Enhancing Use of a Digital AKI Bundle

Dr Aaron Jones, IMT Acute Medicine, Barts Health NHS Trust

Royal College of Physicians

NHS Barts Health NHS Trust

BACKGROUND

- Initial data revealed a concerning deficit in the use of a digital Acute Kidney Injury (AKI) bundle on the Acute Medicine Unit (AMU), risking inconsistent patient care.
- The bundle prompts clinicians to follow evidence-based guidelines for AKI management, ensures timely and accurate coding and automatically includes the diagnosis in discharge summaries, to align with NICE quality standards[1].

AIM

To increase completion of AKI bundles on AMU to >80% within two months

METHODS

1. Identified barriers to using the bundle and possible interventions with a driver diagram (Fig 1)
2. Design of a closed loop audit to assess the impact of the intervention using a PDSA tracker[2]
3. Data on AKI bundle use collected using a live run chart (Fig 2)
4. Delivered a teaching session to emphasise the importance of AKI management, correct use of the bundle, and its role in improving patient care

Fig 1: Driver diagram

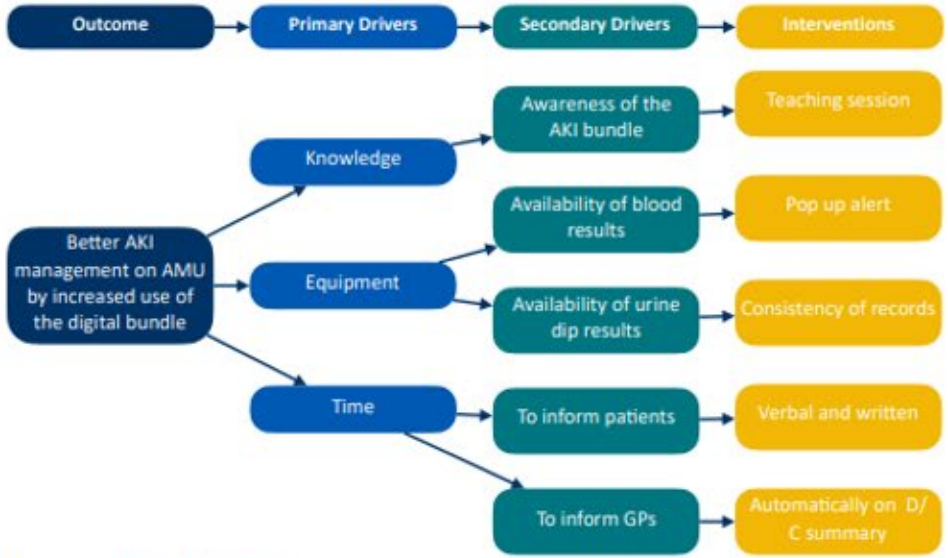
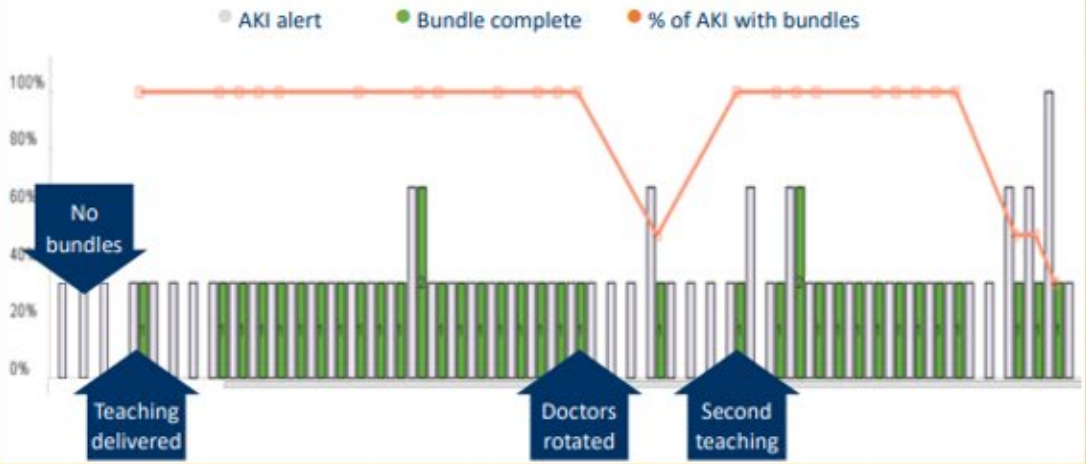


Fig 2: Live run chart of results



RESULTS

Bundle completion rates hit 100% following the teaching session

DISCUSSION

- The teaching sessions were easy to deliver and well received. A rapid, substantial improvement was made by this simple intervention, ensuring all AKI's were managed in alignment with best-practice.
- For the two month period that the bundles were used, all patient's with an AKI had the diagnosis recorded and patients and their GP's were informed via their discharge summary.
- The improvement was not sustained when resident doctors rotated, a second cycle was carried out with the new cohort, and compliance was restored to 100% once again.

CONCLUSION

- The audit achieved its aim: delivering a teaching session increased completion of the AKI bundle to 100%.
- The need for repeated teaching sessions shows that a more sustainable approach was needed to improve patient care in the long term.

NEXT STEPS...

- Appoint non-rotating "AKI champions" within AMU
- Incorporate AKI teaching into induction sessions
- Expand the audit to other wards
- Develop an on-screen pop reminder

REFERENCES

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2. Institute for Healthcare Improvement (2024). *Plan-Do-Study-Act (PDSA) Worksheet | Institute for Healthcare Improvement*. [online] www.ihi.org. Available at: https://www.ihi.org/resources/tools/ plan-do-study-act-pdsa-worksheet.

Audit of Ultrasonography Findings in Cases of Abnormal MRCP

Evaluating Extrahepatic Biliary Dilatation Detection

Dr Mustabshira Tahir , Dr Sadaf shaikh ,Dr Sara Amro , Dr Aishwarya Kapoor
,Dr Humayun Nasir ,Dr Danish Neeloth ,Dr M Naufal

NHS
George Eliot Hospital
NHS Trust

Background

Abdominal ultrasound (US) is the first-line imaging investigation for evaluating the biliary tree, but it is highly operator and patient dependent.

US Sensitivity: 25-60% for visualizing causes of biliary duct dilatation
MRCP: Very high sensitivity and specificity for determining causes of biliary obstruction

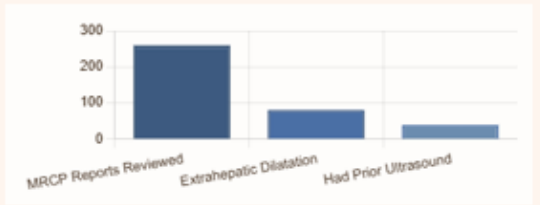
Standards & Targets

- **90%** accurate identification of MRCP-detected biliary dilatation on preceding ultrasound
- **100%** of US reports should comment on presence/absence of extrahepatic biliary dilatation
- **100%** appropriate recommendations for further imaging when cause not shown

Methods

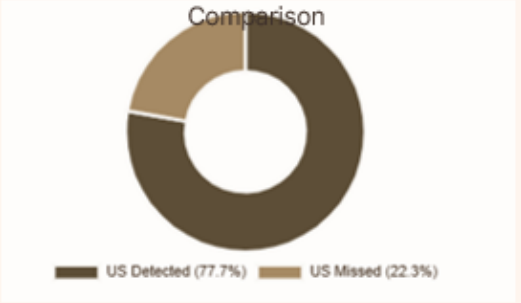
- Retrospective audit using PACS data over 3 months
- 259 MRCP reports reviewed
- Identified cases with extrahepatic biliary dilatation
- Reviewed prior US reports for detection and recommendations
- Assessed time interval between US and MRCP

Study Flow

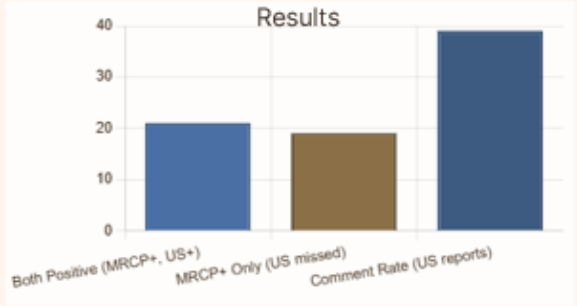


Results - Visual Analysis

Detection Accuracy Comparison



US vs MRCP Detection Results



Factors Affecting US Sensitivity

- Poor patient habitus - reduces image quality
- Mild dilatation - better visualized on MRCP
- Patient positioning issues - affects visualization
- Gas reflection - from bowel/duodenum
- Operator dependency - skill variation

Key Findings

Detection Rate
77.7%
Of true extrahepatic dilatation cases (21/27) were successfully detected by ultrasound

- 100% of US reports included comments on dilatation status
- 61.9% mentioned potential cause
- 33.3% provided recommendations

Action Plan

1. Timely Imaging
Conduct follow-up MRCP within 4 weeks after initial ultrasound, especially with high clinical suspicion.

2. Patient Factors
Consider habitus and other patient factors; prioritize MRCP when limitations are known.

3. Training & Protocols
Enhance sonographer training and establish clear escalation protocols based on findings and patient factors.

4. Sensitivity Awareness
Acknowledge US limitations in mild dilatation; use MRCP when results are inconclusive.

Conclusion

The audit underlines how important physicians are in ensuring accurate and timely diagnosis. Since ultrasound detected extrahepatic dilatation in only 77.7% of cases falling short of the 90% target clinicians should use their judgment to decide when MRCP would be a better first option, especially for patients with obesity, difficult body habitus, or complex conditions. By interpreting ultrasound findings carefully, recommending MRCP when appropriate, and ensuring prompt follow-up, physicians can help achieve quicker diagnoses, better patient outcomes, and more efficient use of healthcare resources.

From Oversight to Optimization: A Two-Cycle Audit on Iron Screening in Heart Failure With Reduced Ejection Fraction [HFrEF]Patients

NHS University Hospitals Bristol and Weston NHS Foundation Trust

Background

Heart Failure (HF) → major global health burden.

Recurrent hospitalisations ↑ morbidity, mortality, and healthcare costs.

Iron deficiency (±anaemia) common affects ~50% of HF patients.

Audit Aim

Assess compliance with trust & national HF guidelines.

Implement interventions to enhance adherence and patient outcomes.

MATERIAL METHODS

Patient Selection

Inclusion: HF admissions referred to cardiology

Exclusion: HFpEF (EF >50%)

Identification: Echo confirmed **HFrEF** (EF <50%)

Targeted Interventions

- Clinician education sessions
- Trust-wide guideline reminders
- Educational pamphlets on IV iron use

Study Design & Timeline

Type: Retrospective review

Cycle 1: Sept 2023 – Feb 2024

Cycle 2: Apr – Jun 2024

Results

Cycle 1: 35% compliance (35/99 patients tested)

Anaemic patients: 41% tested; 60% had iron deficiency

Cycle 2: 89% compliance (32/36 patients tested)

Cycle 1 Results

104 total patients

99 eligible (**Hb <150 g/L**)

Cycle 2 Results

36 HFrEF patients

Hb <150 g/L

Conclusion & Learning

- **Targeted education** markedly improved iron screening in HF.
- **Routine iron assessment** should be standard in HFrEF care.
- **Ongoing audits** sustain compliance and optimise patient outcomes.

Data Collected

- Haemoglobin (Hb)
- Iron studies
- Iron deficiency status

PRESENTED BY : Dr Abir Aijaz

CO AUTHORS – Dr Abdul Bhat, Dr Amit Badshah, Dr Suhib Abushihab, Dr Fahad Mir

Improving Compliance with Trust Guidelines for Management of Acute Kidney Injury in Hospitalized Patients

Introduction

AKI is a major cause of inpatient morbidity and mortality, affecting up to 1 in 5 emergency admissions with renal dysfunction.

NHS guidelines exist to standardize AKI recognition and management, but real-world adherence remains inconsistent.

This QI project at Weston General Hospital assessed compliance with local AKI guidelines and evaluated the "Round Up Tool" checklist for improving systematic care.

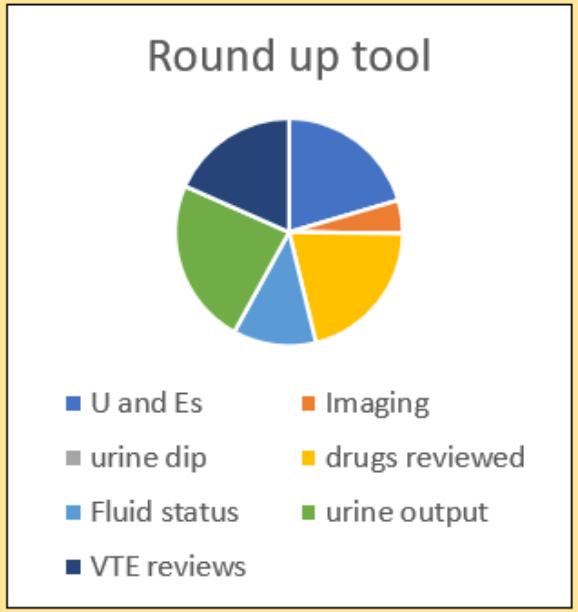
Results

- Fluid status documented in only 50% – key gap in optimizing renal perfusion.
- Obstructive causes considered in 17% – risk of missed reversible AKI.
- Medication review omitted in 20% – potential nephrotoxic exposure.
- "Round Up Tool" used in only 10% – low uptake despite availability.

Material/Methods/Audit process

40 AKI cases reviewed via CareFlow to assess documentation and compliance with trust standards.

"Round Up Tool" checklist introduced during ward rounds to support teams and align care with the AKI bundle.



CONCLUSION

Inconsistent adherence to AKI protocols despite some good practices.

Low "Round Up Tool" use indicates workflow and cultural barriers.

Next steps: staff education, checklist integration, EPR prompts, and re-audit.

Goal: standardized care to improve outcomes and align with national standards.

PRESENTED BY – Dr Hadiya Chisti

CO AUTHORS – Dr Abir Aijaz , Dr Abdul Bhat , Dr Amit Badshah, Azhar Hafiz Baba

BLEEP RESPONSE TIME AUDIT - AN INSIGHT INTO TRADITIONAL SYSTEM FOR CALLING DOCTORS

NHS
University Hospitals Bristol and Weston
NHS Foundation Trust

The Legacy:

For over 50 years, the bleep (pager) system has been the backbone of urgent communication in NHS hospitals.

The Reality:

- Reliable, but outdated and costly (£6.6 million annually)
- Dependent on a single supplier – limited competition
- Average response time: **35 seconds**
- Issues with response consistency and communication etiquette
- No secure data transfer or group messaging

The Future:

With secure digital apps now available, the NHS must modernise communication-balancing data security, infrastructure needs, and financial sustainability to deliver safer, smarter, and faster care

🚀 The Future Ahead:

- Move toward secure digital messaging platforms.
- Enable group chats, message tracking, and data security.
- Ensure training, governance, and strong infrastructure for rollout.
- Adopt a phased transition - pilot, evaluate, expand.
- Goal: a modern, efficient, and safer NHS communication system

🌐 Vision:

Smarter Connections. Faster Responses. Safer Care

💉 Signal Lost, Safety Found!

- Our audit uncovered "bleep blackout zones" within the hospital—areas like the doctors' mess and certain corridors where signals dropped out. These communication blind spots posed a potential risk to patient safety.
- We immediately alerted the IT team to address the issue and provided doctors with additional pagers as a temporary fix.
- Though short-term, this quick action kept communication flowing and safeguarded patient care while long-term solutions are developed.

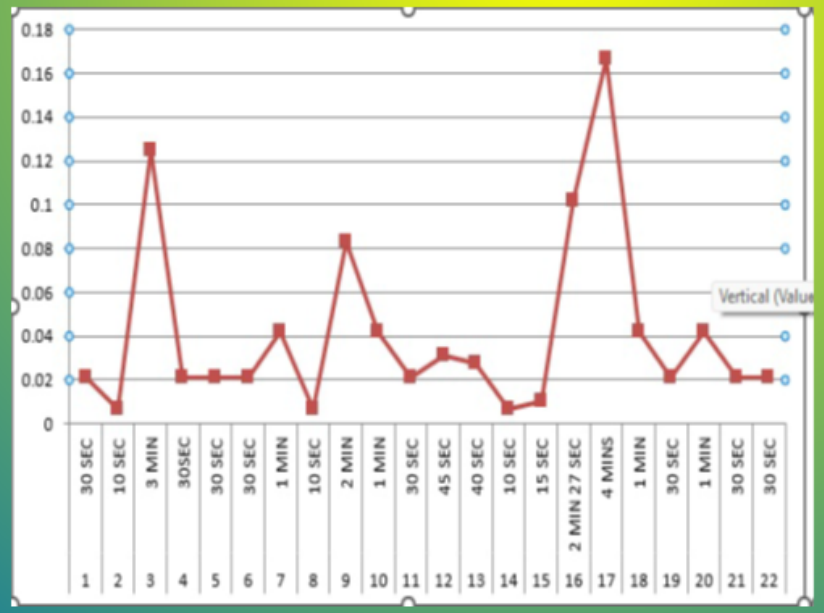
We audited **bleep response times and etiquette** in an acute care setting.

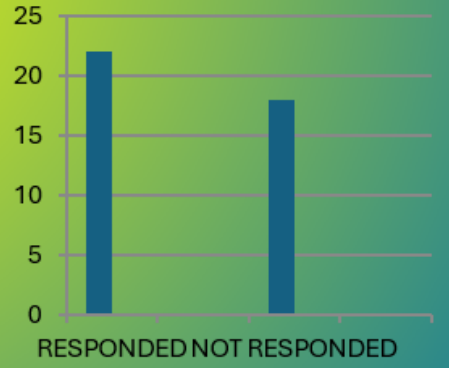
👉 **40 doctors** from different specialties were contacted during one working day.

✅ All were confirmed on duty and present in the hospital.

⏱️ **Average response time:** 35 seconds but with big variations!

💬 **Professional etiquette** was hit and miss , many didn't identify their **name, grade, or department** when replying.





Takeaway

While bleeps connect us quickly, communication standards and consistency still need a serious upgrade

PRESENTED BY Dr Abir Aijaz
CO AUTHORS – Dr Abdul Bhat, Dr Amit Badshah

Improving Pneumonia Practice: From Guidelines to Bedside

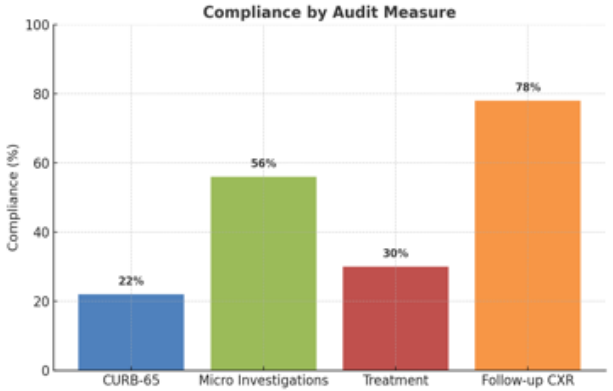
Dr.Hina Zamir Registrar , Dr.Daniel Wilkins IMT 3 , Dr.James Dunbar Consultant Infectious disease

South Tees Hospitals
NHS Foundation Trust

Introduction:

- Pneumonia is a leading cause of hospital admission in the UK and in-hospital mortality rates reported as high as 14%.
- Management was not consistent with national and local guidelines according to our audit.
- Need interventions for improved practice and patient safety.

Methodology:



Inclusion Criteria

Radiological evidence of consolidation on chest X-ray

Exclusion Criteria

Cases of hospital-acquired pneumonia, aspiration pneumonia, or infections originating from other sources (e.g., urinary tract, gastrointestinal tract, or biliary system)

QI Project: Improving Pneumonia Care

Retrospective Data Collection (6 months)

PDSA Cycle 1
- Knowledge Q.
- Teaching Sess.

PDSA Cycle 2
- 1-page Pneumonia Care Bundle Created

COMMUNITY ACQUIRED PNEUMONIA INITIAL MANAGEMENT BUNDLE

1. Make the diagnosis

Signs and symptoms of respiratory tract infection plus new consolidation on chest imaging
In 12% of patients there are no typical features of CAP at presentation

2. Assess severity

Calculate the **CURB-65 score** to predict mortality and guide further management:
- **C**onfusion (AMTS ≤8 or new disorientation)
- **U**rea >7mmol/L (excluding patients with CKD)
- **R**espiratory rate ≥30/min
- **B**lood pressure Systolic≤90mmHg or Diastolic≤60mmHg
- Age ≥**65** years

If the patient presents more unwell/severe than suggested by CURB-65, clinical judgement should be used to assess severity. If sepsis is present, treat as severe pneumonia

3. Severity guided investigation and management*

	Mild CURB-65= 0-1	Moderate CURB-65= 2	Severe CURB-65= 3-5
Mortality	Less than 3%	3-15%	>15%
Microbiological investigation	None routinely	✓ Blood culture (before antibiotics) and sputum culture ✓ Consider atypical tests ✓ Consider respiratory virus PCR swab	
Treatment: 1st line	Amoxicillin PO 500mg TDS	Amoxicillin PO 1g TDS **AND** *if atypical cover needed** Clarithromycin PO 500mg BD	Co-amoxiclav IV 1.2g TDS **AND** Clarithromycin PO/IV 500mg BD**
Treatment: penicillin allergy	Clarithromycin PO 500mg BD **OR** Doxycycline 200mg STAT then 100mg OD		Levofloxacin IV 500mg BD** (Aim for early oral switch to doxycycline)
Duration	Usually 5 days Atypical causes may need longer: discuss with a microbiologist		
Notes	*Scan QR code for further guidance in South Tees Antimicrobial Policy. **If recent MRSA in sputum add Linezolid PO/IV 600mg BD.		

4. Follow-up

- Arrange clinical review (GP or outpatient) after 6 weeks.
- Arrange follow-up CXR after 6 weeks if persistent signs or symptoms AND/OR if high risk for malignancy (eg smokers, age >50)

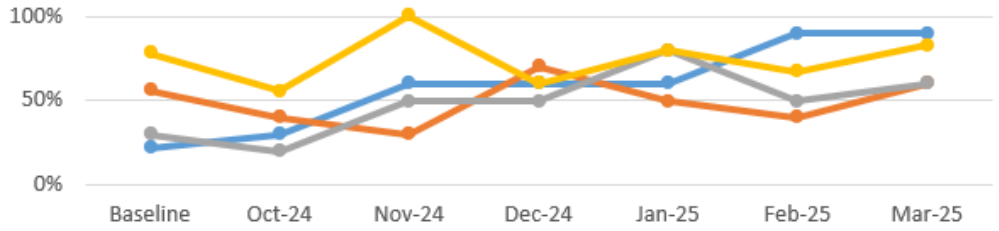
References

NICE CG191: Pneumonia in adults: diagnosis and management
NCEPOD: Consolidation Required (Review of care of CAP in hospital)
South Tees Antimicrobial Policy

South Tees Antimicrobial Policy

Results:

After 2 PDSA cycles, there was a significant increase in CURB-65 documentation, rising from 22% to 90%. Antimicrobial prescribing also improved, with compliance increasing from 30% to 60%. While microbiological investigations and follow-up imaging showed progress, they still fell short of the desired targets.



Conclusion:

Through knowledge questionnaire ,teaching session and implementation of one page pneumonia care bundle , we noticed significant improvement in our practice but there are few recommendations for future work to get desirable results.

RECOMMENDATIONS

- Micro-teaching sessions into the induction program for resident doctors
- Ongoing feedback and review of pneumonia care bundle posters
- Development of severity-based investigation request
- Implementation of a 6-week chest X-ray follow-up reminder

REFERENCES

- NICE: Pneumonia in adults' diagnosis and management
- BTS: Guidelines for the Management of Community Acquired Pneumonia in Adults Update 2009
- NCEPOD: Consolidation Required (Review of care of CAP in hospital)
- South Tees Antimicrobial Policy

Improving routine management and screening of patients with hereditary haemorrhagic telangiectasia (HHT) in Cornwall

Dr A Gilliat[1], Dr A Forbes[1]
1. *Royal Cornwall Hospitals NHS Trust*

Background

HHT is a rare inherited autosomal dominant condition resulting in abnormal blood vessels. Its clinical manifestations mainly include epistaxis and arteriovenous malformations (AVMs) of varying severities. Screening for AVMs, blood test monitoring and risk reduction advice are essential to prevent further complications and improve patient outcomes. However, co-ordinating a unified approach across multiple specialities in non-HHT specialist centres such as Cornwall creates an obstacle. The European Reference Network for Rare Vascular Diseases (VASCERN) expert group created outcome measures to address these difficulties for local teams to ensure high quality patient care.

VASCERN Primary Outcome Measures

1. At least **90%** of definitive HHT patients should have a screen for pulmonary AVMs
2. At least **90%** of definitive HHT patients should have received nosebleed advice in writing
3. At least **70%** of definitive HHT patients should have an assessment of iron deficiency anaemia (IDA) at each consultation
4. **100%** of patients with PAVMs should have written advice on antibiotics prior to dental and surgical procedures
5. **100%** of pregnant women with PAVMs identified by CT scan/imaging should be provided with advice on PAVM/HHT pregnancies

Aim: To compare our current practice in Cornwall with these outcome measures, identifying our gaps and co-ordinating a unified approach to improve care for our HHT patients.

Materials and methods

Inclusion criteria

1. HHT diagnosis based on clinical diagnosis +/- genetic testing
2. Cornwall resident
3. Under current routine follow up with haematology department

19 patients

Source of data

Clinic letters (all specialities including ENT)
Imaging
Blood results

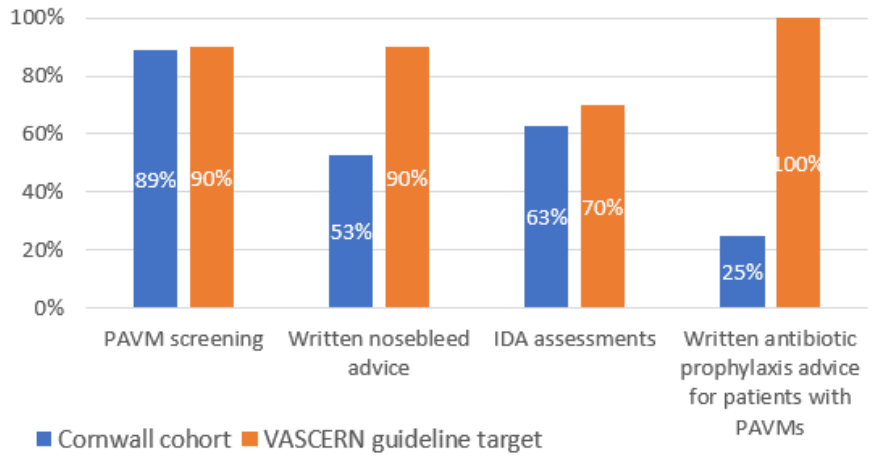
Results and discussion

Graph 1 summarises the comparison of Cornwall cohort percentages to the VASCERN outcome measure targets. There was no Cornwall cohort of pregnant patients. No targets were met although PAVM screening and IDA were closest. The largest gaps were nosebleed advice and written prophylactic antibiotic advice. Imaging and blood test data being easily located on clinical systems likely influence their higher percentages. Identifying provision of written advice is challenging if not documented in clinic letters. 8/10 patients provided with documented nosebleed advice came from ENT clinics, highlighting multiple specialty involvement. Lack of written prophylactic antibiotic advice likely reflected unclear responsibility, given PAVM treatment is not provided locally.

Conclusion

To address these gaps and barriers, we have produced a patient information leaflet working with the haematology, ENT and microbiology departments. Our aim is to unify essential information for patients with HHT across multiple specialties with the future goal to complete a second audit cycle to assess the improvement for patients in Cornwall.

Graph 1 comparing Cornwall cohort percentages to VASCERN guideline target for outcome measures for HHT



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Documented fluid balance assessments in hyponatraemic patients on a neurosurgical ward: A quality improvement project

Dr Katherine Makris, Mr Robert Aspoas (Auckland City Hospital, New Zealand)

AIM For 75% of patients with a sodium ≤133mmol/L on the neurosurgical ward to have a documented fluid balance assessment within 3 months

INTRODUCTION

- Hyponatraemia is a frequent neurosurgical complication[1,2] associated with increased inpatient mortality[3] and longer hospital stays for neurosurgical patients[2]
- Accurate diagnosis of the cause is critical to ensure appropriate treatment[1]
- Fluid balance assessments can help to differentiate between causes but were rarely undertaken and documented

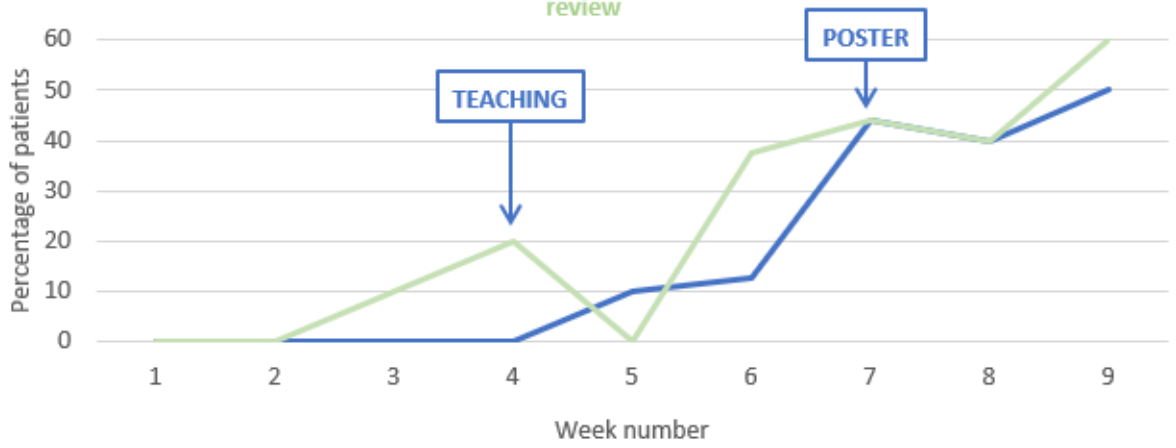
MATERIALS AND METHODS

- Clinical notes from a random 10 neurosurgical patients with a sodium ≤133mmol/L were checked each week for a documented clinical fluid assessment, medication review and other hyponatraemia investigations performed
- **Intervention 1** (end of week 3): teaching to the neurosurgical house officers
- **Intervention 2** (end of week 6): poster displayed in the ward doctors' office

RESULTS

- Prior to interventions, there were no documented fluid status assessments
- Following intervention 1, 2/28 (7.1%) had a documented fluid assessment. This increased further to 13/29 (44.8%) after intervention 2
- The percentage of patients with a documented medication review also increased following the interventions
- Graph 1 shows the run chart with the week-on-week change in percentage of documented fluid reviews and medication review

Graph 1: Weekly percentage of patients with a documented fluid balance assessment and medication review



DISCUSSION

- There was an increase in documented clinical fluid assessments, especially after the poster (possibly due to it acting as a convenient aide memoir in the doctors' office)
- The increase may have been from better awareness of hyponatraemia but also possibly due to the awareness of the project happening. More data is needed to determine if the increase was maintained
- The increase was not as large as aimed for. This may be because fluid assessments were being done but not documented due to time constraints during clinical work. Further interventions, e.g. a hyponatraemia proforma, are required to further increase fluid assessments to ensure appropriate treatment

CONCLUSION

- **Interventions of teaching and a poster helped to increase documented fluid balance assessments as well medication reviews for hyponatraemic neurosurgical patients**
- Further interventions are required to increase the number of documented assessments to meet the aim

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True Anaphylaxis or Mislabelling?
A Quality Improvement Project on Penicillin Allergy Documentation

Phyu Mon[1], Aye Khaing[1], Sheraz Saeed[1], Nawaid Ahmad[1]
[1]The Shrewsbury and Telford Hospital NHS Trust

Royal College of Physicians

NHS
The Shrewsbury and Telford Hospital
NHS Trust

Background

- Penicillin allergy is the **most commonly recorded drug allergy**, yet **<10%** of labels are true allergies.
- Mislabelling leads to **avoidance of first-line antibiotics**, **broader-spectrum use**, **higher costs**, and **longer admissions**.
- Accurate documentation supports **antimicrobial stewardship** and **patient safety**.

Aim

- To assess penicillin allergy documentation, distinguish **true anaphylaxis** from **mislabelling**, and evaluate the impact on **prescribing, complications, and length of stay**.

Methods

We reviewed **50 inpatients** with a penicillin allergy label on their drug chart
Data collected included:

- Demographics
- Reported reaction
- Condition being treated and whether penicillin would normally be first-line.
- Alternative antibiotics prescribed.
- Antibiotic-related complications
- Length of stay (LOS) and any delays attributed to the allergy label.

Results

- **Cohort**: 50 patients reviewed; 52% female.
- **True anaphylaxis**: 9 (18%); **non-anaphylactic**: 28 (56%); **unclear**: 13 (26%)
- First-line therapy (**penicillin**) **was appropriate** in 40% but often avoided.
- **Alternatives used**: mainly doxycycline, meropenem, and macrolides.
- **Complications**:2 adverse events linked to mislabelling gentamicin-associated hyperkalaemia and doxycycline–warfarin INR rise.66% had no antibiotic-related complications
- The **mean hospital stay** was **9 days** (median 7). One prolonged admission was directly attributed to the allergy label.

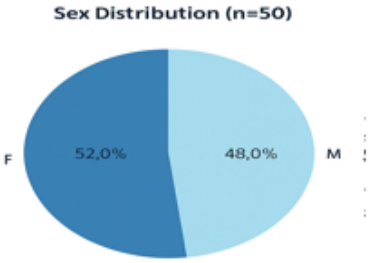

Fig 1: Demographics

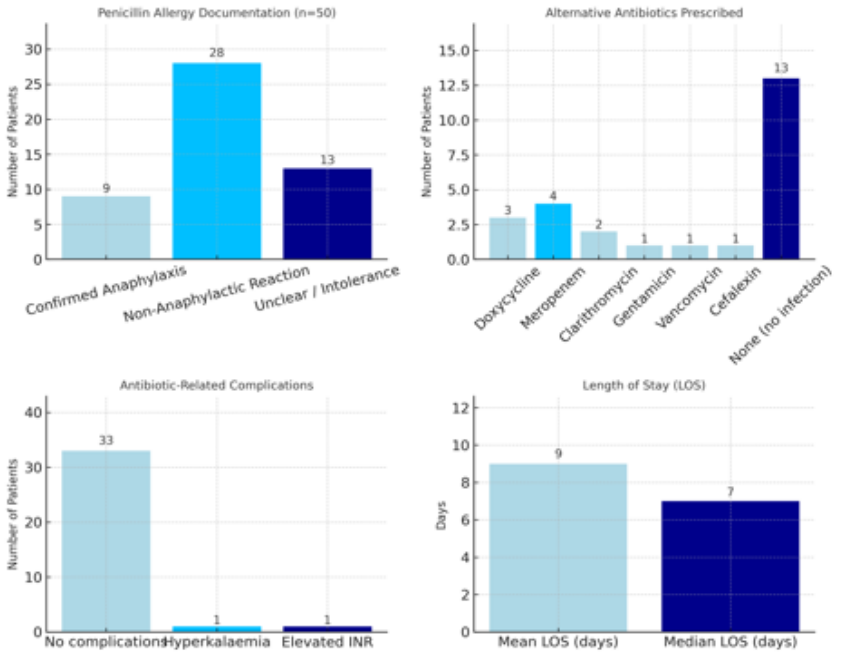

Figure 2: Findings from the penicillin allergy documentation QI project

Conclusion

- ✓ **Only 1 in 5** allergy labels reflected true anaphylaxis.
- ✓ Most were **mislabelled or unclear**, causing **avoidance of first-line antibiotics** and **longer hospital stays**.
- ✓ **True anaphylaxis** was rare and **not linked to worse outcomes**.
- ✓ A slight **female predominance** was noted.

Next Steps

- Implement structured allergy history-taking at admission
- Establish a penicillin de-labelling pathway using the PENFAST tool to identify low-risk patients for safe re-challenge
- Embed de-labelling within the hospital's Antimicrobial Stewardship Programme to optimise prescribing and improve outcomes

KEY MESSAGE

Accurate allergy documentataion and structured delabelling pathways are essential for safe, evidence-based antibiotic prescribing.

Contact :phyuphyu.mon@nhs.net

References : Trubiano JA, et al. JAMA Intern Med. 2020;180(5):745–752

Evaluation of Acute Non-Invasive Ventilation Delivery in a UK Tertiary Hospital: A Local Audit against BTS Quality Standards

Dr Amr Youssef, Dr Meha Sanghi, Dr Suchithra Sunil, Dr Bashar Al-Shekllly
Manchester University NHS Foundation Trust, Manchester, United Kingdom

Manchester University NHS Foundation Trust

Introduction:

Non-invasive ventilation (NIV) is a cornerstone of acute hypercapnic respiratory failure management, reducing intubation rates and mortality when delivered promptly. British Thoracic Society (BTS) audits (2019,2023) and the 2017 NCEPOD enquiry have highlighted variation in NIV delivery prompting BTS Quality Standards that emphasize timely initiation, monitoring, and clear escalation planning.[1,2,3,4] This study evaluated NIV practice at Manchester Royal Infirmary against this data.

Materials and Methods:

A prospective audit was conducted over six weeks. Adult patients receiving acute NIV outside the ICU were included. Data were extracted from case notes, electronic health records, and blood gas results using a structured proforma.

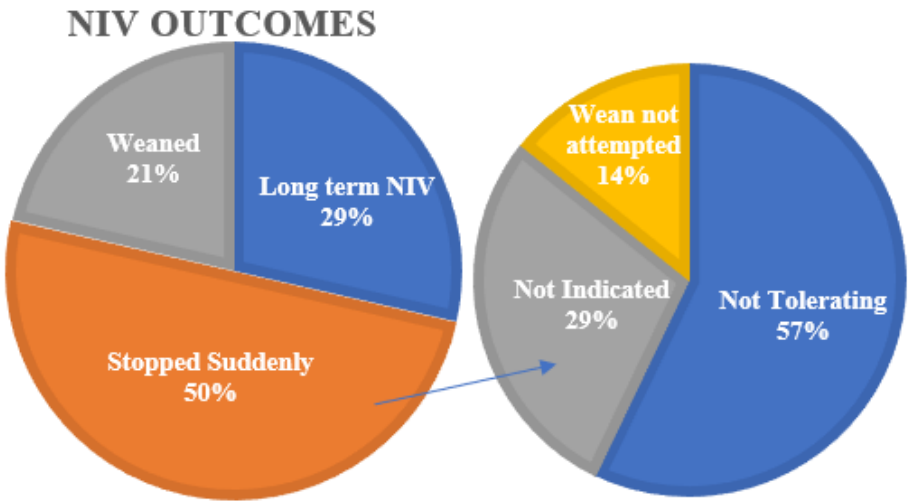

Figure 1. Outcomes of NIV and reasons for discontinuation in MRI audit 2024

Process measure	MRI audit 2024 (n=14)	National average
NIV initiated within 1 h of qualifying blood gas	64%	51% – BTS audit[3]
Documented clear escalation plan	86%	64% – NCEPOD[1] 83% – BTS audit[3]
Repeat blood gas within 2 h	86%	62% – BTS audit[3]
Formal NIV prescription completed	29%	69% – NCEPOD[1]

Table 1. Process measure outcomes in MRI NIV audit compared with national benchmarks

Results:

Fourteen patients received acute NIV. Indications included COPD (50%), obesity hypoventilation (29%), and heart failure (21%), a distribution differing from the 2019 BTS audit, which reported higher COPD prevalence.

Mortality was lower than the BTS 2019 audit (7% vs 26%), though numbers were small.[3]

More patients were discharged on home NIV (29% vs 14%), reflecting the higher prevalence of obesity hypoventilation.

Median length of stay (11 days) exceeded national figures (9 days, BTS 2019; 5 days in RSU-level areas, BTS 2023).[3,4]

Readmission rates were high (31% vs 18% in NCEPOD), particularly among those discharged without home NIV.[1]

Quality Improvement Priorities

- Mandatory electronic prescription templates,
- Enhanced patient support and staff training for tolerance,
- Structured discharge planning with post-discharge follow-up,
- Exploration of a dedicated Respiratory Support Unit (RSU).

1. NCEPOD. Inspiring Change. London: NCEPOD, 2017. 2. Davies M et al. BMJ Open Respir Res 2018;5:e000283. 3. BTS. Adult NIV Audit 2019. London: BTS, 2020. 4. BTS. Respiratory Support Audit 2023. London: BTS, 2024.

Prednisolone dosage for exacerbations of chronic obstructive pulmonary disease

Devon Ward, Maria Drelciuc, Justine Hadcroft

Royal Liverpool University Hospital

NHS University Hospitals of Liverpool Group

Background

Current guidelines on the treatment of exacerbations of chronic obstructive pulmonary disease (ECOPD) suggest 30mg oral prednisolone once daily for 5 days should be given. This projected aimed to improve the proportion of ECOPD patients prescribed the recommended dose of prednisolone in respiratory wards in a Liverpool hospital.

Methods

An initial clinical audit was followed by one cycle of QI methodology using PDSA. New admissions to respiratory wards were reviewed before the intervention (09/24-11/24) and after the intervention (01/25-03/25). Data were collected from hospital and community records on demographics, dosage and duration of prednisolone and factors for weaning courses.

Quality Improvement Cycles and Results

CLINICAL AUDIT (n=203)

16.2% (n=33) were prescribed 30mg prednisolone for 5 days

24.1% (n=49) prescribed **weaning course**

53.1% (n=26) of weaning courses started at 30mg

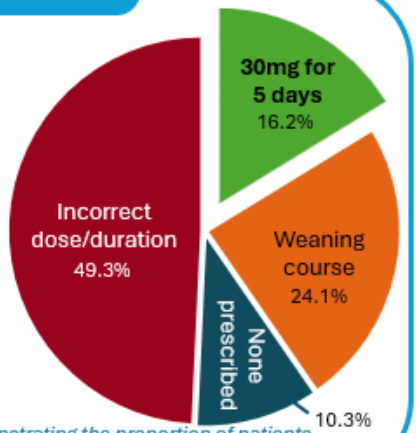

Figure 1 – pie chart demonstrating the proportion of patients prescribed different doses of prednisolone in the initial audit

RE-AUDIT (n=118)

36.4% (n=43) were prescribed 30mg prednisolone for 5 days

22.0% (n=26) prescribed **weaning course**

84.6% (n=22) of weaning courses started at 30mg

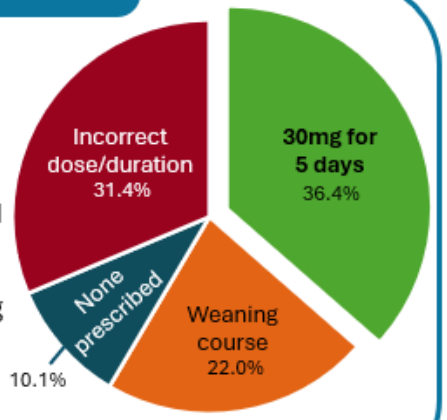

Figure 2 – pie chart demonstrating the proportion of patients prescribed different doses of prednisolone after the interventions

FIRST CYCLE INTERVENTIONS
2 teaching sessions delivered to respiratory multidisciplinary team

SECOND CYCLE INTERVENTIONS
1 teaching sessions delivered
1 poster created for the wards

2nd cycle re-audit...

OVERALL CHANGE

Significant increase in proportion correctly prescribed 30mg prednisolone for 5 days (X2=18.59, p=0.0003)

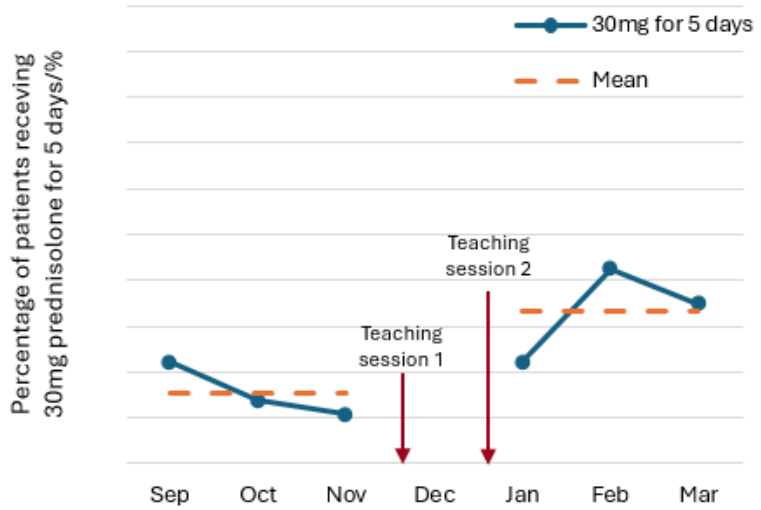

Figure 3 – run chart demonstrating percentage of patients prescribed 30mg prednisolone for 5 days as well as the mean percentage before and after the interventions.

Limitations

- Small sample size and single-centre, 3-ward trial
- Information bias - paper ED prescriptions were not included – may have missed first prednisolone dose
- Complicated due to differences between GOLD and NICE guidance during the project

Conclusion

Whilst these interventions resulted in a significant 20.2% increase in correct prednisolone dose for ECOPD, accurate prednisolone prescribing for ECOPD remains poor with almost half of patients receiving incorrect doses. Continued teaching to rotational resident doctors may be beneficial in improving prescribing in ECOPD.

An audit comparing the use of Piperacillin-Tazobactam in the respiratory department against local guidelines

Dr Anmol Sanghrajka, Dr Jordan Taylor-Evans, and Dr Janice Ward

NHS
Northumbria Healthcare
NHS Foundation Trust

Introduction:

Antibiotic resistance is a growing public health concern, with significant implications for patient care[1], therefore, reducing inappropriate prescriptions is vital. Piperacillin-Tazobactam is a broad-spectrum antibiotic[2] and is an effective treatment for lower respiratory tract infections[3]. Local guidelines are a tool that can be used to guide appropriate antibiotic use, the guidelines used in this audit use severity scores as a tool to guide antibiotic selection; CURB65 score is used for community-acquired pneumonia (CAP) and the DECAF score for acute infective exacerbations of COPD (IECOPD).

Methods:

Data collected during December 2023 examined all Piperacillin-Tazobactam prescriptions across two respiratory wards and a respiratory support unit. Data were collected if the prescription in the post-take ward round was appropriate according to the trust guidelines. When severity score was used it was recorded if the advised antibiotics were prescribed.

Educational interventions were then put in place, including presenting at the consultant meeting and respiratory resident doctor teaching. Posters were created, encouraging the use of scoring systems, checking guidelines, and documenting decision-making. A second cycle of data was collected across the month of December 2024 to reflect the seasonal nature of respiratory infections.

Objectives: To identify the proportion of appropriate Piperacillin-Tazobactam prescriptions in the respiratory department and to identify if scoring systems were being utilized to guide antibiotic choices.

Results:

In 2023, 170 patients were recorded to have a prescription of Piperacillin-Tazobactam. 54.1% (n= 92) of these cases were prescribed this in line with local antimicrobial guidelines. Of the 108 patients with a diagnosis of a CAP or IECOPD, 24.1% (n=26) had a documented CURB65 or DECAF score. Of those with documented scores, 46.2% (n=12) of the prescriptions were in line with guidelines.

In 2024, 158 patients were included. 67.7% (n=107) had appropriate prescriptions when compared to trust guidelines; this improvement from 2023 is seen in Figure 1. For 107 patients, scoring systems were applicable (CAP or IECOPD). 47.7% (n=51) had a documented CURB65 or DECAF score, and in this group, 80.4% (n=41) had an appropriate Piperacillin-Tazobactam prescription. When collecting data, the importance of documentation when deviating from trust guidelines was demonstrated, which was highlighted in our interventions.

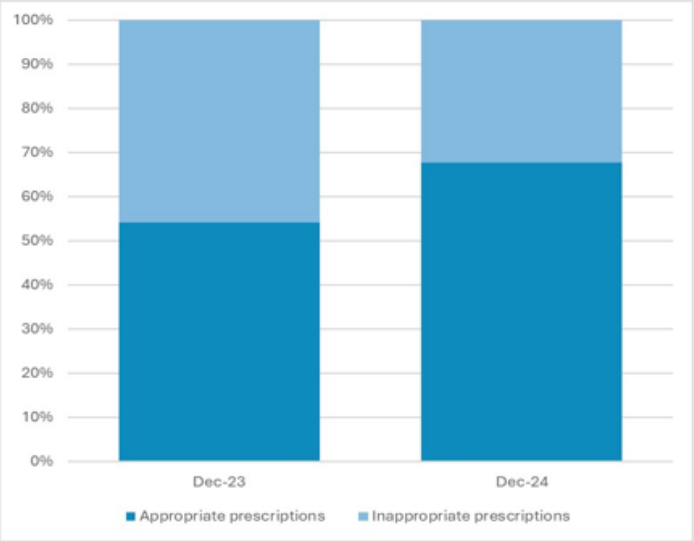

Figure 1: A comparison of the proportion of appropriate Piperacillin-Tazobactam prescriptions from 2023 to 2024.

Conclusions:

The interventions put in place insighted change in the proportion of appropriate Piperacillin-Tazobactam prescriptions; however, there was still a large proportion of inappropriate prescriptions. There was also an improvement in the use of severity scores and the proportion of people with an appropriate prescription in this group. This demonstrates an area of improvement to reduce the use of inappropriate prescribing of broad-spectrum antibiotics.

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DNACPR Patient Information Leaflet:
A Quality Improvement Project (QIP)

Key
PL – Pre-Leaflet
PO – Post-Original
PR – Post-Revised

Yes definitely
Yes to some extent
No

Background
- Common directive
- Typically poorly understood – added 'implications' for care
- ADRT's

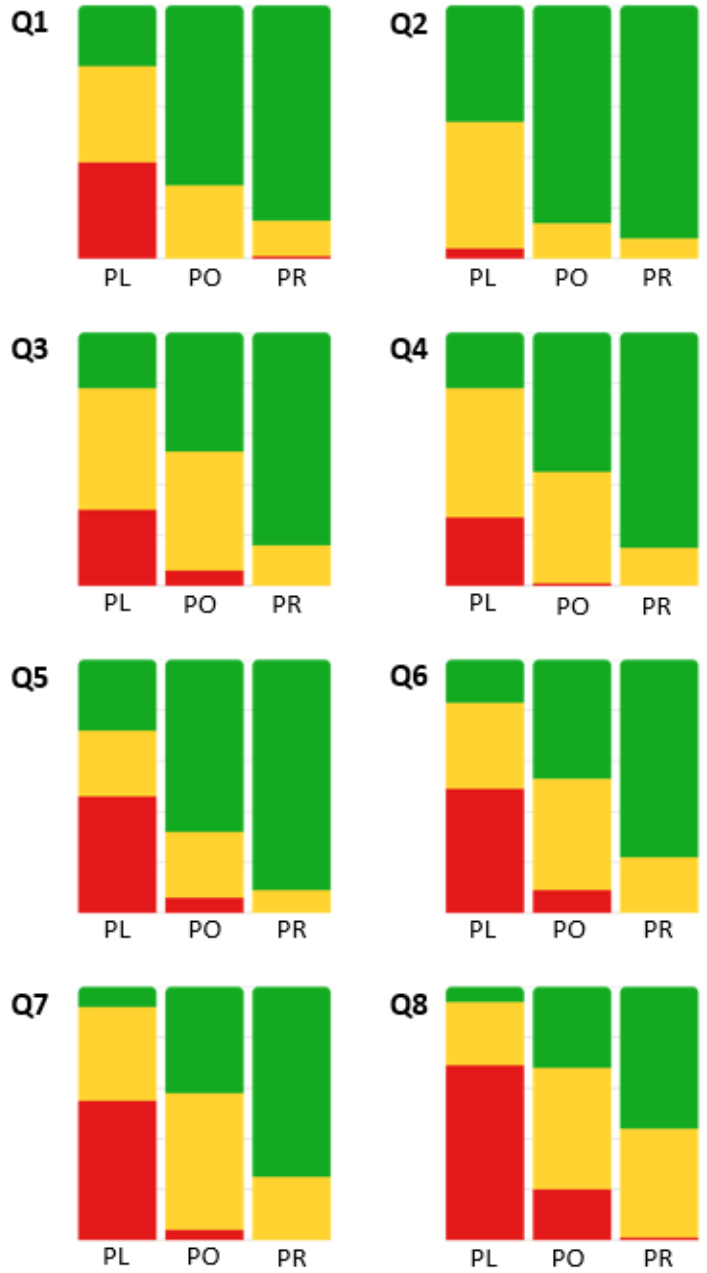
Materials and Method
- Surveyed service users Pre-Leaflet and Post-Original Patient Information Leaflet OR Pre-Leaflet and Post-Revised Patient Information Leaflet
- 8 questions surrounding DNACPR forms (briefly covers CPR and ADRT's)

Results and Discussion
- Noticeable improvement post-leaflet, especially with revised version
- Highlights utility of patient leaflets, especially ones of high quality

Conclusion
- Importance of patient's understanding of decisions relating to their care
- Benefits of having the time to read high quality information leaflets

Dr Finlay Copeland

Summary of results by survey question



Improving Antibiotic Prescribing: Closing the gap for better patient care

Dr Sourav Saha; Dr Naqsh Fatima-Junior clinical fellow; Ysbyty Ystrad Fawr

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Aneurin Bevan
Aneurin Bevan University Health Board

Background:

Antimicrobial resistance (AMR) is one of the most pressing global health threats, with inappropriate antibiotic use contributing substantially to its rise [1,2]. Clinical consequences include treatment failure, increased morbidity, prolonged hospital stays, and higher healthcare costs [3].

Inappropriate practices such as missed doses, incomplete or unreviewed courses, and abrupt discontinuations are key drivers of resistance [4]. Antimicrobial stewardship programmes (ASPs) aim to optimise therapy, reduce harm, and preserve the effectiveness of existing antibiotics [5,6]. Within this context, a baseline audit in our local hospital identified significant prescribing gaps, emphasising the need for focused improvement.

Aim:

To evaluate adherence to stewardship guidance in a general medical setting, implement low-cost, practical interventions to improve antibiotic prescribing, and assess their impact through a re-audit cycle [1,7].

Methods:

The audit was designed around ABUHB intranet guidance and the Start Smart – Then Focus framework [1,8]. Cycle 1 included 76 patients and Cycle 2 included 52 patients; both conducted retrospectively over four months. Data points included: (1) completeness of antibiotic prescription at initiation, (2) documentation of review at day 3 and day 4, (3) incidence of missed doses, and (4) abrupt or unexplained cessation.

Interventions:

Between cycles, targeted interventions were introduced to reinforce stewardship principles. These included:

Teaching sessions for residents' doctors and nursing staff.

Circulation of educational leaflets through WhatsApp groups and display as posters on wards.

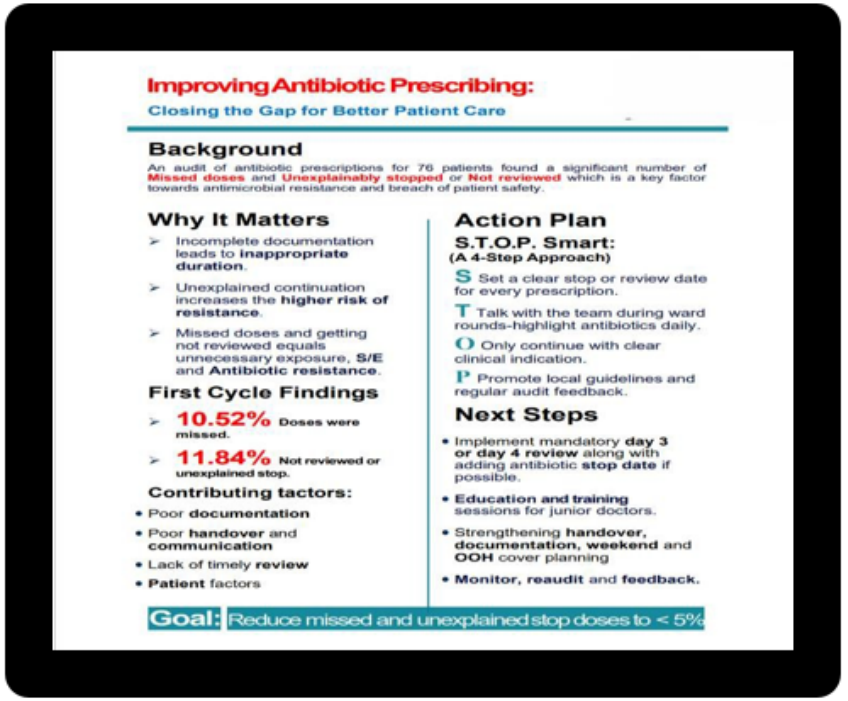
Leaflets stapled directly to drug charts as visual prompts.

Nursing staff reminders during board rounds to highlight antibiotics requiring review.

Introduction of structured Friday ward rounds incorporating a checklist to ensure antibiotic review.

Integration in the handover and discharge planning.

Microbiology team involvement.



Results:

Cycle 1 demonstrated suboptimal prescribing, with low rates of initial full-course prescription, inconsistent day 3 or 4 reviews, and several missed or abruptly discontinued courses. Following interventions, Cycle 2 showed measurable improvement in most parameters: full course prescriptions increased from 22 to 27, day 3 reviews rose from 30 to 36, missed doses fell from 8 to 3, and abrupt cessations reduced from 6 to 2. However, day 4 review documentation decreased from 24 to 14, highlighting an area requiring ongoing attention.

INDICATOR	CYCLE 1 (n=76)	CYCLE 2 (n=52)	CHANGE
Full course prescribed initially	22	27	↑
Day 3 review	30	36	↑
Day 4 review	24	14	↓
Missed doses	8	3	↓
Abrupt cessation (unexplained)	6	2	↓

Conclusion:

This audit highlights that straightforward, sustainable interventions can deliver significant improvements in antibiotic prescribing [5–7]. Education, structured reminders, and multidisciplinary reinforcement reduced prescribing errors and enhanced stewardship practices. Continuous audit and feedback cycles are essential to sustain progress, with integration of review prompts into electronic prescribing systems offering a potential next step [8–10]. Overall, this project demonstrates that small-scale, low-cost initiatives can positively influence prescribing behaviour and improve patient safety while supporting global efforts against AMR

References:
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A Quality Improvement Project: A Clinical Audit and Re-Audit on the Documentation of Laparoscopic Cholecystectomy in Accordance with International Guidelines

BAHRIA TOWN INTERNATIONAL HOSPITALS
A PROJECT OF BEGUM AKHTAR RUKHSANA MEMORIAL TRUST

INTRODUCTION

Laparoscopic cholecystectomy is among the most common surgeries worldwide. Proper documentation ensures patient safety, continuity of care, and compliance with Royal College of Surgeons (RCS) standards. Previous audits have shown frequent omissions in operative notes, highlighting the need for structured documentation and regular quality improvement.

DISCUSSION

The audit revealed poor initial compliance with RCS guidelines due to lack of awareness and absence of a standardized format. Implementation of workshops and a structured proforma resulted in marked improvement. Similar studies (Hassan 2023; Thomson 2016) confirm that standardized documentation enhances quality, continuity of care, and medico-legal safety.

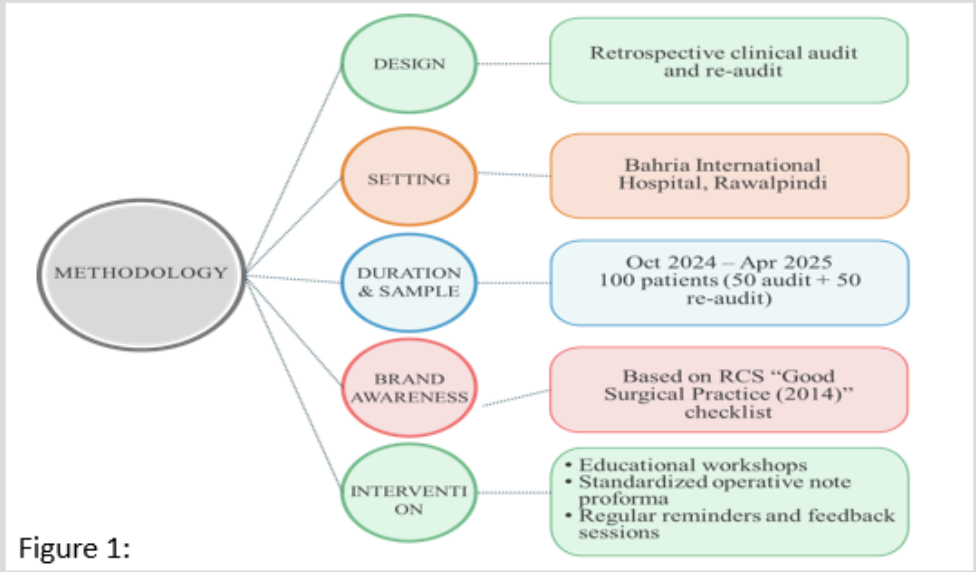


Figure 1:

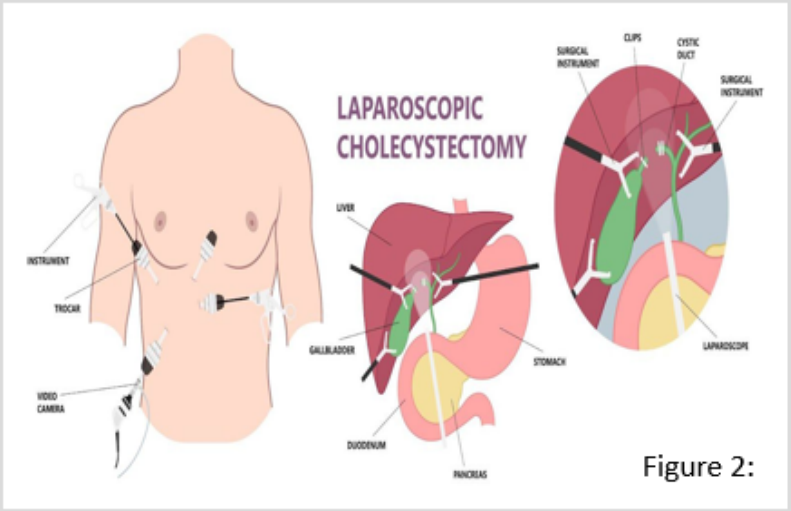
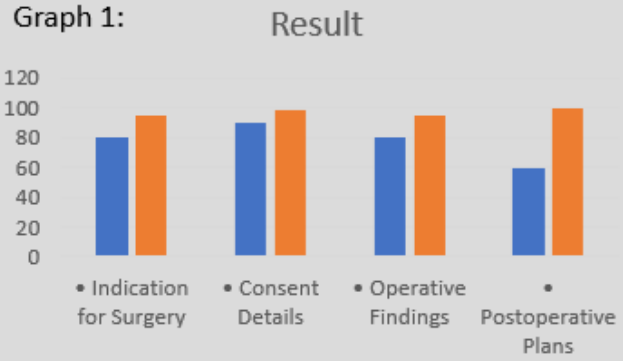


Figure 2:

Graph 1:



RESULT

Documentation compliance improved from **65% to 95%** after implementing staff training and a standardized proforma, with key areas like postoperative plans and procedure classification reaching **100% completion** in the re-audit.

CONCLUSION

Structured documentation and staff education significantly improve surgical record-keeping quality. Regular re-audits and sustained training are essential to maintain compliance with international standards.

AUTHORS :

Dr. Mehak Ahsan

Co Author: Dr. Natasha

SUPERVISOR: Dr. Aimel Munir (MBBS, FCPS General Surgery)

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EVERY HOUR COUNTS: A TWO CYCLE AUDIT ON MRI COMPLETION WITHIN 24 HOURS FOR SUSPECTED MALIGNANT SPINAL CORD COMPRESSION(MSCC)

INTRODUCTION

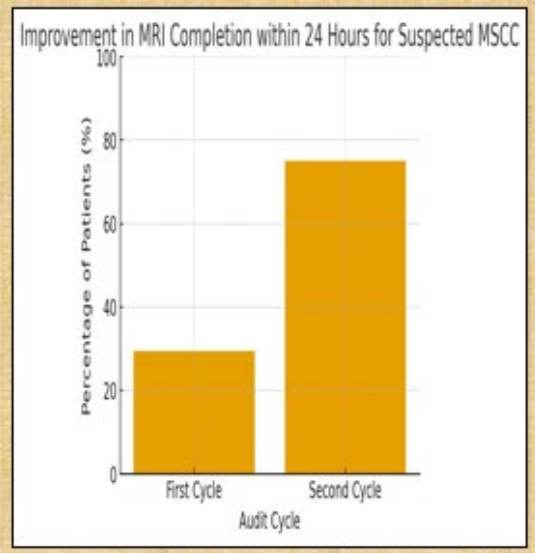
MSCC is a medical emergency needing MRI within 24 hours ; this audit addressed MRI timeliness and effects of improvement

A two-cycle audit of 74 suspected MSCC cases assessed MRI completion within 24 hours before and after trust-wide educational interventions

NHS
University Hospitals Bristol and Weston
NHS Foundation Trust

RESULTS AND DISCUSSIONS

MRI compliance within 24 hours from 29.4% to 75% after educational interventions , highlighting the effectiveness of simple awareness measures timely MSCC management



CONCLUSION

Focused education improved MRI compliance to 75%, emphasizing the need for continued training and rapid access

PRESENTED BY - Dr MARIYA MANZOOR

CO AUTHORS - ABIR AIJAZ, MANZROOR WANI, ABDUL BHAT , AMIT BADSHAH

Assessing HIV Testing Rates in Respiratory Inpatients with Community-Acquired Pneumonia (CAP) at RVH Belfast: *A Quality Improvement Project*

Dr N. Toland, Dr S. McGinley, Dr L. Coyle
Royal Victoria Hospital, Belfast - Departments of Respiratory and Genito-Urinary Medicine

BACKGROUND

- Late HIV diagnosis remains a public health concern, leading to poorer outcomes and increased transmission.
- Community Acquired Pneumonia is recognised as an HIV indicator condition with BHIVA guidelines recommending testing in all patients who present with indicator conditions.
- Local data suggests this is inconsistently implemented, representing missed opportunities for earlier detection.
- This QIP assesses the frequency of HIV testing amongst Respiratory inpatients admitted with CAP to Royal Victoria Hospital (RVH) and evaluates the impact of interventions implemented to improve testing rates.

METHODS

- A retrospective audit of adult Respiratory inpatients admitted to RVH with CAP over a period of 6 months was conducted using EPIC software.
- Patients with CAP as primary admission diagnosis were identified and electronic records assessed if HIV testing was offered during their current admission.
- Using Plan-Do-Study-Act cycles, comparisons were made pre- and post-intervention
    - **Cycle 1** interventions included staff education to promote awareness of HIV testing and encourage uptake
    - **Cycle 2** introduced visual poster prompts placed in Respiratory wards and medical clerking areas.
    - **Cycle 3** intervention was direct re-education of medical staff, wider digital poster sharing, and HIV awareness integrated into Consultant and Resident daily ward rounds.

RESULTS

- Trends were analysed using Fischer's exact test given small sample sizes.
- HIV testing increased from 5.3% (1/19) in cycle 1 to 25.9% (7/27) in cycle 2 and 42.1% (8/19) in cycle 3.
- Cycle 1 vs Cycle 3: P value was statistically significant at **0.008**.
- A total of 65 patients were identified to have CAP as their primary diagnosis and included in this audit. No new HIV diagnoses were identified during this audit period.

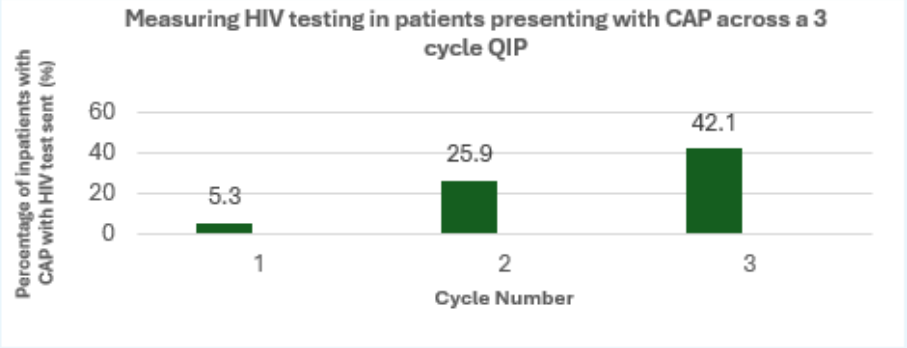


Figure 1. A graph outlining the percentage improvement in uptake of HIV testing following interventions per PDSA cycle of this QIP. Confidence intervals for cycle 1; 0.9% – 24.6%, cycle 2; 13.2% – 44.0%, cycle 3; 23.1% – 63.7%.

Cycle Comparison	P-Value (Fischer's Exact)	Interpretation
Cycle 1 vs Cycle 2	0.115	Not statistically significant at 0.05 level
Cycle 2 vs Cycle 3	0.218	Not statistically significant at 0.05 level
Cycle 1 vs Cycle 3	0.008	Statically significant at 0.05 level with global improvement

Figure 2. Comparison of cycles, P values obtained using Fischer's Exact Testing and statistical significance

Figure 3. Visual poster used during cycle 2 of PDSA QIP placed in medical clerking and clinical areas

DISCUSSION

- Data suggests interventions were effective and meaningful when broadly assessed across all cycles.
- Small sample sizes limited statistical power and increases between individual cycles were not significant, the overall trend change from cycle 1 to cycle 3 was positive.

CONCLUSIONS

- This QIP highlights a gap between current HIV testing and current BHIVA recommended clinical practice.
- HIV testing in CAP admissions was initially low but improved following targeted interventions.
- Strategies such as embedding routine testing into CAP management and repeated education are valuable for increasing testing uptake.
- Further interventions may be identified to progress this improvement and may reduce late diagnoses of HIV in this patient cohort.
- We recommend further auditing in 6-12 months of this cohort to monitor progress in this area.

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Outcomes of Atrial Fibrillation Ablation: A Single-Centre Real-World Audit

Dr Amjad Algharaibeh • Royal Papworth Hospital, Cambridge, UK

Introduction

AF is the most common sustained arrhythmia with major morbidity/mortality. Catheter ablation—typically pulmonary vein isolation (PVI)—is established for patients refractory/intolerant to antiarrhythmics. We audited real-world outcomes after AF ablation at a UK tertiary centre.

Method

-Design: Retrospective audit of AF ablations (Jan–Dec 2018).
-Setting: Royal Papworth Hospital.
-Cohort: 499 first-time procedures (redo cases excluded).
-Data: Electronic records, procedural reports, and follow-up to 2024.
-Outcomes: AF/AT recurrence, complications, and symptom improvement.
-Techniques: Cryoballoon 50%, RF 40%, PVAC 10%.
-Strategy: PVI alone 81%; additional lines/substrate modification 17%.

Discussion & Conclusion

-Recurrence was higher than in the *FIRE AND ICE* trial, possibly influenced by longer follow-up and broader patient selection.
-Cryoballoon and RF outcomes were comparable, with a modestly higher recurrence after PVAC.
-The overall complication rate (6%) was lower than in the *FIRE AND ICE* trial.
-Continued auditing will help benchmark outcomes and guide integration of emerging technologies such as pulsed-field ablation.

n = 499
First-time ablations analyzed

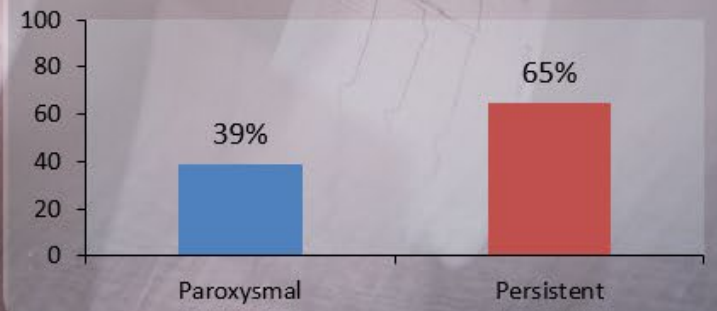
~72 months
Median follow-up (approx.)

66%
Clinical improvement

6%
Complications

AF Type Distribution

AF/AT Recurrence by AF Type



Recurrence by Technology

Retrospective Insights: Evaluating Computed Tomography Pulmonary Angiography for Pulmonary Embolism in Surgical Patients

Vakil H, Ahmed A, Thamburaj J, Baxter M

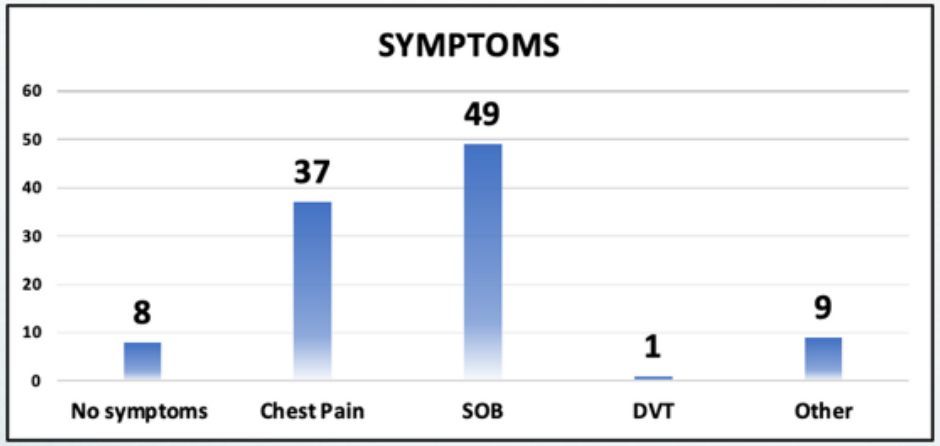
University Hospital Southampton NHS Foundation Trust

Introduction

PE is considered a common acute complication post operatively and often causes clinicians to consider it as a differential diagnosis in patients presenting with shortness of breath. This study aims to look at factors that contribute to a positive CTPA result for PE.

Methodology

Data was collected retrospectively from 2023 to 2024. Patients included in the study were those admitted with a surgical diagnosis but did not require surgery or those who had surgery during their admission. We studied factors such as age, weight, height, anti-coagulation and anti-platelet history, ECG recordings, immobilisation (more than 3 days), oxygen requirement, ongoing history of cancer and malignancy, troponin trend, egfr trend and the final CTPA reading.



Results

A total of 104 surgical inpatients were included (mean age 67.2 years; mean BMI 27.1 kg/m²). Six patients with positive CTPA had elevated troponin, while 14 patients had elevated troponin without PE. Troponin rises over 3 hours in PE-positive patients were modest (mean increase 10), and markedly elevated initial troponins (>500) were more often associated with alternative cardiac pathology such as CAD or AHF.

Clinical radiology of patients negative for PE were 48.3% with atelectasis, 22.4% with pneumonia or pleural effusion secondary to infection and 40.4% with other pathologies (cancer, heart disease).

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-7.8477	3.1878	-2.462	0.014	3.91E-04
Surgery	0.5555	0.7408	0.75	0.453	1.743
Previous PE/DVT	-0.2253	1.4521	-0.155	0.877	0.798
Anti-platelets	0.2157	0.9596	0.225	0.822	1.241
Anti coagulant	0.359	0.8814	0.407	0.684	1.432
ECG	-0.029	0.1996	-0.145	0.885	0.971
02 req	-0.1342	0.8395	-0.16	0.873	0.874
Imobilised long period	-1.706	0.8138	-2.097	0.036	0.182
Cancer	-1.1486	0.856	-1.342	0.18	0.317
Given trt anti coag	1.1863	0.8175	1.451	0.147	3.275
Troponin	1.2749	0.7521	1.695	0.09	3.578
Age	0.0495	0.0272	1.818	0.069	1.051
egfr	-1.1752	0.9806	-1.198	0.231	0.309
Weight (Kg)	0.0151	0.0192	0.786	0.432	1.015
Symptoms	1.8022	1.237	1.457	0.145	6.063

Conclusion

Overall, the study indicated prolonged immobility (OR = 0.18, 95% CI: 0.04–0.90, p = 0.036). to be the strongest independent predictor with this dataset, indicating that those with prolonged immobility had significantly lower odds of a positive outcome. Age (OR = 1.05, 95% CI: 1.00–1.11, p = 0.069) & troponin (OR = 3.58, 95% CI: 0.82–15.63, p = 0.090) may show positive predictive, especially given their high likelihood and Odds ratios, however without a conventional strong statistical significance as indicated by their p-value.

Despite the limitations of the study, the Odds ratio being high for predicting factors suc as: symptoms, Treatment anticoagulation and Troponin indicate that further study with a larger cohort of PE Positive may be beneficial to solidify positive predictive factors for PE in surgical patients.

Evaluation of Teriparatide treatment for Osteoporosis at South Warwickshire NHS Foundation Trust

S Baloch[1], J Odia[1], Y Hall[1], B Vasta[1]
1:SOUTH WARWICKSHIRE NHS FOUNDATION TRUST-

INTRODUCTION

Osteoporosis is characterized by low bone density and altered bone microstructure, increasing lifetime risk of fragility fractures affecting over 1 in 3 women and 1 in 5 men.
These fractures cause pain, disability, reduced quality of life, and increased mortality, with significant cost to the UK healthcare system.

Teriparatide, a synthetic parathyroid hormone analogue, stimulates bone formation and is recommended for high-risk postmenopausal women with severe osteoporosis.
NICE and NOGG recommend Teriparatide for:

- T-score ≤ –4.0, or
- T-score ≤ –3.5 with ≥2 fractures
- Bisphosphonate intolerance or poor response.

This audit evaluates DEXA follow-up scans using NICE and NOGG criteria.

OBJECTIVES

- **Determine** the utility of DEXA-scans conducted at one and two years after starting therapy.
- **Assess** if performing DEXA-scans at baseline and at two years is a more practical and effective strategy.
- **Minimise** unnecessary DEXA-scans and enhance both service efficiency and patient care delivery.

MATERIALS &METHODS

- This study employed a retrospective design. 65 patients deemed eligible, 58 began treatment with Teriparatide.
- Data source: electronic records, ICE. Focusing on variables such as demographics, indications for therapy, treatment adherence, DEXA-scan results, side effects and subsequent management following treatment.

RESULTS

•**Median age:** 80 years
•**Gender:** 88% female, 12% male
•**Indications for Teriparatide use:**
•Osteoporotic fragility fractures 63.1%;
•Vertebral fractures 36.9%
•**Baseline DEXA scans:** 100% of patients
Follow-up scans
•47% had scans at both year one and year two (spine and neck of femur)
•53% had a single follow-up scan, mostly at year two
•No management changes resulted from year one scans
•Average interval between Teriparatide and follow-on therapy: 11.5 months

Fig 1: T Score Improvement

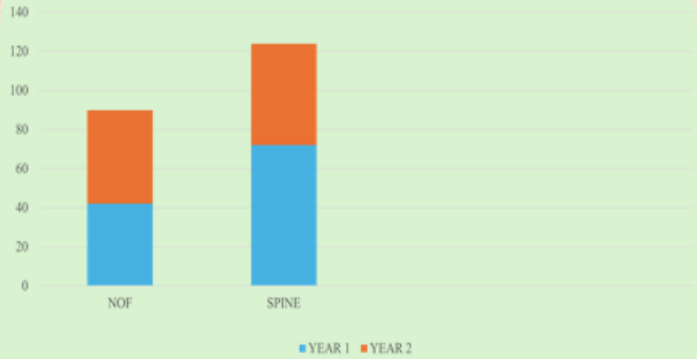
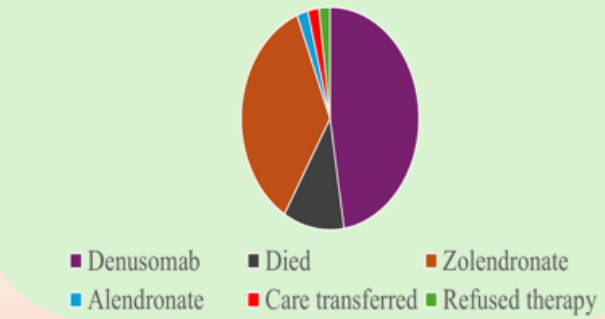


Fig 2: Follow -Through Therapy



CONCLUSION

- Teriparatide therapy improved bone mineral density, particularly the spine.
- No changes in management resulted from DEXA-scans performed at year one in likely due to bone mineral density improvement.

LIMITATIONS

- A single-centre, retrospective study; with small sample size.
- Presence of hip replacements restricted Neck-of-Femur DEXA-scan interpretation.

RECOMMENDATIONS

- Establish a local protocol to conduct DEXA-scans at baseline and at two years, unless additional scans are clinically indicated.
- Seamless transition to antiresorptive therapy post teriparatide to prevent treatment gaps.

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3.Teriparatide for the secondary prevention of osteoporotic fragility fractures in Postmenopausal women: https://www.nice.org.uk/guidance/TA161/chapter/1-Recommendations [accessed 23rdAugust2025]
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Baseline ECG, documentation of QTc interval and use of haloperidol at Mater Hospital

A Quality Improvement Project

Kelvin Mupunga
Internal Medicine Training Year 2

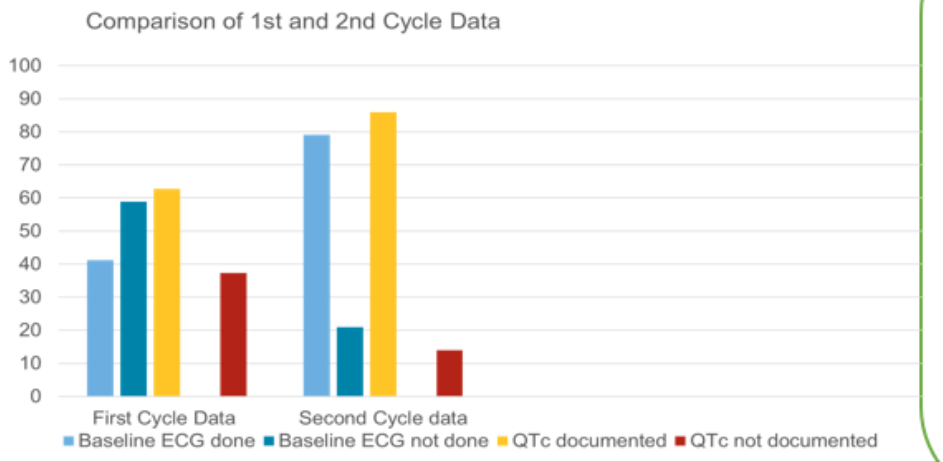
Background

- 3 patients taking haloperidol developed tachyarrhythmias with no evidence of QTc documentation or baseline ECG having been performed according to guidelines.
- Haloperidol is a first-generation antipsychotic regularly used to manage agitation and delirium.[1]
- It makes the heart prone to arrhythmias by prolonging the QTc interval, therefore an ECG should perform before prescription
- an alternative drug should be used if having a baseline ECG is impractical.[2-3]
- An acceptable baseline ECG should not be > 1 month old at the time of prescribing haloperidol.[4]
- If the use of haloperidol is inevitable due a clear explanation on the use of the drug without baseline ECG should be provided.[5]
- no standardised ECG monitoring frequency during haloperidol therapy ,ECG monitoring frequency is determined by individual patient factors and occurrence of arrhythmia symptoms .[2-3]
- if at any point QTc is > 500ms, haloperidol should be discontinued.[1-5]

Methods

- Retrospective review of patient records done
- an ECG was valid if it was <1 month old before prescription of haloperidol.
- excluded patients already on haloperidol on admission and those given haloperidol in end of-life care.
- Following the first cycle data analysis, interventions done included a presentation Junior Doctors teaching day, awareness posters were emailed to junior doctors and displayed on notice boards.
- Cooperated with the Trust IT, awareness poster was displayed as a screensaver on computers in clinical areas.

Results



Results Analysis

- A total of 60 records were identified in the first cycle, 9(0.15%) were excluded, thus 51 patient records were analysed.
- The results showed that 30(58.8%) patients didn't have a baseline ECG, whereas 21(41.2%) had baseline ECG performed. QTc documentation was done in 32(62.7%) patients while in 19(37.3%) there was no QTc documentation.
- A second audit cycle was conducted after interventions with the results showing significant improvement, 43 patients' records reviewed showed that 34(79.1%) had baseline ECGs, while in 9(20.9%) baseline ECG was not performed. QTc documentation was present in 37(86%) whereas 6(14%) had no QTc documentation.

Discussion

- 1ST cycle results showed a low number of patients had an ECG and documentation of QTc before prescription of Haloperidol
- Marked improvement in both performance of baseline ECG and documentation of QTc after intervention
- There was a discrepancy between number of baseline ECGs present and the QTc documentation.
- Probably some of the baseline ECGs were not reviewed at all as they were forgotten since the inclusion criteria considered not only ECGs done at time of prescribing haloperidol, but those done within 1 months as well.
- Limitation →change over doctors during the implementation of → using 2 cohorts of doctors.

Conclusion

- Although the interventions were effective in bringing about a favourable change, the long-term sustainability of the positive outcomes may be challenged by the frequent turnover of doctors.
- As such, a proposal to add pop-up message reminders to the computer system which appear when prescribing not only haloperidol but most medications with baseline studies required prior to prescribing was forwarded and accepted by IT department.

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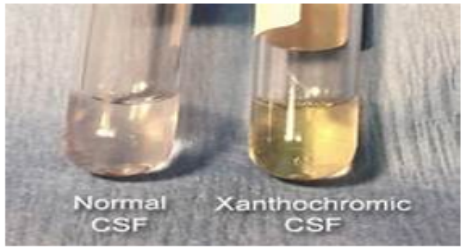
Optimizing The Use of CSF Xanthochromia : A QIP of clinical indications

A Shahata, A Keshta, M Ali, S Puravady, M Nasher

Background

- Xanthochromia is a yellow discoloration of cerebrospinal fluid (CSF).
- It results from RBCs breakdown and bilirubin release

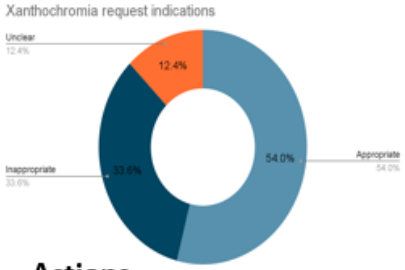


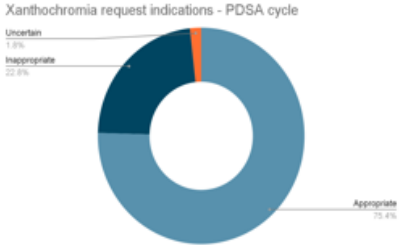
- It's indicated in case of clinical suspicion of Sub Arachnoid Hemorrhage with negative non contrast CT head ,and after 12 hours of headache onset(1).
- Previous data from the Lab team showed significant number of unjustified requests .

Methodology

- **Data Collection:** Retrospective analysis for base line data and prospective analysis for PDSA cycle data.
- **Study duration**: Baseline audit: 1st June 2024 – 31st Dec 2024, N = 137 and PDSA cycle: Jan 2025 –March 2025, N = 57.
- **Inclusion Criteria**: All CSF requests that included xanthochromia.
- **Data sources**: Electronic patient records , Laboratory database and Clinical notes.
- **Analysis**: Percentage of appropriate vs. inappropriate requests.

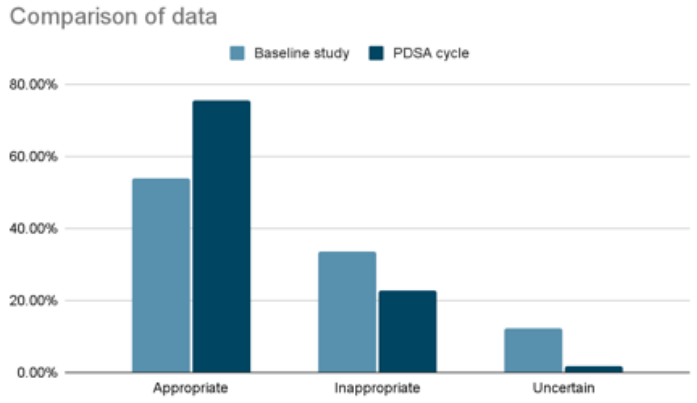
Results





Actions

- Sessions through AMU, Foundation and IMT teaching days.
- Raising awareness of inappropriate xanthochromia requests using results from our baseline study.
- Teaching was incorporated into sessions on how to perform LPs.



Conclusion

- Inappropriate xanthochromia testing leads to significant clinical, logistical, and patient-related harms.
- Reducing number of inappropriate testing result in reduction of :
  1. False positive tests in traumatic LP.
  2. Lab stuff workload (1 hour per test).
  3. Unnecessary expenses (35 pounds per test).

Future

- We aim to continue educating clinical teams through teaching days.
- Potential second intervention: Stocking separate LP packs labelled according to indications and contains flow chart to decide needed samples.

References :
1) https://www.nice.org.uk/guidance/ng228/chapter/Recommendations#assessment-and-diagnosis (1.1.13)

A CLINICAL RE-AUDIT ON REPEAT PATHOLOGY TESTING IN MEDICAL WARDS

Dr. Zarva Shahid
Warwick Hospital, South Warwickshire University NHS Foundation Trust

INTRODUCTION

Warwick hospital has set in place interventions to decrease the frequency of repeat pathology testing as per the Royal College of Physicians (RCP) guidelines on minimal interval testing (2021). A re-audit was performed to evaluate the effectiveness of these measures, to explore the reasons behind repeat tests and to highlight its financial impact.

METHOD

Across three medical wards, in March 2025, a random sample of 50 patients with repeat blood tests was selected. Five specific pathology tests, white cell count, urea and electrolytes, liver profile, bone profile, and C-reactive protein, were assessed. Retrospective patient clinical data were obtained through e-records and ICE systems. The tests were labelled as appropriate or inappropriate after comparison with Royal College of Physicians (RCP) guidelines on minimal interval testing (2021) [1]

The cost of each test was identified, and the overall financial impact of the inappropriate requests was calculated. A survey was sent to a sample of fifteen healthcare professionals across those departments to gain an understanding of the reasons for repeat testing.

RESULTS

1,340 blood tests were reviewed, and 682 (51%) were identified as inappropriate. This was a reduction from the previous audit, where 71% (1443 of 2021) were identified as inappropriate (Figure 1)

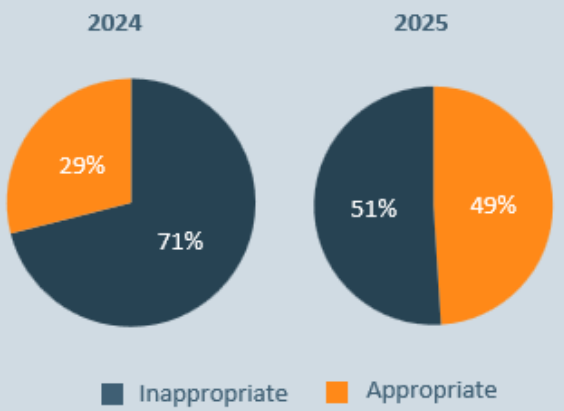


Figure 1: Percentage of appropriate and inappropriate pathology requests in 2024 and 2025.

Only urea and electrolytes showed a significant reduction in inappropriate results performed (27% from 75%). Reduction in liver function tests was also noted, but it was due to the high number of appropriate repeat tests from the gastroenterology ward (Figure 2).

- The white cell count was repeated the most inappropriately out of all five tests (62%), which was also identified as the most expensive test (£3.94 per test).
- For the sample of 50 patients, the percentage of inappropriate requests led to a total cost of £1,478 (Figure 3).
- If a similar proportion of inappropriate testing is predicted across all patients, the estimated financial loss to the trust would be £17,466 per month and £209,597 annually

	WCC	U&Es	CRP	Bone	LFTs	Total
Cost (£)	756	131	259	153	179	1,478

Figure 3: Cost of inappropriate tests performed.

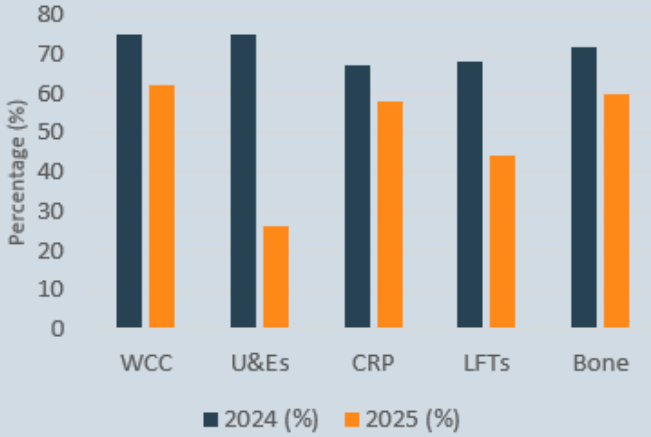


Figure 2: Percentage of inappropriate test requests performed in March 2024 and March 2025

87% of the healthcare professionals were unaware of the guidelines in place for minimal interval testing. The most common reasons for repeating pathology requests included, acute deterioration, senior requests and reprinting of test labels (Figure 4)

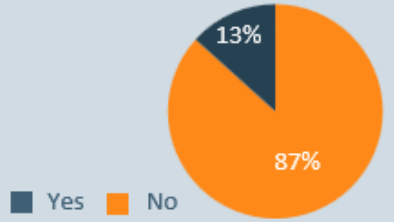


Figure 4: Responses to the survey question: "Are you aware of the RCP guidelines on minimal interval testing (2021)?"

CONCLUSION

There has been some improvement in unnecessary repeat pathology testing. However, more interventions are needed to allow compliance with the guidelines to improve patient care, sustainability and optimise resources and staff required for testing.

IMPLEMENTATIONS

- Posters to highlight the guidelines, the financial cost of each test, and how to cancel repeat requests on the system.
- Presentation at managerial meetings and grand-round to raise awareness of the findings.
- Seniors were encouraged during board rounds to guide appropriate repeat testing as per guidelines.

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ACKNOWLEDGEMENT: Special thanks to Dr. Tristan Page (Consultant Endocrinologist) and Vicky Gunewardena (Head of Financial Information) for the supervision and support.

Ultrasound-guided Phlebotomy & Cannulation Training for Acute Medicine Phlebotomists and Nurses: Improving Patient Flow and Early Intervention in AMU and SDMA

Omoleegho Adio, Hafsa Habib, Katie Wallace, Hare Hariyadurai
Department of Acute Medicine, Royal Cornwall Hospitals NHS Trust, Truro.

Royal Cornwall Hospitals NHS Trust

Introduction

- Timely vascular access is crucial in acute care, especially for patients needing urgent treatment like suspected neutropenic sepsis because a delay in cannulating may result in catastrophic harm.
- Majority of phlebotomist and nurses on the unit had no experience in ultrasound cannulation.
- This highlighted the need to enhance vascular access skills among phlebotomists and nurses in Acute Medical Unit (AMU) and Same-Day Medical Admissions (SDMA)

Objective

- Instant phlebotomy and cannulation for every patient coming into triage, thus allowing quicker diagnostics and management.
- Allowing prompt treatment of acutely unwell patients
- Improving patient experience, by reducing waiting times.
- Enhance vascular access skills among frontline staff.
- Opportunity to start empirical treatment as soon as patients come through the door.

Methodology

- **Baseline**: Pre-training 54 patient encounters reviewed as control group.
- **Parameters measured**: Time to Cannulation, Number of attempts required and Need for Doctor Assistance.
- **Half-day structured course** by experienced and certified tutors in USS vascular access.
- **Post-training data**: 41 encounters were reviewed as a study group according to the parameters stated above.

Results

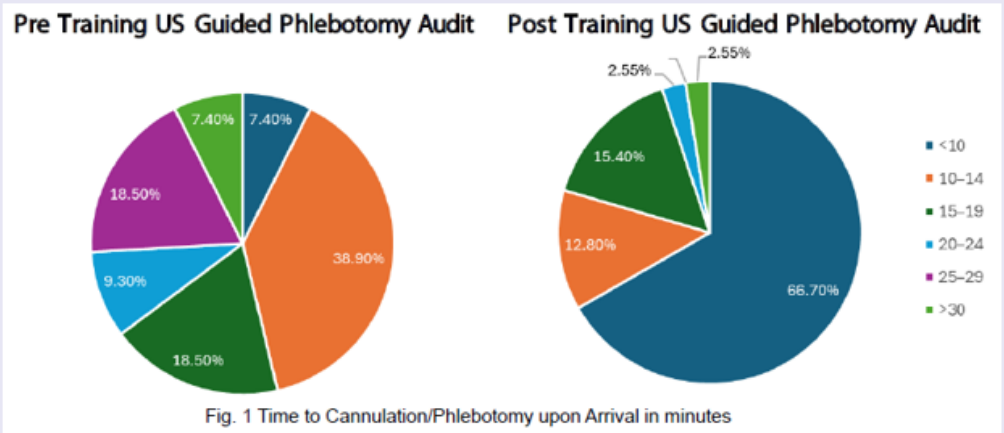

Fig. 1 Time to Cannulation/Phlebotomy upon Arrival in minutes

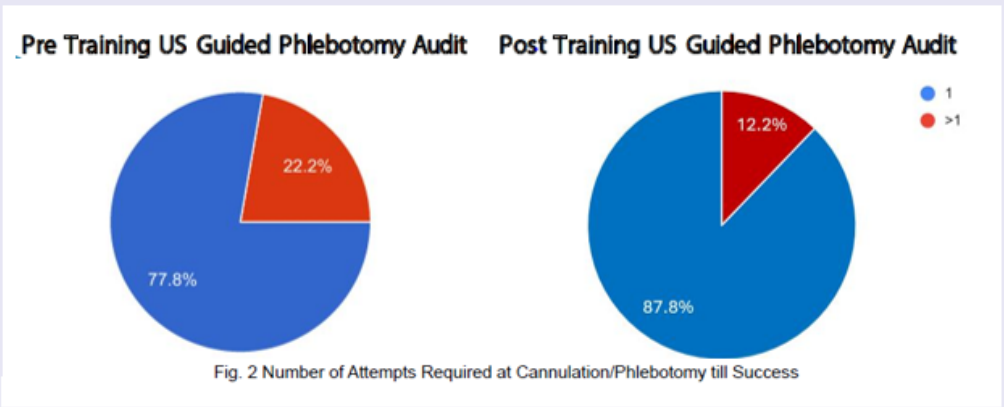

Fig. 2 Number of Attempts Required at Cannulation/Phlebotomy till Success

Key Takeaway

A single half-day training reduced time to cannulation to under 10 minutes, which has led to faster diagnostics, earlier treatment, smoother patient flow, and better patient care.

Discussion and Summary

- Ultrasound-guided vascular access training boosted staff skills and confidence, cut triage times, and enhanced both care quality and patient experience.
- Annual training has been approved by the AMU Governance Committee to maintain these gains and extend training to a wider group of staff.

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To establish baseline AMTS checks of at least 50% of patients on Knightley ward in Northampton General Hospital within 3 days of arrival, over the next 4 months - A qualitative project.

Arash.fattahi5@nhs.net
Arash Fattahi, Naveed Imtiaz
Supervisor: Dr Nariman Othman

Background

The Abbreviated Mental Test Score (AMTS) is a 10-point assessment system that can be used to screen for cognitive impairment. The Mental Capacity Act is a law that protects vulnerable people over the age of 16 around decision-making. If there are concerns about cognition, a mental capacity assessment (MCA) should be undertaken to ensure treatments are done in best interests as well as identifying the potential need for a DOLS. As of August 2024, AMTS assessments were not being carried out on Knightley ward, which is a geriatrics ward.

Conclusion

Overall, the QI project has achieved a consistent >50% rate of AMTS checks for patients on Knightley ward. It is recommended that doctors on Knightley ward continue to carry out regular AMTS checks on new patients where possible. Staffing has been the main barrier to completing AMTS checks as it holds low priority compared to other clinical jobs.

It would be good to spread this practice to other elderly wards within the trust. Once there is consistent AMTS checking in place, a further QI project can be done to assess whether MCA assessments are being done for patients scoring <8 on their AMTS. Subsequently, these assessments can be checked to ensure patients that are deemed to lack capacity are having DOLS put in place. The consultant on Knightley ward is now well versed with the utility of AMTS and can sustain this practice with all new teams of doctors that rotate onto the ward.

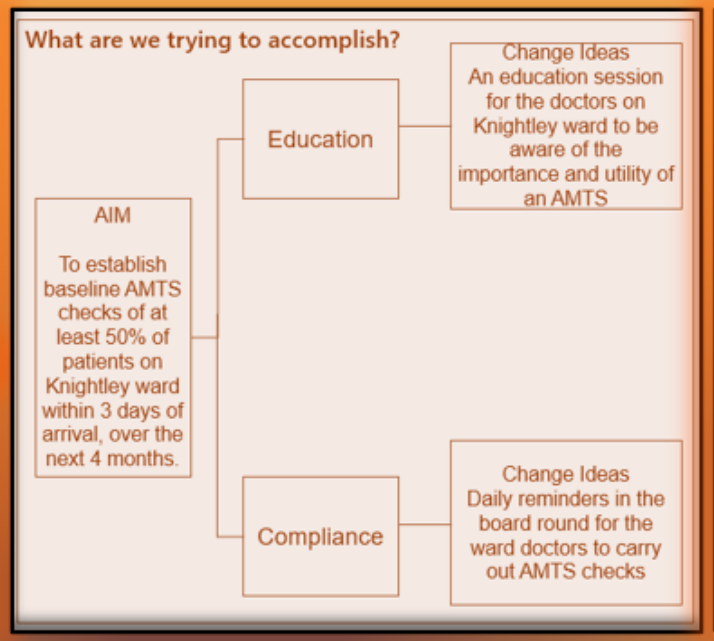


Figure 1. Driver diagram of this QI project

What change can we make that will result in an improvement?

PDSA 1 – Education of clinicians on the ward

To educate the clinicians on the ward about the importance of AMTS and how to carry out an AMTS - With a detailed walkthrough and explanation of each question within the AMTS.

PDSA 2 – Daily board round reminders

To give doctors daily reminders in the morning board rounds to complete AMTS checks as well as gathering feedback for what could be done to make the process easier.

Figure 2. PDSA cycles of this QI project

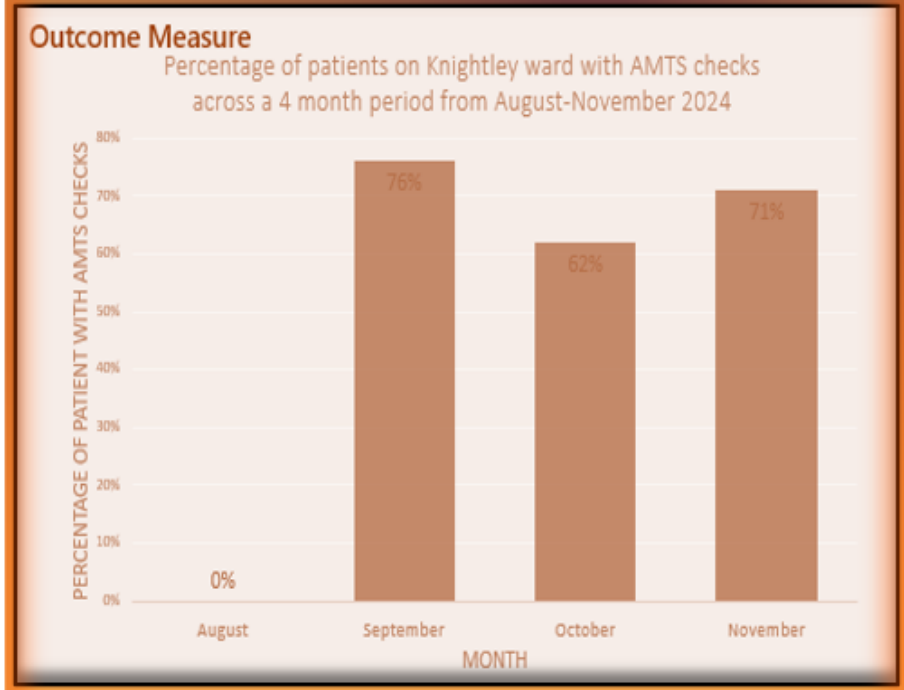


Figure 3. Outcome measures of this QI project

Process Measure: Are AMTS checks a smooth process?

September - Pre-printed sheets would be nice as it's time consuming to manually write out results
October - Pre-printed sheets have been great for ease of use, but they ran out and we had to resort to manual writing
November - Having a large supply of pre-printed sheets has meant we've always used them. It's important to print out 30 sheets every months to add to the stockpile to prevent this issue.

Balance Measure: Do the doctors feel AMTS checks are a significant pressure on their already high clinical caseload?

September - No, they only take a few minutes
October - We've been regularly poorly staffed this month due to leave and sickness, AMTS is low priority compared to other jobs
November - Having reminders has been useful, but better staffing has had the bigger impact factor

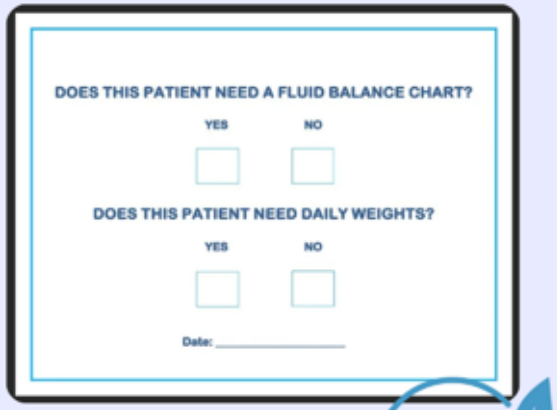
Figure 4. Process and balance measures of this QI project

IMPROVING FLUID BALANCE CHARTING IN A RENAL WARD

BY DR SEHER MIRZA

Background

On a renal ward, fluid balance plays a critical role in the management of all admitted patients, with accurate monitoring directly influencing clinical outcomes. Despite this importance, fluid balance chart documentation is frequently incomplete or inaccurate. This quality improvement project as undertaken to identify the underlying reasons for poor completion of fluid balance charts and to develop an intervention aimed at improving documentation. In addition, the project considered the wider implications of the intervention, including cost effectiveness and potential environmental benefits.



Methodology - PDSA

Plan	Do	Study	Act
Audit fluid balance charts on the renal ward to establish completion rates and identify barriers to proper documentation.	Conduct the audit, then give the nurses and healthcare assistants a quiz to understand barriers to completing the chart. Based on the findings, introduce a bedside sign to clearly identify who requires fluid balance monitoring.	Re-audit the charts after implementing the intervention.	Present the results in the renal MD, adopt the bedside sign widely across the ward and consider further education to sustain improvements

The project used the Plan–Do–Study–Act (PDSA) methodology. A baseline audit of fluid balance charts identified poor completion rates. A quiz for nurses and healthcare assistants explored barriers, revealing uncertainty about which patients needed monitoring and workload pressures. To address this, a laminated bedside sign was introduced to clearly indicate patients requiring fluid balance charts. This aimed to reduce ambiguity, prioritise workload, and support individualised care. A re-audit compared post-intervention completion rates with baseline data, and findings informed plans for sustaining improvement.

Results

Audit Criterion	Pre intervention	Post intervention
Input recorded (4hrs)	94%	98%
Output recorded (4hrs)	28%	82%
24 hr balance calculated & documents	72%	94%
Reason for fluid chart documented	56%	98%
Patient weight recorded	44%	92%
Missing output with reason documented	11%	42%

The baseline audit revealed inconsistent completion of fluid balance charts. Following introduction of the bedside sign, completion rates improved markedly, with a 193% increase in the “Output recorded every 4 hours” domain. Baseline data included 27 charts, while the re-audit reviewed 16, reflecting fewer charts needed as advised by renal consultants. Staff reported clearer identification of patients requiring monitoring, improving compliance, reducing unnecessary documentation, and saving effort. Fewer charts also reduced paper waste, supporting sustainability and NHS net zero goals.

Conclusion

This project showed that introducing a clear bedside sign to identify which patients needed fluid balance monitoring improved chart completion on the renal ward. The intervention helped staff focus on the right patients, reducing unnecessary documentation and wasted time. By cutting down the number of charts used, the project also reduced paper use, making it more cost-effective and environmentally friendly. If used more widely, this approach could support the NHS Net Zero goals by reducing waste linked to unnecessary paperwork. Next steps will include making the intervention part of routine ward practice and supporting it with staff education and feedback.

The Gift of Sight

A Service Evaluation of Corneal Donation at Ty Bryngwyn Hospice (TBG)

By Dr Talia Bartley, Prince Philip Hospital

Introduction

- The GMC state that health care professionals **should explore tissue donation** with every patient who is at the **end of their life** [1]
- A UK study by Sutehall et al (2023) demonstrated that approximately **46% of hospice patients are eligible** for cornea donation [2],however in practice only **4%** of patients had their **beliefs** regarding cornea donation explored [3]
- NHS eye bank supply is **21% lower than demand**, creating a **2-year waiting list** for recipients of cornea donation [4,5]

Cycle 1

Out of **35 deaths** in TBG hospice between October 2024 and January 2025

- **20 (57.1%)** patients **eligible** to donate their corneas
- **1 (2.8%)** cornea donation **discussion,** this patient gave consent to donate their corneas
- **0** corneas donated, records suggest no corneas donated since **2023**

Method

Retrospective cohort study involving multiple plan, do, study, act (PDSA) cycles used with the following interventions:

- **Eligibility criteria** poster
- Admission **proforma prompt**
- **Teaching** provided to TBG staff
- Hospice **partnership** with NHS blood and transplant established

Objective: Increase the rate of cornea donation discussions with eligible TBG patients by 70% and therefore, increase the rate of cornea donation

Cycle 2

Out of **21 deaths** between February 2025 and May 2025

- **10 (47.6%)** patients were **eligible** to donate their corneas
- Out of the eligible cohort **9 (90%)** patients had their **wishes** regarding cornea donation discussed
- Patients who were eligible and gave consent to donate their corneas comprised of **3 (14.3%) of the total cohort**
- Out of this group, **2 (66.7%)** of patients **donated their corneas**

Figure 1: Patients who had their wishes regarding cornea donation discussed between October 2024 and January 2025

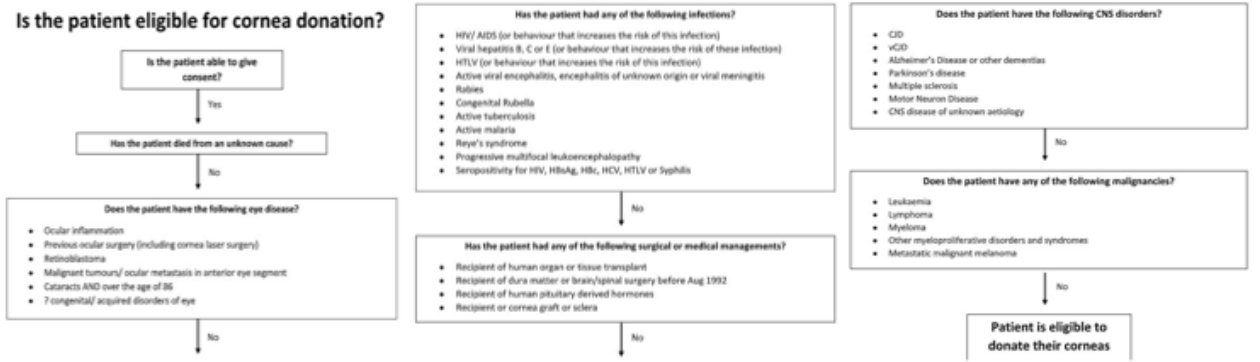
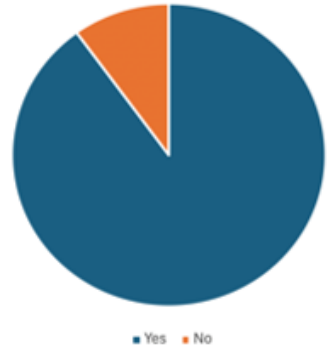


Figure 2: Patients who had their wishes regarding cornea donation discussed between February and May 2025



Conclusion

- **Education and clinician prompting** for cornea donation discussions can **increase the rate of cornea discussions and donation** within eligible hospice patients
- This sample size is small, **meta-analysis** with similar studies in other locations would be necessary before **statistically significant** results could be demonstrated
- Hospices/ palliative care units **should evaluate** their cornea donation services and encourage **open discussions** with patients and NOKs

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Boosting Respiratory Education: A Quality Improvement Project Using Weekly Bitesize Emails for Resident Doctors and Advanced Clinical Practitioners

Dr Shaheen Shahid, Respiratory Registrar, Royal Derby Hospital, University Hospitals Derby and Burton
Dr Aklak Choudhury, Consultant in respiratory Medicine, Royal Derby Hospital, University Hospitals Derby and Burton

Background

Rotational resident doctors (RD) and advanced clinical practitioners (ACPs) are valued members of the respiratory multi-disciplinary ward team. However, opportunities to learn are limited due to increasing service demands and their short lengths of rotation. This QI project explored whether weekly bitesize email teaching could improve their confidence and knowledge in managing common respiratory conditions.

Aim

To improve knowledge and confidence amongst resident doctors and ACPs for common respiratory presentations using weekly bitesize emails over a 4-month period.

Methods

March 2025 (Cycle 1): Stakeholder survey (n=10) sent to Resident Doctors on three respiratory wards
Emails to RDs and ACPs covering key respiratory topics (e.g., CAP, COPD, Asthma) were sent for 10 weeks. One topic was covered each week. The content comprised of concise teaching points, possible audit ideas, portfolio links and educational podcasts and videos

May 2025 (Cycle 2): RCD and ACP Feedback collected and emails adapted with study cards added

July 2025 (Cycle 3): Final feedback collected

Results

Cycle 1 (n=10):
78% lacked weekly teaching
89% wanted more education
90% opted for email learning
Cycle 2 (n=4):
100% found weekly emails helpful
50% wanted improvements in offer
100% supported adding study cards
Cycle 3 (n=10):
100% improved knowledge & patient care
90% found study cards helpful
70% felt no further improvements in offer needed
Positive qualitative feedback on clarity, interactivity, and accessibility
(See Figure 1,and 2)

Graphs and Charts

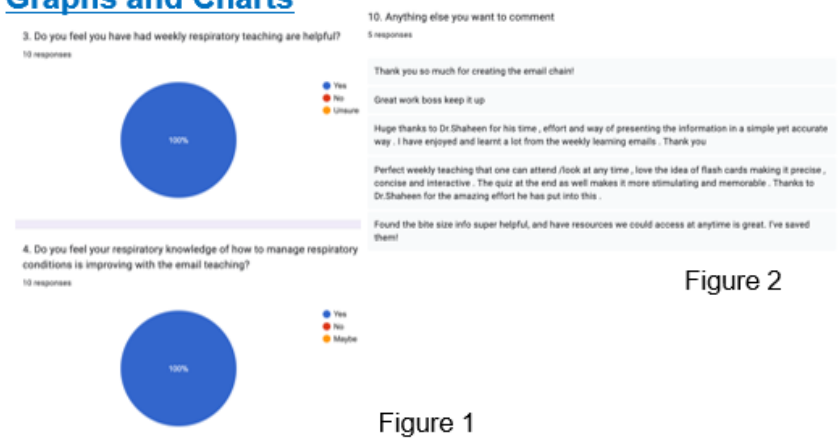


Figure 1

Figure 2

Example email

This Weeks topic is: **Asthma**

A breath-taking topic to get everyone into the weekly bite size emails! A common condition seen all year round. Here are key questions to ask yourself and your team:

- What is Asthma?
- How do we differentiate the severity of an asthma attack?
- What are features of a severe Asthma attack?
- What are the usual doses of Nebulisers and steroids given to a patient in an asthma attack? (what's the difference in steroid doses in asthma and COPD)
- When do we give magnesium? When do we give Aminophylline? When is Intubation required?
- When to escalate to your registrar or ITU
- Are there any discharge criteria's that can help discharge an asthma attack from ED?

Ideas for portfolio: CBD and Mini CEX for Asthma discussion, examination, or clerking. DOPs for ABG and even Peak flow measurement.

Audit idea: Please discuss with your local audit lead but here are some ideas to get you thinking: 1) Are regular (BD) peak flows being recorded for Asthma exacerbation as inpatients? 2) Is the severity of asthma exacerbation being documented on clerking? 3) Are the correct doses, frequency and days of nebulisers and steroids given as per guideline? 4) Are GPs seeing asthma exacerbation within 72hrs as per guidelines?

Useful links:

Basic

- Visual learners:
  - https://www.nice.org.uk/guidance/ng245
  - https://www.brit-thoracic.org.uk/education-and-events/bts-webinars/btsnicesign-joint-asthma-guideline-webinars/
- Auditory learners – **Please listen on your commute to/from work**
  - https://www.podomatic.com/podcasts/medeastmids/episodes/2020-11-26T23_34_13-08_00

Advanced

- Visual learners:
  - https://emcrit.org/ibcc/asthma/
- Visual and auditory learners:
  - https://www.youtube.com/watch?v=HMYoAqWK4qw&ab_channel=CriticalCareTeaching
- Auditory learners
  - https://www.podomatic.com/podcasts/medeastmids/episodes/2022-07-01T04_33_34-07_00

Test yourself with study cards!

- https://www.brainscape.com/p/9E7LE-LH-DMUHF

Shahen's top advice

- Always begin with an A to E approach for asthma exacerbations
- ABG is very important in working out severity as well as escalating to ICU
- Ask about previous ICU admission and whether they have been intubated with their asthma
- Ask what their best peak flow is on clerking (if they don't know then you can calculate approx. best peak flow with online calculator)
- Check Eosinophils to see if raised!

Many Thanks

Dr Shaheen Shahid
Respiratory SpR

Conclusion

Weekly bitesize email teaching is an effective, well-received method to deliver respiratory education for rotational RDs and ACPs. Participants self-reported that they had perceived improvement in knowledge, confidence, and respiratory patient care.

Discussion

Whilst our QI had self-reported measurements and was small in scale, the project did show good initial feedback from RDs and ACPs. This framework for bite-size educational learning is well suited for busy ward environments and/or rotational staff. Further work should focus on objective outcome measures and sustainable delivery— there is potential to scale this framework via our regional respiratory education networks.

Rota & Workforce Communication Quality Improvement Project (QIP)

Zhao Xuan Tan[1], Ambreen Sadiq[2]

1) Intensive Care Medicine, Queen Elizabeth Hospital Birmingham
2) General Medicine, Heartlands Hospital, Birmingham

University Hospitals Birmingham NHS Foundation Trust

Aim

- To consider the outcomes and recommendations from cycle 1, review current practice and assess how we may be able to improve the working conditions, staffing levels, and overall well-being of resident doctors at each of our hospital sites, thereby enhancing patient care and safety.

Objectives

- Improve Rota Management
- Enhance Staffing Levels
- Clarify Payroll Processes
- Strengthen Communication
- Enhance Sickness Cover
- Support Resident Doctor Well-being
- Promote Exception Reporting

Demographics of Respondents

- There are a total of 280 respondents, ranging from locum (3), international training fellow (20), locally employed doctors (LEDs) (123) and doctors in training (132). Amongst these respondents, 141 of them were core trainees, 68 were registrars, 63 of them were foundation trainees. There were 8 respondents who did not declare their grade. Majority of respondents (124) work in QEHB, followed by 93 respondents from BHH, and 44 respondents from GHH. These respondents are from various medical specialties in UHB Trust.

GOSW and Exception Reporting

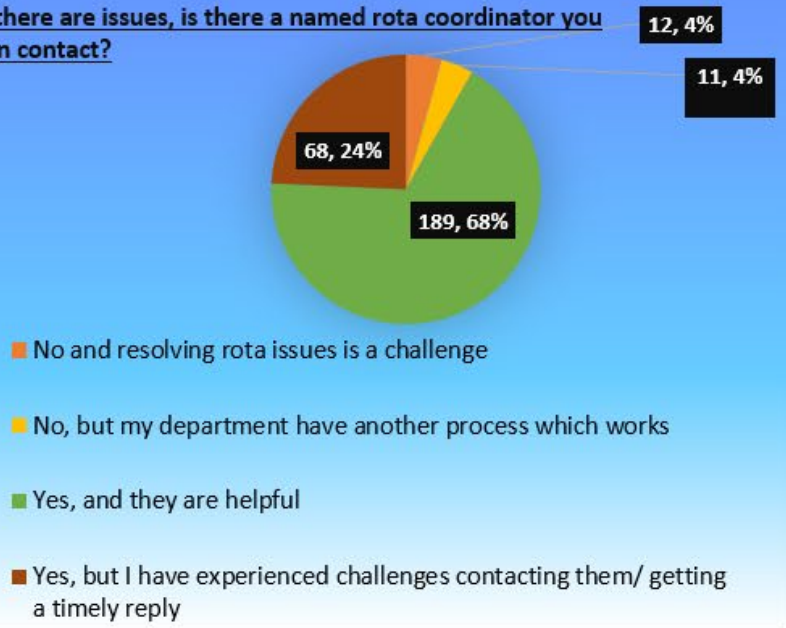
- Our Trust expanded exception reporting to our locally employed doctors (LEDs) in August 2024. This expansion affects the work of the whole team.
- Several key factors affect team morale: workload, work-life balance support, educational opportunities, staffing levels, rota gaps, and stress/burnout.
- 57% of respondents are aware of the process to submit exception report. 17% of respondents had submitted exception report, but 5% of the respondents are not satisfied with the outcome. Fear of repercussions and blame culture remain significant barriers to exception reporting. Resident doctors may also believe that exception reporting won't lead to meaningful changes.
- The Trust needs to foster a culture where exception reporting is recognized as a contractual right—one that directly impacts both doctor wellbeing and patient safety

Resident Doctor Wellbeing Officers

Are you aware of Resident Doctor Wellbeing Officers?

- Provide pastoral support that is independent from the clinical and educational supervisory framework.
- Have key working relationships with Post Graduate Medical Education in support of Resident Doctors Wellbeing.
- Can assist with confidential referrals to Occupational Health and signpost to other health professionals.
- There is 37% improvement compared to last year.

If there are issues, is there a named rota coordinator you can contact?



Medical Workforce Team and Rota

There is 14% improvement this year compared to last year as there were 71% (198) respondents who received their rota at least 6 weeks prior to start of placement.

A majority (55%) of respondents had to organise swaps themselves without any support.

51% of respondents often get their break on a normal working day. On the other hand, 2% of respondents never get their break on a normal working day. For long day on call shift, 42% of respondents often get their break, whereas 4% of respondents never get their break. 46% of respondents often get their break on a night shift, compared to 6% who never get their break.

The most challenging aspect of managing current rota is when people informed under short notice because individualising rotas and adjusting for specific needs take a lot of time manually.

Sickness reporting policy compliance has been an issue.

Challenges around annual leave primarily relate to minimum staffing requirements not being met.

Conclusion

Key recommendations in this QIP include improving the shift swap process, proper management of sickness notification, effective communication between parties. Additionally, reinforcing the role of the GOSW within the Medical Education division and encouraging exception reporting were suggested to address these concerns.

In a recent Royal College of Physicians (RCP) survey, 56% of resident doctors were not satisfied with their training. Many reported lack of supervision, excessive rota gaps, limited access to outpatient and procedural training. Doctors need to learn a broader set of skills, including leadership, digital or risk-management skills, to equip them for modern consultant roles.[1]

Apart from that, patient safety is an aspect of our consideration in this QIP. This is evaluated via opportunity for resident doctors to take break during shifts. There is still margin for improvement to encourage resident doctors to take break to improve work performance and minimise harm to patients. Consequences of staff fatigue include impaired decision making, medication errors, reduced attention and vigilance, incivility.[2]

References

1. RCP 'next gen' survey: fewer than half of resident doctors surveyed are satisfied with their clinical training.
2. The impact of staff fatigue on patient safety.

Improving the Acute Medical On-call Handover through Implementation of a Standardized Check-list

Dr Marios Magriplis, Dr Mahmood Zabioullah Fokeerbux, Dr Ahmed Yusuf, Dr Mobolaji Olaniyan

Aim:

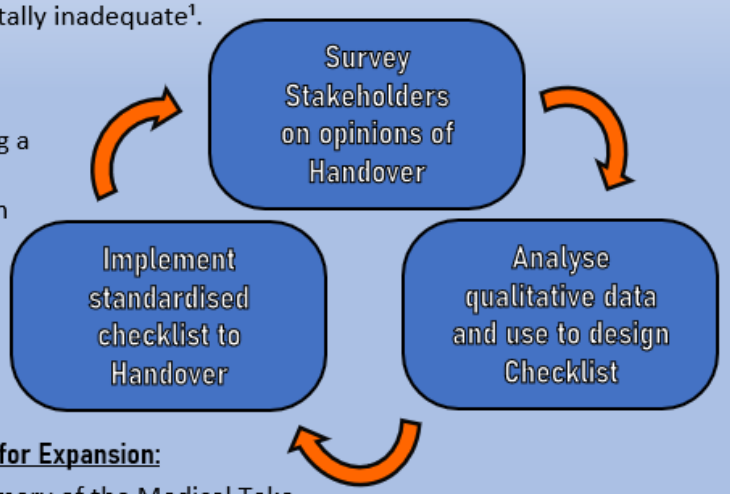
To improve the quality and consistency of morning handovers in the acute medicine department in a District General Hospital

Background:

Continuity of care is vital to ensure safety for patients facing long waits for acute medical beds in the ED.
The clinical handover process is integral to continuity and without a standardised format there is a risk that the transfer of care can be inefficient, incomplete and fundamentally inadequate[1].

Method:

This quality improvement project surveyed stakeholders anonymously to assess perceptions of the handover process using a Likert scale from 1 (very poor) to 5 (very good).
Qualitative feedback identified key issues and guided the creation of a standardised checklist.
A post-implementation survey evaluated improvements.



Results:

25 initial survey responses

Areas for Improvement:
- Lack of Structure
- Lack of Handover Space

Areas of Strength:
- Efficiency
- Good Team Rapport

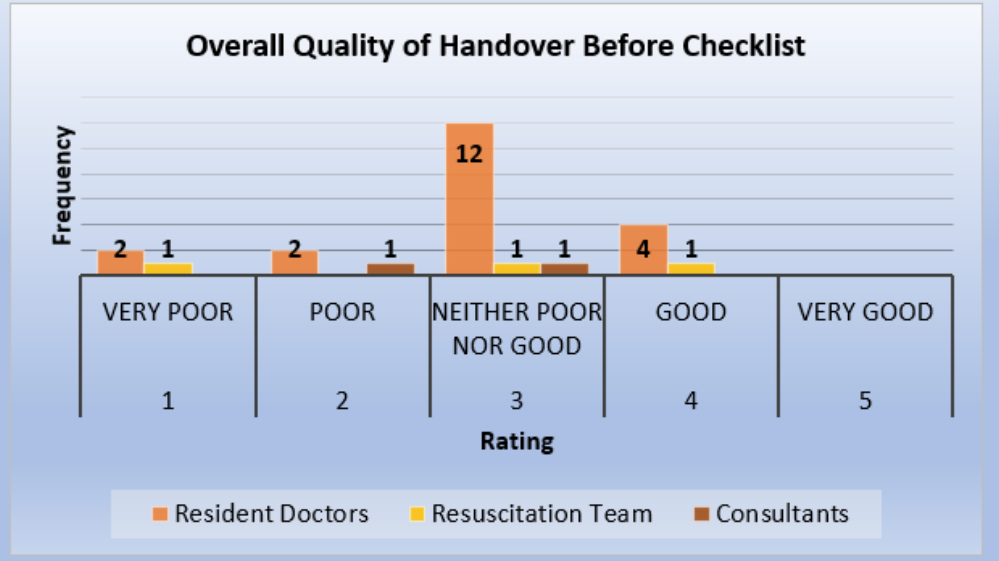
Areas for Expansion:
- Summary of the Medical Take
- Role Allocation for Emergency Response Team

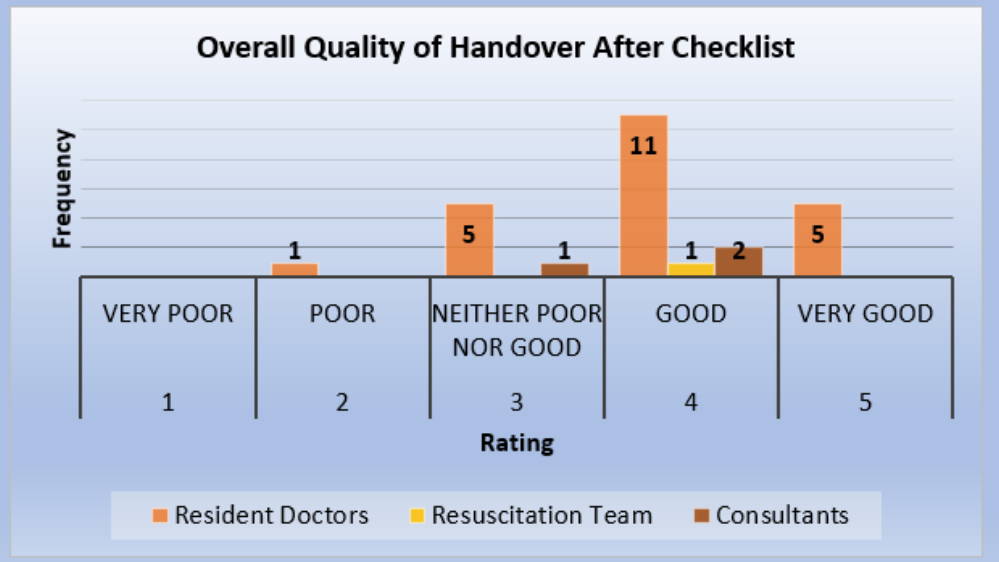
26 survey responses following use of standardised checklist.

Improvement in the Mean Rating of:
- Structure of handover from **2.71 to 3.81 out of 5**
- Accountability to tasks from **2.84 to 3.92 out of 5**
- Overall quality of handover from **2.84 to 3.88 out of 5.**

Conclusion:

Standardising the handover process with the use of a checklist improves the structure, Accountability to tasks and overall quality of the handover process. Handover practices vary between departments and hospitals however growing evidence suggests that implementing a standardised format that meets the departments needs can improve patient safety and outcome[2] .





References: [1] Royal College of Physicians. Acute care toolkit 1: Handover. London: RCP, 2011 Available from: https://www.rcp.ac.uk/improving-care/resources/acute-care-toolkit-1-handover/
[2] National Guideline Centre (UK). (2018). Emergency and acute medical care in over 16s: service delivery and organisation (NICE Guideline, No. 94). London: National Institute for Health and Care Excellence (NICE). [Chapter 32, Structured patient handovers].

Silencing the Chaos: Bleeping Less, Healing More

A Quality Improvement Project at the Wrexham Maelor Hospital

Conducted by Dr Jennifer Champion and Dr Patrick Perryman-Owens

1. Introduction

Resident Doctors on call receive a large number of bleeps which are often related to non time critical jobs[1]. This interrupts the workflow of the on call resident doctor, leading to less available time for clinical concerns[2]. This quality improvement project was created from concerns raised to the resident doctors' forum regarding bleep burden and aimed to reduce bleep burden.

2. Materials and methods

Data was requested from switchboard of number of bleeps to the medical ward cover bleep over 3 days, randomly selected from the month through a random number generator. The timing of the bleeps was then divided into weekday evening shifts, weekend day shift and night shifts.

The "4 bleep rule" was then established following discussion with the clinical director and head of nursing. This stated that the on call doctor should only be bleeped for the following:

1. A sick patient where advice or review is required
2. A patient who has suffered a fall/accident. A patient who has suffered any fall with obvious harm
3. To confirm death in a patient who appears to have passed away.
4. To give advice or perform any necessary function to ensure that time critical medication or fluids are not delayed.

Following the intervention being established and used across all medical wards, a further period of data collection occurred over two weeks. Data was collected both from switchboard, and also via questionnaires given to the on-call doctor.

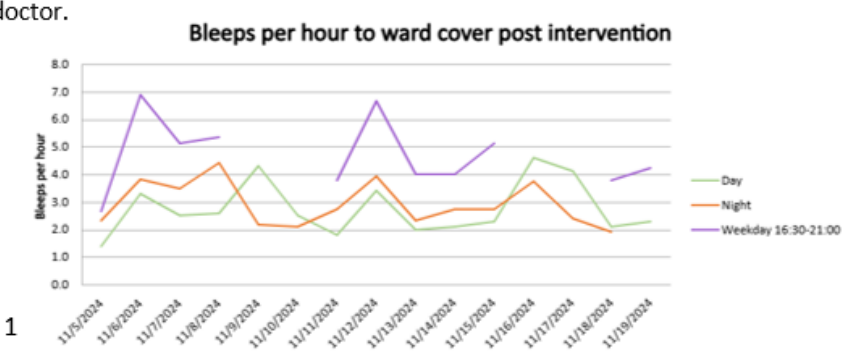


Fig. 1

3. Results and discussion

Prior to the "4 bleep rule", on average (mean), the following bleep frequency was observed: 5.38 bleeps/hour per weekday evening, 4.48 bleeps/hour on a weekend day and 3.36 bleeps/hour per night. Following the introduction of the rule, bleep frequency over all three shifts were observed to have fallen: 4.7 bleeps/ hour per weekday evening, 2.8 bleeps/hour per weekend day and 2.9 bleeps/hour per night.

From questionnaire results, 391 bleeps were recorded by the resident doctor over 2 weeks (response rate of 52%). When assessing appropriateness of bleeps, the 69 bleeps unanswered on one end were excluded. Of the 322 remaining bleeps, 49 were inappropriate (15.2%), with 55% of the inappropriate bleeps being for non urgent medications.

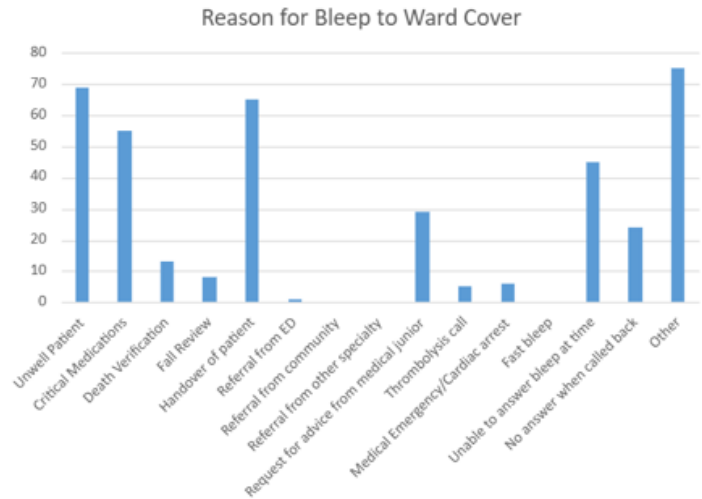


Fig. 2

4. Conclusion

Introducing the 4 bleep rule has helped to reduce bleep burden on resident doctors on call, allowing more time for clinical tasks. The evening ward cover shifts remains the busiest shift. To address this, a 3pm huddle is being introduced to address routine jobs within day time hours. The bleep system is presently used for doctor to doctor handovers – alternative systems are being now explored.

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From Final Year to FY1 : Enhancing Final Year medical students' Confidence and Competence for Out-of-Hours Task

Hannah Sung1, Giselle Ngan2, Evita Muller2, Anna Gurung2, Tessa David2, Sanad Kamal2

NHS
Royal Devon University Healthcare
NHS Foundation Trust

Background

The transition from medical school to a foundation year 1 doctor is widely recognised as one of the most challenging stages of training

Newly qualified doctors often feel underprepared for out of hours (OOH) work, particularly in :

- managing acute unwell patients
- prioritising tasks under pressure
- navigating a new clinical system like EPIC

These gaps can compromise patient safety and contribute to stress, hesitation and burnout

Aim

The lack of structured undergraduate training focused on OOH readiness is identified

To improve final year medical students' confidence and preparedness for common OOH tasks by >50%, through a structured two hour simulation based training session

Methodology

The Plan-Do-Study-Act (PDSA) cycle methodology is adopted.

Plan - current F1 doctors were surveyed to identify the most challenging and common OOH tasks encountered.

Do - from the above information, six simulation stations are designed, which include

hyperglycaemia, fluid review, falls, deteriorating patients, chest pain and results review. Each station consists of a 10-minute interactive scenario followed by a 5-minute focused feedback and mini-teaching session. The scenarios mirrored real F1 experiences with immediate facilitator feedback

Study - Participants completed pre- and post-session Likert scale surveys assessing confidence

Act - feedback used to refine scenarios and integrate more realism

Results

Data showed a significant improvement in self-reported confidence across all domains

- Confidence in early recognition and timely escalation of deteriorating patients
- Felt better equipped to prioritise multiple tasks in a safe and structured way - reported improved clarity and confidence
- Clear boost in overall preparedness for realities of OOH clinical scenarios

Qualitative feedback reflected relevance and realism, confidence and preparedness and facilitator feedback, for example

- "Scenarios mirror what we face on call - I feel like a real shift"
- "Now I know how to structure tasks and escalate safely"
- "Immediate feedback made it clear what I did well and where to improve"

Acting upon feedback from cycle 1, improvements were made to facilitate further realism of OOH shifts and the integration of real-time elements

- EPIC playground incorporated from cycle 2 onwards

This has yielded further significant improvement in stations like the task board and more positive qualitative feedback highlighting improved engagement and realism.

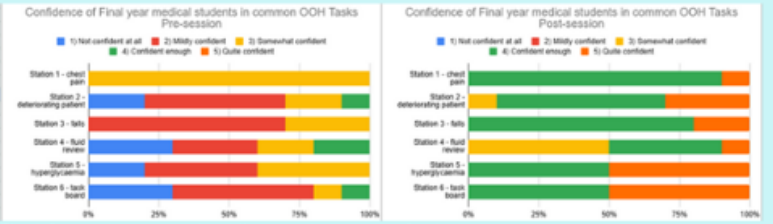

Fig. 1 Pre and post session Likert scale survey - Cycle 1

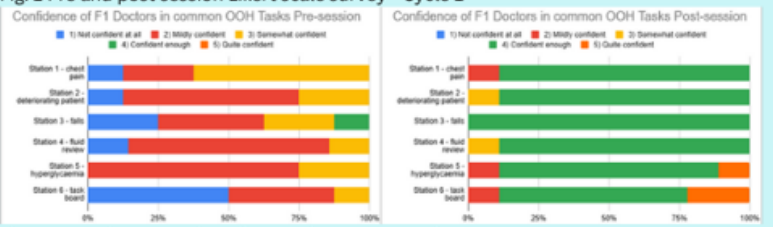

Fig. 2 Pre and post session Likert scale survey - Cycle 2

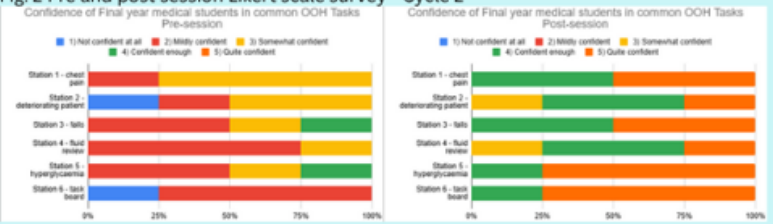

Fig. 3 Pre and post session Likert scale survey - Cycle 3

Next Steps

In order to further enhance realism and mimic the real-life time-pressured scenario, the bleep system will be incorporated into future sessions, to simulate the unpredictable and often chaotic nature of receiving multiple concurrent clinical tasks

Long-term vision: to make these simulations an ongoing, integrated part of medical education.

Conclusion

This pilot showed the importance of good medical education with simulation scenario to better prepare medical students for real life challenges as resident doctors. This not only improves individual preparedness, but directly contributes to patient safety, clinical efficiency and well being of doctors.

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Scan to download ReSPECT form sample

ReSPECT

A Quality Improvement Project

HOW DID WE DO?

Casserene E Shen Yeow, Olamide Oladipupo, Akmal Hallman, Nur Edriana Hizreen M Hizam

NHS
Norfolk and Norwich University Hospitals
NHS Foundation Trust

Background

The Recommended Summary Plan for Emergency Care and Treatment (ReSPECT) enables discussions with patients or representatives about treatment preferences and care escalation, including CPR. Introduced in 2015, it is now widely used across NHS trusts in England. It provides personalised recommendations for emergencies when patients cannot make decisions, forming a key part of Advanced Care Planning (ACP) in geriatric care.

Objectives

To improve the completion of ReSPECT form in geriatric wards and to increase awareness and completion of ACP in geriatric wards.

Methods

- Reviewed 100 inpatient records from five geriatric wards at Norfolk and Norwich University Hospital.
- Assessed ReSPECT form completion against Resuscitation Council UK guidelines.
- Delivered a targeted educational session following presentation of initial findings.
- Conducted a re-audit of 63 patients two weeks later to assess improvement.

Table 1

Results

- Overall ReSPECT form completion improved only slightly from 70% to 72% after intervention.
- Section 4b (CPR and escalation decisions) showed high completion (84% → 92%).
- Detailed ACP documentation declined (14% → 11%).
- Clinician feedback indicated that ACP discussions were often viewed as inappropriate for the acute setting and should be initiated in the community.
- Section-by-section completion rates are summarised in Table 1.

Conclusion

Overall improvement in ReSPECT completion and ACP engagement was minimal despite staff education. Time constraints, staff uncertainty, and unclear guidance highlight the need for continued training and system-level change.

References

- Resuscitation Council UK. ReSPECT: Recommended Summary Plan for Emergency Care and Treatment. 2015. [www.resus.org.uk/respect]
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