



**National Foundation  
Doctors Presentation  
Day**

 **UK  
Foundation  
Programme**



# Abstract Book



**Friday 17  
January 2025**



Sheffield United Football Club, 2 Bramall Ln, Highfield, Sheffield S2 4SU

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We are very grateful for the continued support from the following organisations, who kindly gave up their time to support the event:



#### Trade stands

Helen Johnson, Ashley Byford, Catherine Gouveia  
**NHS England (enhance programme)**

Phil Greenwood,  
**Institute of Medical Ethics**

Rosalind Saul & Rachel Ball  
**General Medical Council**

Sandiep Sekhon, Scott Martin, Paul Archer  
**The MDU - Professional medical indemnity**

Claire Mitchell & Natalie Fitzpatrick  
**British Medical Association**

# Introduction

Welcome to the National Foundation Doctors Presentation Day 2025. This event is proudly hosted by the UK Foundation Programme Office (UKFPO).

We are thrilled to offer this opportunity for current foundation doctors to present their work at a national meeting and look forward to seeing and hearing about their contributions to medicine and to the NHS. This year, the UKFPO welcomed attendees to the event at Sheffield United Football Club.

## Format

Foundation doctors from across the UK were invited to submit abstracts relating to quality improvement / sustainability work, education, research or original work, and clinical case reports undertaken during their Foundation Programme training. A total of 561 abstracts were submitted. Successful applicants were then invited to present on the day, with the top abstracts being selected for either oral or poster presentations. Oral presentations are 10 minutes in length, with 8 minutes to present and 2 minutes for questions. Poster presentations are carried out in a “mini-oral” format, with 2 minutes to explain the key messages of the poster and 1 minute for questions.

## Category winner

The oral presentations and each poster group were judged by their category group panel. One oral presentation and one poster from each poster group were selected as the category winner. The oral presentations and each poster group were marked by panels of judges against a set of criteria including choice of subject; presentation and visual aid; depth of knowledge, evidence or research, literature review; and conclusions.

## About the National Foundation Doctors Presentation Day

For 15 years, the National Foundation Doctors Presentation Day has highlighted and celebrated the achievements of foundation doctors across the UK. The primary focus of the day is on FY1 and FY2 doctors delivering oral and poster presentations, showcasing their work in sustainability, case reports, education, research and quality improvement to their peers and senior foundation faculty, and inspiring us all.

This year we were delighted to welcome Dr Navina Evans, Chief Workforce, Training and Education Officer for NHS England, as our keynote speaker, conveying the importance of respect, continuous learning, curiosity and the value of self-care.

The event also provides opportunities for organisations such as the GMC, BMA, MDU Institute of Medical Ethics and enhance programme to engage with this dynamic and enthusiastic cohort of doctors at the start of their career.

# Speakers and session chairs

## Dr Mike Masding, MA (Ed) FRCP



Dr Mike Masding is co-chair of the UK Foundation Programme Office and the Lead Foundation School Director in England. He has previously been Head of Wessex Foundation School, and Foundation Programme Training Director and Director of Medical Education at the trust where he does his clinical work. The subject of his MA(Ed) dissertation at the University of Winchester in 2010 was workplace supervision of foundation doctors. He divides his time between UKFPO and clinical work as a

Consultant Physician & Diabetologist.

## Dr Navina Evans MBBS DCH MRCPsych CBE

Navina is the Chief Workforce, Training and Education Officer at the new NHS England, leading the Workforce, Training and Education (WT&E) Directorate. This means that NHS England has now taken on responsibility for all activities that were previously undertaken by HEE. This includes planning, recruiting, educating, and training the health workforce; ensuring that the healthcare workforce has the right numbers, skills, values and behaviours in place to support the delivery of excellent healthcare and health improvement to patients and the public. Dr Navina Evans was HEE CEO from October 2020 to April 2023. HEE was part of the NHS, and worked with partners to plan, recruit, educate and train the healthcare workforce. Previously Chief Executive of East London NHS Foundation Trust (ELFT) from 2016 to October 2020, Navina has over twenty years of clinical experience in psychiatry, medicine and paediatrics and previously held the positions of Deputy Chief Executive and Director of Operations.



Navina has worked as the Clinical Director for Child and Adolescent Mental Health Services at ELFT. She has also been involved in medical education and provided pastoral care to medical students. Navina acts as a trustee for Think Ahead Organisation which develops training programmes for mental health social work. She was awarded an honorary fellowship by the Royal College of Psychiatrists in 2020. She is a senior fellow at the Institute of Healthcare Improvement. Navina uses her voice in support of staff wellbeing and coproduction with patients, advocating for the best possible quality of life and creating a culture of enjoying work for staff. She was awarded the Commander of the British Empire in the 2020 New Year's Honours List for services to NHS Leadership and the Black, Asian and Minority Ethnic community.

### Dr Darya Dasha Ibrahim

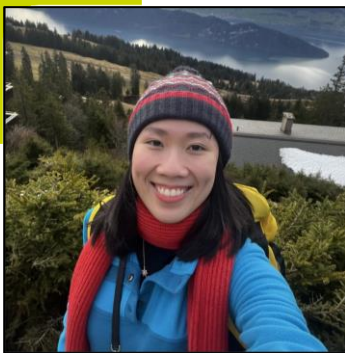
Dr Dasha Ibrahim is a Specialised Foundation Year 2 Doctor in Leadership based at Manchester Foundation Trust, currently working in the Emergency Department.

As one of two UKFPO Fellows for 2024-25, Dasha is working on several projects, with a primary focus on addressing sexism and sexual harassment.

Dasha is passionate about Health Management and Leadership, with a particular interest in promoting Equality, Diversity, and Inclusion in healthcare.



### Dr Jie Fei Lau



Dr Jie Fei Lau is a Malaysian FY2 doctor on the enhance Foundation Programme at Tameside Hospital, Greater Manchester and a UKFPO Fellow. Having graduated from the University of Aberdeen, Scotland, she loves sharing tales of her rural placements from the Outer Hebrides to the rugged coasts of Shetland to the Scottish Highlands. Her medical school experience has inspired her to incorporate her interest in medical humanities and remote & rural medicine in her UKFPO project “Humans of the Foundation Programme”- a platform for resident doctors to share their stories and spread creativity. Additionally, Jie Fei works closely with the North West Foundation Forum to

continue the work on widening access to training opportunities amongst resident doctors. She is keen on collaboration and looks forward to meeting like-minded individuals in this space.

Outside work, Jie Fei enjoys rock climbing in the Peak District and piano-playing in the quiet moments.

### Dr Fiona Cameron

Dr Fiona Cameron is Foundation School Director in Scotland and Chair of the AoMRC Foundation Programme Committee (AFPC). The AFPC is responsible for curriculum development and implementation. She has previously been Training Programme Director and RCoA regional adviser for Anaesthesia in the east region of Scotland. She is a Primary FRCA examiner and was Chair of the clinical subcommittee. She divides her time between her commitment to Foundation and clinical work in critical care and anaesthesia.



### **Dr Lorraine Parks, MMEDSci, FFARCSI**



Dr Lorraine Parks is Associate Postgraduate Dean & Director of Foundation Training for Northern Ireland. Dr Parks graduated in Medicine from Queen's University in 1991, and after completing Specialty training was appointed as a Consultant Anaesthetist in 2001. Throughout her career Dr Parks has had an interest in Medical Education. She was involved in the redesign of the QUB Undergraduate Medical curriculum 1998-2000 and appointed QUB Honorary Lecturer in 2001, progressing to Senior Lecturer in 2007.

In 2012, Dr Parks was appointed to the Northern Ireland Medical & Dental Training Agency (NIMDTA), to lead on the development and delivery of the Foundation Regional Teaching programme.

In 2016 she was appointed Deputy Director of the Foundation School, a post which she held until her appointment as Director of the Foundation School in 2018.

### **Dr Alison Ingham**

Dr Alison Ingham is the Deputy Foundation School Director for Wales and works as a consultant anaesthetist and intensivist in Bangor, North Wales. She was previously Foundation Training Programme Director in Bangor, and has also held educational roles in Undergraduate, ACCS and Intensive Care Medicine training. She has a leadership role in organ donation and sits on the National Organ Donation Committee. Currently she is undertaking a Diploma in Tropical Medicine and helping develop a partnership between her department in Bangor and a hospital in rural Sierra Leone. Outside of work she enjoys anything to do with mountains or the sea, for which Bangor is ideally located.



# Faculty

We would like to warmly thank our faculty who have kindly given up their time to support the event by shortlisting abstracts, judging on the day and providing logistical support on the day.

Shortlisting / judging	Faculty support
Alexander Gatt, FSD, Malta Alison Ingham, Deputy FSD, Wales Amelia Hughes, Deputy FSD, London Angela Cottrell, FSD, Peninsula Anne Edwards, FSD, Oxford Ben Hall, MOD Charlie Mackaness, FSD, Trent Chipo Ndlovu, FSD, West Midlands North Christopher Knight, South West Craig Davidson, NICE Dasha Darya Ibrahim, UKFPO Fellow Eduardo Villatoro, Deputy FSD, Trent Fiona Cameron, FSD, Scotland Fionnuala Crummy, Deputy FSD, London Helen Barker, FSD, East of England Jessica Daniels, FSD, Severn Jie Fei Lau, UKFPO Fellow John Tabone, FSD, Malta Julian Chilvers, FSD, West Midlands Central Kath Higgins, Deputy FSD, LNR Lorraine Corfield, Institute for Medical Ethics Lorraine Parks, FSD, Northern Ireland Manjula Pammi, Deputy FSD, Trent Mike Masding, UKFPO co-chair Murthy Narasimha, FSD, West Midlands South Navina Evans, NHSE Paul Baker, FSD, North West of England Rachel Parry, FSD, LNR Ritwik Banerjee, FSD, East of England Ruth Eakin, Deputy FSD, Northern Ireland Sandiep Sekhon, MDU Sara Evans, Medical Education Leaders UK Susan Redward, GMC Stephen Taylor, FSD, Wessex Thomas Yapp, FSD, Wales	Anna Parsons, Wessex Elaine Colaço, UKFPO Courtney Hall, Y&H Jacqui Phazey-Baines, North West of England Joanne Huish, Wales Kata Várnai, UKFPO Karen Moore, Northern Ireland Kiran Kaur Padham, UKFPO Melissa Dixon, North West of England Rowentee Wong, Y&H Ryan Holmes, Y&H Sarah Sanders, Wales Sioned Edwards, Wales Sophia Berridge, UKFPO Stephanie Tindall, Y&H Sue Reid, Y&H Vanessa Davis, KSS



# Timetable

Sheffield United Football Club, 2 Bramall Ln, Highfield, Sheffield S2 4SU

Time	Activity	Session Chair	Room
08:30-09:15	<b>Registration, collection of name stickers, refreshments FDs to mount posters</b> ( <i>see rooms list</i> )		
09:15-09:25	<b>Welcome, housekeeping and introduction</b> Dr Mike Masding, Co-Chair of UKFPO		Pavillion
09:25-09:35	Travel to poster rooms		
09:35-10:35	Set 1: Oral Presentations x 5 (10 minutes each)	Dr Mike Masding	Pavillion
	Poster group 1: CR01: Case Report Poster Group 1		Directors Boardroom
	Poster group 2: CR02: Case Report Poster Group 2		Tony Currie
	Poster group 3: RO01: Research/original work Group 1		Sensory
10:35-10:50	<b>Refreshments &amp; changeover</b> ( <i>Trade stands and poster viewings</i> )		
10:50-11:50	Set 2: Oral Presentations x 5 (10 minutes each)	Dr Lorraine Parks	Pavillion
	Poster group 4: RO02: Research/original work Group 2		Directors Boardroom
	Poster group 5: ED01: Education Poster Group 1		Tony Currie
	Poster group 6: ED02: Education Poster Group 2		International
11:50-12:00	<b>Changeover / comfort break / trade stands and poster viewings</b>		
12:00-13:00	Set 3: Oral Presentations x 5 (10 minutes each)	Dr Fiona Cameron	Pavillion
	Poster group 7: QS01: QI / sustainability Poster Group 1		Tony Currie
	Poster group 8: QS02: QI / sustainability Poster Group 2		International
	Poster group 9: QS03: QI / sustainability Poster Group 3		Level 2 corridor
13:00-14:00	<b>Lunch</b> ( <i>Trade stands and poster viewings</i> )		
14:00-15:00	Set 4: Oral Presentations x 5 (10 minutes each)	Dr Alison Ingham	Pavillion
	Poster group 10: QS04: QI / sustainability Poster Group 4		Tony Currie
	Poster group 11: QS05: QI / sustainability Poster Group 5		International
	Poster group 12: QS06: QI / sustainability Poster Group 6		Level 2 corridor
15:00-15:15	<b>Changeover / comfort break / trade stands and poster viewings</b>		
15:15-15:35	<b>UKFPO Fellows</b> Dr Jie Fei Lau Dr Darya Dasha Ibrahim	Dr Mike Masding	Pavillion
15:35-16:10	<b>Keynote speech</b> Dr Navina Evans MBBS, DCH, MRCPsych	Dr Mike Masding	Pavillion
16:10-16:30	<b>Oral &amp; poster presentations winners</b> Dr Mike Masding, Co-Chair of UKFPO Dr Navina Evans MBBS, DCH, MRCPsych	Dr Mike Masding	Pavillion

# 2025 winners

Many congratulations to our 2025 oral presentation winners listed below:

Oral presentation prize	Presenters	Oral presentation title
Winner	Sapphire Cartledge & Matthew Moran North West of England Foundation School	OP003: Back to life in 4 hours: a return of spontaneous circulation after cardiac arrest
Runner up	Abbie Green East of England Foundation School	OP005: 'Work experience to widen access: experiences of a District General Hospital
Runner up	Beatrix Banks Severn Foundation School	OP019: 'The concordance between DVLA guidance and diagnostic outcomes of a first seizure clinic

Many congratulations to our 2025 poster winners listed below!

Poster group	Poster presenter(s)	Poster title
QS01 – QI / Sustainability group 1	Sumeya Faysal West Midlands Central Foundation School	QS105: 'Counselling on Antihypertensive Medication Prescribed to Women of Childbearing Age Attending Hypertension Clinic
QS02 – QI / Sustainability group 2	Nothiga Kumarakulasingham West Midlands South Foundation School	QS209: Heart Failure Virtual Ward: Path to a Sustainable NHS
QS03 – QI / Sustainability group 3	Se Rei Park & Jeong Hwa Hong Kent, Surrey & Sussex (KSS) Foundation School	QS310: 'Improving QTc Monitoring for Patients on Antipsychotics
QS04 – QI / Sustainability group 4	Victor Lim East of England Foundation School	QS405: 'Enhancing Sustainability and Efficiency in ENT Scope Disinfection: A Proposal for UV Disinfectant Technology
QS05 – QI / Sustainability group 5	Bethan Davies North West of England Foundation School	QS505: 'Improving the FY1 Emergency Department-Based Medical On-Call Role in an Acute District General Hospital - Foundation Year 1 Doctor and Acute Medicine Training Quality Improvement Project
QS06 – QI / Sustainability group 6	Molly Grace Abbott London Foundation School	QS602: 'Optimising referrals for paediatric first seizure clinic: A two-cycle QIP towards closer adherence to national 2-week wait guidelines
CR01: Case report group 1	Victoria Ngai & Basil Suresh London Foundation School	CR108: Abnormal retinal finding associated with orbital osteoma: case report
CR02 – Case report group 2	Ming Yang Yap Leicester, Northamptonshire & Rutland (LNR) Foundation School	CR212: Beyond the Typical: Isolated Liver Abscess, A Rare Case of Meckel's Diverticulum
RO01 – Research & original work group 1	Abdulrahman Shandala & Furkan Zurel North West of England Foundation School	RO102: Addressing barriers to bowel cancer screening
RO02 – Research & original work group 2	Kishan Lakhani Leicester, Northamptonshire & Rutland (LNR) Foundation School	RO205: Opportunistic Screening for Subclinical Cardiovascular Disease in Type 2 Diabetes using Digital Retinal Photography
ED01 – Education poster group 1	Daniel Smith & Rosie Solomon North West of England Foundation School	ED110: 'Acute Oncology for Foundation Doctors, a Two-site Two-stage Prospective Cohort Study and Educational Intervention
ED02 – Education poster group 2	Jun Jie Lim Yorkshire & Humber Foundation School	ED206: How to ... navigate specialised programmes for early career doctors in medical education



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# 2025 Abstracts



# Oral presentations

OP001

## Tackling Differential Attainment - Preparing for FY1 Around The World

### Authors

Haya Memon, Megan Pode, Liam Roach, Jaiesh Lilley

North West of England Foundation School

### Background

As medical students prepare for foundation training (FT), they face challenges transitioning from academic learning to practical application in clinical settings. We developed a teaching program incorporating insights and experiences from foundation year (FY) trainees, delivered virtually to address differential attainment, inclusive training, and support for diversity, as outlined in the GMC's 'Equality, Diversity and Inclusion: Targets, Progress and Priorities for 2023 Report'.

### Methods

We delivered a 12-part series of interactive workshops led by four FY1 Doctors, centred around patient communication, decision-making, prioritisation, and key skills. Participants included medical students from 24 universities across 11 countries. Google Form surveys assessed relevance, content, and confidence intervals.

### Results

408 students completed feedback forms across 12 sessions. 92.9% of students felt sessions improved their preparedness for FY, 92.3% found the teaching relevant, and 94.6% felt more confident.

### Key messages

Our program enhanced medical students' readiness for FT by leveraging trainees' experiences. Positive feedback underscores the value of peer-led education in bridging the gap between theory and practice. Future iterations of our series could include providing slides to international institutions for in person delivery, targeting underrepresented groups more specifically and training other FY Doctors in delivery to broaden reach.

### References

GMC 'Equality, Diversity and Inclusion: Targets, Progress and Priorities for 2023 Report' ([https://www.gmc-uk.org/-/media/documents/equality-diversity-and-inclusion---targets-progress-and-priorities-for-2023\\_pdf-108776261.pdf](https://www.gmc-uk.org/-/media/documents/equality-diversity-and-inclusion---targets-progress-and-priorities-for-2023_pdf-108776261.pdf))

## Gas Cooking Indoors and Respiratory Symptoms in the Longitudinal ECRHS Cohort

### Authors

Dr Holly Pan, Prof Debbie Jarvis, James Potts, ECRHS II and III Collaborators, Dr Elaine Fuertes

Kent, Surrey & Sussex (KSS) Foundation School

### Background

Gas cooking is a source of indoor air pollutants, however there is limited evidence for associations with respiratory health (1). Using longitudinal data from the international European Community Respiratory Health Survey (2), we assessed whether adults using gas cookers have increased risk of respiratory symptoms compared to electric cookers.

### Methods

Data on respiratory symptoms and gas cooking were collected from participants at 26-55 years and 38-67 years. Associations between gas cooking and respiratory symptoms were estimated using mixed-effects logistic regression models. Analyses were repeated for gas cooker type and gas source. Effect modification by ventilation habits, cooking duration, sex, age and atopy were examined.

### Results

The sample included 4337 adults (43.7% males) from 19 centres in 9 countries. Gas cooking increased the risk of "shortness of breath at rest" (OR=1.38; 95%CI:1.06-1.79) and "wheeze with breathlessness" (1.32;1.00-1.74). For other symptoms, effect estimates were larger in those using both gas hobs and ovens or cooked over 60 minutes daily. Stratifying results by sex found stronger associations in females.

### Key messages

This longitudinal international study suggested using gas cookers was more strongly associated than electric cookers with certain respiratory symptoms. As gas cooking is common, these results may play an important role in population health.

### References

1. Vardoulakis S, Giagloglou E, Steinle S, Davis A, Smeuwenhoek A, Galea KS, et al. Indoor Exposure to Selected Air Pollutants in the Home Environment: A Systematic Review. *International Journal of Environmental Research and Public Health*. 2020;17(23):8972.
2. Burney PG, Luczynska C, Chinn S, Jarvis D. The European Community Respiratory Health Survey. *Eur Respir J*. 1994;7(5):954-60.

OP003

## Back to life in 4 hours: a return of spontaneous circulation after cardiac arrest

### Authors

Sapphire Cartledge, Matthew Moran, Alice Southwell, Cuong Dang

North West of England Foundation School

### Background

Lazarus syndrome describes a return of spontaneous circulation (ROSC) following termination of CPR.(1) We report the case of a 56-year-old female patient who suffered a cardiac arrest and had delayed ROSC 4½ hours after CPR was stopped.

### Case presentation

After initial admission with decompensated heart failure on an extensive cardiac background, the patient was found unresponsive and pulseless. After 36 minutes and two shocks, CPR was stopped. Death certification was delayed as the patient had agonal breathing. Four hours later, the patient opened her eyes, had a carotid pulse, and was GCS 9. She was sent to the cardiac unit for monitoring and started on ACS treatment.

### Outcome

An ECG showed no signs of acute ischaemia, and a CT head showed no acute infarcts but suggested potential basilar artery occlusion. After a 5-week inpatient stay the patient was discharged home with cardiology follow-up.

### Follow up discussion

'There are several proposed mechanisms behind Lazarus syndrome.(2,3) We postulate the patient may have had myocardial reperfusion due to a dislodged thrombosis and was in a low output state. Key learning points from this case were importance of adherence to the death verification process, an awareness of clinicians to Lazarus syndrome, and the team decision on termination of CPR.

### References

1. Linko K, Honkavaara P, Salmenpera M. Recovery after discontinued cardiopulmonary resuscitation. *Lancet*. 1982;1(8263):106–7
2. Gordon, L., Pasquier, M., Brugger, H. et al. Autoresuscitation (Lazarus phenomenon) after termination of cardiopulmonary resuscitation - a scoping review. *Scand J Trauma Resusc Emerg Med* 28, 14 (2020). <https://doi.org/10.1186/s13049-019-0685-4>
3. Rzeźniczek P, Gackowska AD, Kluzik A, Cybulski M, Bartkowska-światkowska and Grześkowiak M. Lazarus phenomenon or the return from the afterlife- What we know about auto- resuscitation. *J Clin Med*. 2023; 12(14):4704. Doi: 10.3390/jcm12144704

## Angiotensin Converting Enzyme Inhibitor Induced Angioedema - A Rare but Life-Threatening Reaction

### Authors

Dr Vaishnavi Hemdev, Dr Muhammad Yousaf Khalid

Yorkshire & Humber Foundation School

### Background

Angiotensin-converting enzyme inhibitors (ACEi) are commonly prescribed for hypertension and cardiovascular disease. While side-effects remain mild, ACEi-induced angioedema is a rare but life-threatening reaction. Over a 4.5-year retrospective study, ACEi-induced angioedema accounted for 51.7% of angioedema admissions, with 25% requiring intubation (1). Unlike histamine-mediated angioedema, ACEi-related angioedema presents with a delayed onset. Late recognition can lead to severe airway compromise, emphasising the importance of prompt diagnosis (2).

### Case presentation

A 65-year old female presented to A&E with a three hour history of a grossly enlarged tongue, intermittent dyspnea, and dysphagia. There was no neurological deficit, urticaria or clinical signs of anaphylaxis. Her medical history included crohn's disease, pernicious anaemia, and hypertension. Medications included Ramipril, an ACEi, which she had been taking for the past five years.

### Outcome

Hydrocortisone was an ineffective treatment. Adrenaline was then administered intramuscularly after which her symptoms resolved immediately. Close airway monitoring was maintained throughout and no intubation was required.

### Follow up discussion

ACEi induced angioedema can present years after medication use. Delayed recognition significantly increases the risk of airway compromise and mortality. Early identification and management are critical in preventing fatal outcomes. Clinician awareness of this unpredictable adverse reaction is essential due to the limited diagnostic investigations available.

### References

1. Weisman DS, Arnouk N, Asghar MB, Qureshi MR, Kumar A, Desale S, et al. ACE inhibitor angioedema: characterization and treatment versus non-ACE angioedema in acute hospitalized patients. *J Community Hosp Intern Med Perspect*. 2020;10(1):16-8.
2. Jackeviciute J, Pilvinis V, Pilviniene R. Fatal outcome of late-onset angiotensin-converting enzyme inhibitor-induced angioedema. *Medicine (Baltimore)*. 2018;97(31).



OP005

## Work experience to widen access: experiences of a District General Hospital

### Authors

Dr Abbie Green

East of England Foundation School

### Background

Harlow and its surrounding area fall within the lowest quintile of POLAR4, with an average A level grade four below the Essex average. Despite a well-developed medical work experience program at Princess Alexandra, most participants come from London rather than local schools and postcodes.

### Methods

Five local schools were identified within three miles of the hospital that provide post- 16 qualifications. Through school connections, students who met widening access criteria for two partner medical schools, Anglia Ruskin and Barts and the London, were identified.

A small pilot group of these students undertook a week of clinical observership and tailored application sessions, all developed using local resources.

### Results

Engagement with the pilot program was low, with all students coming from a single school. Relying on schools as points of contact highlighted the need for more engaged 6th form or careers leads to drive the program. Additionally, the lack of A-level requirements for application led to some students attending who were unable to apply for medicine.

### Key messages

- Schools have a lower-than-expected understanding of the medical application process.
- Earlier and targeted engagement with both schools and students is needed.
- While open entry requirements widen access, it's important to align them with medical school entry requirements.

### References

Nil

## 'What I Wish I Knew': Delivering a Novel Bridging Curriculum to Support Newly Qualified Physicians In Their First Year Of Practice

### Authors

Emily Morris, Sonia Johnson, Sam Krasner, Anam Choudhry, Tatiana Rooney, Isabelle Zou, Ella Dunlop, Nicholas Farmer, Robbie Adamson, James Hughes

Oxford Foundation School

### Background

Newly qualified physicians often feel underprepared for the practical demands of Foundation Year 1 (FY1), particularly in acute care, prescribing, and managing patient deaths. This study aimed to develop and evaluate a novel curriculum to bridge the gap between medical school and clinical practice.

### Methods

The curriculum was created by identifying FY1 knowledge deficits through the Foundation Doctor Handbook App (206,605 document views by 4,849 FY1s) and a cross-sectional survey of 51 FY1 doctors. It was delivered to final-year medical students between February and July 2024 through 10 online sessions and 2 in-person on-call simulations. Participants' knowledge, confidence, and teaching quality were evaluated through pre- and post-session surveys using Likert scales.

### Results

A total of 619 students from 58 countries attended at least one online session. Confidence scores significantly increased from a mean of 3.26 to 4.75 out of six ( $p < 0.0001$ ), with high ratings for teaching quality (mean 5.48) and utility (mean 5.47). On-call simulations also led to substantial confidence improvements, particularly in task prioritization and remote patient reviews.

### Key messages

The curriculum significantly enhanced students' knowledge and confidence in key clinical skills. Simulation-based learning and interactive case discussions were highly effective, offering further preparation before encountering the challenges of clinical practice.

### References

- [1] Tallentire, V. R., Smith, S. E., Skinner, J. & Cameron, H. S. The preparedness of UK graduates in acute care: a systematic literature review. *Postgrad Med J* 88, 365-371 (2012).
- [2] Monrouxe, L. et al. How prepared are UK medical graduates for practice? Final report from a programme of research commissioned by the General Medical Council - ORCA. General Medical Council (2017).
- [3] Wakeford, R. & Roberts, S. An evaluation of medical students' practical experience upon qualification. *Med Teach* 4, 140-143 (1982).

[4] Burford, B., Whittle, V. & Vance, G. H. S. The relationship between medical student learning opportunities and preparedness for practice: a questionnaire study. *BMC Med Educ* 14, 223 (2014).

## Improving the management of acute kidney injuries in vascular surgery patients; the MDT approach.

### Authors

Jack F. Bennett

North West of England Foundation School

### Background

Acute kidney injury (AKI) is a common postoperative complication in vascular surgery, leading to increased morbidity, mortality, and healthcare costs (1,2). Given its significance, this quality improvement project aimed to optimise and enhance the care provided.

### Methods

All vascular surgery patients who developed an AKI at a tertiary hospital between 01/06/23 and 31/12/23 were identified and their records were evaluated for compliance with the NICE NG148 guideline (3). Educational interventions were then held for the entire multidisciplinary team (MDT) including healthcare assistants, domestic staff and allied health professionals. A second cycle of the audit was then undertaken.

### Results

62 patients were identified (38 in cycle one); 69.35% were male and the mean age was 71.23. Improvements were observed in compliance for imaging (40.00% to 75.00%), nephrology referral (61.54% to 100.00%), urinalysis (15.79% to 31.82%) and repeat blood tests (81.58% to 93.62%) however it decreased for fluid prescriptions (88.24% to 80.00%). Overall, medication compliance increased (52.17% to 64.00%) with notable improvements in anti-hypertensive medication (53.85% to 80.00%). Documentation of fluid status and urine output remained at 100%.

### Key messages

Educational interventions involving the MDT, instead of just clinicians, improved care quality and safety for vascular surgery patients with AKIs.

### References

1. Hobson C, Lysak N, Huber M, Scali S, Bihorac A. Epidemiology, Outcomes and Management of Acute Kidney Injury in the Vascular Surgery Patient. *J Vasc Surg*. 2018 Sep;68(3):916–28.
2. Safley DM, Salisbury AC, Tsai TT, Secemsky EA, Kennedy KF, Rogers RK, et al. Acute Kidney Injury Following In-Patient Lower Extremity Vascular Intervention: From the National Cardiovascular Data Registry. *JACC: Cardiovascular Interventions*. 2021 Feb 8;14(3):333–41.
3. National Institute for Health and Care Excellence. Acute kidney injury: prevention, detection and management [Internet]. 2023 [cited 2024 Oct 14]. Available from:

<https://www.nice.org.uk/guidance/ng148/chapter/Recommendations#managing-acute-kidney-injury>

OP008

## Direct Admission to PPCI Centres in Out of Hospital Cardiac Arrests and Effect on Survival

### Authors

Alexander Hunt, Justin Chiong, Farzin Fath-Ordoubadi

North West of England Foundation School

### Background

Out-of-hospital cardiac arrests (OOHCA) are a major cause of mortality in the UK, commonly due to acute myocardial infarction. Survival-to-discharge rates remain low. The European Society of Cardiology recommends invasive coronary angiography (ICA) and primary percutaneous coronary intervention (PPCI) for select patients with high-risk features of acute coronary occlusion. However, direct transfer to PPCI centres is not uniformly practiced; ambulance protocols varying across regions. This study compares outcomes of OOHCA patients with high-risk coronary occlusion transferred directly to PPCI centres versus those transferred from non-PPCI centres.

### Methods

Data from the Myocardial Ischaemia National Audit Project (March 2020–March 2023) identified OOHCA patients undergoing ICA in our trust. Patients were grouped by direct or indirect admission to PPCI centres. Demographics, call-to-balloon (CTB) times, procedural details, and outcomes were recorded. The primary outcome was survival to discharge.

### Results

Among 258 patients (61±12 years, 80% male), 146 (57%) were directly admitted and 112 (43%) indirectly transferred. CTB time was shorter for direct admissions (138 vs 242 minutes,  $p<0.01$ ). Survival-to-discharge was higher for direct admissions (80% vs 65%, Hazard Ratio 0.54; 95% CI, 0.34 to 0.88;  $p=0.01$ )

### Key messages

Direct transfer to PPCI centres improves survival in OOHCA patients, warranting further research into streamlining care pathways.

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OP009

## Management of eating disorders in general paediatrics

### Authors

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### Background

An estimated 725,000 people in the UK have an eating disorder (ED), with a 90% increase in the rate of ED hospital admissions between 2015/2016 and 2020/2021 accounted for by children and young people.

In 2021, an audit was carried out on Rainbow ward at Wigan infirmary to assess adherence to the MARSIPAN guidelines (Management of Really Sick Patients with Anorexia Nervosa). Following its findings, quality improvement measures were instated: appointment of an in-reach mental health nurse, twice weekly MDTs for ED admissions, and pre-planned admissions for EDs.

### Methods

A repeat audit was carried out in 2024, analysing all ED admissions from December 2022 to May 2024 for variables such as age, gender, length of stay (LOS), discharge status, average weight at admission vs discharge, and percentage of patients requiring NG feeds or sectioning under the Mental Health Act (MHA).

### Results

The results showed several improvements:

- Decrease in LOS from 37.67 to 13.04 days.
- Decrease in percentage of patients sectioned under the MHA from 12.5% to 9%.
- Increase in average weight gain from 1.58 kg to 4.83 kg.

### Key messages

Undoubtedly, the aforementioned interventions have significantly improved outcomes in the management of paediatric EDs at Wigan infirmary.

### References

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## Improving Referrals from General Surgery to Elderly Care

### Authors

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### Background

57% undergoing emergency laparotomy are  $\geq 65$  years(1). Evidence suggests geriatrician-led comprehensive geriatric assessment (CGA) may improve their post-operative outcomes(1). The recent National Emergency Laparotomy Audit (NELA) revealed only 8% at Royal Albert Edward Infirmary (RAEI) received a CGA (national average 27%)(2). The referral process from General Surgery to Elderly Care lacked standardisation, guidelines and a CGA pathway for emergency laparotomy patients. Therefore, a structured referral proforma (with guidelines and pathways) was created to minimise inappropriate referrals, increase NELA referrals and CGA's.

### Methods

The current challenges, importance of CGA and new proforma were presented at both departmental meetings, facilitating stakeholder engagement. Key influencing individuals were selected as implementation champions.

Data was collected from secretaries' emails and Health Information System (HIS) pre- (September 2023-January 2024, n=21) and post- (March-June 2024, n=25) intervention.

### Results

The proforma was implemented with 100% compliance. Inappropriate referrals were reduced from 62% pre-intervention to 4% post-intervention. Six NELA patients were referred, compared with zero pre-intervention, with 83% receiving a CGA. Improvements were noted in CGA completion rates, though challenges remained with achieving elderly-care bed transfers.

### Key messages

The interventions minimised inappropriate referrals and increased NELA referrals facilitating CGA assessments, which resulted in successful discharges. Remaining issues relate to elderly-care bed transfer.

### References

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## Clinician Led Coding- Improved Earnings in Rhinology Surgery

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### Background

All surgical procedures performed are coded to enable their reimbursement. Accurate clinical coding is paramount for appropriate reimbursement to ensure adequate funding for future clinical activity. Codes are bundled into Healthcare Resource Groups (HRGs) and each HRG has a respective tariff which is reimbursed.

### Methods

This audit aims to assess the clinical coding accuracy of elective rhinology procedures performed at Royal Preston Hospital, in order to assess the effect on tariffs reimbursed to the department and subsequent funding.

Retrospective data was collected using electronic patients records, for 100 consecutive elective rhinology procedures between 31st July 2023 and 1st January 2024. Each procedure was coded by a medical student and reviewed by a member of the ENT team before comparing with the original codes allocated by the coding department. The differences in tariffs between the varying codes were analysed to determine the effects of coding inaccuracies.

### Results

Coding inaccuracies led to an overall difference in tariff of £9,487, equating to £26,037 across one financial year.

### Key messages

This audit highlights the importance of accurate clinical coding in rhinology. To improve future accuracy, a tick list of key surgical steps has been added to the rhinology operation notes to improve clarity for clinical coders.

### References

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OP012

## A Quality Improvement Project to Improve Oxygen Prescribing in an Acute Medical Unit

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### Background

The British Thoracic Society guidelines for oxygen use in adults advises it is best practice for oxygen target ranges to be prescribed for all patients at the time of admission (1). This ensures appropriate initiation of oxygen therapy in the event of clinical deterioration. Oxygen prescribing practice was poor in our acute medical unit and the aim of our project was to increase the prescription of oxygen targets for patients post-taken under medicine.

### Methods

We conducted 4 PDSA cycles from September 2023 to January 2024.

Cycle 1: dissemination of posters

Cycle 2: delivery of a teaching session

Cycle 3: involvement of ward pharmacists

Cycle 4: assignment of specific clinician (FY1)

### Results

Cycle 1: Posters produced a small but statistically significant improvement however, change was not long-lasting.

Cycle 2: Teaching led to a median shift of 8% to 30% of patients being prescribed oxygen saturations.

Cycle 3: Recruitment of pharmacists showed no statistically significant change in prescriptions.

Cycle 4: An assigned clinician resulted in statistically significant improvement which peaked at 50%. Change was limited by the split-structure of the ward and an FY1 not being rostered to both areas every day.

### Key messages

1) Prescribing oxygen is vital to avoid the adverse effects of both over- and

### References

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## Emergency Management of Large Intentional Overdose of Enoxaparin and Maternal Mental Health

### Authors

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### Background

In 2020-22, maternal suicide was the leading cause of direct maternal deaths between six weeks and one year after the end of pregnancy. This case report details the management of a large intentional overdose of enoxaparin and perinatal psychosocial support.

### Case presentation

A 31-year-old female presented to the emergency department after overdosing on 100 doses of 120 mg enoxaparin, originally prescribed for recurrent VTE, with the intention of ending her life. She has a history of bipolar affective disorder and severe postpartum mental health issues following delivery three months prior. She exhibited abdominal swelling, tenderness and bruising at injection sites and mild PV bleeding. CT imaging revealed no intracranial bleeding and no intraperitoneal penetration or haemorrhage. Significant test findings include a prolonged APTT, elevated anti-factor Xa levels, and declining haemoglobin levels.

### Outcome

Clinical stabilisation was achieved following 10mg protamine sulphate, blood transfusion and tranexamic acid. VTE prophylaxis was modified to reduce future overdose risk, and the patient was admitted for specialist perinatal psychiatric management.

### Follow up discussion

Emergency management of enoxaparin overdose involves prompt treatment of fatal haemorrhage. Protamine sulfate infusion is indicated, along with clinical observation and regular monitoring of relevant blood tests. Essential long-term management includes specialist psychiatric services and risk reduction strategies.

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## Beyond the illusion: A case of probable progressive supranuclear palsy misdiagnosed as psychotic depression

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### Background

Progressive supranuclear palsy (PSP) is the second most common parkinsonian disorder after idiopathic Parkinson's disease; yet, it remains frequently misdiagnosed, with only 4,000 confirmed cases reported in the UK by the PSP Association [1]. While neuropsychiatric symptoms in PSP are well-documented, psychosis as a presenting complaint is exceedingly rare [2]. This case describes a 48-year-old patient who presented with psychosis resistant to antipsychotic treatment, emphasising the need for clinicians to consider neurodegenerative conditions in atypical presentations.

### Case presentation

The patient presented with severe depression and psychotic symptoms resistant to multiple antidepressants and antipsychotics. Her condition deteriorated, leading to subsequent hospitalisation. Despite extensive psychiatric interventions, including electroconvulsive therapy, her symptoms persisted, prompting neurological evaluation.

### Outcome

A provisional diagnosis of PSP was established after ruling out autoimmune encephalitis. A DaT scan showed subtle reduction in tracer uptake in the left putamen, indicating decreased presynaptic dopaminergic transporter activity. Hallmark features of PSP were identified, and genetic testing is pending.

### Follow up discussion

This case illustrates the diagnostic challenges posed by neuropsychiatric symptoms in PSP. It highlights the need for clinicians to consider PSP in patients with persistent psychiatric symptoms, especially when accompanied by parkinsonism. Future management may include trials of clozapine to address psychotic symptoms without exacerbating Parkinsonian features [3,4].

### References

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OP016

## Traumatic Foot and Ankle Injuries: Assessing Compliance with Ottawa Foot and Ankle Rules for Clinical Documentation and Imaging Requests in the Emergency Department – A Closed Loop Quality Improvement Project

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### Background

Traumatic foot and ankle injuries are frequent musculoskeletal presentations to the Emergency Department (ED). The Ottawa Foot and Ankle Rules (OFAR) are to help clinicians in decision making whether an X-Ray of the foot or ankle is justified.(1,2)

### Methods

Retrospective cohort analysis of ED X-ray requests. Consecutive ED requests for foot and ankle x-rays were assessed until n=100 for each cohort. The clinical documentation of each ED clerking and X-Ray request clinical details were then compared to the Ottawa Rules of that respective request.

Implemented interventions:

1. Distribution of the audit results to ED Staff
2. Digital handout summarising the Ottawa F&A Rules to ED Staff
3. Ottawa F&A Rules Teaching Session for ED Junior Doctors.

Second cycle completed two weeks after interventions.

### Results

Compliance of documenting foot injuries improved from 48% to 78% ( $p < .001$ ). Foot X-Ray request compliance improved from 32% to 54% ( $p < .01$ ). Documentation compliance of ankle injuries improved from 74% to 87% ( $p < .05$ ). Ankle injury X-Ray request compliance improved from 43% to 57% ( $p < .05$ ). Chi-Square Test used throughout.

### Key messages

This study demonstrated significant improvement for the compliance with OFAR for ED clerking documentation and X-Ray request clinical details. This QIP demonstrates that significant improvements can be made with simple interventions.

### References

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OP017

## Virtual Niche Examination Teaching Series: an equitable and accessible approach to clinical examination teaching

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### Background

With the growth of medical school intakes, students are often spread across multiple sites, increasing variability between the teaching delivered. Consequently, students feel less confident in approaching clinical examinations, particularly 'niche' system examinations such as joint and endocrine exams. We used a virtual teaching program to empower students in performing these examinations for assessments and future clinical practice.

### Methods

An eight-session online interactive teaching series, utilising videos and images of clinical signs and examination techniques, was delivered to students based at five different hospitals. After each session, students ranked its relevance, utility and their confidence in the examination before and after the teaching out of ten. The Wilcoxon signed-rank test was used to compare pre-and post-confidence.

### Results

106 responses were received. Average overall confidence increased by 75%, with each individual session having a statistically significant increase from pre- to post-test confidence. Across all sessions the average usefulness was 9.4/10 and relevance 9.5/10. 100% of students reported they would recommend the sessions to a friend.

### Key messages

Near-peer teaching is an effective tool in improving students' confidence in approaching clinical examinations.

Virtual teaching can be utilised to provide training in an accessible and equitable way across multiple sites to an increasing cohort of medical students.

### References

N/A

## The concordance between DVLA guidance and diagnostic outcomes of a first seizure clinic

### Authors

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### Background

Patients experiencing a single unprovoked seizure must inform the DVLA and a six-month driving ban is generally imposed. We aimed to identify patients referred to our first seizure clinic (FSC) who were told to inform the DVLA of events subsequently diagnosed as seizure mimics.

### Methods

Correspondence of patients referred to FSC between January and July 2023 was reviewed to ascertain driving status and whether concordant DVLA guidance was initially given for the FSC diagnostic outcome provided. Where driving status was undocumented, patients were assumed to drive(1).

### Results

Of the 157 patients referred, 118 were drivers. Twenty-five (21%) were told to inform the DVLA they had experienced an epileptic seizure which was concordant with the FSC diagnosis. Twenty-seven (23%) had received discordant DVLA advice given their FSC diagnosis was of a seizure mimic. Forty-four (37%) had no documentation detailing the provision of DVLA advice. Sixteen (14%) were told not to tell the DVLA but asked not to drive until review in FSC.

### Key messages

DVLA advice is not always provided on referral. However, when discussed the diagnosis is frequently overturned. We advocate referrers inform patients not to drive until reviewed in FSC, where further instruction regarding the DVLA can be provided.

### References

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## Suspend to Mend: Withhold Nephrotoxins to Improve AKI

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### Background

Acute Kidney Injury (AKI) is a prevalent condition, associated with 1 in 5 hospital admissions (1), correlated with significant morbidity and mortality. (2) The quality improvement project (QIP) aimed to improve AKI management in medical receiving units by ensuring 80% of patients had nephrotoxic medications suspended during initial assessment, following UK Kidney Association (UKKA) guidelines. (3)

### Methods

Five weeks of baseline data collection highlighted nephrotoxin suspension as an avenue for improvement. Cycle two introduced multidisciplinary education with five further weeks of data, while cycle three included guideline development and three additional weeks of data collection.

Balancing measures included monitoring the number of allocations and referrals to the renal department. Weekly averages were calculated for reliability, with results analysed using a run chart.

### Results

Pre-intervention data revealed 71.0% of AKI patients had nephrotoxins suspended during initial assessment. After teaching, there was no improvement, as this dropped to 63.4%. However, following implementation of guidelines, the average suspension rate increased significantly to 86.0%.

The educational programme and guidelines had no impact on the number of speciality allocations or referrals to renal departments.

### Key messages

- Other interventions showed limited improvement.
- Integrating guidelines increased medication suspension rates to 86%.
- Guideline-driven approach most effective in improving patient care.

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# Posters

CR101

Case Report Group 1

## A Challenging Case of Secondary Hyperparathyroidism From Hypovitaminosis D in a Young Man with Hypertensive Crisis and Target Organ Damage

Authors

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Background

Hypertension is a common global chronic condition, with 90% of cases being idiopathic (essential hypertension), while the remaining 10% result from secondary causes, mainly endocrine pathologies. Young patients with hypertensive crises are more likely to have secondary causes, demanding thorough diagnostic assessments, including the investigation of less common aetiologies. Managing such cases requires a multidisciplinary approach.

Case Presentation

This case report described a 37-year-old male who presented to the emergency department with a headache, vision changes, and chest pain, along with a blood pressure reading of 250/170 mmHg. Further assessments revealed retinopathy, cerebral micro-haemorrhages, renal impairment, and left ventricular enlargement. The diagnosis was a hypertensive crisis, likely secondary, with end-organ damage. A workup identified secondary hyperparathyroidism due to hypovitaminosis D as the probable cause.

Outcome

Although exceptionally rare, the aetiology of secondary hypertension in this instance, manifesting as a hypertensive crisis with end-organ damage, was attributed to secondary hyperparathyroidism due to hypovitaminosis D. Blood pressure was gradually controlled with IV labetalol and nicardipine, targeting a 25% reduction in mean arterial pressure. Oral hydrochlorothiazide and amlodipine were later introduced, alongside vitamin D and calcium supplements.

Follow Up Discussion

Careful blood pressure control was implemented to optimize cerebral perfusion, with antihypertensives tailored to the patient's needs.

References

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CR103

Case Report Group 1

## Concomitant cryptococcal meningitis and pulmonary tuberculosis in an immunocompetent host

Authors

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### Background

Cryptococcal syndromes are a significant cause of mortality, particularly in less wealthy countries, with HIV infection being the main risk factor. Recent figures, however, show a rise in cryptococcal infection in hosts believed to be immunocompetent.

Tuberculosis is caused by bacteria within the *Mycobacterium tuberculosis* complex and is the deadliest infectious disease worldwide besides COVID-19. Immunocompromised individuals are at a higher risk of contracting it.

### Case Presentation

A gentleman in his forties was admitted with urinary incontinence, confusion and a recent history of weight loss. Acid-fast bacilli were cultured from his broncho-alveolar lavage and cerebrospinal fluid BioFire tested positive for cryptococcus. Subsequent serum HIV testing was negative and investigations guided by the immunology team yielded no clear diagnosis.

### Outcome

He was managed with external ventricular drains for his hydrocephalus, anti-tuberculosis therapy and anti-fungal treatment using appropriate guidelines. The neurosurgery, intensive care, infection service and immunology teams were all involved in his care. A discharge plan is in place, including outpatient immunology follow-up and a repeat MRI scan of his head.

### Follow Up Discussion

Although what predisposed him to these infections has not been identified, a multidisciplinary team approach was used when managing this patient, facilitating appropriate investigations and clinical improvement.

### References

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CR104

Case Report Group 1

## Renal infarction – A rare cause of Acute Kidney Injury

### Authors

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### Background

Renal infarction is a rare cause of Acute Kidney Injury (AKI) whereby the main renal artery is either completely or partially occluded, ultimately leading to renal necrosis if left untreated.<sup>(1)</sup> It is a condition that is difficult to diagnose due to its non-specific presentation which is often mistaken for more common pathologies, such as nephrolithiasis or pyelonephritis.<sup>(2,3)</sup>

### Case Presentation

A 79 year old male was admitted with recurrent haematuria following a recent elective Trans Urethral Resection of the Prostate (TURP). Initial investigations were unremarkable, though the patient developed a sudden, severe AKI during the admission. A non-contrast CT scan demonstrated no obstruction, though a repeat CT with contrast demonstrated bilateral renal infarcts with renal artery thrombi.

### Outcome

The patient was anticoagulated to treat the thrombi, though this worsened the haematuria leading to anaemia requiring repeated blood transfusions. The patient developed pulmonary oedema, progressing to ARDS in combination with ongoing haematuria. This ultimately progressed to multi organ failure, and the patient died in Intensive Care.

### Follow Up Discussion

Renal infarction is a rare but important differential in AKI, particularly when the most common causes have been ruled out. This case also highlights the importance of a thorough pre-operative risk assessment.

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CR105

Case Report Group 1

## Atypical Presentation of Sporadic Creutzfeldt–Jakob Disease (sCJD)

Authors

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Background

Patient A was admitted to a geriatric ward after experiencing a fall accompanied by progressive unilateral myoclonus of her left limbs. Four weeks prior, she reported altered sensation in her left arm following a blood pressure check by her GP.

Case Presentation

Initial investigations for cerebrovascular events yielded no specific findings. A neurology consultant noted myoclonus, but it was non-choreiform. Further tests did not indicate any cause for her symptoms. She remained inpatient due to progressive motor deterioration and no clear cause had been identified. While her cognition remained intact for three weeks, she began showing signs of rapidly progressive dementia in the fourth week. An EEG and repeat MRI indicated Creutzfeldt-Jakob Disease (CJD). A lumbar puncture was performed to analyse cerebrospinal fluid. The RT-QuIC test was positive, affirming the diagnosis.

Outcome

At this stage, Patient A had lost decision-making capacity. The medical team decided to cease active treatment and transfer her to a local hospice, where she sadly passed away shortly thereafter.

Follow Up Discussion

Sporadic CJD presentations can vary but typically, motor or cognitive impairment presents first(1-5). This case highlights the rare initial presentation of sensory disturbances in sporadic CJD, aiming to enhance understanding and inform clinicians and future research on this condition.

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CR106

## Case Report Group 1

# A misleading presentation in Accident and Emergency: Urinary symptoms masking an incarcerated inguinoscrotal hernia.

## Authors

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## Background

Inguinal hernias are the most common type of groin hernia, with sudden changes potentially indicating strangulation or incarceration [1]. This case involves a 78-year-old man with a 20-year history of an untreated right inguinoscrotal hernia, presenting with symptoms suggestive of a urinary tract infection (UTI).

## Case Presentation

A 78-year-old man attended A+E with three days of decreased appetite, rigors, fatigue, increased urinary frequency and dysuria. His medical history included hypertension, type 2 diabetes, and benign prostatic hyperplasia. On examination, he was hypotensive, tachycardic, febrile, with a CRP of 325, WBC of 20.5, and a new AKI 1. A large, tender inguinoscrotal hernia was noted.

## Outcome

Initially treated for UTI with oral nitrofurantoin, he was later given IV antibiotics and fluids. A CT scan revealed an incarcerated hernia containing the ileum, caecum, ascending colon, and a perforated appendix. He underwent a right hemicolectomy, was admitted to the ICU, and had a repeat CT scan six days post-op showing pneumatosis coli, diffuse small bowel ischemia, and aspiration pneumonia. He unfortunately died eight days post-operatively.

## Follow Up Discussion

This case underscores the importance of thorough examination and time pressure in A+E. It highlights timely hernia repairs to prevent complications, as emergency surgeries carry higher mortality rates than elective ones [2].

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CR107

Case Report Group 1

## Valproic Acid Induced Hyperammonaemic Encephalopathy: A Case Report

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Background

Hyperammonaemia, characterised by elevated serum ammonia levels, can cause severe neurological symptoms, including encephalopathy. It occurs due to impaired liver function or drugs, such as valproic acid (VPA), used to treat epilepsy and bipolar disorder. Although effective, VPA can induce hyperammonaemic encephalopathy.

Case Presentation

A 36-year-old man with schizophrenia, following an increase in VPA dosage, presented with seizures and a low Glasgow Coma Scale (GCS) score. Despite normal CT scans and toxicology results, elevated serum ammonia confirmed hyperammonaemia. VPA was stopped, and the patient was treated with levetiracetam, naloxone, and intravenous fluids. His condition improved significantly, with both GCS and ammonia levels returning to normal.

Outcome

This case highlights the importance of monitoring ammonia levels in patients on VPA, especially when new neurological symptoms appear. VPA contributes to hyperammonaemia by affecting carnitine levels and inhibiting urea cycle enzymes. While discontinuing VPA and providing supportive care, including L-carnitine, is usually effective, severe cases may require haemodialysis. The role of L-carnitine in acute management remains debated, though some studies suggest benefits.

Follow Up Discussion

Early identification and treatment of hyperammonaemic encephalopathy are crucial. In this case, discontinuing VPA and administering intravenous fluids and naloxone proved effective, emphasising the need for ongoing research and careful monitoring in VPA-induced hyperammonaemia.

References

n/a

CR108

Case Report Group 1

## Abnormal retinal finding associated with orbital osteoma: case report

Authors

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Background

Orbital osteomas are benign tumours which make up a small proportion of orbital tumours (1). Patients can present with varying symptoms depending on the tumour's location within the orbit. Due to their slow-growing nature, management is usually conservative. Excision is considered if patients are symptomatic, with a conversation about the risks of surgery versus watchful waiting.

Case Presentation

A 44-year-old man presented to the adnexal clinic describing a blurry patch in his right field of vision over three years, and progressive aching of his right eye. Investigations identified a right orbital roof osteoma. A decision was jointly made to watch and wait.

Outcome

Eighteen months later, the patient presented to a follow-up clinic reporting increased discomfort in the right orbit and progressive blurring of vision. Macular OCT showed areas of RPE/photoreceptor loss with no fluid, an epiretinal membrane and choroidal folds. The osteoma was subsequently excised.

Follow Up Discussion

Imaging of the retina/macula can be considered for patients with a suspected orbital osteoma to gain insight into the degree of retinal damage, particularly for tumours arising in the posterior orbit. For tumours posing a risk to the macula, early surgical intervention may be considered in order to avoid irreversible loss of vision.

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CR109

Case Report Group 1

## A Case Report of Idiopathic Acquired Hemophilia at Sandwell Hospital

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### Background

Acquired hemophilia (AH) is a rare, life-threatening bleeding disorder caused by autoantibodies against clotting factor VIII, often presenting with spontaneous severe bleeding that necessitates immediate intervention (3). This case report discusses a patient who responded positively to FEIBA, a bypassing agent, following initial diagnostic challenges.

### Case Presentation

A 69-year-old male presented with a large intramuscular hematoma superficial to the left hip, accompanied by leg stiffness and extensive bruising. Laboratory tests revealed a prolonged activated partial thromboplastin time (aPTT) that did not correct with mixing studies, undetectable factor VIII levels, and a high-titer inhibitor, confirming AH. Initial diagnostic approaches failed to identify the underlying cause of bleeding. Treatment with FEIBA resulted in rapid hemostasis and stabilization, achieving complete remission with ongoing immunosuppressive therapy.

### Outcome

This case underscores the importance of prompt recognition and treatment of AH. FEIBA can be a life-saving option, emphasizing the necessity for early intervention and individualized treatment strategies (1, 2, 4).

### Follow Up Discussion

AH is challenging to diagnose due to varied clinical manifestations and rarity, often leading to misdiagnosis. Effective management involves controlling bleeding and eradicating inhibitors through immunosuppressive therapy and bypassing agents, highlighting the need for multidisciplinary care (5, 6).

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CR110

## Case Report Group 1

# Invasive breast carcinoma and paraneoplastic cutaneous sclerosis – a surgical problem with a medical presentation

## Authors

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## Background

An 82-year-old female presented to the medical unit with progressive dysphagia. Initial examination confirmed peripheral oedema, alongside crepitations bilaterally in the middle lung zones. The patient later developed Raynaud's phenomenon. Other clues were in the medical background – chest infections, hypertension, pulmonary hypertension, alongside rheumatic fever. The patient was diagnosed with invasive breast carcinoma causing paraneoplastic cutaneous sclerosis.

## Case Presentation

The patient was treated through a multidisciplinary approach. The breast surgery team offered mastectomy, the rheumatology team treated the scleroderma, speech and language therapy managed the progressive dysphagia, whilst the general medical team directed other aspects of patient care.

An echocardiogram revealed a PASP of 55mmHg. A high-resolution chest CT showed bilateral centrilobular emphysema. Her clinical biochemistry was in keeping with myositis.

## Outcome

Considering cancer as a differential, in the absence of other plausible explanations, is important, especially within the context of rheumatologic symptoms. With this presentation, a multidisciplinary team approach can optimise patient care.

## Follow Up Discussion

Paraneoplastic syndrome is a well described phenomenon affecting multiple organs (1). In this case, the presentation was rheumatologic affecting the lungs, heart, liver, kidneys, and skin.

Cutaneous sclerosis can be a presentation of malignancy, especially in the absence of non-specific symptoms such as weight loss, fevers, or night sweats (2-4).

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CR111

Case Report Group 1

## From Skin Lesions to Life-Threatening Bleeds: Navigating the Rapid Onset and Complexities of Catastrophic Antiphospholipid Syndrome

### Authors

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### Background

Catastrophic antiphospholipid syndrome (CAPS) is a rare, life-threatening variant of APLS characterized by widespread thrombotic events and multiorgan failure. Managing CAPS is challenging due to its rapid onset, high mortality, and the need for aggressive anticoagulation and immunosuppressive therapy. This case emphasizes the importance of early recognition and challenges in balancing immunosuppression and anticoagulation in CAPS patients.

### Case Presentation

A middle-aged female in her 40s, with a history of chronic thromboembolic pulmonary hypertension (CTEPH), high BMI, and CAPS, presented with necrotic skin lesions, initially misdiagnosed as cellulitis. She later developed widespread necrotic wounds, sepsis, and systemic thrombosis involving the portal and splenic veins, along with a massive upper gastrointestinal bleed.

### Outcome

Her clinical condition worsened with ongoing infections, respiratory failure, and gastrointestinal bleeding. Despite aggressive management, including plasmapheresis, immunosuppression, anticoagulation, and supportive care, her condition deteriorated, and she passed away due to sepsis, gastrointestinal bleeding, and multiorgan failure.

### Follow Up Discussion

This case underscores the importance of early recognition of CAPS and the challenge of balancing anticoagulation. Initially, skin necrosis was misdiagnosed, delaying critical treatment. Early intervention with anticoagulation and immunosuppressive therapy is crucial, as emphasized by the 2023 ACR/EULAR guidelines. However, managing CAPS requires balancing the risk of thrombosis with that of severe bleeding, necessitating

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CR112

## Case Report Group 1

# A successful rescue of ventricular fibrillation electrical storm secondary to acute myocardial infarction in a patient presenting to a district general hospital

## Authors

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## Background

Ventricular arrhythmia is a life-threatening cardiovascular complication of myocardial infarction (MI). Electrical storms (ES) are three or more episodes of sustained ventricular arrhythmia within 24 hours [1]. Management includes advanced life support protocols and specialised pharmacological interventions [2-3].

## Case Presentation

A 43-year-old female presented to the emergency department following an out-of-hospital ventricular fibrillation (VF) arrest, with return of spontaneous circulation achieved after multiple defibrillation shocks. Electrocardiography revealed anterior ST-segment elevation myocardial infarction (STEMI) involving the left anterior descending (LAD) artery. During admission, she experienced recurrent VF arrests requiring repeated defibrillation, adrenaline, amiodarone, and thrombolysis with alteplase. After intubation, she was transferred to a primary percutaneous coronary intervention (PPCI) centre. Angiography confirmed 100% occlusion of the LAD.

## Outcome

She was successfully treated with stenting, then admitted to intensive care and discharged with full neurological recovery and follow-up, on secondary prevention and heart failure therapy.

## Follow Up Discussion

This case underscores the complexity of managing ES in MI(s), particularly in non-PPCI centres. It highlights the significant burden of intensive resuscitation on small cardiac arrest teams and the essential role of multidisciplinary collaboration. It emphasises the importance of thrombolysis (and clinician proficiency in thrombolysis administration) as an early reperfusion strategy in STEMI(s) when primary PCI is not immediately available.

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## Ketamine Cystitis following Ketamine Therapy for Treatment-Resistant Depression – Case Report

### Authors

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### Background

Ketamine is a novel and exciting antidepressant medication for patients with treatment-resistant-depression. A complication commonly seen in frequent/heavy recreational use is ulcerative cystitis, which presents with lower urinary tract symptoms and upper renal tract damage and can occur in >25% of regular users. Although Ketamine-induced-cystitis (KIC) is a recognised complication in recreational use, its occurrence in therapeutic use of ketamine in depression has never been reported. The exact pathogenesis of KIC is unknown, making treatment/prevention more difficult.

### Case Presentation

We present a case of 28-year-old female, who was started on ketamine treatment for depression, who then developed KIC.

### Outcome

To our knowledge, this is the first reported case of KIC in patients receiving treatment-dose-ketamine as part of their antidepressant therapy. Our case highlights the importance of actively monitoring for symptoms of KIC in all patients taking ketamine for depression.

### Follow Up Discussion

Further research is required to determine the safe frequency/dose/route/duration of ketamine as an antidepressant therapy to avoid KIC. We advise further research to identify individual risk factors that play a role in KIC susceptibility. Better understanding of mechanisms by which esketamine can limit its toxic effects on the bladder would be useful. We recommend regular screening for urinary symptoms in all patients receiving ketamine treatment.

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14. Wajs, E., Aluisio, L., Holder

CR203

## Case Report Group 2

# Cancer as a death sentence? How fatalism and avoidance behaviour may lead to late presentation.

## Authors

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## Background

Awareness of breast cancer is widespread, and women across the UK are encouraged to see a doctor if concerned about changes to breast tissue. In this case, a patient decided against seeking a cancer diagnosis, and presented with late-stage cancer as a result.

## Case Presentation

A woman in her fifties presented to hospital cachexic and severely anaemic. She noticed a change to her right nipple three years ago but avoided a formal diagnosis. CT scan confirmed a cancerous lesion in her right breast with extensive metastatic bone disease. When asked why she chose against seeking a formal diagnosis of cancer, she stated that she was certain she would die and wanted to avoid futile investigations and treatments.

## Outcome

Such an extensive and late presentation of cancer carried little hope of curative treatment and so the patient began palliative treatment.

## Follow Up Discussion

The belief that cancer is synonymous with a death sentence leading to avoidance behaviour is an important factor preventing individuals from seeking diagnosis [1,2]. Fear of cancer can motivate information seeking in many individuals, but it can also induce information avoidance [3]. Tackling cancer fatalism and appreciating that fear of cancer can reduce diagnosis-seeking behaviour is an important consideration for clinicians and public health campaigns.

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CR204

## Case Report Group 2

## Early recognition and prompt management of Sympathetic Crashing Acute Pulmonary Oedema (SCAPE): A Case Report

### Authors

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### Background

Sympathetic Crashing Acute Pulmonary Oedema (SCAPE) represents a severe form of acute heart failure, exacerbated by significant hypertension, hence early recognition is essential.(1)

### Case Presentation

We present the case of a 69-year-old woman with a history of Primary Biliary Cirrhosis, Liver Cirrhosis, and uncontrolled Hypertension. She presented to the Emergency Department experiencing dyspnoea alongside chest discomfort. Upon examination, her blood pressure was 233/122mmHg, she exhibited bi-basal crackles and pitting oedema. A chest X-ray revealed bi-basal opacification and a right-sided pleural effusion. Blood tests showed: Troponin 22ng/L, deranged liver function tests, and c-reactive protein level 9.7mg/L. Initially, heart failure was suspected; she was commenced on Furosemide. Three hours later, she developed acute pulmonary oedema, leading to respiratory arrest. Advanced Life Support protocols were successfully implemented, and she was transferred to the Intensive Care Unit. A repeat chest X-ray showed worsening opacification and perihilar congestion consistent with a diagnosis of acute pulmonary oedema. Despite receiving organ support and ventilation, she suffered progressive multiorgan failure.

### Outcome

Timely recognition of SCAPE and appropriate treatment is crucial to reduce mortality. It requires careful management of hypertension to avoid end-organ ischaemia.(2) Treatment involves non-invasive ventilation alongside high-dose Nitrates to reduce preload and afterload, thus cardiac oxygen demand and workload.(3)

### Follow Up Discussion

see above.

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CR205

## Case Report Group 2

# A rare case of superior mesenteric artery (SMA) occlusion necessitating three emergency surgeries and ultimately resulting in a complete small bowel excision.

## Authors

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## Background

Complete necrosis of the jejunum and ileum is a rare and often fatal event, not typically managed surgically. Complete small bowel excisions are rarer still, usually resulting from mesenteric ischaemia due to thrombus/embolus in the SMA.

## Case Presentation

In this case, a 49M attended A&E with severe abdominal pain. Background of DMT1 and a smoking history, otherwise fit and well. On examination the patient was peritonitic. His bloods were severely deranged, and a CTA demonstrated a thrombotic/embolic occlusion of the proximal SMA. Initial thrombectomy/embolectomy was successful, restoring pulsatile blood flow distal to diseased bowel. Operatively, the majority of small bowel appeared hypoperfused. A planned re-look 24 hours later showed minimal improvement. A final operation was required due to clinical deterioration, resulting in a complete small bowel excision. A foley catheter was placed through the stomach and into the second part of the duodenum.

## Outcome

This patient then required a prolonged stay in the ITU, and is now committed to lifelong TPN with established bowel continuity (duodenal stump) awaiting referral for small bowel transplantation.

## Follow Up Discussion

He is currently being managed on the ward, facing significant challenges and a greatly altered quality of life.

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CR206

Case Report Group 2

## Wolf-Parkinson White Syndrome and Hypertrophic Cardiomyopathy: A Case Report.

### Authors

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### Background

Wolff-Parkinson-White (WPW) is a congenital cardiac pre-excitation disorder caused by abnormal electrical conduction via an accessory pathway, predisposing patients to symptomatic and potentially life-threatening arrhythmias[1].

### Case Presentation

I present the case of a 21-year-old male who presented to the Emergency department with a one-week history of palpitations and progressively worsening dyspnoea. On initial evaluation, the patient was tachycardic and normotensive with unremarkable biochemistry; however, ECG showed pre-excitation atrial fibrillation (AF) with a rate of 180bpm. Post-cardioversion ECGs revealed a short PR interval, wide QRS complex, delta waves and widespread deep T wave inversion – hallmarks of WPW syndrome. Subsequent bedside echocardiography revealed a non-dilated left ventricle with impaired systolic function alongside hypertrophy of the left ventricles, septum and apex. These findings were corroborated by cardiac MRI which confirmed the diagnosis of hypertrophic obstructive cardiomyopathy (HOCM).

### Outcome

The patient thereafter underwent radiofrequency accessory pathway catheter ablation and has since remained clinically stable on bisoprolol and edoxaban alone.

### Follow Up Discussion

This case underscores the clinical significance of WPW and HOCM, both of which often remain undiagnosed until the first presentation of symptomatic arrhythmias or, tragically, sudden cardiac arrest. It highlights the critical importance of early detection and screening, particularly in young individuals with relevant cardiac family history.

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CR207

## Case Report Group 2

## Spontaneous Recanalized Coronary Thrombus in a patient with Exertional Ventricular Tachycardia.

### Authors

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### Background

Spontaneous recanalized coronary thrombus (SRCT) is a rare finding that presents diagnostic challenges due to its atypical angiographic appearance, characterized as “braided,” “pseudo-dissected,” and “hazy” (1). It is better visualized using Optical Coherence Tomography (OCT), where it appears “honeycomb-like,” “Swiss-cheese,” or “lotus root-like” (2,3,4). Most patients with SRCT present with cardiac symptoms, though some may be asymptomatic. (1,5)

### Case Presentation

A fit 70-year-old male, with no previous cardiac history, presented with sudden-onset ventricular tachycardia while playing football. He was treated with DC Cardioversion. Subsequent investigations revealed a thinned and akinetic inferior wall on echocardiography and on coronary angiography, was found to have incidental moderate coronary artery disease, along with a suspected RCA dissection which was later confirmed to be a SRCT on OCT. MRI confirmed a previous silent inferior myocardial infarction.

### Outcome

The patient’s VT was linked to the myocardial scar and treated appropriately with an ICD. As the area of myocardium subtended by the RCA was infarcted there was no indication for revascularization, although in SRCT cases that present with anginal symptoms, coronary stenting can be considered.

### Follow Up Discussion

This case highlights the importance of recognizing SRCT and using OCT for accurate diagnosis, especially in asymptomatic patients with no prior cardiac events.

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CR210

## Case Report Group 2

## Calciophylaxis: A Case Report, Review in the Role of Sodium Thiosulphate and Other Treatment Modalities

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### Background

Calciophylaxis is a rare and serious disorder almost exclusively seen in dialysis and non-dialysis end stage renal disease patients associated with very high mortality. It remains very rare with approximately 1 case per year for every 600 dialysis patients in the UK.

### Case Presentation

We present a 50-year-old male with a background of end stage renal disease compliant with dialysis, parathyroid adenoma, and secondary hyperparathyroidism. Whilst receiving 31 doses of intravenous sodium thiosulphate over an eleven-week period, the patient underwent surgical debridement of multiple painful ulcerative lesions in his lower abdomen and left thigh, then subsequently a subtotal parathyroidectomy at seventy days from admission.

### Outcome

'Afterwards he recovered from the surgery but became septic secondary to infection of calciophylaxis ulcers, later developed hospital-acquired pneumonia, and he died with palliative care input.

### Follow Up Discussion

'Sodium thiosulphate is the most used drug in the treatment of calciophylaxis by diminishing calcium deposition and promoting vasodilation, thereby achieving ischemic relief and pain reduction. Contrary to other literature, the use of intravenous sodium thiosulphate did not offer symptomatic relief nor clinical improvement in this case. Therefore, there is a need for more data analysis and research in the treatment of calciophylaxis.

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CR211

## Case Report Group 2

## Far from a laughing matter: the side effects of nitric oxide

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## Background

Cheap, accessible and fast onset euphoria, it's easy to understand why nitric oxide is the second commonest recreational drug amongst 16-25 year olds; but the side effects are far from a laughing matter. B12 induced peripheral neuropathy, cold burns from canisters and hypoxia are all recognised complications but not widely known about. This case study highlights the importance of the adolescent drug history and checking the all-important methemoglobin levels.

## Case Presentation

15 year old male brought to paediatric A&E with 3 days history of headache, chest tightness and sore throat. History revealed significant intake of nitric oxide via an industrial catering canister with consequential X-ray changes and normal methemoglobin levels.

## Outcome

Despite being symptomatic of nitric oxide overdose the patient had a normal methemoglobin level on VBG. The patient was managed with antibiotics and salbutamol, which resolved chest tightness and wheeze, and made a full recovery

## Follow Up Discussion

Asking about drug history in these age groups is essential to ensure correct diagnosis and management, especially in adolescents. Nitric oxide overdose can therefore be missed, especially when some of its symptoms can mimic a common cold. It is essential to test these patients for methemoglobin levels, as high ferric levels threaten hypoxia unresponsive to oxygen therapy.

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CR212

## Case Report Group 2

## Beyond the Typical: Isolated Liver Abscess, A Rare Case of Meckel's Diverticulum

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### Background

Meckel's Diverticulum (MD) is a congenital gastrointestinal anomaly affecting 2% of the population[1], with complications such as perforation, bleeding, and obstruction. This case report details a rare[2] instance of MD leading to a liver abscess in a 19-year-old male.

### Case Presentation

The patient initially presented on Day 1 with isolated abdominal pain and mild elevated ALT, opting for a watch-and-wait approach. Later that night, he returned with worsening symptoms; a CT scan indicated mesenteric adenitis. Despite antibiotic treatment, he returned on Day 6 with diarrhoea and fever, and further imaging revealed acute cholecystitis and a 5x3 cm hepatic abscess connected with an inflamed small bowel via a fistula.

### Outcome

Due to persistent sepsis, an emergency laparoscopy on Day 8 revealed a perforated MD into the liver, forming an isolated abscess. A wedge resection and anastomosis were performed, and the abscess was drained.

### Follow Up Discussion

This case illustrates the diagnostic challenges of MD, which can mimic other conditions.[3] Uniquely, the diagnostic dilemma, in this case, arose from the isolated liver abscess and a fistula formation, diverging from typical presentations involving both liver lobes from portal vein spread. This emphasises the need for continuing suspicion in young patients presenting with abdominal pain.

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ED101

Education Group 1

## Case Based Prescribing Teaching - An approach to teaching PSA skills to 3rd Year Medical Students

Authors

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Background

Foundation Doctors make up a large proportion of hospital-based prescribers in the UK. Yet surveys of foundation doctors show that there is a lack of confidence in prescribing and a gap in knowledge of pharmacological principles. Along with the lack of confidence, there is also evidence that Foundation doctors find their undergraduate Clinical Prescribing Teaching insufficient in preparing them to prescribe safely. Both factors inevitably contribute to prescribing errors and by extension impact patient safety. The course aims to use key teaching and learning strategies to improve the quality of CPT in early clinical undergraduate years. In particular, the use of Case-based teaching and learning strategies with a pharmacological and prescribing focus. It also aims to bring much needed exposure to clinical prescribing and improve the student's confidence in prescribing and navigation of the BNF.

Method

A brief survey of Final Year Medical students and FY1 doctors completed during the development of this course revealed that the majority of students found their undergraduate CPT insufficient. There will be 5 key sessions taught within the course focused on prescribing within Cardiology and Respiratory. At the beginning and on completion of the course there will be a questionnaire aimed at assessing

Results

Key messages

References

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ED102

Education Group 1

## Evaluation of lens exclusion in routine head CT scans: Compliance with radiation protection standards at a tertiary London centre

### Authors

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### Background

The primary goal was to ensure all CT heads are performed with the base line set to exclude the lens of the eye reducing the radiation dose to the eye and reducing likelihood of lens damage and cataract formation.

### Method

A retrospective review of CT head requests completed by the emergency department over a five-day period was completed. Results were excluded for CT head scans requests to investigate ocular pathology. Compliance was measured by reviewing each scan for exclusion of one or both lenses of the eye. 100 CT head scans were included in the analysis, with target compliance set at 100%.

### Results

Of the 100 scans reviewed, 22% complied with radiation protection standards excluding both lenses of the eyes. The remaining 78% included one or both lenses leading to unnecessary radiation exposure to the lenses.

### Key messages

This highlights a significant rate of inappropriate lens inclusion in routine CT head requests (78%), exposing patients to unnecessary radiation and increasing risk of radiation-induced cataracts. To address this, we raised awareness and provided educational content through visual guides in the radiology department, and presented the findings at departmental meetings. A repeat study post intervention will be conducted to assess the effectiveness of these measures.

### References

<https://www.rcr.ac.uk/career-development/audit-quality-improvement/auditlive-radiology/head-ct-lens-exclusion/>

## Introducing a Near-Peer Teaching Programme to the Foundation Curriculum in Wales

### Authors

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### Background

Near-peer teaching (NPT) benefits both the tutor and the tutees and can improve learning compared to senior-led sessions. 1–5 Educational literature extensively studies NPT in medical students, but no robust data exists for post-graduate training. Currently, the foundation programme teaching in Wales has no near-peer elements, presenting an opportunity to benefit learning, develop doctors as teachers, and study NPT in a new cohort.

### Method

Peers delivered teaching using the lightning lecture methodology, the Lessig or the 10-20-30 method. The subjective benefits of NPT in FDs as providers and participants were studied during a three-month block within the Cardiff and Vale (CAV) Health Board. Qualitative questionnaires were anonymously completed before and after the three months, with peer and senior feedback after each session.

### Results

Questionnaires collected evidence of interest and engagement in the teaching methods used. The subjective benefit of learning to both provider and participant informed a process of evaluation for improvements in the model.

### Key messages

Near-peer teaching may provide an excellent learning opportunity for providers and participants in post-graduate medical education. Short, direct training benefits enthusiasm, attention and information retention compared to verbose styles. Upon completion, the study may recommend changes to the CAV teaching programme.

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ED105

Education Group 1

## The effectiveness of a FY1 led regional teaching program for fourth year medical students preparing for Medical Licensing Assessment

### Authors

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### Background

The GMC's Medical Licensing Assessment (MLA) requires all medical students to pass the Applied Knowledge Test (AKT) and a Clinical and Professional Skills Assessment to join the medical register (1). Foundation Year 1 (FY1) doctors require opportunities to learn to teach as part of their Foundation Programme Curriculum (2). Structured revision sessions can support students' learning while providing FY1s with opportunities to develop their teaching skills.

This program aimed to assess the effectiveness of an FY1 led regional teaching program for fourth year medical students preparing for the MLA, using regular feedback to improve session quality.

### Method

Weekly one hour teaching sessions were delivered by an FY1 doctor from November 2023 to March 2024. Sessions were held in person at the Royal Lancaster Infirmary with remote access for students at Furness General Hospital. Learning outcomes were selected from the MLA and local university curriculum. Anonymous feedback was collected after each session.

### Results

71 feedback forms were submitted. Confidence in knowledge increased by 24% (3.51 to 4.38/5). The content was rated highly (4.88/5), with feedback highlighting the benefits of case discussions and example questions.

### Key messages

FY1 led revision sessions enhance student exam preparation and provide valuable teaching experience for the doctors.

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ED107

Education Group 1

## Improving foundation doctors' confidence in basic clinical skills using simulated part-task trainers and a bleep system

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### Background

The transition from medical student to doctor is challenging with poor confidence in performing routine clinical skills recognised as a challenge (1). Part task-trainers (PTT) are recognised as tools in developing confidence towards independent practice (2). Building on this, we initiated a ward-based bitesize skills teaching for new foundation year 1 (FY1) doctors using PTT trolleys. Additionally, we introduced a new bleep system allowing FY1s to access medical education fellows for support and supervision when performing basic procedures

### Method

The utility of the project was measured through qualitative feedback and pre- and post-course surveys using a 5-point Likert scale to measure “self-reported” confidence amongst FY1s

### Results

Nineteen FY1's participated with four utilising the bleep system. For all skills, there was an improvement in confidence using both PTT and bleep support. The highest improvement in confidence was observed with catheterisation. Verbal feedback demonstrated that the sessions allowed familiarization with the trust equipment, and hands-on supervision improved confidence through practice

### Key messages

PTT are effective tools to improve FY1 confidence. Incorporating them into the clinical environment, and offering a bleep service for direct supervision, allows new doctors to familiarise themselves with available resources on the ward as well as develop confidence in performing these skills

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ED109

Education Group 1

## CT Brain Teaching in Radiographers

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### Background

CT Brain is one of the most common imaging modalities, which is used to evaluate neurosurgical emergencies with high sensitivity including acute intracranial haemorrhage, mass effect, territorial infarct, brain herniation and hydrocephalus. The prompt identification of the above emergencies by radiographers will promote escalation to radiologist for timely reporting, as well as performing extended imaging required for further assessment such as post-contrast CT.

### Method

We delivered a teaching session to radiographers at Homerton University Hospital in East London. This teaching included a systematic approach to interpreting CT Brain, normal anatomy, haemorrhage, ischaemic stroke, space-occupying lesions, contrast enhancement, aneurysm and highlighted important features to contact radiologist urgently when identified.

### Results

To evaluate the effectiveness of the teaching session, radiographers were asked to complete a pre-teaching quiz, asking them to identify the pathology on 7 CT brain radiographs. The same quiz was then distributed following the teaching session. A significant improvement of 43% in performance was observed.

### Key messages

This study highlighted the importance of radiographer education as the gateway to comprehensive imaging and prompt escalation to radiologists for reporting, especially indicated in neurosurgical emergencies. Future plan is to conduct further teaching sessions on various imaging modalities for radiographers.

### References

N/A

ED110

Education Group 1

## Acute Oncology for Foundation Doctors, a Two-site Two-stage Prospective Cohort Study and Educational Intervention

### Authors

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### Background

Foundation doctors work in varying settings across primary and secondary care, having early exposure to patients with cancer. It is vital for Foundation Doctors to take appropriate histories and understand the acute oncology service (AOS). It is currently unknown how Foundation Doctors feel in their ability to take an oncology history and use the AOS. This study aims to assess foundation doctors' confidence in oncological history taking and knowledge of AOS before and after an educational intervention.

### Method

Anonymous quantitative data was collected before and after educational intervention between August and September 2024. A one-hour tutorial was co-delivered by 2 Foundation Doctors and AOS nurses. Participants included Foundation Doctor Year's One and Two at Manchester Foundation Trust and Salford Royal Foundation Trust. Data was stored in Excel Version 16.86 (24060916)

### Results

After the educational intervention, Foundation Doctors' knowledge of referral to AOS significance increased (Odds Ratio = 89, 95% Confidence Interval 21 - 372, P-Value: 3.62E-10). There was a significant increase in Foundation Doctors' confidence levels in undertaking an oncological history (Chi-Squared P-value: 2.21E-50).

### Key messages

Foundation Doctors lack confidence undertaking oncological assessments and have limited knowledge of AOS. Local educational interventions may improve Foundation Doctors' confidence undertaking these assessments and understanding of the AOS

### References

NA

ED111

Education Group 1

## From Practice to Perfection: Using Mock Exams to Prepare for the PSA versus traditional lecture-based learning

### Authors

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### Background

The Prescribing Safety Assessment (PSA) is a national exam used to evaluate the competency of doctors in the safe use of medicines [1]. We aimed to examine students' current PSA teaching & evaluate the effectiveness of the Pass the PSA series in improving their confidence for the exam.

### Method

An online three-session series, each lasting one hour, was developed for medical students. Led by F1 doctors who had passed the PSA, the sessions covered the eight PSA curriculum sections as outlined by the British Pharmacological Society, using mock exam-style questions and explanations. A proforma was used to assess prior teaching and student confidence before and after the sessions using a 5-point Likert scale.

### Results

156 students attended, with 99% in their final year. Most (70.5%) relied on lecture-based learning, while 12.2% had no formal PSA teaching. After the sessions, students showed a 50% increase in confidence regarding the PSA's format, question style, and time management. Confidence in prescription review and planning rose by 60%, while confidence in calculations, adverse reactions, and data interpretation increased by 46%. Attendees particularly valued the mock exam-style questions and detailed explanations.

### Key messages

The mock exam format effectively improved student confidence and knowledge, providing an alternative to traditional PSA

### References

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ED112

Education Group 1

## Improving Preparedness Through an 'F1 On Call' Teaching Course Delivered to New Foundation Doctors

### Authors

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### Background

A reduction in F1 preparedness was identified by the national GMC survey where in 2023 the lowest percentage of new trainees in over a decade felt that they were prepared for their first foundation post (57.9%) . This data, alongside anecdotal feedback from foundation doctors, identified a need for further induction training for new doctors.

### Method

A teaching course was designed and delivered to F1 doctors at Yeovil District Hospital, covering their roles and responsibilities during on call shifts including clerking, ward cover, post-take and night shifts. The teaching program addressed how to look after acutely unwell patients and perform important clinical skills via teaching, simulation and case-based discussions. It was exclusively taught by F2 doctors, from August to October 2024.

### Results

Surveying participants revealed F1 doctor's scale of confidence towards a range of shifts, skills and scenarios and the biggest challenges faced in the first few months of working in the NHS. All F1 doctors agreed that the On Call Crash Course helped them to prepare for on call shifts, and it will be introduced to the induction program at Yeovil District Hospital for future years and can used as a template for other hospital sites and trusts.

### Key messages

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### References

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ED201

Education Group 2

## Peer-Mentorship: Improving support for Foundation Year 1 doctors

### Authors

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### Background

Foundation Year 1 (FY1) can be daunting. Mentorship increases confidence in managing change and problem solving; leading to enhanced professional and personal lives that cultivate supported doctors(1). Despite this, 56% of trainees reported no support from mentors in the 2024 GMC National Training Survey(2).

### Method

A survey disseminated to FY1s at Sandwell and West Birmingham NHS Trust identified what proportion of trainees had received mentorship, and explored how well supported trainees felt in: adjustment to working life, portfolio development, and career progression. A dedicated Peer-Mentorship Scheme was then developed to match SHO mentors to FY1 mentees based on job experience and career interests. Interim feedback was collected to assess the Scheme's initial impact.

### Results

Prior to the Scheme, 43% of FY1s had received mentorship. Only 40% felt well supported in adjusting to working life, 23% in portfolio development, and 20% in career progression.

Initial feedback from 23 peer-mentorship sessions shows 70% have already received guidance on adjusting to working life, 87% on portfolio development, and 61% on career progression. 100% of mentees have felt better supported and found sessions useful.

### Key messages

Local peer-mentorship can be valuable in improving trainee support during FY1, and may motivate personal and professional growth.

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ED203

Education Group 2

## The use of a high-fidelity simulated 'on-call' workshop aimed at improving senior medical students confidence in working out-of-hour on-call shifts'

### Authors

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### Background

Foundation Year One (FY1) doctors are expected to work out-of-hour (OOH) shifts and contribute to the 'on-call' rota with senior support. OOH shifts provoke anxiety for newly qualified doctors, with many feelings underprepared due to lack of previous exposure to the OOH environment<sup>1,2</sup>.

### Method

Retrospective single centre survey of current FY1 doctors regarding their self-reported preparedness in working OOH. 50% had never received formal teaching on working OOH and the average Likert score was 3/10 (Not Confident).

30 senior medical students were enrolled into a bespoke high fidelity 'on-call' workshop, titled 'Emergency Bleep Bootcamp.' Self-reported preparedness was measured using a Likert scale.

### Results

Pre-Intervention 69% of students did not feel confident working OOH. Post intervention 95% of students felt 'confident' or 'neutral' with regards to working OOH. Average self-reported confidence score on the Likert scale had increased from 3/10 to 8/10. ('Not confident' to 'Very Confident')

Thematic analysis of the students' responses identified key themes which continued to affect confidence in working OOH: 'Supervision', 'Exposure', and 'Prioritisation.'

### Key messages

- 1) Inequalities exist in access to OOH teaching opportunities
- 2) High fidelity simulation is an effective educational tool
- 3) Supervision, exposure and prioritisation are themes which medical students find daunting

### References

- 1) Illing, J.C., Morrow, G.M., Rothwell nee Kergon, C.R. et al. Perceptions of UK medical graduates' preparedness for practice: A multi-centre qualitative study reflecting the

importance of learning on the job. BMC Med Educ 13, 34 (2013).  
<https://doi.org/10.1186/1472-6920-13-34>

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ED204

Education Group 2

## A pilot study evaluating the benefit of simulation-based paediatric teaching to enhance learning for fourth-year medical students

### Authors

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### Background

Simulation-based medical education is a rapidly evolving field however there are few published reports evaluating its benefit in student teaching. This study aimed to assess its potential effectiveness in teaching medical students to manage paediatric patients.

### Method

A simulation teaching series was developed and delivered to University of Manchester medical students. Teaching sessions were delivered locally as a pilot to complement regular paediatric teaching. Feedback was collected pre- and post- simulation. The results were analysed using Microsoft Excel. Statistical significance was set at  $p < 0.05$ .

### Results

Total number of attendees was 34. All attendees were fourth year medical students at Royal Manchester Children's Hospital. Students' 5 point- Likert scale scoring of confidence in topics covered increased significantly from a mean of 2.40 (SD 0.86) to 4.15 (SD 0.61) post-simulation ( $p < 0.0001$ ). 100% of attendees found the teaching effective and relevant to their curriculum. After the teaching, 97.1% of attendees felt able to assess, investigate and initially manage the conditions covered.

### Key messages

Simulation teaching sessions are an effective way to teach medical students how to assess and manage paediatric patients without affecting patient safety. Simulation could complement regular teaching to increase students' confidence in managing paediatric patients.

### References

Not applicable

ED205

Education Group 2

## Evaluating FY1 Doctors' Understanding and Competence of the Horus ePortfolio: Insights for Developing a Targeted Learning Resource

### Authors

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### Background

The Horus ePortfolio is crucial for tracking the progress of foundation doctors, yet many struggle with its use early in their training. To support new FY1 doctors, we developed a concise summary sheet and checklist to help introduce and familiarise them with the portfolio.

### Method

A survey was conducted among current FY2 doctors in our deanery to assess familiarity with Horus, the effectiveness of induction training, available resources, and areas of difficulty during their FY1. Respondents were also asked whether a summary resource would have been useful and to provide suggestions on specific components or information they would have found helpful.

### Results

Despite training sessions and access to extensive guidelines via the UKFP website, many FY1 doctors reported feeling overwhelmed by the transition into clinical practice. Induction materials were often not retained, and online guidance was viewed as lengthy and difficult to engage with. All respondents indicated that a concise summary would have helped them navigate the portfolio more effectively.

### Key messages

Our findings highlight barriers to engaging with the ePortfolio despite ample resources. Understanding and addressing these challenges is imperative in supporting the development of junior doctors. Peer-driven solutions can improve engagement, confidence, and understanding, better preparing FY1 doctors for their ARCP.

### References

- UKFP curriculum <https://foundationprogramme.nhs.uk/curriculum/>
- UKFP e-portfolio <https://foundationprogramme.nhs.uk/curriculum/e-portfolio/>
- UKFP supervisor meetings <https://foundationprogramme.nhs.uk/curriculum/supervisor-meetings/>

- UKFP supervised learning events  
<https://foundationprogramme.nhs.uk/curriculum/supervised-learning-events/>
- UKFP personal learning log <https://foundationprogramme.nhs.uk/curriculum/personal-learning-log/>
- UKFP assessments <https://foundationprogramme.nhs.uk/curriculum/assessments/>
- UKFP curriculum resource <https://foundationprogramme.nhs.uk/curriculum/curriculum-resource/>
- UKFP Annual Review of Competence Progression (ARCP)  
<https://foundationprogramme.nhs.uk/curriculum/annual-review-of-competence-progression-arcp/>
- UKFP Example summary narrative for HLO 1  
<https://www.scotlanddeanery.nhs.scot/media/547182/topic-8-example-summary-narrative-for-hlo-1.pdf> 2.

## How to ... navigate specialised programmes for early career doctors in medical education

### Authors

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### Background

Developing future clinician-educators is critical to addressing the global shortage of medical educators. Specialised programmes like the UK's Specialised Foundation Programme (SFP) in medical education provide early career doctors with structured opportunities to cultivate teaching, research, and leadership skills alongside clinical training. However, many early-career doctors lack guidance on navigating these dual roles, which can hinder their professional growth.

### Method

This paper draws on a review of existing literature, professional standards from the Academy of Medical Educators, and insights from a survey of local trainees who completed the SFP. This synthesis highlights practical strategies for early-career doctors and explores how structured programmes can enhance their development as clinician-educators.

### Results

The SFP equips early-career doctors with mentorship, formal teaching qualifications, and diverse teaching roles. Trainees benefit from developing scholarly skills through research projects, academic writing, and conference participation. However, challenges such as imposter syndrome and balancing clinical and academic identities are common. Building strong professional networks and pursuing structured professional development helps overcome these obstacles.

### Key messages

SFPs are essential for fostering the next generation of clinician-educators. International stakeholders should implement similar initiatives to ensure the sustainability of the healthcare education workforce. Supporting early-career doctors with mentorship, networking, and formal qualifications enhances their teaching and scholarly capacities.

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ED207

Education Group 2

## Bridging the gap: Enhancing Gynaecology Education for Undergraduates and Foundation doctors through Comprehensive Skills Sessions with the use of Quality Improvement Methodology in a District General Hospital

### Authors

Presenting author - Sheung Hang Mak\* (Foundation Year 1 Doctor), First co-author - Georgia Mills\*, Co-author(s) - Oliver Allon, Scott New, Ms. Roopam Goel , \*Joint first-authorship

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### Background

Ensuring clinical competency in women's health is critical across all medical fields, regardless of specialty (1,2). Nevertheless, multiple studies highlighted significant gaps in gynaecological experiences, including males receiving less exposure to intimate examinations and different healthcare professional trainees competing for clinical experiences limit opportunities for medical students and doctors (3-6).

### Method

A monthly basic gynaecology skills session was introduced for undergraduates and doctors, focusing on four competencies: pelvic examinations, diagnostic skills (e.g. speculum use and vaginal swabs), clinical skills (e.g. catheterization and Mirena coil insertion) and basic suturing. Each skill was taught in a 30-minute station, led by clinical teaching fellows, midwives and a gynaecology consultant. Participant feedback was gathered and evaluated after each session and PDSA cycles were used to refine the program.

### Results

In Cycle 1, all participants expressed satisfaction with the course structure, with over 90% finding the content to be clinically relevant. The mean gynaecology knowledge score rose from 2.75/5 pre-course to 4.69/5 post-course, indicating a statistically significant improvement in perceived knowledge. Data collection for the current cycle is ongoing, with additional interventions under consideration.

### Key messages

Strengthening gynaecology knowledge actively enhances women's healthcare and ensures doctors are well-prepared to provide high-quality care, whilst feeling more capable and confident.

### References

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ED208

Education Group 2

## Digital Clinical Communication: Creation of an Educational Resource for Medical Students

### Authors

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### Background

The rise of digital clinical communication is transforming healthcare interactions, with telephone and video consultations becoming increasingly prevalent and important since the COVID-19 pandemic. As the medical field embraces digital methods, it's essential for medical students to acquire these skills early in their training.

### Method

A comprehensive document review of GMC, BMJ, and NICE guidelines on virtual consultations was conducted, along with an evaluation of existing e-learning platforms. The facilitators and barriers of digital clinical communication were explored by analysing real-world experiences, with key insights gathered from a qualitative review of literature.

### Results

An educational resource addressing digital clinical communication was developed. Key components include five facilitators and five barriers, two case studies with follow-up questions, two instructional videos (one AI-generated and one personally filmed), six situational judgment questions, five reflective questions, and a QR code linking to a feedback form.

### Key messages

The current curriculum lacks focus on digital clinical communication for patient-centered care, which is vital for medical education. This resource aims to be integrated into Year 2 learning at King's College London and refined by King's Health Partners (KHP). It accommodates diverse learning styles and emphasizes reflective practice, with future opportunities to explore the role of AI in clinical communication.

### References

N/A

ED209

Education Group 2

## Improving Knowledge on Prevention and Management of Pressure Ulcers in the Older People's Medicine Ward

### Authors

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### Background

Ulcers, including pressure ulcers and diabetic foot ulcers, pose significant clinical challenges, often resulting in complications if not managed effectively. Awareness and adherence to clinical guidelines among doctors are essential to improving patient outcomes. This project aimed to assess and improve doctors' knowledge and confidence in ulcer management through an educational intervention.

### Method

A pre-teaching survey was conducted to assess baseline knowledge and confidence levels regarding ulcer diagnosis, prevention, and management among doctors working in the Older People's Medicine ward. A 45-minute educational session, focusing on ulcer etiology, classification, treatment, and clinical guidelines, was then delivered. A post-teaching survey was administered to evaluate improvements in knowledge and confidence. Data analysis involved comparing pre- and post-survey results to measure the effectiveness of the intervention.

### Results

The pre-teaching survey revealed significant gaps in knowledge, particularly in ulcer management. Post-teaching results showed a 28% increase in average knowledge scores for pressure ulcer management. Confidence levels in managing pressure ulcers also improved by 58%.

### Key messages

The educational intervention effectively improved both knowledge and confidence in ulcer management. Participants indicated a greater likelihood of implementing best practices in their clinical settings. Continued education and follow-up are recommended to sustain these improvements and assess long-term impacts on patient outcomes.

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ED210

Education Group 2

## FY1 Top Tips Sessions: Peer teaching to aid starting FY1s in new trusts

### Authors

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### Background

Starting work as a foundation year one (FY1) doctor is a daunting undertaking, further complicated by the variation in day-to-day workings and protocols between different hospital trusts. While trusts provide an induction period for new FY1s, there are limitations due to time constraints and formality this teaching comes with.

Our education project was designed to run alongside the trust led induction, with the aim to provide an informal teaching setting, covering important topics for FY1s.

### Method

It ran over a 6-week period, led by current FY2s, with each session lasting an hour. The topics covered were based on data collected from previous FY1s. Each session involved a PowerPoint presentation, with some weeks also including small group work when beneficial.

### Results

Both quantitative and qualitative anonymous feedback was obtained using paper forms. We obtained quantitative feedback on confidence in the topics before and after sessions, whether something new was learnt and how good the teaching delivered was. The qualitative feedback provided more specific information of both the benefits of the course and potential improvements for future sessions.

### Key messages

The feedback showed that these sessions provided a great benefit to the new FY1s, creating more confident clinicians, further supported by the high standard of teaching.

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ED211

Education Group 2

## Improving confidence of critical appraisal through journal club teaching sessions

### Authors

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### Background

Departmental journal clubs are an educational forum which has been on the decline. Many foundation doctors report no or little experience of structured critical appraisal which has implications for the future practice of evidence-based medicine.

### Method

A survey was conducted among F1 doctors at Manchester Foundation Trust to assess confidence in critical appraisal using five key questions. Following this, six interactive journal club sessions were incorporated into the FY1 teaching programme. During these sessions, F1 doctors summarised and critically appraised clinical studies using the CASP toolkit. Post-sessions, the initial survey was repeated to assess changes in knowledge and confidence.

### Results

72 foundation doctors completed the pre-session survey and results were compared to the responses in the post-session survey. Confidence scores improved significantly across all five domains: an 83% increase (from 4.2 to 7.7) for critical appraisal, 130% (from 3.3 to 7.6) for using the Oxford CASP tool, 37% (from 5.9 to 8.1) for understanding study types, 57% (from 4.2 to 6.6) for interpreting statistics, and 40% (from 5.36 to 7.5) for applying research to clinical practice.

### Key messages

Peer-led journal clubs, when integrated into the foundation training programme, substantially improve trainees' confidence and skills in critically appraising medical literature.

### References

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ED212

Education Group 2

## Improving the Provision of Surgical Teaching for Foundation Doctors: a Peer-to-Peer Initiative

### Authors

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Severn Foundation School

### Background

Peer-to-peer (P2P) teaching involves colleagues educating one another. This initiative aimed to evaluate the effectiveness of P2P teaching for foundation doctors at Yeovil District Hospital (YDH), improve surgical teaching provision and increase teaching opportunities.

### Method

A P2P teaching series was introduced for foundation surgical doctors at YDH. Pre- and post-teaching surveys were conducted to assess attitudes, teaching delivery, and perceived effectiveness of the P2P approach. Twelve doctors responded to the pre-teaching survey, and ten participated in the post-teaching survey. Key metrics included effectiveness of teaching delivery, adequacy of surgical teaching, and formal teaching opportunities. Data was analysed for changes in attitudes and opportunities for portfolio development.

### Results

Pre-teaching survey results showed an average perceived effectiveness score of 4.17. Post-teaching, the perceived effectiveness score improved to 5.0, and all participants who delivered teaching sessions obtained portfolio feedback. The perceived adequacy of surgical teaching also increased from 2.5 to 3.6. Despite 12 doctors expressing interest in teaching, only four delivered sessions.

### Key messages

The P2P teaching series proved effective in enhancing both teaching provision and opportunities for foundation trainees. A concurrent surgical series may have confounded perceptions of surgical teaching adequacy. Further research is needed to identify barriers to teaching participation.

### References

n/a

QS101

Quality Improvement &amp; Sustainability Group 1

## Analgesia Prescribing in Patients with Tonsillitis and Quinsy

### Authors

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### Background

Tonsillitis is characterized by acute infection and inflammation of the palatine tonsils and quinsy is a sequela of acute bacterial tonsillitis resulting in peritonsillar abscess. NICE guideline recommends the use of paracetamol and ibuprofen as antipyretic and analgesic. The aim of this audit is to review the practice of regular and as required analgesia prescribing in patients with tonsillitis and quinsy in the ENT department at QMC.

### Method

Inclusive criteria of this audit include all age group, diagnoses with tonsillitis, peritonsillar cellulitis, quinsy and initial diagnosis of glandular fever. Exclusion criteria include any concurrent diagnosis with supraglottitis. Medications prescribing will be audited from EPMA for adults' group and written drug chart for paediatrics' group.

### Results

A total number of 32 patients were audited for the first cycle and 3 cases were readmission. 53% was prescribed with regular paracetamol, 28% with regular ibuprofen and 22% with regular difflam. Majority of the paracetamol prescribing was in the form of multi-route of oral or IV; 59% for regular paracetamol and 75% for PRN paracetamol, which does not include orodispersible option.

### Key messages

Analgesia should be prescribed regularly, including multiple analgesic options. Paracetamol should be prescribed in orodispersible preparation if patient is able to drink sips of water.

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QS102

Quality Improvement & Sustainability Group 1

## Quality Improvement Project: Enhancing Staff Awareness of Anti-Ligature Room Allocation in the Clinical Decision Unit

### Authors

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### Background

Ogura Ward, a psychiatric Clinical Decision Unit, has two anti-ligature rooms designed to reduce self-harm risk in high-risk patients. Initial surveys highlighted significant staff gaps in identifying these rooms and knowing which patients were allocated. This Quality Improvement Project (QIP) aimed to improve awareness and communication about anti-ligature room allocation to enhance patient safety.

### Method

An initial staff survey assessed awareness of anti-ligature rooms and patient allocation. Three interventions were introduced: 1) a poster displaying daily room allocations, 2) a structured MDT reminder, and 3) discussions on adding electronic alerts. Surveys were conducted after each intervention to evaluate progress.

### Results

In the initial survey (n=17), only 23.53% could identify the anti-ligature rooms, and 5.88% knew the correct patient allocations. Following the first intervention (n=20), 80% correctly identified the rooms, and 65% were informed every shift. After the second intervention (n=17), 76.4% could identify both rooms, 88.2% knew patient allocations, and 64.7% rated communication as excellent. The final survey demonstrated marked improvement in staff knowledge and communication.

### Key messages

Structured interventions improved staff awareness and communication, enhancing safety for high-risk patients. Ongoing monitoring is essential to sustain improvements.

### References

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QS103

Quality Improvement & Sustainability Group 1

## Sustainability in Surgery: Audit of the Royal College of Surgeons' Green Theatre Checklist

### Authors

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London Foundation School

### Background

Healthcare accounts for an estimated 4-5% of global carbon emissions. To address the considerable environmental impact of surgery, the Intercollegiate Green Theatre Checklist (GTC) was developed and published in 2022 (1).

The aim of this quality improvement project was to establish the compliance of Croydon University Hospital's General Surgery and Gynaecology departments with the GTC recommendations in elective operating theatres.

### Method

Over a two-week period, compliance with the GTC was assessed in each elective case in colorectal, upper gastrointestinal and gynaecology theatres using a Google form modelled off the checklist.

### Results

Data from 72 cases was collected. 12.5% of cases used total intravenous anaesthesia, whilst 73.6% using inhalational anaesthesia and 26% used reusable anaesthetic equipment such as reusable laryngoscopes and stylettes. 96% of cases used single use instruments, 49% used loose prep and gallipot, 10% of laparoscopic cases used reusable laparoscopic ports, 28% of staff used reusable hats, 1% used alcohol rub to scrub and none used reusable kidney dishes, gowns, drapes or trolley covers.

### Key messages

The initial data helped identify several areas for improvement at CUH. Proposed intervention includes the promotion of, 'rub don't scrub' (2), promotion of requesting reusable equipment during team briefing, and the procurement of reusable gowns and drapes.

### References

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QS104

Quality Improvement & Sustainability Group 1

## Improving Resuscitation Status Documentation on Discharge Letter

### Authors

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### Background

This project audited compliance with Resuscitation Council guidelines that all DNACPR discussions should be recorded and easily accessed by all members of the healthcare team (1) to ensure continuity of care. It examined DNACPR documentation on discharge letters from Lagan Valley Hospital following introduction of an electronic health record.

### Method

Discharge letters were audited retrospectively for patients admitted in November 2023. This was followed by informal discussions on documentation. A re-audit in December 2023/January 2024 was followed by formal teaching and written emailed information with a further audit cycle in March 2024.

### Results

In November 2023: 56 records contained 8 DNACPR orders with 2 recorded on the discharge letter (25%). In December 2023/January 2024: 293 records had 22 DNACPR orders with 9 recorded on the discharge letter (40.9%). In March 2024: 48 records had 44 DNACPR orders with 38 recorded on the discharge letter (86.36%).

### Key messages

This project highlights the impact of these simple educational interventions (61% change) which have been included in the hospital's induction programme. Limitations of this project include small sample size. This project also highlighted that the resuscitation order is discontinued within the new electronic health system when a patient is discharged.

### References

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QS105

Quality Improvement &amp; Sustainability Group 1

## Counselling on Antihypertensive Medication Prescribed to Women of Childbearing Age Attending Hypertension Clinic

### Authors

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### Background

There is an ethical, legal and professional obligation for doctors to inform women of childbearing age of the benefits and risks associated with antihypertensive medications, including in pregnancy and breastfeeding, and facilitate informed consent (1,2,3,4,5). This audit aims to identify whether women of childbearing age attending hypertension clinic at Birmingham Heartlands Hospital (BHH) are asked about contraception, pregnancy intentions and breastfeeding, are on antihypertensives that are harmful in pregnancy and/or breastfeeding and counselled on associated risks.

### Method

94 eligible women aged 45 years and younger who attended the hypertension clinic at BHH within the last 5 years were included. The data was collected from clinic letters between May and July 2024.

### Results

A small proportion of women were asked about contraception (5.3%), pregnancy intentions (8.5%) and breastfeeding (1.1%). 62.8% were on antihypertensives potentially harmful in pregnancy and breastfeeding. None of these women were counselled on the risks associated with these antihypertensives.

### Key messages

The majority of women of childbearing age attending hypertension clinic were not asked about their reproductive history and on potentially harmful antihypertensive medications. Most importantly, women were not receiving adequate counselling on these medications. Future interventions should include awareness raising among clinic providers and information leaflets targeted at women of childbearing

### References

(1) Beauchamp TL, Childress JF. Principles of biomedical ethics. Fifth edition. ed: Oxford University Press; 2001.

(2) Clearkin L. Changes to the law on consent following Montgomery vs Lanarkshire Health Board. Br J Hosp Med (Lond). 2016;77(6):355-7.

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[Available from: <https://www.gmc-uk.org/professional-standards/professional-standards-for-doctors/decision-making-and-consent>].

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QS106

Quality Improvement & Sustainability Group 1

## Paracetamol Overdose Management - A Retrospective Study of Compliance to TOXBASE Guidance and SNAP

### Authors

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### Background

This audit evaluates the adherence to TOXBASE guidance and Scottish and Newcastle Acetylcysteine Protocol (SNAP) among paediatric paracetamol overdose cases (age 17 or younger) in two local hospitals, aiming to identify areas of improvement for the care delivered.

### Method

A retrospective analysis of paediatric paracetamol overdose cases over the period of 6 months was performed to review compliance with the guidance set out in TOXBASE and SNAP. Anonymised data was collected in a spreadsheet for analysis.

### Results

47 cases were identified, and 5 cases (10.6%) were non-compliant with TOXBASE guidance.

In 22 cases of acute overdose presenting less than 8 hours after ingestion, SNAP was initiated in 4 cases (18%) before serum paracetamol level was available, which does not adhere to TOXBASE guidance [1].

Among 10 patients presenting between 8 to 24 hours after paracetamol ingestion, 5 patients ingested 150 mg/kg or more (or unknown amount). Treatment should be started immediately but 1 (10%) did not receive appropriate treatment [1].

Acetylcysteine was administered in 40 cases, and 1 case (2.5%) was non-compliant with SNAP guidance.

### Key messages

Healthcare professionals should be trained to adhere to TOXBASE and SNAP guidance. Measures should be taken to identify vulnerable children who need further support.

### References

[1] <https://www.toxbase.org>, National Poisons Information Service, 22/7/2024

QS107

Quality Improvement &amp; Sustainability Group 1

## Evaluating the Role of Colon Capsule Endoscopy as a Triage Tool in a Regional NHS Service: A Three-Year Review

### Authors

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### Background

Colon capsule endoscopy (CCE) has shown promise in the NHS CAP-ACCESS Project as an intermediary triage tool for diagnostic colonoscopy. This study evaluates a regional CCE service, focusing on its diagnostic performance and impact on subsequent patient management.

### Method

Electronic patient records and CCE reports over a three-year period since the service's inception was conducted retrospectively. Demographics, CCE quality parameters, and diagnostic findings were collected and analysed descriptively.

### Results

185 patients were identified, with mean age of 56.5. 55.7% were referred through 2-Week-Wait pathway, and 93.2% had a positive FIT result. Mean CCLEAR score was 7.21, and completion rate was 84.3%. Pathology was detected in 131 patients (70.8%), with 33 cases (7.03%) raising suspicion for cancer. Polyps were identified in 84.7% of cases, categorised by size:  $n(\text{size} < 6 \text{ mm}) = 175$ ,  $n(\text{size } 6\text{-}10 \text{ mm}) = 41$ , and  $n(\text{size} > 10 \text{ mm}) = 33$ , with estimated locations described in the report. Subsequent polypectomy was performed in 40 cases. Diverticular changes, angiodysplasia, gastritis, and oesophageal abnormalities are also reported.

### Key messages

CCE serves as an effective, non-invasive triage tool for detecting colorectal pathology, though challenges with bowel preparation and capsule retention require further attention.

### References

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National Institute for Health and Care Excellence (NICE). Suspected cancer: recognition and referral (NG12). NICE. 2021. Available from: <https://www.nice.org.uk/guidance/ng12>



QS110

Quality Improvement & Sustainability Group 1

## Effective pain management in renal colic patients

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### Background

Renal colic is often described as ‘the worst pain ever’<sup>1</sup> and is not uncommon, with 12% of men and 6% of women having at least one episode<sup>2</sup>. The National Institute for Health and Care Excellence (NICE) has clear guidance on pain management for patients these patients. This study compared guidance with analgesia given to patients admitted under urology with renal colic. First-line analgesia was the primary focus, including non-steroidal anti-inflammatory drugs (NSAIDs), intravenous (IV) paracetamol, and opioids.

### Method

Patients admitted under urology with renal colic from May – June 2024 were retrospectively examined. Online prescription data was collected, focussing on first line analgesia and its frequency. 84 Patients were identified and 6 with documented contraindications were excluded.

### Results

No guideline standard was met. Only 68% of patients were offered NSAIDs as first-line management, compared to the 100% guideline standard. Only 18% received IV paracetamol and 81% received opioids. Of the 53 patients given NSAIDs, only 12 received these regularly. Similarly, no patients (63) were prescribed opioids on a regular basis.

### Key messages

NICE guidance compliance was substandard, only 68% received NSAIDs first-line. As a result, we created an online order set to aid prescription and gave targeted education to prescribers. A re-audit is

### References

1. Golzari SE, Soleimanpour H, Rahmani F, Zamani Mehr N, Safari S, Heshmat Y, et al. Therapeutic Approaches for Renal Colic in the Emergency Department: A Review Article. *Anesthesiology and Pain Medicine*. 2014 Feb 2;3(3)
2. Industrial Injuries Advisory Council, Department for Work and Pensions. Occupational risks for urolithiasis: IIAC information note [Internet]. Industrial Injuries Advisory Council; 2018 Apr [cited 2024 Oct 7]. Available from: <https://www.gov.uk>

QS111

Quality Improvement & Sustainability Group 1

## “SERVICE EVALUATION OF SMART ASTHMA PEAK FLOW METER DEVICE AND APP IN POORLY CONTROLLED ASTHMATICS AT QUEEN ELIZABETH HOSPITAL KINGS LYNN NHS FOUNDATION TRUST”

### Authors

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### Background

Asthma management in paediatrics, particularly in those with poorly controlled symptoms, remains challenging, leading to frequent hospital visits, reduced quality of life and increased healthcare costs. Traditional asthma monitoring methods are hindered by poor adherence and inaccurate reporting. Digital solutions, such as Smart Asthma Peak Flow Meter and accompanying app, present a promising opportunity to enhance symptom tracking and management.

### Method

This project used the Plan-Do-Study-Act method to evaluate effectiveness of Smart Asthma Peak Flow Meter in improving self-management among 23 children with poorly controlled asthma who could perform peak flow technique. Adherence to peak flow recording and symptom control were tracked through patient logs on the app dashboard.

### Results

While the evaluation did not show significant improvement in adherence to peak flow measurements, it highlighted challenges of maintaining adherence to the Smart Asthma device itself. However, it demonstrated that the device offers a reliable and consistent method of collecting peak flow data compared to traditional methods, helping clinicians with decision-making for asthma management.

### Key messages

Despite low adherence, the Smart Asthma system shows potential as a reliable tool for accurate peak flow data collection facilitating improved asthma management. Further research is required to assess strategies to improve device adherence and long-term patient outcomes.

### References

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4. Kamps AWA, Roorda RJ, Brand PLP. Peak flow diaries in childhood asthma are unreliable. *Thorax*. 2001;56(3):180-2

QS112

Quality Improvement & Sustainability Group 1

## Preoperative investigations in ASA 1 and 2 patients undergoing elective inguinal hernia repair: an audit based on NICE NG45 guideline

### Authors

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### Background

NICE recommends that we do not routinely perform preoperative investigations in adult patients undergoing elective inguinal hernia repair, depending on their ASA grades and comorbidities. This audit aims to analyse the routine investigations performed in ASA 1 & 2 patients before their elective inguinal hernia repair at Newcastle Upon Tyne Hospital NHS Foundation Trust.

### Method

We retrospectively analysed 200 patients (over 16 years) who underwent primary inguinal hernia repair between September 2023 to March 2024 at NUTH NHS Foundation Trust. The variables include ASA grades, preoperative tests (FBC, haemostasis, U&E, ECG and lung function/ABG), and presence of AKI risk factors and cardiorenal comorbidities.

### Results

Amongst ASA 1 patients (23.5%), most had U&E (85.1%), FBC (83%), and ECG (83%). Fewer had haemostasis (27.7%), and none had lung function/ABG. In ASA 2 (49.5%), FBC and U&E were both performed in 92.9%, ECG in 91.9%, haemostasis in 21.2% and none had lung function/ABG. Of these, 39.4% of renal function and ECG, and 19.2% of haemostasis were not indicated.

### Key messages

Overuse of costly and unnecessary preoperative investigations in generally healthy patients can lead to false positive results, unnecessary treatments, potential surgery delays and increased patient anxiety, all without really changing perioperative status/management. Updated trust guidelines reflecting NG45 have been developed, with plans to re-audit following implementation.

### References

NICE guideline [NG45]

QS201

Quality Improvement & Sustainability Group 2

## Improvement the Accuracy of Uroflowmetry in the Assessment of LUTS - a Two-Cycle, Patient-Education Centered Audit

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### Background

Lower Urinary Tract Symptoms (LUTS) are partly assessed with uroflowmetry, which requires patients to void at least 150 ml of urine for accurate results [1, 2]. Many patients arrive at their appointments without an adequately full bladder, leading to inaccurate results.

### Method

A retrospective study of fifty patients undertaking uroflowmetry was conducted and presented in April 2024. Data on volume voided, and questionnaires for causes of inadequate volume were completed. After allowing time for recommendations to take effect, a second audit was conducted in October 2024 to evaluate outcomes.

### Results

In the first cycle, 22% of patients voided more than 150 ml, with 74% of non-compliant patients citing a lack of awareness of the need for a full bladder.

After educational intervention, including verbal and written, this improved to 54% ( $P = 0.002$ ). Some patients fell short, citing no reminders (65%), or language barriers (13%) as issues. The remainder could not retain urine due to LUTS.

### Key messages

Improving patient awareness in uroflowmetry is crucial to maximise benefit, reduce treatment delays, and allow efficient use of resources. Future interventions, including reminder messages sent before appointments, and tailored/translated literature, will target this. A re-audit will assess the impact of changes for ongoing improvement.

### References

[1] Information about your condition from The British Association of Urological Surgeons (BAUS) How should I prepare for the test? [Internet]. 2021. Available from: [https://www.baus.org.uk/\\_userfiles/pages/files/Patients/Leaflets/Flow%20rate%20measurement.pdf](https://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Flow%20rate%20measurement.pdf)

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QS202

Quality Improvement & Sustainability Group 2

## Postoperative neuromuscular monitoring in ICU

### Authors

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### Background

Postoperative patients often receive neuromuscular blocking agents (NMBAs) before being transferred to the intensive care unit (ICU) from the operating theatre. Insufficient neuromuscular monitoring can lead to incomplete NMBA reversal, heightening the risk of respiratory complications. This audit evaluated neuromuscular monitoring in our ICU against the 2021 Association of Anaesthetists' standards, particularly focusing on the use of peripheral nerve stimulators.

### Method

A retrospective audit was conducted in two cycles, reviewing 95 postoperative patients. The audit assessed the use of peripheral nerve stimulators to monitor neuromuscular blockade and the communication of neuromuscular management during handovers. The standard required the use of peripheral nerve stimulators whenever NMBAs were administered.

### Results

In the first cycle, only 13% (4/31) of intubated patients had documented neuromuscular monitoring, with two cases of harm due to incomplete NMBA reversal. After implementing interventions such as an NMBA admission template, new monitoring equipment, and enhanced training, documentation improved to 60% (18/30) in the second cycle.

### Key messages

The audit highlights improved compliance with neuromuscular monitoring protocols, demonstrating the positive impact of structured education, communication, and equipment availability. However, further efforts are required to ensure complete adherence to monitoring standards, ultimately enhancing patient safety during the critical postoperative period.

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QS203

Quality Improvement & Sustainability Group 2

## Hemithyroidectomy as Day Case

### Authors

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### Background

At UHL, most thyroid surgeries require a 24-hour hospital stay with a drain, discharged when fluid is <30ml. Implementing BAETS guidelines allows low-risk hemithyroidectomy cases to be performed as day surgeries, reducing hospital admissions, waiting lists, and costs. This approach shortens post-op stays, improves patient flow, and lowers unnecessary expenses.

### Method

Retrospective: From April to September 2023, 43 low-risk hemithyroidectomy patients were identified based on BAETS criteria: no anticoagulant use, no retrosternal goitre, and no re-operative surgery.

Prospective: From January to August 2024, 14 day cases were done and analysed on length of stay, operation time, and complications

### Results

Of the 43 patients, 65% of the patients were eligible for a day case hemithyroidectomy according to the low risk criteria. Of the 14 day cases, 100% had no complications. The average length of stay was 1 day and operation time was 98 minutes.

### Key messages

Most hemithyroidectomy patients met the low-risk criteria, while high-risk patients often had longer surgeries, longer stays, and higher ASA status. This suggests a strong correlation between risk status and these factors. The prospective audit showed that day-case hemithyroidectomy improves both patient and hospital outcomes by reducing operation time and length of stay.

### References

1.Guidelines – British Association of Endocrine and Thyroid Surgeons (BAETS) [Internet]. Baets.org.uk. 2014 [cited 2024 Oct 21]. Available from: <https://baets.org.uk/guidelines/>



QS204

Quality Improvement & Sustainability Group 2

## Navigating the Difficulties of Understaffed High-Volume Surgical Units Through Action-Driven Proactive Weekend Plans

### Authors

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### Background

Surgical units worldwide require daily inpatient reviews, including weekends, due to high patient acuity and turnover. This can be challenging for high-volume, understaffed units. This audit at a large paper-based tertiary hospital in London assessed the impact of documenting a proactive, action-driven Weekend Plan (WP) by the primary team every Friday on the perceived efficiency and safety of weekend ward rounds.

### Method

Weekend rounds were conducted by two first-year residents (FY1s) and one senior resident (ST3+) for 40-60 patients. Following the Plan-Do-Study-Act (PDSA) cycle, a survey was sent to all FY1s to gauge their views on weekend ward rounds before and after implementing the WP.

### Results

12 of 17 (70%) FY1s responded. 83% were unfamiliar with more than half the patients on weekends, and adherence to WP was variable (20 - 80%). After WP implementation, the difficulty rating of weekend ward cover dropped from 83% to 59%, but safety assessments remained low. Despite this, 75% reported improved handover safety, reliability, and effectiveness. Patient volume (58%) and understaffing (42%) were judged as key contributors to unsafe ward cover.

### Key messages

Clear handovers are crucial for patient safety. The audit showed slight improvements in weekend review efficiency, but doctor-to-patient ratios remain a significant limiting factor.

### References

N/A

QS205

Quality Improvement &amp; Sustainability Group 2

## Review of Warfarin Monitoring Practices in a GP Setting

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### Background

Although the use of DOACs has largely replaced warfarin, the need for comprehensive reviews of patients on warfarin remains. This study examines monitoring practices for these patients in a GP setting, including DOAC eligibility and bleeding risk assessments.

### Method

A retrospective study was conducted on all warfarin patients at a Leicester GP practice, analysing electronic records from September 2023 to September 2024. Eligibility for switching was based on NICE guidance, and ORBIT/HAS-BLED scores were calculated.

### Results

All 29 patients had regular INR monitoring; however, 1 lacked a complete set of routine blood tests. 25 underwent medication reviews, while others did not respond to appointment invitations.

8 patients were eligible to switch to a DOAC, but only 1 had a documented discussion. 2 had previously declined, 3 needed haematology referrals for switching which had not been done, and 2 had no recorded discussions.

Of the 15 patients on warfarin for AF and VTE prophylaxis, only 2 had recorded ORBIT/HAS-BLED scores. 2 had high bleeding risk, but only 1 had a documented discussion about stopping anticoagulation.

### Key messages

This study highlights the need for broader reviews of warfarin patients beyond standard INR monitoring, including regular evaluations for switching to DOACs and regular bleeding risk assessments.

### References

1. NICE. Anticoagulation - oral : Scenario: Warfarin [Internet]. 2024 [cited 2024 Oct 20]. Available from: <https://cks.nice.org.uk/topics/anticoagulation-oral/management/warfarin/>
2. Leicester, Leicestershire and Rutland Area Prescribing Committee. Guidelines for the Management of Warfarin for Adults in Primary Care [Internet]. 2022 [cited 2024 Oct 20]. Available from: <https://www.areaprescribingcommitteeleicesterleicestershirerutland.nhs.uk/wp-content/uploads/2017/08/Warfarin-Guideline.pdf>

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QS206

Quality Improvement & Sustainability Group 2

## Creating NHS Net Zero mentality: A Sustainability QIP in Medical Education

### Authors

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### Background

Environmentally sustainable healthcare (ESH) education has been identified as a key driver of the NHS 2045 Net Zero ambition (1). Awareness of existing ESH educational resources is limited, underutilised and not available to all NHS professionals highlighting an important gap within UK medical curricula. My aim is to improve awareness, confidence and knowledge of Foundation Doctors to implement and provide sustainable healthcare.

### Method

I designed and delivered a 30 minute, introductory, ESH teaching session, both virtually and in-person, to over 650 Foundation Doctors across Stockport NHS Trust and West Midlands Deanery. All participants answered 10 questions in a pre-and-post teaching questionnaire.

### Results

Following my ESH teaching session there was 64% greater awareness of the relationship between climate change and the NHS, 83% greater confidence to perform sustainability QIPs/audits, and 200% greater knowledge of ESH resources and carbon reduction interventions.

### Key messages

ESH teaching leads to improvement in awareness of NHS climate impacts, knowledge of sustainable clinical practice and confidence of Foundation Doctors to perform sustainability-related clinical projects. Early integration of ESH teaching is likely to inspire positive change to clinical practice to achieve NHS Net Zero 2045 ambition. This will also create sustainability leaders who are well equipped to drive innovation within the NHS.

### References

1) Sustainable Markets Initiative: Healthsystems Task Force. Decarbonising Patient Care Pathways. [online]. London; 2022. [Accessed 17th October 2024]. Available from: <https://a.storyblok.com/f/109506/x/88fe7ea368/smi-hstf-pcp-whitepaper.pdf>

QS207

Quality Improvement & Sustainability Group 2

## Are patients with Primary Headache Disorders receiving information about medication overuse headache in General Practice?

### Authors

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### Background

Primary headache disorders (PHD), Migraine, Tension-type and Trigeminal autonomic cephalalgias (1, 2), have a significant prevalence (3), and are associated with medication overuse headache (MOH) (4).

Patients are advised to attend their General Practitioner (GP) if suffering from headaches (5), making them the first point of contact who can provide information of MOH, as suggested by NICE Quality Standards (6).

### Method

Patients who attended the GP within the months of June-October were sampled.

Patients' problems coded as 'Migraine, Tension headache and Cluster headache syndrome' were included.

Excluded from this sample were those managed exclusively by Neurology, or those with any mention of MOH outside of the time frame.

The term '(medication) overuse' was searched for within the consultation notes.

Any medications associated with MOH that were prescribed or ongoing during these consultations were noted.

### Results

16 patients fit the criteria. Of these 16, not one had received information about MOH.

10 of the 16 had a variable and/or repeat prescription for medications known to cause MOH.

### Key messages

Patients with PHDs are at greater risk of experiencing MOH and should receive concise and appropriate information to help reduce this comorbidity.

### References

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QS208

Quality Improvement &amp; Sustainability Group 2

## Quality improvement project on the documentation and communication of DVLA advice for patients post-acute coronary syndrome.

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### Background

This project aimed to improve the communication and documentation of post-acute coronary syndrome (ACS) driving advice in line with DVLA guidelines<sup>1</sup>. Correct advice, critical for patient safety and legal compliance, varies by ACS subtype and driving license type. Anecdotal evidence and national literature suggest junior doctors were not consistently providing this information<sup>2-5</sup>.

### Method

Using the Plan-Do-Study-Act (PDSA) methodology, electronic records of ACS patients on two cardiology wards were reviewed. Pre- and post-intervention questionnaires assessed junior doctors' knowledge and confidence. The first PDSA cycle introduced educational interventions, while the second utilised visual prompts in ward areas.

### Results

At baseline, 5.77% of patients had documented driving advice. After the first intervention, this rose to 8.58%, and after the second cycle, documentation improved to 58.18% ( $p < 0.000001$ ). Junior doctors also reported increased confidence in providing driving advice post-intervention. While most advice was accurate, a few inaccuracies were noted post-second cycle.

### Key messages

Targeted educational interventions significantly improved the documentation of post-ACS driving advice, aligning with national trends<sup>2-5</sup>. However, the presence of some inaccuracies highlights the need for sustained educational effort and engagement of all clinical staff, with the latest driving guidelines. This will help to ensure a long-term improvement in the dissemination of post-ACS driving advice.

### References

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QS209

Quality Improvement &amp; Sustainability Group 2

## Heart Failure Virtual Ward: Path to a Sustainable NHS

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### Background

The National Heart Failure Audit reports 63,530 heart failure (HF) admissions in 2022/23 (1). Traditionally, patients were hospitalised for treatment and monitoring, but with the shift to virtual wards, care delivery is improving, readmission rates reducing, and NHS resources are being optimised (2).

### Method

Between July 2022 and December 2023, 210 patients were admitted to HF virtual ward. A sample of 188 pre-virtual ward patients from January to June 2022 analysed, focusing on length of stay and cost savings extrapolated from NHS England (3).

### Results

- Mean length of inpatient stay for pre-and post HF virtual ward were 9.9 and 3.2 days respectively- mean reduction in length of stay of over 6 days
- Mean length of admission within the virtual ward was 8.6 days
- Represents a cost saving of over £3500 per patient admitted to the virtual ward, equating to an overall cost saving of approximately £735,000 of inpatient bed usage for HF patients
- Factoring in the staffing/ administration costs of the virtual ward this still represents a substantial saving for the NHS trust.
- reduced hospital stay will likely reduce inpatient morbidity

### Key messages

Virtual ward greatly reduced mean length of patient stay, potentially generating substantial financial savings and improved patient outcomes.

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QS210

Quality Improvement & Sustainability Group 2

## Empowering Patient Voices: Enhancing Ward Round Engagement in Psychiatric Care

### Authors

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### Background

Improving patient-centred care is a priority across all specialties, including in psychiatry (1). Actively listening to requests can enhance patient satisfaction with the care they receive (1-5).

Bosworth Ward is a psychiatric ward in Leicester. On this ward, doctors conduct a pre-ward round assessment (Pre-MDT), creating case formulations (6) and suggested plans. The assessment is presented during weekly ward rounds.

For this QIP, a new section titled “Patient’s Requests for Ward Round” was added to the Pre-MDT template.

### Method

Data audit using a mirror-image study design was conducted before and after introducing the new section. Analysis of 70 Pre-MDT templates covering 22 patients was carried out. Data from the 4 weeks prior to and following 12th February 2024 were collected from SystemOne. Data was analysed using the chi-squared ( $\chi^2$ ) statistic to assess for improvement.

### Results

Prior to the intervention, 16.7% of Pre-MDT templates mentioned patient requests, compared to 97% after ( $\chi^2$  48.51,  $p < .00001$ ), showing significant improvement. Common requests included changes to leave duration and status, medication preferences, requests for psychology input and gym access.

### Key messages

This QIP resulted in enhanced information gathering concerning patient requests for ward rounds. This patient-centric approach likely improves patient satisfaction and outcomes within psychiatric care (4,7).

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QS211

Quality Improvement &amp; Sustainability Group 2

## The power of standardisation: patient safety enhanced with critical care admission sheets

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### Background

National guidelines mandate that critical care admissions include an SBAR-structured handover and a clear treatment plan. (1,2) Research supports that standardising clinical assessment with pre-printed sheets improves documentation quality. (3) In Leicester, anaesthetic doctors working across three sites, aimed to enhance patient safety and efficiency by standardising admission documentation.

### Method

New critical care admission sheets, based on those from Leicester Royal Infirmary, were trialed across three Leicester sites for 3 weeks, and refined through multidisciplinary team feedback. A closed-loop audit assessed compliance before and after the revised sheets' implementation, targeting >85% completion in key sections. Statistical analysis was performed using GraphPad Prism 10.3.1.

### Results

The initial audit (n=15) showed 100% compliance with the new sheets, but VTE and peri-operative had lower completion rate (20-50%). MDT feedback (n=21) found 90.5% subjective increase in Patient Safety and 81% user satisfaction. Following revisions, the second audit (n=20) found significant improvements including: anaesthetics ( $X^2=11.667$ ,  $p<0.001$ ), fluids ( $X^2=12.216$ ,  $p<0.001$ ), and VTE risk ( $X^2=21.469$ ,  $p<0.001$ ), demonstrating enhanced documentation quality and usability.

### Key messages

In conclusion, our standardised ICU admission sheets are a valuable asset in improving patient safety and clinical efficiency. Engaging multidisciplinary team feedback ensures practical solutions that foster staff ownership and acceptance.

### References

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QS212

Quality Improvement & Sustainability Group 2

## Full Soft Cast for Adult Distal Radius Fractures: Does this Reduce the Need for Operative Intervention?

### Authors

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### Background

The use of soft cast application at the time of fracture reduction, in the management of paediatric forearm fractures, has transformed fracture clinics. This study aimed to evaluate whether applying a full soft cast after the primary reduction of displaced adult distal radius fractures reduced the need for surgical intervention.

### Method

A retrospective audit was completed on patients aged 16 and older with dorsally displaced distal radius fractures, who underwent a Bier's block manipulation between November 2022 and December 2023. Data collected included fracture classification, reduction quality, cast type, cast-related issues, neurovascular complications and surgical intervention. The interventions included clinician performed reductions, education on soft cast applications and standardising the use of full soft casts post-reduction.

### Results

In cycle 1, 251 patients received Biers block manipulation with non-complete plaster of Paris casts. 27% of these required surgery, 13 had cast-related issues. Cycle 2, 144 underwent manipulation, 83 receiving full soft casts. Of these, 18% required surgery and 4 had cast-related issues. This was a reduction in requirement for surgery, but was not statistically significant.

### Key messages

There was no significant difference found by introducing soft casts after primary manipulation . Further data is required to determine broader impacts of soft casts on the patient

### References

N/A

QS302

Quality Improvement & Sustainability Group 3

## Improving driving advice post cardiac intervention

### Authors

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### Background

Patients who recently underwent coronary intervention are at an increased risk of motor-vehicle accidents. It remains the responsibility of doctors to provide appropriate driving advice to patients as per DVLA's guidelines. We noted that discharge summaries frequently lacked advice. Our aim was to improve this.

### Method

55 summaries were reviewed retrospectively to collect baseline data. Doctors were surveyed to identify their awareness and documentation of driving restrictions. An electronic template summarising cardiology specific DVLA advice was designed and displayed in the Doctor's office to assist doctors.

### Results

5/40 (12.5%) summaries for PCI written by doctors whereas 11/15 (73%) for ablations/devices, written mostly by Cardiac ANPs included driving advice. Our survey revealed most doctors were aware of driving restrictions, however, they were unfamiliar with the extent of these restrictions. Additionally, they rarely made reference to DVLA guidelines. On 2nd cycle, 21/70 (30%) summaries contained driving advice. The template was received with overwhelming satisfaction.

### Key messages

Our findings highlighted the problem of infrequent documentation on the part of doctors who have become better informed of DVLA guidelines. Although we have increased the percentage of summaries with advice, to achieve a further and sustained increase, we recommend an electronic alert to prompt doctors when completing discharge letters.

### References

DVLA guidelines - <https://www.gov.uk/guidance/cardiovascular-disorders-assessing-fitness-to-drive>



QS303

Quality Improvement &amp; Sustainability Group 3

## Gentamicin dosage in surgical patients- are we prescribing safely? A snapshot retrospective cohort audit

### Authors

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### Background

Gentamicin is an effective antibiotic prescribed in surgical patients(1), however, cytotoxic side-effects are well documented and can be avoided by appropriate dose calculation(2). A retrospective cohort audit was conducted to evaluate prescribing adherence to trust guidelines.

### Method

Digital records of 228 patients referred to a DGH on-call general surgery team were reviewed, of which 11 were prescribed gentamicin. Demographic data was used to calculate recommended dose according to local trust guidelines which was compared to their actual prescribed dose in a paired two-tailed T-test.

### Results

Of the 11 patients prescribed gentamicin, 2 were prescribed a dose within 5% of the trust recommendation. The general trend showed overdosing of gentamicin. There was a statistically significant difference in trust recommended dose and actual dose prescribed ( $p= 0.0076$ , 95% CI 14.8-75).

### Key messages

Gentamicin overdosing may be common in surgical patients. This may be due to using patients' actual weight rather than ideal or adjusted body weight during dose calculation and/or misinterpretation of trust guidelines. A repeat cycle and larger sample size may increase data validity. Although no records of toxicity were documented the risk to patients remains significant, usage of an Excel gentamicin dosage calculator based on trust guidelines may avoid overdosage of gentamicin.

### References

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QS304

Quality Improvement & Sustainability Group 3

## Audit of the Appropriateness of CTPA Use in Suspected Pulmonary Embolism

### Authors

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### Background

The aims of this audit were to evaluate the appropriate utilization of CTPA as the main imaging method to detect pulmonary embolism (PE) by analysing adherence to the hospital's referral criteria. Additionally, we assessed the diagnostic yield of CTPA regarding confirmed PE and alternative diagnosis.

### Method

Retrospective data was collected using the PACS system, selecting 50 consecutive cases in August 2024. The data included patient demographics, referral source, clinical referral information, adherence to local protocols, preceding chest X-ray (CXR), D-dimer, positive findings from the CTPA scan, and any alternative diagnosis. This data was evaluated against RCR standards and guidance.

### Results

CTPA identified PE in 12% of cases (target between 15.4%-37.4%), with alternative diagnosis in 48% of cases (target >50%). Adherence to local protocols for CTPA requests was 80% (target 100%). Only 76% of patients had a preceding CXR (target 100%). The audit results and recommendations will be discussed in departmental meetings, followed by a re-audit to evaluate changes in practice.

### Key messages

Strict adherence to local protocols and RCR standards will enhance patient care by minimizing radiation exposure. It will also reduce radiologists' workload and lower NHS costs.

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QS305

Quality Improvement & Sustainability Group 3

## It takes two: implementing a two-sided approach to improving the evening handover in a district general hospital

### Authors

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### Background

A previous audit of the out-of-hours Foundation Year 1 (FY1) bleep identified a high volume of handovers from ward FY1s, varying in clinical urgency, clarity, and feasibility. The aim of this prospective two-cycle quality improvement project was to facilitate effective handovers amongst FY1s to structure and prioritise clinical tasks out-of-hours.

### Method

FY1s were surveyed on handover experiences before and after interventions. Cycle one implemented a proforma for out-of-hours FY1s to organise handovers according to time, task, and National Early Warning Score (NEWS2). Cycle two addressed ward FY1s: teaching was delivered on a proforma to format handovers according to 'Situation, Background, Assessment, Recommendation' (SBAR).

### Results

Our pre-intervention survey revealed variable confidence on handover (83.3% never received relevant medical school teaching). 40% sometimes/rarely received quality handovers, highlighting poor context and misunderstanding of out-of-hours capacity resulting in difficulty prioritising. 100% reported cycle one's proforma was helpful/very helpful for prioritising handovers. 100% reported cycle two's proforma increased their confidence, praising its clarity; 66.7% of out-of-hours FY1s reported improved quality handovers.

### Key messages

Implementing a system that addresses both FY1s giving and receiving handovers increases their skills in clinical prioritisation, communication, and patient management. We aim to upload our proformas electronically to maximise efficacy.

### References

None

QS306

Quality Improvement &amp; Sustainability Group 3

## Switch Smart: Audit of IV to Oral Antibiotic Switch Therapy in Community-Acquired Pneumonia

### Authors

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### Background

Intravenous (IV) antibiotic therapy should be reviewed regularly. IV-oral antibiotic switch therapy (IVOST) has several benefits, including mitigation of antimicrobial resistance, shorter hospital stays, improved patient experience, lower economic and environmental costs, and fewer complications of administering IV medications (1–4). National guidelines regarding IVOST are clear: IV-oral antibiotic switch should be considered at 48 hours and daily thereafter (5).

### Method

This multidisciplinary audit involved both the medical and pharmacy teams and assessed the adherence to national IVOS guidelines of the respiratory department at a busy NHS district general hospital. Inclusion criteria were patients admitted to the respiratory ward and treated for suspected community-acquired pneumonia with IV antibiotics. Electronic patient records were reviewed for documentation of IV antibiotic therapy review at 48 hours of therapy as well as daily thereafter.

### Results

Of the 46 patients eligible across the two-month audit period, 65% had a documented 48-hour review of their IV antibiotic therapy and just 61% had daily reviews thereafter. Average length of IV antibiotic therapy was over 6 days.

### Key messages

These results show suboptimal adherence to national and trust IVOST guidelines, and thus subpar antimicrobial stewardship. As a next step, a joint teaching session with pharmacy staff is planned to improve compliance.

### References

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QS308

Quality Improvement & Sustainability Group 3

## Streamlining Jobs on Psychiatry Assessment Ward

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### Background

Avondale, an acute psychiatric admission ward, is a 14 bed unit providing assessment for people experiencing a period of mental health crisis. Historically, ward jobs were communicated among doctors verbally, leading to increased rates of attempting to repeat completed jobs, reduced efficiency in daily ward work and poor work satisfaction among doctors. This in turn could potentially affect patient safety.

A quality improvement project was thus designed to streamline daily jobs on the ward.

### Method

A questionnaire was completed by all doctors on the ward which required respondents to rate various aspects of their daily job

This provided a set of baseline data

The intervention was instituted, followed by a post intervention questionnaire.

The ward job list spreadsheet below was created. It would be filled out by a ward doctor every morning and continuously updated over the course of the day.

### Results

All doctors on the ward completed the pre and post intervention questionnaires. All aspects of ward jobs rated, i.e. confidence, tracking, repetition, handover and overall rating, showed an improvement.

### Key messages

Simple interventions like job lists can make a tremendous difference in carer experience on in-patient wards.

### References

N/A

QS309

Quality Improvement & Sustainability Group 3

## Improving Documentation of Informed Consent: A quality improvement project on Verbal Discussions and EIDO Leaflets for Elective Surgical Procedures

### Authors

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### Background

Informed consent is an ongoing process that involves clear, interactive communication between healthcare providers and patients. Each patient is different, and it is paramount to take the appropriate approach including in provision of relevant information, verbal or written. This QIP aimed to evaluate the documentation of verbal consent discussions and EIDO leaflet (patient information leaflet) provision for elective surgical procedures.

### Method

- A retrospective review of 100 patients' records undergoing elective surgery.
- Documentation assessed for verbal discussions and EIDO leaflets.
- Interventions included team reminders and education, followed by a re-audit.

### Results

Results - Cycle 1 :

- 28%: No discussion and no leaflet provided
- 36%: Verbal discussion documented but no leaflet provided
- 36%: Both discussion and leaflet provision documented

Results - Cycle 2

- 19%: No discussion and no leaflet provided
- 53%: Verbal discussion documented but no leaflet provided
- 28%: Both discussion and leaflet provision documented

### Key messages

Improvement in verbal discussion documentation, but limited improvement in leaflet provision. Continuous education and monitoring are needed to ensure full compliance with informed consent practices.

### References



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QS310

Quality Improvement &amp; Sustainability Group 3

## Improving QTc Monitoring for Patients on Antipsychotics

### Authors

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### Background

Antipsychotic use is associated with cardiac risks<sup>1-4</sup>, hence current guidelines encourage regular QTc monitoring<sup>5</sup>. At present, QTc monitoring for patients referred to liaison psychiatry within an acute hospital, where ECG is readily accessible remains undetermined and current workflow poses challenges in QTc monitoring.

### Method

This study implemented 2 cycles of modifications to the liaison psychiatry MDT Board Round template on SystmOne. In addition to current MDT template highlighting basic patient details and management plan, additional sections indicating antipsychotic usage, and latest QTc value were included. In the second cycle, specification of antipsychotic type was included. Once implemented for 3 weeks, the number of patients on antipsychotics with recorded QTc interval was re-evaluated.

### Results

6 out of 13 older-adult patients and 14 out of 16 working-age patients referred for psychosis, hallucination, or confusion were identified to be on antipsychotics. Following intervention, all older-adult patients (100%) on antipsychotics had received QTc monitoring, and 10 (71.4%) working-age adults had received QTc monitoring, highlighting significant ( $p < 0.05$ ) improvement from baseline preliminary data of 91% ( $n=10$ ) and 42% ( $n=5$ ) respectively.

### Key messages

Implementation of QTc monitoring through modification of Board Round templates may be a simple yet sustainable intervention to mitigate risk of serious adverse events for patients on antipsychotics.

### References

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QS311

Quality Improvement &amp; Sustainability Group 3

## Evaluating the use of GASS (Glasgow Anti-Psychotics Scoring System) when monitoring service users of EIP team on anti-psychotics.

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### Background

Antipsychotic medication has an extensive side effect profile which can impact quality of life and hinder compliance for patients. The Glasgow Antipsychotic Side Effect Scale(GASS) is used to identify the early signs of extrapyramidal side effects(EPSEs) associated with antipsychotic medication, allowing for early intervention and adjustment of treatment pathways. Through this QIP, we aim to evaluate the use of GASS in monitoring EPSEs in services users on antipsychotic medication.

### Method

50 service users from the EIP West Surrey case load were randomly sampled. Their data was anonymised and retrospectively used to identify the use of GASS during dose titration, at 12 weeks, 6 months and annually between August 2020 and 2023.

### Results

Monitoring of EPSEs using the GASS questionnaire was not used in the care of the participants. 21/46 participants reported experiencing side effects to medication for which the GASS questionnaire could have been used as a monitoring tool. 9 of these participants also reported EPSEs including akathisia and dystonia.

### Key messages

- Recommend the use of the GASS questionnaire during future reviews as a standardised measure of monitoring EPSEs
- Recommend GASS is used at 6 weeks, 12 weeks, 6 months and a year after starting antipsychotic medication in line with NICE guidance.

### References

Rodolico, A. et al. (2022) 'Validation of the Glasgow antipsychotic side-effect scale (gass) in an Italian sample of patients with stable schizophrenia and bipolar spectrum disorders', *Brain Sciences*, 12(7), p. 891. doi:10.3390/brainsci12070891.

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QS402

Quality Improvement & Sustainability Group 4

## Post-operative Analgesia in Orthopaedic Patients

### Authors

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### Background

One in twenty people in the UK take regular prescribed opioids, with modified-release (MR) opioids being a risk factor for opioid dependence. Post-operative analgesia, particularly with MR opioids, presents challenges due to risks of sedation, respiratory depression, and tapering difficulties. (1) This audit aimed to assess opioid prescribing in post-operative orthopaedic patients and encourage safer practices.

### Method

Two audit cycles were conducted at Manchester Royal Infirmary. In Cycle 1, 68 patients were included, of which 44 underwent surgery. Cycle 2 assessed 63 patients, with 43 surgeries performed. Data was collected using HIVE on post-operative opioid prescribing, assessing adherence to local and national opioid prescribing guidelines.

### Results

In Cycle 1, 46.34% of patients were prescribed MR opioids post-operatively, while 63.4% received immediate-release (IR) opioids. There was 100% compliance with prescribing IR opioids at least three hours apart. However, only 8.9% of patients had a dose review at 48 hours. Cycle 2 demonstrated similar findings, with 47.5% prescribed MR opioids and 64% prescribed IR opioids.

### Key messages

The audit showed continued high usage of MR opioids despite guidelines favouring IR opioids. Recommendations include improved pain review documentation and education on opioid deprescribing. Insights from the Opioid Safety Group highlighted improvements in managing opioids for vulnerable populations.

### References

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QS404

Quality Improvement & Sustainability Group 4

## Coagulation Blood Tests for Vascular Surgery Inpatients: A Review of Guidelines and Costs

### Authors

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### Background

Pre-operative coagulation testing is a standard practice in vascular surgery inpatients due to the bleeding risks involved. Overuse of this test however, may result in needless expenses without enhancing clinical outcomes. This quality improvement initiative aims to assess current practices and provide more precise instructions for a cost-effective and clinical approach.

### Method

A retrospective audit. We reviewed 25 vascular surgery inpatients. Those taking intravenous heparin, warfarin, or having known coagulopathies were excluded. Number of coagulation tests, necessity, INR levels, and the overall budgetary impact were evaluated. The NHS spends £5.74 for each coagulation screen.

### Results

183 unnecessary coagulation tests totalling £1,050.42 were discovered throughout the audit in only 25 inpatients. Through revision of guidelines and standard practice, testing is now only necessary 24 to 48 hours before urgent surgery or angioplasty, and an INR of 1.4 or below is acceptable. Unless clinically indicated, postoperative coagulation tests are not required.

### Key messages

183 unnecessary coagulation tests totalling £1,050.42 were discovered throughout the audit in only 25 inpatients. Through revision of guidelines and standard practice, testing is now only necessary 24 to 48 hours before urgent surgery or angioplasty, and an INR of 1.4 or below is acceptable. Unless clinically indicated, postoperative coagulation tests are not required.

### References

British Committee for Standards in Haematology (BCSH) guidelines on the management of anticoagulation and perioperative care.

National Institute for Health and Care Excellence (NICE) guidelines on managing bleeding risks and anticoagulation during surgery.

QS405

Quality Improvement & Sustainability Group 4

## Enhancing Sustainability and Efficiency in ENT Scope Disinfection: A Proposal for UV Disinfectant Technology

### Authors

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### Background

High-level disinfection of ENT endoscopes is a critical yet resource-intensive process. Traditional methods such as automated washers require significant time, water, and chemical use, contributing to high operational costs, increased risk of breakages to scopes, and environmental impact. UV-C disinfectant technology offers an efficient and sustainable alternative. (1)(2)

### Method

A business case was proposed to evaluate the integration of the UVSmart D60 UV-C disinfection device in the ENT outpatients department at Cambridge University Hospital. This device disinfects channel-less endoscopes in 60 seconds without the use of water or chemicals, promising faster turnaround times and reduced environmental impact. A projected comparison was made between the current washer-disinfector process and the UV Smart D60 in terms of time efficiency, resource usage, and CO2 emissions.

### Results

The UV Smart D60 is expected to reduce disinfection time from 40-96 minutes to 12 minutes per scope, decrease CO2 emissions by over 8,700 kg annually, and eliminate water and chemical usage, thereby promoting sustainable healthcare. Data from other Trusts using this device suggests an estimated annual cost saving of £70,000, further supporting its cost-effectiveness.

### Key messages

Implementing UV disinfectant technology in the ENT department could enhance operational efficiency, reduce environmental footprint, achieve significant cost savings, and provide a scalable model

### References

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endoscopes without a working channel? Clin Otolaryngol. 2023  
Oct 26. doi: 10.1111/coa.14119.



QS406

Quality Improvement &amp; Sustainability Group 4

## From Chaos to Consistency: Standardising Record-Keeping Through Surgical Admissions Clerking Proforma

### Authors

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### Background

Accurate and consistent documentation during admissions is critical for effective communication and patient safety (1). Surgical departments struggle with variability in documentation, with key clinical markers (performance status and clinical frailty scores) being under-recorded (2,3).

To improve the quality and completeness of colorectal admission documentation – increasing recording of key clinical markers (clinical frailty score and performance status), reducing in/of clerking duration and improving confidence amongst resident doctors.

### Method

A retrospective audit of 30 freehand clerking sheets were collected for baseline standards. A new clerking proforma was created based upon guidelines by the Royal College of Surgeons of England's guidelines (4). Two PDSA cycles were performed. Data was analysed using the ANOVA test with box plot analysis for anomalies for clerking times.

### Results

Introduction of the clerking proforma led to a 47% inclusion of clinical criteria. Clinical frailty scores were included in 69% of documentation, and 75% included performance status. A 23% reduction in clerking time was noted, and the confidence had increased by 45%.

### Key messages

A standardised surgical clerking proforma enhances quality and consistency of admission documentation, adhering to national standards and thus improving patient safety.

### References

1. Bhanot K, Abdi J, Bamanian P, Samuel M, Watfah J. Completeness in clerking: The surgical admissions proforma. *Ann Med Surg (Lond)*. 2017 May 13;19:1–6.
2. Cappe M, Laterre PF, Dechamps M. Preoperative frailty screening, assessment and management. *Curr Opin Anaesthesiol*. 2023 Feb;36(1):83–8.
3. Anic K, Flohr F, Schmidt MW, Krajnak S, Schwab R, Schmidt M, et al. Frailty assessment tools predict perioperative outcome in elderly patients with endometrial cancer better than age or BMI alone: a retrospective observational cohort study. *J Cancer Res Clin Oncol*. 2023;149(4):1551–60.

4. Guidelines for clinicians on medical records and notes.  
Royal College of Surgeons of England. AMRO. 1990 Aug;31(3):18–20.

QS407

Quality Improvement & Sustainability Group 4

## A closed loop audit improving the quality of oral nutritional support prescribing for hip fracture patients in the postoperative period.

### Authors

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### Background

Oral nutritional support (ONS) has been associated with improved postoperative outcomes in older adult neck of femur (NOF) fracture patients. Inconsistent prescription and monitoring of ONS can compromise outcomes.

### Method

Data pre- and post-intervention were collected from patient records, including ONS prescription, Malnutrition Universal Screening Tool (MUST) scores and dietitian assessments. The intervention included the introduction of a poster outlining key recommendations for healthcare professionals involved in the care of NOF patients.

### Results

Post-intervention, consistency of ONS prescribing for older adult NOF patients increased from 50% to 85%, MUST score completion rose from 70% to 95%, and fewer patients were discharged with ONS without dietitian input (reduction from 40% to 15%). However, challenges persisted, with only 60% of discharge summaries including patient weights and while there was improvement in the number of patients receiving dietitian assessments based on MUST scores, the overall rate remained relatively low at 21%.

### Key messages

Our intervention significantly improved ONS practices for NOF patients. Challenges in documentation and dietitian assessments persist, highlighting the need for ongoing refinement. Engaging pharmacists in medication management could further optimize patient care.

### References

n/a

QS408

Quality Improvement &amp; Sustainability Group 4

## Simple ward-based intervention can reduce delays in infliximab infusions for patients with Acute Severe Ulcerative Colitis

### Authors

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### Background

Acute severe ulcerative colitis (ASUC) is a life-threatening complication of UC which still has a substantial colectomy rate. Infliximab, a monoclonal antibody to TNF-alpha, can be used as a rescue treatment for patients who fail to respond to corticosteroids. Delays between decision to administer infliximab are known to cause worse outcomes (1) (2).

### Aim

To improve time from decision to administer infliximab to administration.

### Method

We identified patients treated for ASUC from previous patient lists across one year in cycle 1 and determined mean time from decision to administration. We performed ward-based teaching for staff and suggested changes in drug storage as an intervention. We then repeated data collection in cycle 2.

### Results

There were 32 patients in cycle 1 with a mean time to administration of infliximab of 26.6 hours., with the most common reason for the time being pharmacy delays. Following intervention the mean time fell to 8.75 hours in cycle 2.

### Key messages

There were significant delays to administering infliximab on the ward. These were mitigated by storing supplies of infliximab on the ward and educational sessions with stakeholders.

### References

- (1) Constant BD, de Zoeten EF, Stahl MG, Vajravelu RK, Lewis JD, Fennimore B, et al. Delays Related to Prior Authorization in Inflammatory Bowel Disease. *Pediatrics*. 2022 Feb 22;149(3).
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QS409

Quality Improvement & Sustainability Group 4

## The use of a Reasonable Adjustments Pathway in Paediatric Day Surgery to improve patient experiences and outcomes

### Authors

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### Background

Significant barriers are faced by young people accessing healthcare.<sup>1</sup> These are exacerbated in patients with learning difficulties.<sup>2</sup> The Reasonable Adjustment Pathway (RAP), introduced in the NDDH Day Surgery (2016), improves healthcare experiences of children with additional requirements. Consultations are tailored to match each young person's requirements, addressing anxieties fear and incorporating comfort measures. Such thorough pre-operative planning facilitates patients to be safely managed as day cases.

### Method

Paediatric patients (>18 years old) suitable for the RAP were identified in surgeon-led clinics. A pre-operative, person-centred assessment was carried out, identifying patient's needs and triggers. Previous stabilising strategies implemented are also considered. Patient specific management plans are made, confirmed with guardians, and distributed to all professionals involved in patient care.

### Results

Feedback forms, rating patients' and guardian's experiences of the service, were collected from 2016 - present. Data analysed was randomly selected. Qualitative (written comments) and quantitative (service rankings) data was generated. 90% of respondents (n=31) found care to be great in all assessed categories. All negative feedback (6.5%) revolved around the technological malfunctions.

### Key messages

RAP has allowed for significant improvements in patient, and their guardians, healthcare experiences and outcomes.

This pathway could benefit vulnerable adults if adopted across all surgical teams.

### References

#### References

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QS411

Quality Improvement &amp; Sustainability Group 4

## Tracheostomy Tip Position Audit: Could Routine Chest Radiography Reduce Post-Insertion Problems?

### Authors

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### Background

Percutaneous tracheostomies aid ventilatory weaning. Bronchoscopy measurement of tracheostomy tube tip to carina at time of insertion is standard practice.

Routine CXR post-percutaneous tracheostomy may have a role in detecting problems before complications arise.(1) This is not currently NICE guidance;(2) it is unclear whether its introduction would be an appropriate use of NHS resources.(3)

### Method

A retrospective audit was carried out at Aintree ITU, looking at percutaneous tracheostomy patients, between February 2023 - February 2024. The distance between tracheostomy tip and the carina on insertion bronchoscopy was compared with that measured on a subsequent CXR post-insertion. The discrepancy between these measurements was compared with incidences of post-insertion problems. The patient BMI was recorded to assess whether this was a confounding factor.(4)

### Results

There were 59 patients. The mean difference between CXR and bronchoscopy measurement of tip position was 2cm. There was no apparent link between BMI and discrepancies in the CXR and bronchoscopy measurements.

Figure 1: Comparison of chest x-ray and bronchoscopy measurement.

Figure 2: Comparison of chest x-ray and bronchoscopy measurement in tracheostomy requiring adjustments.

Figure 3: Comparison of chest x-ray and bronchoscopy measurement in tracheostomy requiring re-insertion or change.

### Key messages

Routine CXR would not reduce rates of tracheostomy adjustment or re-insertion. However, the tracheostomy

### References

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<https://www.nice.org.uk/guidance/ipg462> (Accessed 31 July 2024)
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4. Cordes, S.R., Best, A.R. and Hiatt, K.K. The impact of obesity on adult tracheostomy complication rate. *The Laryngoscope* 2015; 125(1): 105-110.



QS412

Quality Improvement & Sustainability Group 4

## Maternal Pertussis Vaccination Rates are Declining - How can we improve uptake?

### Authors

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### Background

Pertussis vaccination during pregnancy has declined nationally in England, from over 70% in 2017 to 58% in 2023 (1). This decline has coincided with rising pertussis rates in infants, with 856 confirmed cases in 2023 and 13,248 provisional cases from January to August 2024 (2). This project investigates and aims to improve pertussis vaccination uptake in a rural North Yorkshire GP practice.

### Method

Data from January 2022 to June 2024 was reviewed, including 115 pregnancies, with 99 continuing past 16 weeks' gestation (excluding terminations, miscarriages, and stillbirths). The number of women invited for the pertussis vaccine and those who received it were recorded and analysed.

### Results

Vaccination uptake was 95.1% in 2022, 88.6% in 2023, and 73.9% in the first half of 2024. To address this decline, several interventions were introduced in mid-2024, including enhanced information through posters in waiting areas, distribution of vaccination leaflets at the first GP appointment in pregnancy, and an invitation to discuss concerns with a clinician after a patient receives their second invitation letter.

### Key messages

The decline in pertussis vaccination uptake mirrors concerning national trends. Interventions aim to increase vaccination rates, with re-audits planned for December 2024 and every six months thereafter to assess effectiveness.

### References

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QS501

Quality Improvement &amp; Sustainability Group 5

## Improving medication reviews for dependency causing drugs in General Practice, a quality improvement project

### Authors

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### Background

In 2017/18, up to 26% of all adults were prescribed  $\geq 1$  dependency causing drugs (opiates, benzodiazepines, Z-drugs, gabapentin/pre-gabalin)(1). Although indicated for short-term use, they are often present on long-term prescriptions(1). Regular review of these medications and rationalisation is crucial to prevent side-effects, withdrawal and dependency. NICE provides guidance on the structure of such medication reviews(2).

### Method

This project was set in a GP in a deprived area. Ninety-seven patients with  $\geq 1$  dependency-causing drug on active repeat prescription were randomly selected. Case notes were retrospectively reviewed to assess the contents of medication reviews, with NICE guidance as a template.

### Results

Sixty percent of patients took only one drug, with opiates constituting 61% (83/137) of all repeat prescriptions. Most (91%) patients had medication reviews in 2023/2024. Roughly half were carried out by GPs, the other half by pharmacists. Only 33% of reviews explored the benefits of cutting down, and 9% explored signs of dependence in the patient. Safety netting for drug-specific side-effects was documented in 28% of reviews.

### Key messages

Our single-centre experience shows that, although medication reviews are undertaken regularly, key topics are frequently omitted. Updated review templates, modifying prescribing practices and patient information resources might improve these reviews(3).

### References

1. Taylor S, Annand F, Burkinshaw P, Greaves F, Kelleher M, Knight J, et al. Dependence and withdrawal associated with some prescribed medicines: an evidence review. London: Public Health England; 2019. Available from: [https://assets.publishing.service.gov.uk/media/5fc658398fa8f5474c800149/PHE\\_PMR\\_report\\_Dec2020.pdf](https://assets.publishing.service.gov.uk/media/5fc658398fa8f5474c800149/PHE_PMR_report_Dec2020.pdf)
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3. NHS England. Optimising personalised care for adults prescribed medicines associated with dependence or withdrawal symptoms: Framework for action for integrated care boards (ICBs) and primary care [Internet]. 2023. Available from: <https://www.england.nhs.uk/long-read/optimising-personalised-care-for-adults-prescribed-medicines-associated-with-dependence-or-withdrawal-symptoms/>

QS502

Quality Improvement & Sustainability Group 5

## Improving inpatient medical emergency response on the Isle of Man

### Authors

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North West of England Foundation School

### Background

Resuscitation Council UK advise medical emergency team (MET) members meet at a “safety huddle” and allocate roles to improve performance at medical emergencies(1). This QIP aimed to improve medical emergency response by adding a safety huddle to medical department handover.

### Method

The QIP ran for four weeks during summer 2024. Daily handover attendance, timings, and presence of a safety huddle at morning medical handover was recorded. For cycle 1, a handover checklist was produced. Pre-cycle 2, a video example of a safety huddle was circulated and the handover checklist modified. Questionnaires were circulated to MET members before and after the QIP to understand their experience of MET calls.

### Results

By end of cycle 2, safety huddles occurred at 75% of medical handovers compared to none before. Post-QIP, no respondents “rarely” or “never” knew other’s MET roles and 7% “rarely” or “never” knew their own MET role (vs 73% and 33% pre-QIP). There was a modest improvement in reported coordination of medical emergencies. Handover length did not increase and non-essential staff attendance reduced by 90%.

### Key messages

Adding safety huddles improved staff understanding of their and others’ roles on the MET and improved MET coordination. This addition did not increase time taken to handover.

### References

1. Resuscitation Council UK. Quality Standards: Acute Care. London: Resuscitation Council UK, 2023

QS503

Quality Improvement &amp; Sustainability Group 5

## Improving post take ward round documentation using the REDCOAT checklist at Ealing Hospital

### Authors

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### Background

Structured post-take ward round (PTWR) documentation improves patient-centred care and minimises errors [1]. Together with rising hospital admissions impacting patient and staff wellbeing[2,3], several hospitals have adopted the REDCOAT checklist. Ealing Hospital currently has no standardised PTWR format. Therefore, we aimed to improve PTWR documentation in 7 domains using REDCOAT checklist at Ealing Hospital: Resuscitation status, Estimated discharge date, Drugs review, Cannulation, Oxygen saturation target, Antibiotics and Thromboprophylaxis prescriptions (REDCOAT).

### Method

PTWR entries of 100 random patients admitted in November 2023 were audited for inclusion of the 7 REDCOAT domains. Driver diagram, pre-/post-intervention surveys and PDSA model helped implement the REDCOAT checklist via teaching, poster and bulletin reminders at Ealing Hospital in March 2024. The 2nd cycle on 100 randomised patients admitted in May 2024 evaluated whether PTWR documentation of the 7 domains improved with REDCOAT checklist.

### Results

PTWR documentation including all 7 domains increased from 24.5% to 61.5%. We infer patient care improved, as prescriptions of required antibiotics increased from 80% to 100% and required thromboprophylaxis increased from 60.5% to 97.1%. The post-intervention survey demonstrated doctors formed their own personalised checklists inspired by REDCOAT.

### Key messages

REDCOAT checklist improves quality of PTWR documentation and reduces missed prescriptions of required antibiotics and thromboprophylaxis.

### References

[1] Thompson AG, Jacob K, Fulton J, McGavin CR. Do post-take ward round proformas improve communication and influence quality of patient care? *Postgrad Med J*. 2004 Nov;80(949):675-6. doi: 10.1136/pgmj.2003.016097. PMID: 15537856; PMCID: PMC1743139.

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[3] <https://www.statista.com/statistics/984239/england-nhs-hospital-admissions/>

S504

Quality Improvement & Sustainability Group 5

## Post-operative wound care documentation in general surgery patients

### Authors

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### Background

Background:

Surgical site infections (SSIs) are associated with increased morbidity, mortality and healthcare costs<sup>1</sup>. Post-operative wound management is dependent on the quality of peri-operative documentation. The Royal College of Surgeons' expect documentation to "enable continuity of care"<sup>2</sup>. Wounds UK provide guidelines for wound care documentation standards<sup>3</sup>.

Aim:

Primary outcome: incidence/quality of wound care advice in operation-notes and discharge documentation. Secondary outcomes: incidence, severity and management of SSIs.

### Method

Methods:

Cycle 1:

- Retrospective data collected for all general surgery patients that underwent an emergency operation (CEPOD) over 4 weeks in a London district general.

Intervention:

- Discharge summary templates categorised by wound category and operation type shared with resident doctors.
- Operation-note templates shared with consultant body for approval.

Cycle 2:

- Prospective data collection over 4 weeks.



## Results

### Results:

60 and 67 patients were identified in cycle 1 and 2 respectively. Wound advice was inadequately documented in the operation-notes (29.5%) and discharge summaries (42.6%) in cycle 1. Documentation improved in cycle 2: present in 61.25% discharge summaries. SSI incidence was poorly documented in both cycles.

### Key messages

#### Conclusion:

Templates successfully improved documentation in discharge summaries. Implementation of e-templates for operation-notes may improve documentation. Further cycles are required to assess longevity of results.

### References

1. Wong J, Ho C, Scott G, Machin JT, Briggs T. Getting It Right First Time: the national survey of surgical site infection rates in NHS trusts in England. *Ann R Coll Surg Engl*. 2019 Sep;101(7):463-471. PMID: 3115591
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S505

Quality Improvement & Sustainability Group 5

## Improving the FY1 Emergency Department-Based Medical On-Call Role in an Acute District General Hospital - Foundation Year 1 Doctor and Acute Medicine Training Quality Improvement Project

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Project Supervised by Dr Simon Irving, Acute Medicine Consultant and Clinical Lead for Acute Medicine, Bolton NHS Foundation Trust

North West of England Foundation School

### Background

FY1 'Tandem' is a local Emergency Department (ED) based medical on-call role that is poorly and inconsistently defined with difficulties in handover from the Acute Medicine (AMU) team, resulting in poor training experiences and knock-on effects on patient care.

### Method

Surveys were distributed to the 2023-24 FY1 cohort and AMU team in July 2024. Following analysis of results, the role was defined, the name changed to 'ED Support' and formal handover was introduced. An induction was designed and delivered to the 2024-25 FY1 cohort with survey feedback obtained.

### Results

In the FY1 survey, 80.0% of responders received handover on <50% of shifts with 93.3% thinking induction would have been beneficial. In the AMU survey, 71.4% thought key results are often missed out-of-hours, with all experiencing difficulty contacting the FY1 and expressed desire for improved handover processes. Following interventions, 96.7% of the new FY1 cohort agreed to understanding the role of 'ED Support' and 76.7% agreed to knowing how to receive handover on shift.

### Key messages

Surveys demonstrated a clear need for improvement of the 'Tandem' on-call role. Initial interventions were implemented with positive feedback. Prospective audit and surveys are ongoing to assess their impact to further improve shift experiences and standard of patient care.

### References

N/A

QS506

Quality Improvement & Sustainability Group 5

## Quality Improvement Project to Reduce Gentamicin Prescription and Administration Errors on Hospital Ward

### Authors

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### Background

Gentamicin is an antibiotic providing gram negative cover. It is commonly used in hospital settings as it is part of IV triple therapy, used in treating sepsis, pyelonephritis and endocarditis, as well as surgical prophylaxis. It has a narrow therapeutic window and requires close monitoring due to being renally excreted and risk of nephrotoxicity. Therefore, correct prescribing and administration is key when using it.

This quality improvement project aimed to assess the accuracy of gentamicin prescription and administration in a hospital ward, to assess areas of weakness, and to implement changes to reduce errors.

### Method

The project analysed charting mistakes, administration delays greater than 4 hours after prescription, and missed doses, over a 4-week period which showed a correct prescription and administration rate of 60%.

### Results

Following changes aimed at multidisciplinary team communication and education, a second 4-week monitoring period showed a 45% reduction in errors. The largest area of improvement being charting mistakes.

### Key messages

The key messages seen were that good multidisciplinary team communication and doctoral education is vital in improving the care provided for patients with gentamicin use.

### References

1. Gentamicin Monograph for Professionals [Internet]. Drugs.com. 2024 [cited 2024 Oct 20]. Available from: <https://www.drugs.com/monograph/gentamicin.html>
2. Chaves BJ, Tadi P. Gentamicin [Internet]. PubMed. Treasure Island (FL): StatPearls Publishing; 2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK557550/>

QS507

Quality Improvement & Sustainability Group 5

## Disparity between spacer prescribing in secondary and primary care

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### Background

Good inhaler technique is paramount in increasing the ratio of drug transfer into the lower airways. Spacers are shown to increase drug delivery into the lower airways and are considered as effective as nebulisers. BTS and ERS guidelines encourage prescriptions of spacers with pMDIs in patients with asthma and COPD. There is a disparity between spacer prescribing in primary care compared to secondary care.

### Method

A prospective audit across two hospital sites in a large NHS trust. Information was gathered on patients admitted on a pMDI over one month. Patient records were checked for primary care spacer prescription along with prescription of spacer on the hospital drug card.

### Results

Of 153 patients, 65 (42%) had a spacer prescribed in primary care. 6 (9%) of these patients had a spacer prescribed in hospital. A survey amongst junior doctors highlighted lack of education around spacer usage and prescribing.

### Key messages

Spacer prescribing for pMDIs is poor in primary and secondary care, but especially so in secondary care. Junior doctors need education on the benefits of spacer prescribing. Respiratory specialist nurses should review all exacerbation admissions and encourage spacer prescribing. Hospitals with electronic prescribing systems should incorporate a joint pMDI and spacer prescription to encourage spacer use.

### References

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QS508

Quality Improvement & Sustainability Group 5

## Empowering patients 'registered blind' or 'visually impaired': a quality improvement project

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East of England Foundation School

### Background

The Department of Health states "NHS needs to give patients more rights and control over their own health", through "easy-to understand information".<sup>1</sup>

We sought to improve communication in a General Practice setting.

### Method

Audit: Identified patients coded on SystmOne as 'registered blind' or 'visually impaired' (n=16). 3 patients noted to benefit from larger font size on communication.

Intervention 1: Identified patients were sent a letter with font sizes ranging from 20 to 60.

Survey 1: Patients were surveyed on readability of font size options and probed for further limitations/suggestions.

Intervention 2: Patients were sent personalised letters implementing their preferred font size and incorporating suggestions (bold lettering, increased spacing and black font).

Survey 2: Patients were surveyed again on readability and further probed for limitations/suggestions.

### Results

Survey 1: Patients 1, 2 and 3 preferred font sizes 40, 45 and 60, respectively. They noted bold, increased spacing and black font were preferable.

Survey 2: All patients were able to read their letter unassisted and without visual aids, which they were previously reliant on.

### Key messages

Our QIP demonstrated implementation of simple methods empowers patients to take control of their healthcare. Patients reliant on family, friends and/or visual aids were no longer dependent.

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QS509

Quality Improvement & Sustainability Group 5

## Quality improvement project: Clinical debriefs following difficult patient deaths improve wellbeing of resident doctors working on the oncology ward

### Authors

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### Background

Healthcare staff working in oncology are at risk of burnout.<sup>1</sup> A proposed contributor is vicarious traumatisation of staff caring for patients who have difficult deaths on the ward.<sup>2</sup> Debriefing is one strategy to reduce this.<sup>3</sup> We organised debriefs after particularly challenging patient deaths, with the patient's lead consultant and the ward resident doctors.

### Method

Each debrief comprised a presentation detailing the patient's oncological history and the events of their final admission. The consultant provided specialist input and context from their longer relationship with the patient. The residents asked questions and shared any issues and emotions caring for the patient had generated, leading to facilitated group discussion. Feedback assessed understanding and perceived wellbeing regarding the case and likelihood of subsequently requesting debriefs after similar situations (out of 5).

### Results

N=15. Mean understanding increased from 2.6 to 4.7 (percentage increase 138%). Mean perceived wellbeing increased from 2.7 to 4.4 (percentage increase 91%). N=9. Mean likelihood of subsequently requesting support increased from 2.6 to 3.6 (percentage increase 46%).

### Key messages

Clinical debriefs improved the wellbeing of resident doctors experiencing difficult patient deaths and increased their confidence requesting support after distressing cases. Next steps include inviting the ward nurses, who are also at risk of vicarious traumatisation.

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QS510

Quality Improvement &amp; Sustainability Group 5

## Justification of contrast-enhanced CT urography for investigation of haematuria in patients under 40 years old

### Authors

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### Background

Haematuria causes can range from mild (infection, calculi) to severe (malignancy). Computed tomography (CT) urography comprises three separate exposures to ionising radiation. Patients under 40 years old are at a higher risk of radiation-induced cancers (1). Renal ultrasound (US) and cystoscopy are first-line investigations for patients under 40 presenting with haematuria, as per iRefer guidelines (2).

### Method

A retrospective analysis was performed over four months, covering all sites at the Royal Free London Trust. The results were presented at clinical governance. Change in protocol was then implemented, whereby CT urograms requests without prior investigations were rejected, following liaison with the bladder cancer Trust lead. The audit loop was completed by retrospective analysis of four months of data post-initial cycle.

### Results

43 patients were included in the study. 33% of patients from the first cycle did not have renal US or cystoscopy prior to CT. Following change in protocol, 20% of patients did not have any investigations prior to CT.

### Key messages

There was a 13% improvement in patients meeting the appropriate referral pathway after change in protocol. To aim for 100% compliance, improved access to US, and educating urologists regarding appropriate haematuria referral pathways should be encouraged.

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QS511

Quality Improvement & Sustainability Group 5

## Quality Improvement project on use of Intravenous fluids prophylaxis against CI-AKI in high risk patients undergoing angiography in Surgical wards

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### Background

Contrast induced AKI is one of the most common complications in surgical in-patients undergoing angiography especially those with pre-existing kidney disease. The use of Intravenous fluids as prophylaxis is recommended by NICE and can benefit these patients immensely by reducing morbidity.

### Method

Retrospective data collection to identify patients with pre-existing kidney disease who had angiography between October 2023 to July 2024. 54 patients met the inclusion criteria in the first cycle. Data collection was done to see whether these patients had or had not received fluids prophylaxis and to establish whether AKI had occurred (as defined by KDIGO) after the procedure. The second cycle will be completed in November.

### Results

Results from the first cycle showed that 48% of surgical in-patients did not receive any fluid prophylaxis and a large proportion received sub-optimal prophylaxis. The analysis showed that 52% of patients who did not receive prophylaxis ended up with AKI. The surgical teams were updated regarding findings at departmental meetings, teachings given and posters put up on wards prior to the second cycle.

### Key messages

Use of fluids as prophylaxis in patients with existing kidney disease prior to angiography can greatly reduce the rate of contrast induced AKI

### References

Acute kidney injury: prevention, detection and management | Guidance | NICE [Internet]. [www.nice.org.uk](https://www.nice.org.uk). Available from: <https://www.nice.org.uk/guidance/ng148/chapter/Context>

QS512

Quality Improvement &amp; Sustainability Group 5

## Investigating the proportion of post-operative patients positioned in the semi-recumbent position at Solihull Hospital.

### Authors

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### Background

It is known that general anaesthesia is an important factor leading to post-operative atelectasis of the lungs and has been implicated in complications such as pneumonia by affecting ventilation-perfusion of alveoli. Studies have recommended conservative measures to reduce the incidence of respiratory complications after surgery, including the post-operative positioning of patients in the Semi-recumbent position.

### Method

Each day at 3 pm, a round was done on the surgical wards of Solihull hospital for 1 consecutive week where newly post-operative patients were counted and the position they were placed in was recorded. After this initial audit, a re-audit was done whereby a poster illustrating the correct position was hung in each bay of each ward and charge nurses were reminded of this poster

### Results

In the initial audit, out of 64 patients, almost a quarter of patients (23.1%) were in an incorrect position after their surgeries. In the re-audit, collected from 74 patients in the re-audit, and it was found that 98.6% of patients were in the correct semi-recumbent position.

### Key messages

These interventions significantly improved the proportion of post-operative patients positioned in the appropriate semi-recumbent position.

### References

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QS601

Quality Improvement & Sustainability Group 6

## Sustainable Practices in Ophthalmology Theatres: Reducing the Carbon Footprint and Waste in Cataract Surgery

### Authors

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### Background

Cataract surgeries contribute significantly to healthcare-related carbon emissions. In the UK, the carbon footprint of a single cataract surgery is equivalent to driving a petrol car for 500 km, compared to just 25 km in many third-world countries. Additionally, disposable instruments in the UK produce six times more emissions per cataract surgery compared to resource-limited settings, with procurement accounting for approximately 50% of these emissions [1].

### Method

This analysis explores sustainable practices that reduce waste and emissions in UK cataract surgeries, based on current research and presentations. Key strategies include replacing single-use items, optimizing surgical trays, and implementing electronic medical records (EMR). The potential environmental and cost benefits of these practices were evaluated using existing data.

### Results

Replacing disposable gowns and caps with reusable options and investing in durable metal instruments can reduce waste and costs. Typical cataract trays contain redundant items, contributing to 121 waste items per surgery [2]. Immediate Bilateral Sequential Cataract Surgery (ISBCS) can reduce patient travel and energy use. Multi-dose vials and scheduled ventilator shutdowns further decrease waste and energy consumption.

### Key messages

Adopting sustainable practices in ophthalmology theatres can lower carbon emissions, reduce waste, and achieve cost savings. These initiatives serve as a model for environmental responsibility in surgical settings.

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QS602

Quality Improvement & Sustainability Group 6

## Optimising referrals for paediatric first seizure clinic: A two-cycle QIP towards closer adherence to national 2-week wait guidelines

### Authors

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### Background

Epilepsy remains common, affecting 1 in 220 children in the UK (1). Timely assessment following a child's first suspected seizure is crucial for accurate diagnosis, management, and support. NICE guidelines recommend epilepsy specialist review within 2 weeks (2), thus demand on this service is high and our clinicians flagged extended waiting times.

### Method

A two-cycle quality improvement project involving 40 patients each, was conducted in September 2023-2024. Key outcome measures included wait time and reason for referral. Data analysed at cycle 1 informed improvements to implement before cycle 2.

### Results

Waiting time for paediatric first-fit clinic reduced from an average of 91 to 58 days. A total of 17 referrals were deemed inappropriate, reduced to 12 at second cycle. 33% were inappropriate referrals from ED/Ward, reduced to 20% in the second cycle. Quality improvement actions after cycle 1 included revision of Trust referral guidelines, two-phase referral vetting, and administrative changes.

### Key messages

Streamlining the referral process to first seizure clinic significantly reduced wait times. This QIP and revision of guidelines was critical for patient safety and improved paediatric epilepsy care. By identifying key contributors to delays and improvement strategies, these valuable insights could be replicated by other trusts to improve care in line with NICE guidance.

### References

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QS604

Quality Improvement & Sustainability Group 6

## Bridging the Knowledge Gap: Evaluating and Improving Preparedness for Surgical Rotations in FY1

### Authors

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### Background

Surgical rotations often pose significant challenges for FY1 doctors with surveys revealing widespread feelings of unpreparedness and inadequate knowledge regarding management and presentation of surgical conditions.

Our project aimed to evaluate initial readiness before newly qualified doctors start their surgical rotations in a large teaching hospital and enhance their confidence through the implementation of a specialised surgical handbook.

### Method

A survey was administered to all FY1 doctors before starting their surgical rotations in general surgery, vascular surgery and urology. Based on the survey findings, a tailored comprehensive handbook was developed to aid doctors in their rotations. A follow up survey was then conducted to assess the handbook's effectiveness.

### Results

Out of 21 FY1 doctors, 71% (15/21) completed the initial survey. All respondents (100%) felt somewhat or entirely unprepared for their rotation, with 93% (14/15) not feeling confident in clerking and assessing surgical patients. Post-handbook, 57% (12/21) responded to the follow-up survey, with 83% (10/12) feeling prepared for their rotations and 100% (12/12) felt more confident in clerking and managing surgical patients.

### Key messages

The implementation of a surgical handbook significantly improved the preparedness and confidence of FY1 doctors in their surgical rotations.

### References

None



QS605

Quality Improvement &amp; Sustainability Group 6

## Improving Fasting Times: Abdominal Ultrasound for Acute Gallbladder Pathology – a Quality Improvement Project

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### Background

Patients with acute gallbladder pathology (AGP) fast for scans and procedures, causing discomfort and unfavourable outcomes(1). Nutrition aids healing and patient satisfaction in the perioperative period(2). We aim to meet Royal College of Radiologists' (RCRs') recommended 4-6 hour fasting time, streamlining prioritisation of scans.

### Method

Retrospective data was collected for one month from electronic notes. Inclusion criteria was patients investigated for AGP with USS-A, from departmental 'take' lists. Exclusion criteria was USS-A with indications other than AGP. Data was collected and analysed using Microsoft Excel and GraphPad Prism.

Our intervention was firstly, highlighting USS-A investigating AGP to Radiology Department by 'hot GB' in indication section of request form, flagging scan completion within 6 hours. Secondly, coloured signs above beds to denote sips of water or eating and drinking as tolerated, prompting communication between staff regarding intake status.

### Results

Median fasting time of 16.95 hours and waiting time of 18.93 hours (n=40) improved to 9.22 hours fasting and 13.45 hours waiting (p=0.21 and p=0.27, respectively). 44% of scan requests had 'hot GB' documented as the indication, following implementation of the intervention (n=27).

### Key messages

Prolonged fasting is unfavourable in the perioperative period and can be significantly reduced by streamlining communication between Radiology and Surgery departments.

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QS606

Quality Improvement & Sustainability Group 6

## Ultrasound guided peripheral IV access training programme for Foundation Doctors at Emergency Department, Walsall Healthcare NHS Trust

### Authors

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### Background

Patients often come to the ED with challenging to cannulate veins. This often requires senior input for cannulation attempt +/- use of ultrasound (POCUS). Senior escalation causes delays in care. ED at Walsall Healthcare has introduced a training programme to train F1/F2 resident doctors on POCUS. The aim is to reduce care delays by empowering foundation doctors with this skill set. This has been an ongoing QIP (1) that we have further followed up with a survey.

### Method

A survey was circulated post workshop to doctors who rotated through Walsall manor ED in their F1/F2 between August 2021- August 2024. This was followed up with another survey. Both surveys ascertained; programme attendance, if the skill was practiced and if it has been used after the completion of the rotation.

### Results

Most participants felt confident immediately after the workshop. 60% of respondents to the follow up survey completed the skill during their ED rotation. 66.7% were able to perform the skill 5+ times with 60% using the skill in subsequent rotations.

### Key messages

The ultrasound guided peripheral IV access training programme should be a regular part of foundation training in ED where the trainers and opportunities are in abundance.

### References

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QS608

Quality Improvement &amp; Sustainability Group 6

## An audit exploring the use of Australian-UK-Swiss (AUS) scoring for the management of febrile neutropenia in paediatric oncology patients.

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### Background

Febrile neutropenia (FN), defined as fever  $\geq 38^{\circ}\text{C}$  and neutrophil count  $\leq 0.5 \times 10^9/\text{L}$  (1), is a common oncological emergency. However, many patients remain stable during admission. The Children's Cancer and Leukaemia Group recommends implementing Australian-UK-Swiss (AUS) criteria to identify low-risk patients eligible for early discharge, reducing burden on hospitals and families (2)(3). This audit retrospectively evaluated the implementation of AUS scoring in our institution.

### Method

Admissions for FN from January to March 2023 were retrospectively analysed for: length of stay (LoS), neutrophil count, white cell count, platelet count, and blood culture results. AUS scores, ranging from 0 (low-risk) to 3 (high-risk), were calculated for each patient.

### Results

Among 48 patients, the mean LoS was 3 days, with a total of 245 days. Patients scoring AUS-0 and neutrophils  $> 1 \times 10^9/\text{L}$  accounted for 60 days. 40% scored AUS-0, 58% scored AUS-1 whilst three patients (6.25%) had positive blood cultures: two with AUS-1 and one AUS-3.

### Key messages

Treating low-risk (AUS-0 with Neutrophils  $> 1 \times 10^9/\text{L}$ ) patients with antibiotics as outpatients (3) would reduce admission duration by 18%, alleviating pressures on hospitals and families. AUS scoring is now implemented at our institution, with a second audit cycle planned to assess impacts on reducing LoS and improving outcomes.

### References

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QS609

Quality Improvement &amp; Sustainability Group 6

## Preventing toxicity: a quality improvement project on the safe prescribing of paracetamol

### Authors

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### Background

Paracetamol is the most widely prescribed analgesic, despite its over-the-counter availability (1). Updated British Hepatology Pharmacy Group guidelines (2) recommend limiting paracetamol to 3g/24h in patients with hepatotoxicity risk factors if prescribed for over 7 days. These include frailty, malnutrition, renal insufficiency, low weight and liver disease.

### Method

This quality improvement project involved a pre-intervention audit followed by two Plan-Do-Study-Act cycles assessing compliance to guidelines in elderly patients. Data from drug charts was collected retrospectively on at least 30 patients per cycle. The first intervention was a presentation of audit findings and updated guidelines to the multi-disciplinary team. The second was a poster of recommendations displayed in an elderly care unit.

### Results

Pre-intervention, 53% of patients had documented weight, and one patient <50kg was incorrectly prescribed paracetamol. After PDSA cycle 1, weight documentation improved to 66%, with 59% of at-risk patients receiving correct reduced dosing. 25% of clinicians were unaware of the updated guidelines. Following cycle 2, weight documentation increased to 94%, with 54% of at-risk patients prescribed the correct reduced dose. Patients <50kg were correctly dosed or not prescribed paracetamol.

### Key messages

- Compliance with paracetamol guidelines is suboptimal. Simple, inexpensive interventions can improve adherence. MDT involvement, including pharmacists and nurses, supports lasting change.

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QS610

Quality Improvement & Sustainability Group 6

## QI project: Improving communication on Advanced Care Planning and End Of Life (EOL)

### Authors

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Severn Foundation School

### Background

Timely Advanced Care Plans (ACP) discussions with patients and their next of kin remain a multifactorial challenge for clinicians (1,2). In a Local District General Hospital, we designed a QI project to reduce delays in discussion and documentation of patients' ACP and end-of-life (EOL) wishes once a high risk of futile deterioration and death has been identified by senior clinicians.

### Method

We carried out a retrospective study of deaths on two medical wards over three months (N=51). We examined documentation of recognition of deterioration and timing of ACP discussion during current admission. Our interventions involved teaching sessions on disease trajectories and an EOL communication simulation for ward doctors. Additionally, we introduced a task prompt sheet for medical notes. Following our intervention, we examined another three months (N=57).

### Results

After excluding unexpected deaths, we compared the initial patient group (N=42) and the post-intervention group (N=49). The time between recognition of futile deterioration and ACP discussion decreased by 32% from the first group (N=1.45) to the second group (N=0.98). Only 2 patients' notes contained the prompt sheet.

### Key messages

Training can reduce the delay of ACP discussion with patients and NOK. The sustainability of training for rotational clinicians and compliance with new forms remains a challenge.

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QS611

Quality Improvement &amp; Sustainability Group 6

## Recognising Palliative Need in Heart Failure patients: a project to improve assessment and care of Heart Failure patients in the Hospital and Beyond

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### Background

Palliative referral is often poorly done in heart failure (HF) patients. This is more significant in hospitalised patients as they are more likely to have poorer long-term outcomes<sup>4</sup>. This QIP aimed to assess how this could be improved.

### Method

4-week cycles were used, 1 audit and 3 PDSA cycles. Interventions comprised of clinician judgement, SPICT criteria and recently published suggested HF referral criteria<sup>19</sup> that were added to an existing proforma.

### Results

86 assessments were undertaken on 78 patients. 36 had HFrEF, 33 had HFpEF and 11 had HFmrEF. Rates of palliative referral recommendation increased from 3.8% to 40%, 26.9% and 22.2% (cycle 1,2,3,4 respectively). Cycle 1 compared to cycle 2,3 and 4 combined saw a statistically significant higher rate of palliative referral recommendation (3.8% vs 30.9%, fisher's exact test value 0.0181, p-value >0.05). Significant difference was observed in cycle 1 vs 2 (test value 0.006), but was narrowly missed in cycle 1 vs 3 (test value 0.0668).

### Key messages

In the acute setting, time constraints, acute illnesses affecting perceived HF baseline and patient unfamiliarity may all further contribute to the previously published issues causing late palliative referral in this patient cohort. These interventions encourage holistic assessment despite clinical pressures.

### References

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QS612

Quality Improvement & Sustainability Group 6

## “Gloves Off!” A Sustainable Quality Improvement Project Investigating the Environmental Impact of an Intensive Care Unit in Brighton, UK

### Authors

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### Background

The World Health Organisation recognises climate change as the greatest health threat of the 21st century (1). The NHS has pledged to achieve net-zero carbon emissions by 2040 (2). Intensive care units (ICUs) are among the most carbon-intensive areas in healthcare, emphasising the need for sustainable practices. This sustainable quality improvement project aims to reduce the environmental impact of critical care whilst improving patient outcomes at the Royal Sussex County Hospital, a tertiary care centre in Brighton.

### Method

Data were collected over one week using the “gloves off” audit tool before and after the intervention. The intervention involved campaign posters in staff- and patient-facing areas, along with short, tailored staff teaching sessions.

### Results

Surveys conducted before and after teaching sessions showed significant improvements in staff understanding (+37%), confidence (+34%), and intention to use the “Gloves Off” policy (+20%). Clinical practices improved, including hand hygiene (+20%), reduced cross-contamination (-27%), proper donning/doffing (+20%), and appropriate glove use (+8%). Time constraints were identified as a key barrier to further uptake, although 75% of staff expressed interest in a “Green ICU checklist.”

### Key messages

This project demonstrates that sustainable change is achievable in busy ICUs through simple educational interventions, supporting NHS net-zero goals (2).

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RO101

Research or Original Work Group 1

## Evaluating Amoxicillin as First-Line Therapy for Low-Risk Community-Acquired Pneumonia: A Retrospective Audit on Guideline Adherence and Outcomes

### Authors

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### Background

Community acquired pneumonia is one the most common pathologies encountered in clinical practice making it essential for medical practitioners to diagnose and treat it adequately. Clinicians can use tools like CURB-65 to assess the severity and guide management. This retrospective audit evaluated the impact and choice of initial antibiotics in treating CAP, with particular focus on amoxicillin, which is recommended as the first-line treatment for patients with low CURB-65 scores (0-1), at Glenfield Hospital, University Hospitals of Leicester NHS Trust (UHL)

### Method

Data from 400 patients across various hospital settings in 2023 were analyzed, comparing outcomes with the UHL Pneumonia service.

### Results

Co-amoxiclav was primarily the most prescribed antibiotic (62.78%), with amoxicillin only chosen in 12.78% of cases. Remaining patients received antibiotic like Doxycycline, Meropenem, Clarithromycin, Tazocin, Levofloxacin, Ciprofloxacin and Azithromycin as the initial treatment. Notably, amoxicillin treatment observed high discharge rates (86.95%) and low readmission rates (8.70%), proving its worth as initial therapy for low-severity CAP.

### Key messages

This highlights its role in antibiotic stewardship efforts to mitigate antibiotic resistance. However, instances requiring escalation to co-amoxiclav highlight the importance of tailored treatment based on clinical response. These findings advocate for continued adherence to guideline-based practices to optimise outcomes in pneumonia management.

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RO102

Research or Original Work Group 1

## Addressing Barriers to Bowel Cancer Screening: A Patient Information Leaflet for South Asian and Socially Deprived Communities

### Authors

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### Background

Bowel cancer remains a leading cause of mortality in the UK. The NHS Bowel Cancer Screening Programme (BCSP) significantly reduces bowel cancer mortality, but participation is low among South Asian (SA) and socially deprived communities. Cultural beliefs, knowledge gaps, and language barriers contribute to this disparity.

### Method

A literature review was conducted to identify barriers to participation in the BCSP. This helped inform the development of a patient information leaflet (PIL). The leaflet was tailored for SA and deprived communities, providing clear, accessible information about bowel cancer and the screening process. Additional feedback was gathered from non-medical individuals within the SA community to ensure language clarity and cultural sensitivity. A version of the leaflet was also translated into Gujarati.

### Results

The leaflet was iteratively refined through feedback from non-medical SA individuals, ensuring its readability and cultural appropriateness. The Gunning Fog Index score of 6.1 indicated broad accessibility. Key outcomes include improved patient understanding and the potential for increased participation in the BCSP.

### Key messages

Tailored, culturally sensitive resources like the PIL can help bridge knowledge gaps, reduce misconceptions, and increase screening uptake. Community engagement and ongoing feedback are vital in addressing barriers to healthcare participation.

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RO104

Research or Original Work Group 1

## Perceived Barriers to Care and their Association with University Mental Health Support Service Access Among 443 First-Year Undergraduates

### Authors

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### Background

The transition to university is linked to mental health challenges, but many students do not access available support(1). While previous research assesses the prevalence of perceived barriers to accessing support, this study is the first to examine their association with support service use in this population.

### Method

This cross-sectional analysis used logistic regression to analyse the associations between perceived practical, attitudinal, and stigma-related barriers and accessing university mental health services among 443 first-year undergraduates at Oxford University who reported unmet mental health needs. Subgroup analyses based on depression and anxiety symptom severity defined screen-positives as PHQ-9 or GAD-7  $\geq 10$ .

### Results

Belief that problems were not serious (OR=0.64;CI=0.42-0.98;p=0.04) and difficulty talking about problems (OR=0.59;CI=0.38-0.91;p=0.02) were attitudinal barriers, the latter with the largest effect in screen-positives (OR=0.49;CI=0.27-0.89;p=0.02). Practical barriers included not knowing how to access help (OR=0.64;CI=0.42-0.97;p=0.04) and not having time (OR=0.66;CI=0.44-0.98;p=0.04), with largest effects in screen-positives (OR=0.46;CI=0.26-0.79;p=0.01, OR=0.47;CI=0.27-0.79;p=0.005). Stigma-related barriers were concern about appearing weak (OR=0.65;CI=0.42-0.98;p=0.04), feeling embarrassed or ashamed (OR=0.63;CI=0.40-0.98;p=0.04), and concern about friends' reactions (OR=0.58;CI=0.38-0.88;p=0.01).

### Key messages

The findings emphasise that universities need to improve mental health literacy, create clear and accessible support pathways, and offer flexible support options. Future research should focus on developing targeted interventions to improve service utilisation and well-being.

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RO105

Research or Original Work Group 1

## Doctors' Dialogue for Reflective Excellence: A Pilot Study

### Authors

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### Background

Reflective practice is crucial for doctors' continuous development, but there is often limited dedicated time or space to do so with colleagues. A survey of 37 FY1 doctors identified that 65% were apprehensive about reflecting with senior colleagues, while only 11% felt apprehensive about reflecting with peers. 51% reported work experiences negatively impacting their wellbeing. Only 35% reported having a safe space to discuss workplace experiences. 73% believed a peer-led group could offer a safe space for reflection.

### Method

Three 1.5-hour reflective sessions were held during protected teaching, using a peer-to-peer model with rotating facilitators. Pre- and post-session Likert-scale questionnaires and qualitative feedback shaped the format of each session and assessed the impact.

### Results

All participants (100%) found the group safe and effective, with 86% reporting a positive impact on wellbeing. Additionally, 78% noted enhanced reflective practice. 86% felt regular access to such a group would improve workplace wellbeing. Participants reported better understanding of emotional challenges (76%) and improved insights into patient/colleague interactions (78%). All recommended offering the group to future FY1 doctors.

### Key messages

Peer-led reflective groups can enhance reflective practice and offer valuable peer support.

Protected time to reflect with colleagues would be beneficial in enhancing doctors' wellbeing at work.

### References

N/A

RO106

Research or Original Work Group 1

## Clinical and laboratory insights into invasive Group A Streptococcal (iGAS) disease in Bristol: a 7-year retrospective cohort study

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### Background

Invasive Group A Streptococcus (iGAS) causes morbidity and mortality across all age groups, varying widely in clinical manifestation and severity. We aim to characterise the microbiological, laboratory and clinical features of iGAS in Bristol over 7 years, to better understand local disease patterns.

### Method

iGAS cases were identified via positive cultures and/or 16S PCR of normally sterile sites (e.g. blood, deep tissue, CSF) across two large tertiary NHS trusts between November 2016 and May 2024. Demographic, clinical and laboratory data were extracted from healthcare records.

### Results

769 iGAS cases were identified, comprising three major age categories: 0-16 (n=124), 17-59 (n=426), and ≥60 years (n=219). In interim analysis, the most common clinical diagnoses were cellulitis/soft tissue infection (14.7%, n=30/204), septic arthritis (10.3%, n=21/204) and undifferentiated sepsis (9.3%, n=19/204). 20.5% of patients (n=41/200) were admitted to ICU. 84.1% of patients (n=169/201) recovered, 7.5% (n=15/201) were left with a new disability, and 5.5% (n=11/201) died. We will correlate this with laboratory data such as inflammatory markers, iGAS serotype and antibiotic sensitivities.

### Key messages

We will comprehensively describe the largest cohort of iGAS cases published thus far, aiding understanding of local disease patterns and supporting further studies into at-risk populations and vaccine effectiveness.

### References

n/a

RO107

Research or Original Work Group 1

## Are chest wall perforator flaps a safe approach to partial breast reconstruction? An eight-year observational cohort study

### Authors

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Northern Foundation School

### Background

Partial breast reconstruction (PBR) using chest wall perforator flaps (CWPFs) is a novel oncoplastic technique utilised to facilitate breast conservation surgery (BCS) in more challenging cases of breast cancer treatment, whilst maintaining acceptable cosmesis.

### Method

This single-centre retrospective cohort study reviewed all cases of PBR using CWPFs between March 2016 and August 2024. Statistical Analysis was performed using R-Studio ( $\alpha=0.05$ ). Formal ethical approval was not required (Clinical Effectiveness Register ID: 14649).

### Results

A cohort of 290 cases were reviewed, with a median pre-operative tumour size of 25mm; 22.1% with multifocality and 27.0% of invasive carcinomas with extensive DCIS. Only 17.8% had involved margins, with 15.6% undergoing a re-excision and 1.5% requiring a completion mastectomy. The complication rates were low with 7.2% requiring a return to theatre. The locoregional recurrence (LR) rate was 2.9% with a median follow-up of 3.1 years ( $n=276$ ), and cases up to December 2019 had a LR rate of 4.2% with a follow-up of 5.1 years ( $n=96$ ). Further sensitivity analyses explored trends in the dataset.

### Key messages

PBR using CWPFs is a safe approach to BCS, both clinically and oncologically.

CWPFs allow a greater cohort of women to access BCS, including those with a larger tumour-to-breast volume ratio and multifocal cancers.

### References

N/A.

RO108

Research or Original Work Group 1

## Are there differences by socio-economic status or ethnicity in routes to diagnosis for cancers with a screening programme (breast, bowel and cervical) in the UK? A systematic review

### Authors

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### Background

Early cancer diagnosis is critical for improving survival rates. Previous research has identified eight distinct diagnostic routes e.g. GP referral, and emergency presentation. [1] Socio-economic status (SES) and patient ethnicity influence health outcomes, making it essential to understand their effect on diagnosis routes.

This review aims to assess whether SES and ethnicity influence diagnosis route for cancers with screening programmes (breast, bowel, and cervical) in the UK.

### Method

Searches were conducted in six databases (MEDLINE, Embase, PsycInfo, CINAHL, HMIC, Google Scholar) with searches in July 2022 and updates in January 2024. Forward and backward citation and grey literature searches were performed yielding a total of 3663 papers and abstracts. Studies on adults ( $\geq 18$  years) were included focusing on routes to diagnosis and measuring associations between ethnicity or SES, while abstracts, editorials, and non-relevant studies were excluded.

### Results

36 papers were analysed. Lower SES were associated with a higher likelihood of emergency presentation or urgent referral. More deprived groups were less likely to participate in screening. Black African groups had lower rates of screen-detected bowel cancer compared to White and Indian groups, and non-White groups experienced higher rates of emergency presentations.

### Key messages

SES and ethnicity significantly impact routes to cancer diagnosis in the UK.

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RO109

Research or Original Work Group 1

## Evaluating Patient Satisfaction and Quality of Life Following Chest Wall Perforator Flap Surgery: a Valuable Surgical Alternative?

### Authors

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North West of England Foundation School

### Background

Chest wall perforator flap (CWPF) surgery is a partial breast reconstruction technique. Royal Bolton hospital (RBH) has been offering this form of surgery since 2022. We aim to evaluate patient reported outcomes for patient satisfaction and quality of life (QOL) following the introduction of CWPF surgery at RBH, and to compare these outcomes with existing literature on other breast cancer surgical options.

### Method

Patients who underwent CWPF surgery between February 2022 and January 2024 and met inclusion criteria (n=18) were invited to complete the Breast Q questionnaire. Mean scores were analysed.

### Results

Response rate was 72.2%. Key findings included high scores for satisfaction with care (medical team: 95.8; office staff: 95.5; surgeon: 94.9) and QOL (72.5). Satisfaction with breasts was 70.6, while cancer worry and impact on work were lower (52.5 and 55.0 respectively).

### Key messages

Our findings indicate high levels of patient satisfaction and QOL following CWPF surgery. This was similar with mean breast Q scores for alternative surgical methods including wide local excision, latissimus dorsi and deep inferior epigastric perforator flaps, and demonstrates superior satisfaction relative to implant reconstruction. This supports the continued use of CWPF within the RBH Breast service. Further, multi-hospital evaluation will facilitate enhanced understanding through increased cohort size.

### References

none

RO110

Research or Original Work Group 1

## Burns caused by e-cigarette device explosions: an on-going public health concern

### Authors

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### Background

Use of electronic nicotine delivering devices (ENDS), commonly referred to as e-cigarettes, has increased significantly over the past 20 years, especially amongst the youth(1). There is an increasing number of reports of burns caused by these devices(2).

### Method

The International Burns Injury Database at Mersey Burns Centre was searched to identify patients who suffered burns from ENDS between 01/01/2015 and 31/12/2023. Clinical records were reviewed for patient demographics, burn features, management and complications.

### Results

A total of 44 patients were included, majority were male (86%), and mean age was 39 years(SD=12.7). 93% of burns occurred when ENDS was not in use, mostly while stored in pockets. Most of the injuries were to thighs (77%) and the rest to hands. The mean total burn surface area was 2.28%(SD=1.76). 36% of patients were assessed as having mixed thickness burns, 5% were full thickness, and the rest were superficial partial thickness. 23% of cases required operative intervention. Mean time to heal was 38.7 days(SD=33.3). 20% of patients developed complications such as wound infections and hypertrophic scarring.

### Key messages

Burn injuries from exploding ENDS can have serious complications. This should be publicly known as is done for conventional cigarettes. Manufacturers must also improve designs to make devices safer.

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RO111

Research or Original Work Group 1

## Quality Improvement Project for a new Paediatric Daycase Unit booking proforma

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### Background

The Paediatric Daycase Unit at Royal Derby Hospital, led by a F1 and SHO, handles various procedures such as jaundice clinic, food and antibiotic challenges, and blood transfusions. A recurring problem was the lack of clear information about the reason for appointments and post-appointment instructions, with paper medical records often unavailable.

### Method

A one-page paper booking form proforma was created to streamline referral management, and improve communication with clerical support. Feedback from initial and subsequent review cycles was used to enhance the system's efficiency.

### Results

The one-month review showed improved information for doctors and clearer follow-up contacts. The proforma was updated to include a tracking box for patient bookings. However, the four-month review revealed continued issues: the weekly slots system was cumbersome, monthly slots were not in date order, and the outcome box was often incomplete. The final version removed the outcome box and simplified slot management. Information was provided to doctors via email and posters, and forms were now discarded after use. This version was approved by all key staff.

### Key messages

The daycase unit booking proforma was positively received for improving appointment clarity. Regular review cycles were essential to simplifying the system and enhancing overall efficiency.

### References

(n/a)



RO201

Research or Original Work Group 2

## Detection of Coronary Artery Disease (CAD) Using Heart Sound-Based Modalities. A State-of-The-Art Systematic Review and Meta-Analysis of Diagnostic Accuracy Studies

### Authors

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### Background

Coronary artery disease (CAD) diagnostic testing in patients with suggestive symptoms often involves expensive and invasive investigations. Novel screening tools that analyze heart sounds have emerged as inexpensive and non-invasive diagnostic modalities that could guide the use of advanced diagnostic testing. We aim to evaluate the efficacy and utility of acoustic-based methods in CAD detection.

### Method

Electronic databases, including PubMed, Scopus, Embase, and CENTRAL, were systematically searched for studies assessing heart sound-based diagnostic tools for CAD. PRISMA guidelines were followed throughout the systematic review and meta-analysis.

### Results

A total of 26 studies were included, comprising 8,592 participants: 2,886 diagnosed with CAD and 5,706 without evidence of CAD. Sensitivity, specificity, and accuracy of phonocardiography ranged from 64% to 98.48%, 57.7% to 99.1%, and 51.79% to 98.3%, respectively. Pooled sensitivity of CADScor was 86.1% (95% CI: 80.9%-90.1%) and pooled specificity was 41.5% (95% CI: 33%-50.6%). The diagnostic odds ratio (DOR) was 4.400 (95% CI: 2.943-5.857).

### Key messages

Heart sound-based methods (including phonocardiography and CADScor) show promising results for CAD detection, potentially improving risk assessment and guiding the use of advanced diagnostic testing. Further clinical research is needed to validate these findings.

### References

N/A

RO202

Research or Original Work Group 2

## Echocardiographic assessment of Systolic and Diastolic function in patients post-Acute Myocardial Infarction with Subclinical Hypothyroidism

### Authors

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### Background

Subclinical hypothyroidism (SCH) is defined as elevated thyroid stimulating hormone (TSH) levels alongside normal free thyroxine levels. SCH is associated with increased systemic vascular resistance, left ventricular systolic and diastolic dysfunction. Acute myocardial infarction (AMI) a leading cause of mortality and morbidity, can progress to left ventricular systolic dysfunction, which predicts lower overall survival.

### Method

Patients with AMI were recruited across 6 hospitals in the North-East of England for a 2-year longitudinal prospective cohort study. Patient characteristics and thyroid profiles were recorded. Systolic function was evaluated as ejection fraction on echocardiography. Diastolic function parameters included The E wave to A wave ratio (E/A ratio), mitral valve deceleration times (MVDecT) and E/e' ratio.

### Results

From 1835 patients 321 cases with SCH represented 17.4% of the cohort. SCH was a significant predictor of prolonged MVDecT ( $p=0.043$ ) & ( $B=0.072$ ). Increased TSH levels were significant with having an increased E/A ratio ( $p=0.003$ ) & ( $B=0.009$ ). Significant predictors of systolic dysfunction were male sex, ST-elevation MI, smoking, and alcohol consumption. Significant predictors of diastolic dysfunction were increasing age, increased BMI, male sex, and SCH.

### Key messages

SCH is a prevalent among patients post-AMI and is a significant predictor of diastolic dysfunction. SCH did not worsen systolic function in patients post-AMI

### References

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CHAPTER 3 Lipid Disorders, Atherosclerosis, Cardiovascular Diseases, and Cardiac Testing David M. Shein Rachel C. Druckenbrod

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RO203

Research or Original Work Group 2

## Wound drains: nothing to gain but postoperative pain? A decade-long review of anterior cervical discectomy and fusion surgeries

### Authors

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### Background

Drains are routinely used in anterior cervical discectomy and fusion (ACDF) surgery, but their efficacy is largely unsubstantiated. This retrospective study was conducted on patients who underwent ACDF procedures between January 2013 and December 2023 at Salford Royal Hospital, UK; it investigates whether drains influence rates of haematomas requiring reoperation, surgical site infections (SSIs) and length of stay (LOS), as well as symptomatology indicative of haematomas.

### Method

Patient data was obtained using the electronic patient record and divided into groups according to the predictor variables. Statistical testing was performed to look for differences in outcome measures between groups.

### Results

1938 patients underwent ACDF procedures: 1614 had a drain fitted, versus 324 who did not have a drain fitted. There were no significant differences in rates of reoperation for haematomas ( $p=0.43$ ), SSIs ( $p=0.85$ ) or LOS ( $p=0.18$ ) between drain groups. Previous extended hospital admissions in the past year influences hospital LOS ( $p<0.001$ ). Neck swelling, dysphagia and dysphonia were the most common preceding symptoms.

### Key messages

Drains are not required routinely in ACDF surgery since they do not influence haematoma reoperation rates, SSIs or LOS. Further research is required to determine the timing of symptomatology indicative of haematomas, which might prove important in postoperative ACDF planning.

### References

nil

RO204

Research or Original Work Group 2

## Interventions to Scale-Up Access to Surgery in Low- And Middle-Income Countries: A Systematic Review on the Economic Value of International Missions and Domestic Initiatives

### Authors

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### Background

Access to safe, timely, affordable surgical care is limited in Low-and-Middle Income Countries (LMICs) [1]. In some, international mission trips account for up to 55% of surgical services, which can hinder local system development [2,3]. Limited evidence exists on the cost-effectiveness of these missions compared to domestic services, underscoring the need for more research to guide universal health coverage.

### Method

A search of four databases and grey literature (2013-2023) identified 31 studies on the cost-effectiveness, cost-utility, or cost-benefit of international missions and domestic initiatives. We calculated average cost-effectiveness ratios for each intervention standardised to 2022 international dollars.

### Results

Of the studies, 16 evaluated domestic programs, 14 assessed international missions, and one directly compared the two. Domestic initiatives such as financial protection schemes, infrastructure investments, surgical training, and local missions were generally more cost-effective than international missions. The unit costs per disability-adjusted life year (DALY) averted were lower for domestic efforts (Mean and median: I\$27,051 and I\$498) compared to international missions (I\$515,500 and I\$5,068).

### Key messages

Strengthening domestic surgical systems offers better value for money than international missions. Expanding evidence on cost-effectiveness is crucial to inform universal health coverage and address unmet surgical needs.

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RO205

Research or Original Work Group 2

## Opportunistic Screening for Subclinical Cardiovascular Disease in Type 2 Diabetes using Digital Retinal Photography

### Authors

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### Background

People with Type 2 Diabetes (T2D) are at high risk of cardiovascular disease (CVD).(1) Current screening tests advocated by International guidelines lack adequate sensitivity and specificity. (2)

We aimed to determine whether retinal photography can identify subclinical CVD in this cohort.

### Method

In this prospective cohort study, adults with T2D and no symptoms/history of CVD underwent extensive cardiovascular phenotyping. Retinal photographs evaluated for 1) diabetic retinopathy grade 2) geometric quantification using deep-learning tools.

Associations between retinopathy grade, geometry and cardiac markers of subclinical CVD were explored adjusting for age, sex, ethnicity, BMI, blood pressure and HbA1c.

### Results

255 participants were included: 200 (78%) with no DR and 55 (22%) with background retinopathy.

Those with background retinopathy demonstrated higher coronary atherosclerosis (calcium 166 [21–510] vs. 21 [0–29];  $P < 0.001$ ), more concentric LV remodelling (m/v  $0.94 \pm 0.15$ g/mL vs.  $0.90 \pm 0.14$ ;  $P = 0.015$ ), higher LV filling pressures (E/e'  $9.6 \pm 2.5$  vs.  $9.0 \pm 1.0$ ;  $P = 0.012$ ), worse systolic function (global longitudinal strain  $15.2 \pm 2.3$  vs.  $16.5 \pm 2.3$ %;  $P < 0.001$ ).

Deep learning-based quantitation of retinal geometry did not yield significant correlations with cardiac biomarkers.

### Key messages

Presence of background diabetic retinopathy is associated with excess atherosclerotic burden and markers of stage B heart failure.

Routine diabetic eye screening has the potential to identify subclinical CVD in adults with T2D.

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RO206

Research or Original Work Group 2

## Evaluating the Efficacy of GLP-1 Receptor Agonists and SGLT-2 Inhibitors in Obese Patients With Type-2 Diabetes Mellitus: A Comprehensive Review

### Authors

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### Background

Novel anti-diabetics are a therapeutic approach for patients with Type-2 Diabetes Mellitus. This review seeks to establish the efficacy of monotherapy and combined GLP-1 RA and SGLT-2 inhibitors in weight-loss, glycemic control, and cardiovascular outcomes in Obese Patients With T2DM.

### Method

Studies were selected using PRISMA from PubMed, ClinicalTrial.gov, and Embase using keywords as follows: ("GLP-1" AND "SGLT-2") AND (Adult OR 25-65 years) AND ("Obese" OR "High BMI" OR "Obesity") AND (Type two diabetes OR Type 2 diabetes OR T2DM)

Articles selected: Original research, Clinical trials, Meta analyses. Obesity defined as BMI>25. Studies with ages 25-65 were included. Studies without obese patients were excluded.

### Results

Outcomes were improved both with monotherapies and combination therapies. Reductions in weight and HbA1c were significant, highest in combination therapy, followed by GLP-1 RAs, and SGLT-2 inhibitors. Reductions in HbA1c ranged from 2.3%, 1.5%, and 0.8% and weight ranged from 5kg+, 5kg, and 3.5kg, respectively [1,2,3]. Additionally, cardiovascular outcomes including systolic blood pressure, incidence of major adverse events, and heart failure hospitalizations improved in combination therapy [4].

### Key messages

GLP-1 RAs and SGLT-2 inhibitors in combination are most effective for glycemic control, weight-loss, and improving cardiovascular outcomes. Future research should further explore such therapy for these patients.

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RO207

Research or Original Work Group 2

## Dynamic PET scanning in Alzheimer's Disease- the Old and the New.

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### Background

Cerebral glucose hypometabolism has been identified in Alzheimer's disease (AD) prior to symptom onset (1). Dynamic fluorodeoxyglucose-positron emission tomography (FDG-PET) and Amyloid-PET provide kinetic and functional assessment of early pathological changes in AD.

### Method

A scoping review was performed using PubMed and OVID database. A structured search strategy was created and systematically reviewed to include papers published up until September 2nd, 2024. Title and abstracts were screened to include relevant literature, and bibliographies of included studies were also searched to identify other relevant literature.

### Results

A total of 42 papers were included from the search strategy, and a further 8 from screening bibliographies. A significant reduction of CMRgluc was seen across all cortical brain regions in AD compared to healthy controls, most significantly in the frontal, parietal, and temporal lobes (2,3). A reduction of k1 and k3 was also evident in these regions (4). Early phase Amyloid-PET scans have found comparable metabolic distribution patterns to FDG-PET and have the additional benefit of being able to identify regions of amyloid binding and deposition (5).

### Key messages

Using dynamic PET to understand the kinetic properties FDG and Amyloid tracer enables early diagnosis of AD, monitoring of progression, prompt initiation, and monitoring of treatments.

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RO209

Research or Original Work Group 2

## Does Adjuvant Chemotherapy Provide a Survival Benefit in Elderly Patients ( $\geq 70$ years) with Pancreatic Cancer? A Retrospective Cohort-study

### Authors

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### Background

Elderly patients ( $>70$  years) with pancreatic cancer have historically been considered too frail for adjuvant chemotherapy (AC). Emerging research suggests AC is tolerable and benefits their overall survival (OS) and relapse-free survival (RFS), similarly to younger patients. This study aims to identify the current practice in a tertiary hepatobiliary centre and assess OS and RFS.

### Method

Electronic records were retrospectively reviewed. Adult patients, who underwent pancreatoduodenectomy for pancreatic adenocarcinoma between January 2015 and December 2020 at Manchester Royal Infirmary were included. Data included baseline characteristics, preoperative assessment, histopathology, postoperative complications and course, and AC use. Statistical analysis was performed using Jamovi 2.3.

### Results

A total of 149 patients were included, there was no difference in baseline characteristics or histopathological features. Overall, 105 (71%) received AC. AC use was equal in younger and elderly patients ( $p=0.42$ ). There was a difference in OS between elderly patients who received vs did not receive AC (OS mean months 31.4 vs 15.9,  $p<0.01$  respectively).

### Key messages

Like younger patients, elderly patients should receive adjuvant chemotherapy (AC) as they benefit from its use. Retrospective results should be interpreted with caution. A large, prospective randomised trial is needed to clarify clinical benefits and health economic benefits.

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RO210

Research or Original Work Group 2

## Comparison of Current Techniques for Securing the Cystic Duct in Laparoscopic Cholecystectomy: A Systematic Review and Meta-Analysis

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### Background

Multiple techniques are employed globally to secure the cystic duct during laparoscopic cholecystectomy, and the choice of method often depends on the surgeon's preference.

### Method

A systematic review and meta-analysis were conducted to compare the efficacy of various cystic duct securing methods - including clipless techniques, metal clips, Hem-o-lok clips, and absorbable polymer clips - during laparoscopic cholecystectomy. The primary outcome assessed was the rate of bile leakage following surgery.

### Results

A total of 21 studies involving 10,497 participants were included. The meta-analysis revealed that absorbable clips were associated with a significantly lower rate of bile leakage compared to metal clips (OR 0.240, 95% C.I. 0.06-0.98). The clipless technique using a harmonic scalpel was non-inferior to metal clip closure (OR 1.311, 95% C.I. 0.40-4.32). No significant differences were observed between metal clips and sutures/endoloops (OR 0.16, 95% CI 0.17-1.71) or Hem-o-lok clips (OR 0.16, 95% CI 0.03-1.11).

### Key messages

Current data, while limited, advocate for the use of absorbable clips in securing the cystic duct during laparoscopic cholecystectomies and suggest the potential safety of harmonic shears for clipless techniques. However, these findings need to be further confirmed by high-quality studies with large datasets.

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RO211

Research or Original Work Group 2

## Long Term Quality Of Life Outcomes Post Robotic-Assisted Surgery Compared To Laparoscopic-Assisted Surgery For Rectal Cancer Patients: A Comparative Analysis

### Authors

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### Background

Robotic assisted surgery (RAS) is becoming the standard of care in rectal surgery, however, there is a paucity of evidence reporting outcomes of quality of life (QOL)(1,2). This prospective study provides functional/QoL outcomes of patients who have undergone curative rectal cancer resection through RAS versus laparoscopic assisted surgery (LAS).

### Method

183 consecutive patients underwent rectal cancer surgery between 2015-2022 in a single hospital. Participants were asked to complete the EORTC QLQ-C30 & CR29 questionnaires at 0,3,6, 12, and 24 months following either RAS or LAS. This questionnaire evaluated 30 outcomes measures relating to QOL.

### Results

Analysis of the included participants reported RAS n=80 and LAS n=27. Functional outcomes between the two surgical approaches were comparable across the majority of the data points. When evaluating the primary outcomes measures only, LAS reported significantly higher Global health status/QoL (76.75 vs 68.08 p=0.048), and significantly lower scores of dysuria (0.0 vs 10.24 p=<0.01) at 3 months postoperatively when compared to RAS.

### Key messages

This study reports that robotic assisted surgery demonstrates comparable functional and quality of life outcomes to laparoscopic assisted surgery up to 24 months postoperative curative rectal cancer surgery.

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Diseases of the Colon & Rectum, 65(10), pp. 1191–1204.  
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RO212

Research or Original Work Group 2

## Prevalence of oral health conditions in asylum-seeking children

### Authors

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### Background

There is currently limited data on the prevalence of oral health conditions in asylum-seeking children in the UK, and therefore the services required to meet these needs (1). The aim was to identify the prevalence in a specialist Bristol clinic, and compare this to current literature.

### Method

We reviewed the case notes of children seen in the specialist Bristol clinic between November 2023-May 2024, and completed a literature review on this topic.

### Results

100 asylum-seeking children were identified, ranging from 5 - 17 years old. 28 children were not assessed for dental issues at all. Of those that were assessed, 30/72 were found to be symptomatic on presentation, with 5 presenting with pain, 9 presenting with decay, and 16 with both.

The literature review identified 9 other studies on the subject, with a median of 48.5% children presenting with dental issues, reflecting our findings.

### Key messages

The high incidence of dental pain and caries suggests a critical need for interventions to be put in place.

We would advocate for an increase in preventative care, which may be in the form of translated leaflets on dental hygiene and emergency signposting, and the provision of toothbrushes before the time of the initial health assessment.

### References

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