National Foundation Doctors Presentation Day

Friday 10th January 2020
Mercure Bristol Holland House Hotel & Spa
We are very grateful for the continued support from the following organisations:
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# National Foundation Doctors Presentation Day
Friday 10th January 2020
Mercure Bristol Holland House Hotel, Redcliffe Hill, BS1 6SQ

## Programme

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<td>Prof Clare McKenzie – Postgraduate Dean NHS Education for Scotland, Lead Dean UKFP</td>
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#nfdpd
Abstracts

Oral Presentations
Airway Obstruction and Aspiration of a Whole Grape in a Young Child: Case Report

Authors
Peter Bye
East Anglia

Background
Grapes are the 3rd commonest food causing death from food inhalation in young children, with those under 3 at highest risk(1).

Methods
N/A

Results
A 17-month-old boy was brought by ambulance to hospital following a witnessed choking episode whilst eating whole grapes. Though initially unresponsive and cyanosed, following oxygenation and mask ventilation by paramedics he arrived at hospital fully alert despite significant respiratory distress. Chest x-ray revealed bilateral, patchy consolidation but no visible foreign body. He was intubated to undergo urgent bronchoscopy, which revealed brown liquid within the airways but no solid material. Extubation failed necessitating transfer to the regional PICU where he remained intubated for 4 days on antibiotics. He recovered well with no evidence of long-term harm.

Key Messages
This case demonstrates the dangers of performing a blind finger sweep and the importance of adhering to Basic Life Support principles(2). Complications from choking are not just immediate and short term – as shown in this case, it can lead to a range of issues requiring ICU admission and a prolonged hospital stay. Despite raised public health awareness in recent years(3-5), whole grapes still pose a risk to infants and children and remain a cause of paediatric morbidity and mortality.

References
An induction programme for overseas Foundation Doctors.

Authors
Alexander Stephenson-Allen, Shafiah Muna Binti Abdul Gafoor, Mariam Obeid, Domniki Iatropoulou

South Thames

Background
Overseas doctors form a significant proportion of the Foundation Doctor workforce, and may be appointed having had little experience of practice in the UK. A one-day supplementary induction programme was developed in order to address gaps in knowledge and training, so as to empower overseas Foundation Doctors to practice safely and confidently within the NHS.

Methods
An initial survey was distributed to both overseas and UK trained Foundation Doctors to identify potential training and learning needs for newly appointed overseas doctors using a mixed-methods approach. Areas of knowledge and skills identified as important for overseas Foundation Doctors were identified to guide the development of a pilot induction package, and the final induction programme.

Results
Participants reported improvements in knowledge and skills across all domains of the induction programme. Post-induction improvements in mean self-assessment scores were most marked for ‘effective documentation’ (89% improvement), ‘awareness of professional responsibilities’ (88% improvement), and ‘practical procedures.’

Key Messages
Overseas Foundation Doctors may have additional needs for induction, both to the hospital and clinical practice in the United Kingdom more broadly. Supplementary focussed induction sessions increase knowledge and understanding of UK clinical practice, and can be delivered by Foundation Doctors.

References
Adapting the Academic Foundation Programme to include a 3 month ‘Global Health’ placement studying brain infections in Malawi

Authors

North West of England

Background
Global health is a growing field with increasing interest from clinical academics. In Liverpool University Hospitals NHS Trust a request was made for an academic foundation trainee to undertake a research placement in Malawi. We explored mechanisms for facilitating a high-quality, remote academic placement within the Foundation Programme.

Methods
The Foundation Programme Directors and trainee consulted stakeholders including the University of Liverpool (UoL), Malawi-Liverpool Wellcome Trust (MLW) and Health Education North West. A robust infrastructure for conducting the placement was created.

Results
The trainee undertook a 3-month project in Malawi associated with UoL and MLW. Provisions were made for supervision, insurance, remote access to FY2 teaching and research facilities. The project involved developing computer simulation models to inform an intervention for improving brain infection diagnosis. The trainee also led a secondary analysis studying seizures in encephalitis, contributed to a systematic review, developed a neurology teaching course and received 28 hours of training in R/statistics. The placement will produce meaningful academic output and has created an established pathway for remote placements.

Key Messages
Robust, high-quality academic placements outside the United Kingdom are possible within the Foundation Programme. Foundation Schools should be encouraged to support trainees wishing to undertake such placements.

References
Are discharge summaries an accurate reflection of one’s inpatient stay?

Authors
Joshua Yip
Wessex

Background
Clinical coders use discharge summaries and patient notes to code healthcare interventions. These codes are used to produce a healthcare resource group (HRG). Each HRG has a fixed price and this is used to calculate payment to the trust.

Methods
Retrospective analysis of 10 respiratory admissions in February 2019 was performed. HRGs calculated from the discharge summary were compared with HRGs calculated from the discharge summary and patient notes. The results were presented to the department and a teaching programme on discharge summary writing was conducted for new FY1s. This was then re-audited in September 2019.

Results
The initial audit showed that coding from discharge summaries in combination with patient notes generated an extra £6,931. However, the re-audit showed that the difference grew to £15,970. Common omissions in both audits include results of investigations like hyponatraemia, procedures like catheter insertion and secondary diagnosis like pressure ulcers and constipation.

Key Messages
The large discrepancy between HRGs generated from discharge summaries alone and when used in combination with patient notes highlights that discharge summaries are not an accurate reflection of a patient’s inpatient stay. Junior doctors need to develop a deeper understanding of the system in order to capture important events in an admission.

References
Efficacy evaluation of a 5-week laparoscopic course on participant skill acquisition

Authors
Zohaib Siddiqui, Mohammed Hamid, Kalid Abdi Karim, Masud Awil
South Thames

Background
Associated with faster postoperative recovery, reduced length of hospital stay, and reduced scarring, laparoscopy has become the favored approach for many surgical procedures in urology and gynecological specialties. However, due to its challenging learning curve, it has also been associated with increased time in theatre and a higher rate of complications.

Methods
A prospective, observational study involving medical students and core surgical trainees to evaluate the efficacy of long duration courses on skill acquisition. A 5-week curriculum composed of lectures, demonstrations and spaced timed-assessments was devised by two consultant general surgeons primarily involving 3 tasks: hoop placement, stacking of sugar cubes and surgical cutting.

Results
The time taken for each participant to complete a set task individually and collectively improved from the first to the third attempt over the period of 5 weeks. All 18 students completed 3 attempts of the hoop with the average mean time reducing down from 02:15, to 02:04, to 01:38 minutes. Overall, a 35.8% reduction in time spent completing a task was observed.

Key Messages
Due to the success of this study and other simulations reported in the literature, we recommend more courses adopt a spaced out approach to allow greater skill acquisition for participants.

References
Improving clinical care by reducing Microbiology sample rejections within Paediatrics- A quality improvement project

Authors
Nikitha Rajaraman, Sarah Denniston
West Midlands Central

Background
Microbiology sample rejections are a common but avoidable problem in hospitals. Rejection of these samples results in incomplete assessment, inefficiency, wastage and inconvenience for patients. Hence, we aimed to implement steps to reduce this problem.

Methods
We gathered data on the total number and type of processed/rejected samples and reasons for rejection between July and December 2018 within the Paediatric department. We then created posters with information on accurate container choice, required sample quantity and labelling. Further data was collected post-intervention.

Results
Between July and December 2018: 141 rejections out of total 2193 samples, with an average rejection rate of 6.6% per month. Top three reasons for rejection were unsuitable container use(36%), labeling issues(28%) and insufficient samples(8%). Following our first intervention, between May and July 2019: 45 rejections out of total 1084 samples, with average rejection rate of 4.1% per month.

Key Messages
We achieved 38% improvement in the rejection rate of microbiology samples within Paediatrics. We are monitoring for sustained improvement while extending the project to other wards in the hospital.

References
THE FORMAL TEACHING PROGRAMME FOR FOUNDATION YEAR 1 DOCTORS: A NATIONWIDE STUDY OF TRAINEE PERSPECTIVES

Authors
Haaris Shiwani, Oluwatobi Onafowokan, Alexander White, Yusuf Jaly, Danyal Memon, Suhayb Ali, Mohammed Khojani, Abdul Aziz

North West of England

Background
The literature presents limited evidence regarding trainee perspectives on foundation programme teaching. We hoped to ascertain the views of foundation year-2 doctors (FY2s) on their experiences of the foundation year-1 formal teaching programme.

Methods
A multi-centre cross-sectional survey was conducted. Relevant individuals were contacted for all 18 foundation schools in the UK. A 23-item questionnaire was distributed via these channels to each region’s FY2s.

Results
242 responses were collected from 17/18 (94%) foundation schools. 82 (34%) respondents reported the overall teaching experience as good or very good, while 104 (43%) rated it as satisfactory. 215 (89%) trainees reported having had bedside teaching rarely or never, with 174 (75%) indicating they would have preferred more teaching of this format. 68 (28%) participants agreed or strongly agreed that adequate career guidance was incorporated into the program. 79 (33%) and 138 (57%) trainees reported being unable to attend teaching on over 5 occasions due to non-rostered clinical requirements, or rostered responsibilities, respectively.

Key Messages
Overall satisfaction rates are high; however, areas of unmet need, such as bedside and practical procedure teaching, have been identified. Furthermore, although a national variation is noted, clinical requirements resulting in missed teaching is found to be a universal phenomenon across the UK.

References
Patient Experiences of the Virtual Trauma Clinic

Authors
Megan Walker, Hermione Tsoi, Mohammad Al-Ashqar
Yorkshire and Humber

Background
Virtual Trauma Clinics (VTCs) are a recent innovation gaining popularity across the United Kingdom, however literature on patients' experiences of VTCs is lacking. Our district general hospital started a VTC service in 2017 which has processed over 10,000 patients. We strived to survey patients' experiences of VTCs to improve the quality of the service provided.

Methods
A retrospective survey of thirty patients within six weeks of their VTC appointment, from July-September 2019, was conducted. A combination of closed and open question styles was used.

Results
Nineteen (63.3%) patients understood the purpose of VTCs on leaving the Emergency Department. Twenty five (83.3%) patients were satisfied with the information they received at VTCs and six (20%) would have preferred to attend face-to-face clinic for the same outcomes. Eighteen (60%) patients felt reassured by their VTC appointment and three (10%) called for further advice. Most patients reported that VTCs saved time and expenses, and were convenient.

Key Messages
VTCs are well-received and most patients are satisfied by the care provided. Patients with musculoskeletal injuries prefer to be initially reviewed virtually rather than in face-to-face clinics. A minority have a poor understanding of VTCs and face-to-face clinics. The team are working to improve VTCs based on patient feedback.

References
Mental health matters: the impact of including mental health professionals within a GP-based child health multidisciplinary team

Authors
Iona Talintyre, Katelyn Aitchison, Shafaq Adnan
North West London

Background
3 in 4 children with a mental health condition do not get access to necessary support (1). In order to address this deficit, we aimed to evaluate the impact of including paediatric mental health (CAMHS) professionals within a GP-based child health multidisciplinary team (MDT). A component of an existing child health GP model, these monthly case-based MDT meetings provide integrated paediatric care with inter-professional learning and relationship-building (2).

Methods
2 questionnaires were developed for GPs at 2 hub MDTs and distributed just prior to and 9 months after the introduction of a CAMHS professional.

Results
14 questionnaires were returned by GPs. Since the inclusion of a CAMHS professional within the MDT, 100% agreed they added value to case discussions and felt comfortable contacting them for advice; 75% agreed their own awareness of services and resources available had increased. Both pre- and post-intervention, 50% of GPs disagreed they were confident managing paediatric patients with mental health problems on their own. The most commonly reported barriers related to access (60%) and waiting time (40%) for secondary care.

Key Messages
Including a CAMHS professional in the MDT improved relationship-building and knowledge-sharing between professionals. However, GPs continue to lack confidence managing paediatric mental health, experiencing significant barriers to accessing support.

References
The Glass Ceiling in Plastic Surgery: A Propensity-Matched Cohort Analysis

Authors
Catherine Rawes, Ledibabari M. Ngaage, Cleo Ngadimin, Yinglun Wu, Sheri Slezak, Yvonne M. Rasko
Yorkshire and Humber

Background
Despite the increased female representation in academic positions, women have yet to achieve parity in representation in academic plastic surgery(1).

Methods
We conducted a cross-sectional analysis of academic plastic surgeons in the USA. Identifying faculty, gender, academic rank, and leadership positions from plastic surgery residency program websites. We collected details on training institution, additional degrees, years in practice, and H-index for use as independent variables. We performed a propensity-score analysis to match male and female (1:1 ratio) with regard to the independent variables.

Results
818 academic plastic surgeons were included. The cohort was predominately male (81%), with a median 12 years of experience and a median H-index of 9. Prior to matching, men were more experienced (13 vs 9, p<0.0001), had greater academic productivity (11 vs 5, p<0.0001), more likely to be full professors (34% vs 13%, p<0.0001). Following matching, there were no differences in experience or academic productivity. Additionally, analysis of academic rank and departmental leadership demonstrated no gender bias.

Key Messages
Gender disparities in academic promotion in plastic surgery may be explained by differences in training, degree qualifications, experience, and academic productivity. We must address disparities in these external factors before gender parity can be achieved.

References
Managing the Unmanageable - Extreme Self-Harm in Emotionally Unstable Personality Disorder

Authors
James Shires
Trent

Background
This psychiatric case presentation follows an adult inpatient who was admitted following bilateral upper limb amputations after self-harming with oven cleaner. On the ward, they continued to prolifically self-harm, and thus many discussion points about best management were raised, in particular for such emotionally labile patients. Management via the multidisciplinary team included doctors, nurses, pharmacy, occupational therapy and psychology.

Methods
The patient was admitted for a period of six weeks, and over this time they were managed for symptoms consistent with Emotionally Unstable Personality Disorder. The case was discussed following discharge at the weekly doctors' meeting, with a wide variety of psychiatric grade doctors present.

Results
It was accepted that this was a particularly difficult case to manage, but some key principles in the management were extracted for future benefit in similar presentations.

Key Messages
Optimum care is highly patient specific in psychiatry; Continuity of care by health professionals was essential, due to the patient's low threshold for perceived abandonment and subsequent extreme self-harm. Good communication between the various teams is also vital. Finally, the paradoxical harm that psychiatric inpatient units can cause was also discussed, through such mechanisms as positive reinforcement of maladaptive behaviours, and learned behaviours on the ward.

References
Hospital vending machines: is diabetes for sale?

Authors
Sophie Kelly, Sarah Zhao, Graham Cheung
North West of England

Background
The obesogenic environment plays a significant role in the increasing prevalence of diabetes. We can tackle this epidemic by reducing unhealthy food options available at the point-of-purchase, as addressed in the Commissioning for Quality and Innovation (CQUIN) 2017/19 targets (1,2). Our aim was to evaluate the nutritional value of hospital vending machine products following an overhaul of stock in 2017.

Methods
Data demonstrating the poor nutritional value of vending machine products in 2017 incited a stockage overhaul at the Royal Liverpool Hospital. Retrospective sales data from the same vending machines was subsequently collected from June to November 2018. Items were assessed for nutritional content and compared to pre-overhaul products.

Results
A total of 41170 items were sold. 48% of sales were chocolate, crisps or sugar sweetened beverages, representing a significant decrease from 75.8% of sales in 2017. Artificially sweetened drinks made up 35% of sales (increased from 2017), with the remainder consisting of new “healthier” products such as granola, fruit bars, fruit and nut bags and water. Almost half the options were high in sugar and fats, with only two products having fully green nutritional labels. Several items marketed as “healthy” were in fact high in sugar and fat.

Key Messages
Overall, there was a reduction in high fat and salt products, but an increase in high sugar products offered in 2018 compared to 2017. Greater emphasis should be placed on stocking products based on their nutritional labelling in order to minimise the hospital obesogenic environment.

References
A novel peer led teaching initiative: Junior Grand Rounds

Authors
Miraen Kiandee, Soo Oh
West Midlands North

Background
In large university hospitals, grand round presentations are often delivered by senior clinicians on niche subjects. Junior doctor participation is often low as they are intimidated by the set up.

Methods
A 12-week fortnightly education programme called “Junior Grand Rounds” was developed with the support of the postgraduate medical education department. There are three broad sections: quality improvement/ audit presentations, case reports and “blind spot”. The “blind spot” section encourages junior doctors to share experiences that they have gained since working. An online questionnaire was sent out to attendees and qualitative data was analysed to assess the perceived value of the programme.

Results
Interesting “blind spot” topics include (1) Transdermal conversion for emergency Parkinson’s disease medication (2) What you didn’t know about VTE – exploring alternatives beyond chemical prophylaxis. Attendance at junior grand round showed a steady increase from week to week. Learners felt our content was relevant to daily practice, at an appropriate level of difficulty and delivered in a less threatening environment. They valued the novelty of the topics included and look forward to each session. Educators enjoyed the opportunity to develop their teaching skills and fulfil foundation year competencies.

Key Messages
An appropriate platform is essential to encourage junior doctor peer teaching.

References
Audit of orthopaedic trauma theatre efficiency: Start on time, save money and work as a team.

Authors
Jonathan Stone, Grace Crowley, Michael Okocha, Alisdair Bott, Niall O’Sullivan
Severn

Background
Delays to theatre briefing times are an unnecessary and costly cause of inefficiency. An empty fully staffed theatre costs £25/min (1). Theatre efficiency is highlighted as requiring improvement in trust directive at North Bristol (2). The aims of this audit were to quantify delays to theatre start times and attempt to identify reoccurring causes so that targeted changes could be implemented.

Methods
A 2-week prospective data collection exercise was conducted, recording WHO briefing time and patient arrival time in two trauma theatres at Southmead hospital. Numbers of cases booked and completed was also recorded. This data was analysed in Excel.

Results
The delays for Theatres A & B respectively are as follows; average brief delay: 10 mins, 15 mins; total brief delay: 2:44, 3:33; average transit delay: 28 mins, 23 mins; total transit delay: 7 hours, 6 hours. Total estimated cost of delays in two weeks was £20,775 (£540,150 annually).

Key Messages
Following presentation of this audit at departmental level, we implemented the following changes: list to Medirooms earlier, avoid double briefing (trauma and WHO brief), registrars leaving 5 minutes before. In doing so we aim to: start on time, save money and work as a team, and will re-audit these changes.

References
The impact of cardiac rehabilitation on health-related quality of life following acute myocardial infarction. A national longitudinal cohort study.

Authors
Ben Hurdus, Dr. Theresa Munyombwe, Dr. Bernadette Dondo, Prof. Chris P. Gale
Yorkshire and Humber

Background
Cardiac rehabilitation has been shown to improve health-related quality of life (HRQoL) following acute myocardial infarction (AMI). However much of this evidence was developed prior to modern drug and reperfusion therapies. This study aims to assess the association of cardiac rehabilitation and changes in health-related quality of life HRQoL following AMI.

Methods
EMMACE-3, a nationwide longitudinal cohort study of 4570 patients admitted to 48 National Health Service hospitals in England with an AMI. HRQoL was estimated using EuroQol EQ-5D-3L at hospitalisation, 30 days, 6 months and 12 months following discharge. The association of cardiac rehabilitation and HRQoL was quantified using multi-level regression.

Results
Patients who attended cardiac rehabilitation had higher HRQoL scores than those who did not at all follow-up points; 30 days (mean [SD] EQ-VAS: 71.0 [16.8] vs. 68.6 [19.8]), 6 months (EQ-VAS: 76.0 [16.4] vs. 70.2 [19.0]) and 12 months (EQ-VAS: 76.9 [16.8] vs. 70.4 [20.4]). Multi-level regression modelling further demonstrated cardiac rehabilitation was significantly associated with improved HRQoL (2.34 [95% CI, 0.92 to 3.77]).

Key Messages
Patients who received cardiac rehabilitation had higher HRQoL at all follow-up points. Therefore, cardiac rehabilitation may still be important in recovery post-AMI despite advances in drug and reperfusion therapies.

References
All Wales Experience of Orkambi in Adult Cystic Fibrosis Patients on a Managed Access Platform

Authors
Laura Tan, Lorraine Speight, Dawn Lau, Mari Lea-Davies, Hywel Jones, David Proud, Jamie Duckers
Wales

Background
CFTR modulator Orkambi (Lumacaftor/Ivacaftor) has been recently agreed for renumeration in England and Scotland, however, there is currently a lack of real-world UK experience in patients with severe Cystic Fibrosis (CF). (1,2) We present the outcome of a year of Orkambi therapy in adult CF patients in Wales on a managed access program (MAP).

Methods
All adult patients receiving Orkambi via MAP were included. Patient demographics, lung function, body composition, quality of life (QOL) and exacerbation frequency were recorded prior to initiation and repeated at one year post.

Results
20 patients (5 female, mean age 31.1yrs) with mean FEV1 28.8% (SD 8.6) on Orkambi MAP were followed up over one year. Improvements were observed in QOL indictors (total CFQ-R +9.99, p=0.01) with most marked improvements in patient-reported Physical Functioning (+22.4, p = 0.01), Vitality (+22.0, p=0.01) and Respiratory Symptoms (+16.2, p=0.02), with a significant reduction in number of intravenous courses required in the subsequent year (-1.74, p=0.01). Improvements were seen in FEV1 (+1.4%, p = 0.17), body mass index (+1.2 kg/m2, p = 0.15) and Hand Grip Strength (+1.7, p = 0.15).

Key Messages
This real-world data in patients with severe CF, illustrates that Orkambi has significant benefits in reducing infective exacerbations and improving QOL.

References
The Impact of Metered Dose Inhalers on Climate Change.

Authors
James Runacres
North West of England

Background
In 2019, the NHS Chief Executive declared climate change a “health emergency”(1). The NHS is a significant contributor of carbon emissions and Metered Dose Inhalers (MDIs) represent 3.1%(2) of the organisation’s total. This value is due to the use of potent greenhouse gases, fluorinated gases(3), as propellants. In order to meet necessary and ambitious international(4), national(5) and regional(6) carbon emission reduction targets, the NHS must look at reducing MDI usage.

Methods
Using a national template, Greater Manchester Health and Social Care Partnership developed a work plan to tackle this issue. During the process, regional prescribing data was examined and two potential models of switching patients to Dry Powder Inhalers (DPIs) were tested.

Results
Six main action points were concluded from this process: prevention, early and accurate diagnosis, effective treatment, medicine optimisation, low CO2e inhaler usage and recovery and recycling. An analysis of current prescribing patterns found the potential to reduce an estimated 9.45 million kilograms of CO2e emissions after one year through a switching programme.

Key Messages
The move to lower greenhouse gas inhalers is a key component of carbon reduction requirements outlined in the NHS’ Long Term Plan(5). Collaboration across all stakeholders will be required to address environmental goals and improve patient outcomes.

References
1. Iacobucci, G. NHS to step up efforts to tackle “health emergency” of climate change. BMJ 2019;366:i5458
The impact of radiotherapy on patient-reported outcomes of immediate implant-based breast reconstruction: Results of a prospective multicentre cohort study

Authors
Emma Sewart, Nicholas Turner, Elizabeth Conroy, Ramsey Cutress, Joanna Skillman, Lisa Whisker, Steven Thrush, Nicola Barnes, Chris Holcombe, Shelley Potter, On behalf of the iBRA Steering Group and the Breast Reconstruction Research Collaborative

Background
Post-mastectomy radiotherapy (PMRT) is increasingly given to improve breast cancer outcomes but can adversely impact complication rates following implant-based breast reconstruction (IBBR). Little, however, is known about the impact of PMRT on patient-reported outcomes (PROs) of IBBR.

Methods
The iBRA study prospectively recruited 2108 consecutive women undergoing IBBR at 81 centres. Demographic, operative, oncological and 3-month complication data were collected, and patients consented to receive post-operative questionnaires at 3- and 18-months. The 18-month questionnaire assessed PROs using the validated BREAST-Q. The effect of IBBR on PROs was investigated using mixed-effects regression models adjusted for clinically relevant confounders and including a random effect to account for potential clustering by centre.

Results
1693 iBRA participants underwent mastectomy for malignancy, of whom 1187 consented to receive the 18-month questionnaire and 732 completed it. Patients undergoing PMRT (n=214) reported significantly worse outcomes across 3 BREAST-Q domains: ‘Satisfaction with Breasts’ (-6.27 points, p=0.008, 95% confidence interval (CI) [-10.91, -1.63]), ‘Satisfaction with Outcome’ (-7.53 points, p=0.002, CI [-10.91, -1.63]) and ‘Physical Well-being’ (-6.55 points, p<0.001, CI [-9.43, -3.67]). Overall satisfaction was worse in the PMRT group (OR 0.497, p=0.002, CI [0.32, 0.77]).

Key Messages
PMRT adversely affects PROs following IBBR. These findings should be shared with patients prior to surgery to allow informed decision-making regarding reconstructive options.

References
Hold the Bleep

Authors
Sophie Winter
West Midlands North

Background
This research aimed to understand doctors use of personal mobile phones (PMP’s) to discuss patient information, and the drivers behind this. The health secretary announced bleeps must be phased out by 2021 but many hospitals continue to rely on this system.

Methods
An electronic questionnaire was emailed to all doctors on the hospital mailing lists; 191 requests in total.

Results
78.95% of respondents held a bleep, 1.65% were meant to hold a bleep but were not provided with one. Of those without a bleep, the majority were contacted by PMP’s. 70.18% discussed clinical information over PMP’s, with 17.57% using patient identifiable data. Reasons for PMP use included speed and ease of use, being able to contact whole teams at once or contacting someone without a bleep. Whatsapp was the most used app for this. 39% worry about discussing patient matters over their PMP but do it anyway. 84% feel there needs to be new technology replacing bleeps.

Key Messages
Doctors choose PMP over bleeps for reasons which may improve patient care, however this way of sharing identifiable information may break GDPR. The 64.91% of doctors asking clinical questions without identifiable information may lead to mistakes. This research reinforces the need for alternative communication solutions.

References
Abstracts

Poster Presentations

Education
Regional teaching session to improve junior doctors’ confidence in undertaking common on-call urological procedures

Authors
Kathryn Kimber, Matilda Russel-Fisher
North West of England

Background
As new juniors to a surgical ward, we lacked confidence in the practical urology skills often encountered during ‘on-call’ shifts such as blocked/difficult catheters and nephrostomy management. Due to a lack of medical school teaching on these, we predicted this may be universal among foundation trainees.

Methods
We outlined 7 areas of perceived weakness, then conducted a primary survey of 35 foundation doctors, asking them to score each topic in terms of confidence from 1-10, which confirmed our prediction. Consequently, we organised a regional workshop for 21 foundation trainees, offering small-group practical teaching from urology consultants and registrars, then reassessed confidence scores.

Results
There was an overall improvement in confidence in every topic, with the median score increasing from 3 to 8 following the workshop. When re-surveyed 3 months later, the median confidence score decreased to 7. Feedback was universally positive, highlighting the interactive nature of the stations with individualised advice from knowledgeable tutors.

Key Messages
Junior doctors lack confidence in practical urology skills, but this can be greatly developed with a practical workshop, which may relieve pressure on seniors and improve patient care. Small group teaching is an effective method of developing confidence in urology skills however further input is needed to ensure this is sustained. Following feedback, we plan to host a refresher session, and provide written information to support retention.

References
The Innovative Implementation of Virtual Reality to teach medical students.

Authors
Diya Baker
West Midlands Central

Background
The Proposed project is use of Virtual Reality (VR) Headsets to supplement the anatomy teaching in the medicine course at the University of Birmingham. Originally students use Dissection and Prosection. Whilst a great tool to teach has massive flaws. The main issue is that cadavers must remain preserved and thus the cadavers are not recommended to be exposed > 10 hours/ week. As a result, University of Birmingham medical students only receive 4 sessions per year where the real life form is exposed to students. As a result students are expected to utilise textbooks to learn. This is not efficient and lacks the 3D modelling of software programmes on VR headsets. The aim was to introduce Virtual reality headsets in anatomy sessions/ library anatomy rooms. These VR headsets have a number of applications including anatomy apps, physiology apps and medical procedure videos. After introduction of these devices I have initiated an observational study, where I have utilised student questionnaires to assess the student experience of teaching of anatomy, changes to student confidence, student perceptions and knowledge.

Methods
The VR headsets used were the 2 Oculus Rift (tethered to computer) headsets and 5 Oculus Go (non-tethered). These were located in 24/7 accessible areas for medical and allied health students. The devices were installed with software applications in Anatomy Emergency Simulations Human Anatomy VR VR CPR Organon 3D RCSI Medical Training NeuroExplorer Doc VR Inside Body VR VLIPPMed Share Care VR Medical Realities Questionnaires were offered to 50 randomly selected students from year 1-6 (UOB medical school), who had used the VR headset. The questionnaire targeted 3 main themes: Did experience of VR anatomy applications improve the overall experience of learning anatomy? How has your confidence in anatomy changed with the utilisation of the VR headsets? How has your knowledge of anatomy changed with the use of the VR headset?

Results
Although the results are still being fully understood, the questionnaire elements have all improved pre and post usage of the VR headsets by on average 50-100% improvement in the overall learning experience of anatomy, confidence has significantly improved for students and the knowledge of anatomy has shown improvements but students have yet to take examinations and thus objective results are yet to be clarified

Key Messages
This Project has provided a strong platform for further development in this field of medicine and surgery.

References
Gender Variance Education within a Gender Conforming NHS

Authors
Rebecca Luckett
Yorkshire and Humber

Background
Up to 3% of the general population identify as transgender [1] with growing numbers accessing medical services [1]. However, despite this prevalence, gender variance is a topic overlooked universally throughout medical practice [2, 3]. In Doncaster Bassetlaw Teaching Hospital (DBTH), our survey conducted of 40 practitioners found only 17.5% had teaching regarding care of gender variant patients, with 87.5% feeling ill-prepared to manage these individuals. This lack of education is suggested to exacerbate prejudice and harassment within medical settings [2, 3]. The 2017 national LGBT survey [1], highlighted 78% of gender variant individuals avoided expressing their gender identity, with 48% stating they wouldn’t disclose their gender to health care professionals.

Methods
A before-after study design was undertaken to review the impact a teaching intervention had on 40 medical professionals. The measures taken were five scale/rank statements assessing understanding, confidence and perceived benefit teaching may have on daily practice.

Results
Wilcoxin-signed rank statistical analysis showed significant improvement (p-value <0.05), across all measures. Therefore, we could extrapolate that teaching has great potential in improving patient care.

Key Messages
- Gender variance is an important, overlooked topic
- 48% of gender variant individuals wouldn’t disclose their gender in a medical setting
- Teaching improves understanding and confidence
- Further teaching is essential

References
1st and 2nd Trimester Fetal Screening: Are women well informed?

Authors
Thujina Thillainathan, Ganga Verma, Piyanga Athauda, Zoe Stewart, Farah Siddiqui
Leicester, Northamptonshire and Rutland (LNR)

Background
Clinical practice has shown that pregnant women have poor understanding of the purpose and implications of fetal screening. Noticeable factors such as limited engagement, language barriers and lack of continuity of care has made it difficult to obtain thorough informed consent.

Methods
We developed 2 questionnaires to gain insights on women’s knowledge. These were reviewed by 10 multidisciplinary professionals. 425 pregnant women having scans during March 2019, across 2 sites of a tertiary unit in the UK, were approached.

Results
More than 25% of women were unsure about the scan’s chance of detecting cardiac anomalies; spina bifida; and Down’s syndrome. Only 50% felt they had been given the opportunity to decline the scan. Women with English as an additional language were less likely to know that the scan could not pick up all problems in the baby (11% of EAL vs 29% native English speakers, p=0.025) or definitely identify the sex of the baby (17% of EAL vs 50% native English speakers, p=0.0004).

Key Messages
Our results concerningly suggest that women are poorly informed about 1st and 2nd trimester screening tests. More effective strategies are required to allow women to make informed choices about pregnancy screening, particularly those with English as an additional language.

References
Royal College of Obstetrics and Gynaecology, ‘Obtaining valid consent’ - Clinical Governance Advice No.6 January 2015
Teaching anatomy to pre-clinical medical students using a "personalised scaffolding technique" for exam preparation.

Authors
Dr Shaikh Sanjid Seraj
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Pre-clinical medical students at Newcastle University are exposed to didactic teaching methods when learning anatomy. Can a personalised structured scaffolding technique (PSST) positively impact their satisfaction of learning anatomy.

Methods
PSST was used across 6 anatomy teaching lectures. The PSST involved the teacher asking questions to pre-clinical medical students allowing them to formulate and reason their answers to each question. These questions followed constructivist teaching theories. Feedback forms, reflections and post-it notes were used for data.

Results
30 students had given their responses on the effectiveness of the PSST. 94% of students strongly agreed and 6% of students agreed that the PSST had a positive impact on learning anatomy. Almost over 95% of students preferred the PSST over conventional lecture based teaching sessions. Findings showed that students were more engaged, relaxed and felt the PSST allowed revision and consolidation of knowledge.

Key Messages
The PSST allowed students to feel confident in the anatomy knowledge that they had learnt during their revision. The framing and style of questioning used in the PSST was non-threatening and created an environment where students could voice their thoughts. The questions used in the PSST has elements of “explorative questioning” which created a more conducive environment to learning anatomy.

References
Spot the Incidentaloma! A Pictorial Review

Authors
Yen June Lau, Dr Ahmad Lodhi, Dr Suraj Amonkar, Dr Shyam Sunder Koteyar
North West of England

Background
We noticed that radiology teaching within the Foundation Programme was poor, with a large emphasis placed upon chest x-ray interpretation only. This leaves most cross-sectional imaging untouched. To combat this, we decided to put together a fun and interactive poster covering interesting ‘incidentalomas’ on cross-sectional imaging.

Methods
Several CT KUB cases were obtained from various radiology consultants. These cases were reviewed and optimal images exhibiting an ‘incidentaloma’ were captured for the poster.

Results
An interactive poster was generated with 5 pictorial review of cases. It was designed in a multiple-choice-question format to guide readers to a correct answer.

Key Messages
1) To increase awareness of “incidentalomas” in cross-sectional imaging. 2) To encourage more foundation doctors to review CT imaging, to demystify and generate an interest in radiology.

References
n/a. Anonymised cross sectional imaging from patient population
Period Poverty and its affect on women - a public health issue.

Authors
Katy Chisenga
South Thames

Background
Period Poverty refers to ‘being unable to access menstrual products because of financial challenges’. This poster aims to establish the extent of the UK problem and explore methods being employed to tackle it.

Methods
An electronic search was carried out for descriptive studies, specifically survey (cross sectional) studies with ‘period poverty’ +/- ‘UK’. ‘England’, ‘Wales’, ‘Scotland’, ‘Northern Ireland’. Descriptive qualitative studies with the same search criteria were sought.

Results
Charity Plan International UK has produced the only UK-wide estimate. The survey of 1000 females aged 14-21 states: 10 % have been unable to afford sanitary wear 15% have struggled to afford sanitary wear 14% have had to ask to borrow sanitary wear from a friend due to affordability issues 12% has had to improvise sanitary wear due to affordability issues 19% of girls have changed to a less suitable sanitary product due to cost’ Multiple articles demonstrated that positive movements have been set up and that the government is now intervening.

Key Messages
Limitations: only one small survey was found. There is room for a larger study that highlights regional health inequalities. However, despite this, a movement has been set up to tackle the problem which has now reached government levels.

References
https://assets.publishing.service.gov.uk/media/5c6e87b9ed915d4a32cf063a/period.pdf  https://plan-uk.org/media-centre/plan-international-uk-s-research-on-period-poverty-and-stigma
A multi-modal, practical Ethics and Law course for final year medical students

Authors
Emma Gardner, Bryn Hilton
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Teaching of Ethics and Law in medical school is generally abstract and can lack practical applicability despite being vital to clinical practice. This course was designed to assess students’ current knowledge and improve their confidence in managing common scenarios encountered by a Foundation Doctor.

Methods
An Ethics and Law course was developed using a framework of eight real cases experienced by a single foundation doctor during the previous year. The course was delivered to final year medical students in four sessions: Consent and Capacity, End of Life Care, Confidentiality, and Duty of Care and Candour. Sessions were a combination of presentation, discussion, and simulation-based learning. The course is currently being repeated for each cohort of rotating medical students.

Results
The course received entirely positive subjective and objective feedback. Pre- and post-session questionnaires were completed and sign test showed statistically significant increases in confidence across all Ethics and Law scenarios in all sessions.

Key Messages
A practical knowledge of Ethics and Law is critically important to working life as a Foundation Doctor. Final year medical students are currently under-prepared in this respect. Given the results of this course, a practical approach to Ethics and Law should be more widely implemented in medical education.

References
Peer lead mock OSCEs- a study to assess a learning tool for the summative assessment preparation

Authors
Rudrik Thakkar, Rahul Sharma, Vaishnavi Reddy, Raafae Rana, Amrita Saravanan
Wessex

Background
There is a lack of research about the student experience of being a patient actor in addition of being a candidate as part of a peer lead mock OSCEs. This study aim is to evaluate peer lead mock OSCE as a preparation tool for summative assessment.

Methods
A mock OSCE was organised by final year medical students for 36 third year medical students prior to their summative assessment at St George’s, University of London. Each student carried out roles of ‘candidate’ and ‘patient actor’ in a randomised order. An online questionnaire was carried out to assess student experience. Likert scales were used to grade responses.

Results
Thirty students responded to the online questionnaire. 100% responders either ‘strongly agree’ or ‘agree’ that the mock OSCE was useful and relevant for their summative assessment. 97% found being a patient a useful learning experience and 93% would recommend this style of mock OSCE to others. 93% either ‘strongly agree’ or ‘agree’ that the peer-lead mock OSCE is a beneficial learning tool for preparation for the summative examination.

Key Messages
Peer lead mock OSCEs was found to be useful learning tool for preparation for summative assessment. Being a patient was deemed a beneficial experience.

References
F1 Simcalls: An On-Call Simulation Programme For New Doctors

Authors
Rachel Wood, Dr. James Keitley
Severn

Background
Doctors starting their first postgraduate posts are particularly vulnerable to stress (1). Areas of concern include being on-call and managing acutely unwell patients; there is evidence that simulation is beneficial for experiencing these aspects in a safe environment (2,3).

Methods
Simulation sessions to improve on-call preparedness ran for all Foundation Year 1 doctors (FY1s) starting at one district general hospital in August 2019. 35 people took part over three evenings, responding to bleeps on wards and undertaking traditional simulations of deteriorating patients. Data were collected via pre- and post-event questionnaires. Quantitative measures were integers 1-5.

Results
Mean confidence in starting FY1 and being on-call improved from 2.63 to 3.28 (n=32) and 2.00 to 3.16 respectively (n=34). 100% of respondents (n=29) felt this simulation should be offered to everyone commencing FY1. Simulation usefulness was rated a mean of 4.65 (n=34). Qualitative data on participants’ concerns were used to provide specific feedback to the cohort.

Key Messages
Subjective measurements of preparedness for key junior doctor responsibilities increased post-intervention. Participants found this simulation particularly useful for practising responding to bleeps and managing unwell patients in a safe environment. This session is now mandatory for all new FY1s at the Trust and will be run annually.

References
Vascular E-Learning - Improving the education of a growing specialty

Authors
Aiden Moore, Harry Smith
Wales

Background
Anecdotally, vascular surgery was noticed to be an area lacking in knowledge amongst students, prompting the development of a learning resource. A survey of Cardiff Medical Students (n=89) found that 93% of students felt unconfident about vascular surgery, with 83% of students feeling that additional learning resources would be useful.

Methods
Using the Vascular Society syllabus and collaborating with the local vascular surgery department, a module outline was generated to cover 5 broad topics within vascular surgery (arterial disease, venous disease, abdominal aortic aneurysms, vascular pharmacology and lymphatic disease). These modules were initially delivered as lectures to students, to gain feedback and improve the module content to be made available online. The final online project was designed using XERTE software and was made available to students where we gained pre-module and post-module feedback.

Results
In the final module feedback, 100% of students found the online module useful. On a rating scale out of 10, students ranked themselves as increasing in confidence and knowledge by 4.3 points, on average, between their pre-module and post-module surveys.

Key Messages
This project will continue to be available to students, with the view to add more vascular resources through the year (e.g. Vascular Examination).

References
The role of interactive gamification in medical education.

Authors
Abdullahi Zubairu, Abdel-Hakim Rezgui, Emeka Okoye
North West of England

Background
Interactive gamification is an increasingly common tool in education, improving student motivation and enabling greater subject related awareness [1]. Concurrently, case-based learning improves clinical performance [2]. Technology-associated interactive learning methods, with relevant feedback are preferred by trainees [3].

Methods
30-minute, interactive teaching sessions were delivered, via clinical cases to final year Manchester medical students. Assessments were conducted via Kahoot! with immediate feedback. A senior clinician reviewed case presentations and supervised sessions for quality assurance. Student feedback was implemented via weekly facilitator meetings.

Results
39 unique teaching units were recorded. Quantitative outcomes were recorded as session usefulness – 98.7%, content relevancy 98.46%, teaching standard 97.44% and overall session evaluation – 97.95%. All students felt more confident after sessions. Qualitative outcomes reflected interactive gamification as the highlight of sessions and an effective assessment medium, with increased engagement.

Key Messages
We believe case-based sessions and assessment using interactive gamification, facilitates effective learning. Students remain positively engaged and feedback supports greater knowledge retention. We propose more extensive utilisation of technology-based interactivity in medical education and support the calls for its increased use in current literature [1].

References
Improving FY1 doctor satisfaction with the core teaching programme at Tameside General Hospital through peer-led teaching.

Authors
Ioanna Antoniou, Michael Kelly
North West of England

Background
Foundation doctors' core teaching programme is crucial in facilitating the transition from university to the workplace. Having reviewed last year’s feedback on FY1 teaching at Tameside General Hospital (TGH) and the Northwest deanery suggested curriculum topics, we aimed to improve new FY1 doctor satisfaction on teaching at TGH by 10%, through 3 peer-led teaching modalities: theme based peer-teaching, simulations, and 'lessons learnt' sessions.

Methods
Data was collected through FY1 feedback summary sheets from August 2018 to May 2019, which included six sessions of each peer-led teaching modality. The mean global scores awarded to each teaching session were compared.

Results
The mean score for all sessions arranged as part of the standard teaching programme was 86% SD ± 2.42. Peer-lead teaching had a mean of 97% SD ± 0.58. The p-value for the data is 0.000862 proving statistical significance. Therefore, peer-lead teaching did meet the target of improving satisfaction by a mean of 10%.

Key Messages
Overall, this quality improvement project supports that junior doctor satisfaction is improved with F1 arranged teaching sessions over the standard programme. Limitations and additional findings were also explored, and further improvements recommended.

References
Foundation doctors as medical educators: a national survey of what medical students want

Authors
Harry Spiers, Robert Brown, Thomas Hewson, Shahd Mobarak
North West of England

Background
Foundation doctors are important providers of medical education, often having daily interactions with medical students. However, regular near-peer teaching is often unachievable owing to busy clinical environments. With the foundation curriculum requiring doctors to develop as educators, and students needing education, there may be a role for protected foundation doctor teaching in the undergraduate curriculum. Medical student opinions of junior doctor teaching are variable and this requires formal quantification.

Methods
A survey questionnaire was disseminated to clinical years medical students via social media, from April 2019 to September 2019.

Results
The survey received 310 responses from medical students at 38 of 42 UK medical schools. Third year students made up 27.3% of responses with fourth- and fifth-year students making up 31.7% and 41.0%, respectively. Students were most commonly taught by foundation doctors in the setting of bedside teaching (85.1%), but this was the preferred learning environment for only 47.9% of students. Over 92% of students state they want more foundation doctor teaching, as part of their curriculum.

Key Messages
Medical students want more foundation doctor teaching. With careful planning, this could delivered during protected time, within the undergraduate curriculum. Foundation doctors would have to undergo training and quality control assessment before teaching occurred.

References
Creating an undergraduate journal club for East Lancashire Hospitals Trust (ELHT)

Authors
Nikhita Handa, Sanjeev Pramanik
North West of England

Background
The General Medical Council (GMC) requires newly qualified doctors to ‘apply scientific method’ in delivering patient care and describes the clinician as a ‘scholar and scientist’ [1] [2]. These skills can be challenging to incorporate into a curriculum but are vital to learn. Journal clubs are an effective way to introduce undergraduates to evidence based medicine (EBM) [3]. We aimed to foster undergraduate medical student interest in EBM through journal clubs and statistics teaching.

Methods
ELHT staff reflective reading group was evaluated to create a student template. Qualitative data on student understanding is being generated by participant satisfaction surveys. Quantitative data is generated by a statistics test for initial competence and confidence.

Results
Data on the established staff reflective reading group within ELHT showed 100% of attendees described the training as ‘good’ or ‘excellent’ on a five item Likert-type scale. 100% of participants would recommend the training. Ongoing data collection is underway from students to evaluate their confidence, knowledge and retention of skills.

Key Messages
Introducing the concepts used in critical statistical analysis is vital for future clinical practice. From literature on journal clubs and evaluating staff journal clubs we designed a model which can effectively and interactively deliver undergraduate EBM teaching.

References
Improving Foundation Programme teaching: a regional trainee-led initiative in the North West

Authors
Silvian Tan, Alex Cawley, Sabine Jamal, Catriona Boyd
North West of England

Background
The Foundation trainee experience of inconsistent teaching quality is a commonly recurring theme discussed at the North West Foundation Forum (NWFF) which comprises of Foundation trainees in the region. To improve the quality of our core teaching, we sought to gain a unique insight into the factors contributing to the effectiveness of and areas of deficiencies within our Foundation teaching programmes.

Methods
We performed a region-wide analysis of NW foundation teaching programmes which resulted in an electronic F2 trainee survey (currently in progress) on their experience of F1 core teaching, disseminated through NWFF representatives on multiple platforms. Final data analysis will be performed at both regional and trust levels.

Results
Preliminary analysis reveals a mean rating of 6 for overall satisfaction on an ascending Likert scale of 1-10 (10=excellent). We found that the most useful teaching sessions were delivered by registrars and in the format of case-based discussions. Subject areas viewed to be insufficiently represented include surgery, acute care, general practice, women’s health and paediatrics.

Key Messages
We established a dynamic method to produce data-driven individualised information for Foundation representatives to drive positive changes within their local teaching programmes, which is an invaluable resource in designing effective teaching programmes for Foundation doctors.

References
The Academic Foundation Programme Course

Authors
Rebecca Lissmann, Michael Zervos
Peninsula

Background
The Academic Foundation Programme (AFP) provides unique opportunities for Junior Doctors to develop skills. Many medical schools provide limited advice and support regarding application and interview for AFP jobs. Students at supportive medical schools may be more likely to apply successfully.

Methods
A five-part course on ‘How to Get an AFP’, aiming to widen access, has been designed and taught by two Academic Foundation Doctors. The course is regional and open to all medical students in the area. The topics have covered information on the AFP, writing white space questions, critical analysis of papers, clinical stations, interview skills and mock interviews.

Results
To date the course has been well attended by students from both Plymouth and Exeter Medical Schools. Feedback collected at the end of each teaching session has been positive, and has allowed refinement and improvement of the course.

Key Messages
There is currently a dearth of information, advice and support for medical students interested in applying for the AFP. We propose a simple solution; a regional teaching course which has filled this need. The model could be replicated in other deaneries, or reflected upon by medical schools which offer little support.

References
Simulated Hour On-Call and Bleep Roulette for Medical Students

Authors
Hao Meng Yip, Jessica Joseph, Osman Janjua
North Central and East London

Background
Newly qualified junior doctors often feel underprepared for the increased responsibility and independence in out of hours on-call shifts.

Methods
We organized two teaching simulation programmes in a preparation for practice module for final-year medical students. The Hour On-Call programme provides participants with a physical simulation of an hour on call on the wards. The Bleep Roulette programme is designed with the aim of training clinical decision-making skills under pressure where students hold a notional “bleep” and manage a constant stream of typical on-call telephone conversations and clinical scenarios.

Results
51 students completed post-course questionnaires for Hour On-Call and 38 students completed post-course questionnaires for Bleep Roulette. 26 students (72%) gave a rating of 5 and 10 students (28%) gave a rating of 4 for the overall evaluation of bleep roulette; on the other hand, 48 students (94%) gave a rating of 5 and 3 students (6%) gave a rating of 4 for the overall evaluation of Hour On-Call. 35 students (97%) report improved confidence following Bleep Roulette and 51 students (100%) report improved confidence following Hour On-Call.

Key Messages
We hope that both programmes can be more widely adopted. We believe they are useful in preparing final-year medical students for on-call responsibilities.

References
Abstracts

Poster Presentations

Case Reports Group 1
A Rare Case of a Retroperitoneal Leiomyoma with Malignant Transformation

Authors
Sotonye David-West
Scotland

Background
Leiomyomas (fibroids) are benign tumours commonly found within the uterine cavity. However, leiomyomas found within the retroperitoneum are rare. The incidence of primary retroperitoneal leiomyomas is 0.5-1.2%. We report a 38-year-old female who presented with a growing abdominal mass, increased urinary frequency and menorrhagia.

Methods
Analysis of pre-operative ultrasonography, post-operative computed tomography and magnetic resonance imaging, histopathology staining, macro and microscopic sectioning and a review of the literature.

Results
Pre-operative ultrasonography identified a 20-week sized uterine mass however intra-operatively a large, multi-loculated retroperitoneal mass was posteriorly attached to the uterus. Post-operative CT and MRI confirmed a growing 18.1 x 20.0 x 22.3 cm residual retroperitoneal mass. Pathology findings of the initial mass removed were consistent with a retroperitoneal leiomyoma (no obvious necrosis, immunohistochemical staining strongly positive for desmin, SMAM and SMM, epithelial markers AE1/AE3 negative). However, the remaining retroperitoneal mass removed six months later showed scattered multinucleate cells, enlarged atypical cells and mitotic figures concluding these the appearances of that of a grade 1 leiomyosarcoma.

Key Messages
Retroperitoneal fibroids are rarely diagnosed pre-operatively even with ultrasonography, CT and MRI but once diagnosed required regular monitoring and follow-up. Malignant transformation must be considered in fast growing tumours.

References
Necrotising Fasciitis Complicating A Spider Bite

Authors
Jessica Coulthurst
North West of England

Background
Necrotising Fasciitis developing secondarily to a minor penetrating injury such as an insect bite is described in the literature however its incidence in the UK is rare. A man in his 30’s presented to the A&E Department systemically unwell and with a red, swollen and painful upper right arm following a suspected spider bite. Group A Streptococcal infection was confirmed and despite 48 hours of IV antibiotics and fluids, the patient continued to deteriorate and was taken to theatre. Intraoperative findings confirmed Necrotising Fasciitis occupying the entire circumference of the upper arm which required extensive debridement and washout and consequently skin grafting.

Methods

Results

Key Messages
This case highlights the high index of clinical suspicion required in diagnosing Necrotising Fasciitis, especially in an otherwise young and healthy patient.

References
Phyllodes tumour: case report and knowledge summary of a rare fibroepithelial breast tumour.

Authors
Gwen Cartwright
Wales

Background
Phyllodes tumours of the breast are rare, fast-growing, fibroepithelial tumors that make up <1% of breast neoplasms (1). Commonly mistaken for fibroadenomas, the ratio of incidence is approximately 40:1. Most Phyllodes tumours are benign, but can also be classified as borderline or malignant based on histological features. Metastasis is rare (<5%), although 25% of malignant Phyllodes tumours metastasise. Treatment is usually surgical to resect the tumour with clear margins. Follow up depends on the classification, with up to 20% of Phyllodes tumours recurring locally (2).

Methods
This poster describes a case of Phyllodes tumour presenting to the GP with a tender lump. The patient underwent triple assessment including a mammogram and US-guided biopsy. The patient’s decision about treatment was complicated as due to being a Jehovah’s witness, an advanced directive was in place refusing any blood products. Ultimately the tumour was treated surgically with wide local excision.

Results

Key Messages
This poster discusses the presentation, initial investigations, histological and radiological findings, and management of Phyllodes tumours.

References
Spotted at the Door: A Community Outbreak of Measles Spreading in a Healthcare Setting

Authors
Gus Redhouse White
Trent

Background
Measles is a highly infectious, vaccine preventable disease. Whilst measles, mumps and rubella vaccine coverage has improved since the dip at the turn of the century [1], confirmed case numbers remain high and the UK is no longer trending towards elimination [2]. We performed a review of an outbreak of measles in Nottingham in May-July 2019.

Methods
Initial cases were identified on our national health protection system. Subsequent days were reviewed for reports of measles in Nottinghamshire. These reported cases were analysed, creating an overall list of microbiologically confirmed measles with possible epidemiological links.

Results
One index case from a local Roma community was identified, presenting to a Nottingham hospital in May 2019. Over the next 3 weeks, 6 further cases of measles presented from the same community. In subsequent weeks, 32 more cases were identified, likely contracted from the initial hospital exposure. These 32 cases were a mix of primary measles and re-infections in immunised individuals, with a case mix of healthcare staff, patients and community members.

Key Messages
Whilst this was originally a community-based outbreak, secondary cases could have been prevented with prompt recognition and isolation at presentation. Local healthcare services have learnt from the management of this outbreak.

References
A case of antibiotic resistant mycoplasma genitalium infection successfully treated with non-standard therapy

Authors
Bibiana Aiyegbeni, Dr Ruth Taylor
Trent

Background
Mycoplasma genitalium is an increasingly sexually transmitted infection (STI) in the UK(1). Antibiotic resistance is common, with up to 40% macrolide resistance rate in the UK(2).

Methods
AP, a 36 year-old Caucasian male attended a genitourinary medicine clinic with urethral discharge and dysuria. His sexual history included protected sex with 25 male partners in last three months, previous syphilis and gonorrhoea. Microscopy of urethral discharge suggested non-gonococcal urethritis (NSU), so he had a one-week course of doxycycline. STI tests were subsequently positive for chlamydia only. He returned a few weeks later with ongoing symptoms, and M.Genitalium PCR was requested. He was not treated further as microscopy at this point showed mucous only. M.Genitalium was positive with fluoroquinolone and macrolide resistance. During a further review, he was asymptomatic and repeated chlamydia and M Genitalium tests were negative.

Results
N/A

Key Messages
Access to M.Genitalium testing is often limited. This case suggests that many men will clear the infection with doxycycline alone, despite this not being an advised treatment, and potentially rationing of M.Genitalium testing for those with persisting NSU symptoms(3). However, our patient’s journey was longer than if routine primary M.Genitalium testing was conducted in all NSU cases, as per the BASHH guidelines(3).

References
Intermittent ileocaecal intussusception: an occasional cause of intermittent abdominal pain in adults.

Authors
Samuel Clarkson, Jayan George, David Hettle, Lesley Hunt
Yorkshire and Humber

Background
Intussusception is the most common cause of bowel obstruction in children; however, it is rare in adults, and is almost always associated with underlying pathology. Intermittent cases present a particular diagnostic challenge. We describe the case of a 26 year-old male medical student who over a three-year period was admitted to four hospitals, across three countries, with short-lived central abdominal pain. On the fifth occasion the diagnosis was made but the patient had an irreducible intussusception requiring resection of 30cm of terminal ileum. If a diagnosis had been possible sooner, this patient could have had surgery earlier. Potentially, this could not only have prevented subsequent pain but also resulted in a laparoscopic approach and a more limited resection and preservation of more terminal ileum.

Methods

Results

Key Messages

• Intussusception is a highly treatable cause of bowel obstruction in adults and should be considered in patients with recurrent abdominal pain and obstructive symptoms.

• Imaging during an episode of pain has higher diagnostic value than more invasive tests between attacks.

• Ultrasound examination can be a highly effective tool during an acute episode.

• Adult intussusception is rarely idiopathic and cases which resolve spontaneously should be investigated to identify underlying pathology.

References
Euglycaemic Diabetic Ketoacidosis and Empagliflozin: A Case Report

Authors
Jasmine Kew, Thomas Griffiths
Wales

Background
Several key papers identifying the cardio- and reno-protective benefits of sodium glucose transporter inhibitors in patients with type 2 diabetes have been published in recent months. Thus, the use of these medications in this patient cohort has become commonplace. One of the recognised but very rare side effects of these medications is that they can result in patients developing diabetic ketoacidosis.

Methods
We herein describe a case of diabetic ketoacidosis occurring in a patient with type 2 diabetes taking empagliflozin. Despite high ketones and a pH less than 7.3, the patient had a normal serum glucose concentration, a ‘euglycaemic diabetic ketoacidosis’. We then performed a literature search to determine the possible pathogenesis of its development.

Results
The patient was treated with intravenous fluids and insulin as per hyperglycaemic diabetic ketoacidosis and empagliflozin was discontinued. He made a full recovery.

Key Messages
With new research highlighting the renal and cardiovascular benefits of prescribing sodium glucose transporter inhibitors SGLT 2 inhibitors (‘gliflozins’) to patients with type two diabetes, many more patients are being seen on these medications. Euglycaemic diabetic ketoacidosis is a rare complication associated with their use and one that may be easily missed in the acute medical department with associated high morbidity and mortality.

References
Could elevated CRP be a new indicator of poor prognosis following MI?

Authors
Jordan Faulkner, Francis Kalu, Mickey Jachuck
Northern

Background
An 87-year-old male presented with headache on background of recent pPCI for STEMI. The headache was later attributed to C6 nerve impingement, as evidenced by cervical spine MRI. Incidentally, CRP was massively raised.

Methods
During a long period of intense investigation, no alternative cause for this was found. During this investigation the patient died suddenly on the ward. Post-mortem showed no evidence of inflammatory disease and cause of death was documented as ischaemic heart disease.

Results
Previous studies have shown that elevated CRP or CAR is a poor prognostic indicator after ACS, and in those having undergone PCI. The levels of inflammation in this case were much higher than what would be expected to be attributable to vascular inflammation post-stenting, and far higher than previously documented in related studies.

Key Messages
This leaves us with the question: ‘should otherwise unexplained, elevated CRP after PCI for MI lead to cardiology referral for consideration of ICD insertion’.

References
Hashimoto’s thyroiditis – a cause for hypercalcaemia?

Authors
Shahd Mobarak, Munir Tarazi, Bence Forgács, Harry Spiers
North West of England

Background
Hypercalcaemia can be caused by many disorders. Primary hyperparathyroidism is the leading cause with parathyroidectomy being the definitive management. Familial hypocalciuric hypercalcaemia is a rarer cause in which resection of the parathyroid tissue does not result in normalised serum calcium.

Methods
We report the unusual case of a 53-year-old lady who presented with hypercalcaemia and primary hyperparathyroidism and was found to have concurrent familial hypocalciuric hypercalcaemia.

Results
The cause of this woman's hypercalcaemia is unknown. Serum calcium completely resolved on surgical resection of the thyroid and parathyroid tissue, however histopathology revealed normal parathyroid glands and florid Hashimoto's thyroiditis, raising the possibility of a link between the two.

Key Messages
Our case demonstrates the diagnostic dilemma in hypercalcaemia that may lead a patient to undergo unnecessary invasive procedures. This case raises the interesting possibility of a link between Hashimoto's thyroiditis and parathyroid disease. Further studies in this area is required to ascertain the link between these two conditions.

References
A rare cause of embolic stroke

Authors
Agnieszka Felska, Dr Sevast Ispoglou, Dr Emily Ho, Dr Christine Wright
West Midlands Central

Background
Left ventricular noncompaction (LVNC) is a cardiomyopathy characterised by the presence of a trabecular layer within the myocardium. Systemic embolisation can occur, secondary to mural thrombi formation. We report a case of a patient with a background of beta-thalassaemia presenting with recurrent embolic events secondary to LVNC, successfully managed with dual anticoagulation therapy.

Methods
Case report

Results
A 36 year old male with a background of beta-thalassaemia and splenectomy-related thrombocytopenia presented with confusion and visual disturbance. Imaging confirmed presence of shower emboli. Echocardiography showed a restrictive filling pattern and calcification at the left ventricular outflow tract. He was commenced on warfarin, but suffered further embolic events. Following discharge further cardiac imaging confirmed the diagnosis of LVNC in the absence of cardiac siderosis. He is currently treated with warfarin and clopidogrel and has had no further events at 18 months follow up.

Key Messages
LVNC is a rare but important cause of stroke and appears separate in aetiology to the hypercoaguable state caused by iron loading in patients with beta-thalassaemia. Dual anticoagulation may prevent further events particularly in patients post-splenectomy. Further research is needed to help identify high risk patients and optimise management.

References
Utilisation of a side-viewing duodenoscope and insertion of a fully covered self-expanding metallic stent (fcSEMS) in a patient presenting with haemobilia

Authors
Yi Chuen Tan
North Central and East London

Background
Introduction  Haemobilia describes bleeding from the biliary tract and classically presents as Quincke's triad: upper gastrointestinal bleeding (UGIB), jaundice and right upper quadrant abdominal pain.[1]

Methods
Case Presentation  A 70-year-old male with background of a previously stented Bismuth type 1 hilar cholangiocarcinoma, presented with haematemesis. He had a similar presentation one month ago where a gastroscopy identified altered blood in the distal stomach with no visible source of bleeding. During this admission, duodenoscopy identified bleeding in the periampullary region, which was treated therapeutically with insertion of a fcSEMS within his previously uncovered SEMS to tamponade the haemorrhage.

Results
Discussion/Management  • Forward-viewing gastroscopes provides limited visualisation of the periampullary region; hence we recommend using a side-viewing duodenoscope in patients where normal gastroscopy fails to identify a source of bleeding.  • Malignancy may lead to haemobilia due to increased vascularity and friability of tissues.[2]  • Haemobilia can be effectively treated by the insertion of a fcSEMS within a covered SEMS as it exerts an outwards pressure, tamponading the bleed.

Key Messages
Key messages  This case report highlights how we should have a higher index of suspicion of haemorrhage from the biliary tree in patients who present with UGIB with underlying cholangiocarcinoma, for which side-viewing duodenoscopy is most appropriate for therapy.

References
Saved from the knife by an AKI: Granulomatosis with polyangiitis presenting as a solitary cavitating lung lesion

Authors
Dominic Dewson, A Singh
Peninsula

Background
A 46 year old male presented initially with fever, cough and right sided pleuritic chest pain, as well as a five years history of constitutional symptoms including night sweats and weight loss. Chest x-ray and subsequent CT thorax identified a 5.5cm cavitating chest lesion. The lesion was felt to represent a primary lung cancer and the patient was referred for surgical excision. However, at the surgical pre-assessment a significant drop in renal function was noted. C-ANCA antibodies were found to be positive and kidney biopsy showed changes consistent with a diagnosis of granulomatosis with polyangiitis.

Methods

Results

Key Messages
GPA can present in many different fashions and transverses so many different specialties, if physicians don’t keep it at the back of their mind then it is easily missed. Urine dip, consideration of a vasculitis screen and early kidney biopsy are the key learning points to identify this challenging presentation before multi-system involvement or end organ failure.

References
Case report: Bipartite Patella Fracture with Quadriceps Tendon Rupture

Authors
Chryssa Wei Yin Neo, Alistair Littlewood
Scotland

Background
Fracture of a bipartite patellar is very rare. This in combination with a quadriceps tendon rupture is rarer still. We have described the case of a relatively fit and co-morbid-free patient who presented with what was initially thought to be a patellar fracture, but which quickly became apparent was a separated bipartite patella in combination with a ruptured quadriceps tendon.

Methods
Case notes for 55 year old man who presented to Dumfries & Galloway Royal Infirmary with knee pain and inability to straight leg raise. Comparing the management of this case with similar reported cases.

Results
X-rays were taken of his right knee which showed a bipartite patella fracture. The following day there was extensive bruising superior to the patella and the inability to straight leg raise persisted. Clinical suspicion was therefore raised, at this point, of a quadriceps tendon rupture in addition to the bipartite patella fracture. The plan subsequently changed to reduction of the bipartite patella with repair of the quadriceps tendon followed by 6 – 8 weeks immobilisation.

Key Messages
There are few reported cases of combined patellar fracture with quadriceps tendon rupture. This type of presentation provides several initial diagnostic challenges requiring the clinician to think sceptically about the mechanism of injury in combination with the deficits in joint movements. Once this clinical suspicion has been raised the subsequent management plans and post-operative recovery plans vary significantly. It is therefore important for the clinician to keep this differential diagnosis active until confidently excluded.

References
On a knife-edge: clinical uncertainty with an extensive knife blade in situ in the craniofacial region

Authors
Dairui Dai
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Extensive penetrating injuries to the orbit and craniofacial region without cerebral involvement or neurovascular sequelae are a rare occurrence in the literature. Penetrating injuries can be deceptive as the entry wound may conceal the extent of the injury. Further management depends on structures involved but due to the multiple possible structures involved in these injuries, a multidisciplinary approach is often necessary. Foreign bodies should be removed as soon as possible to avoid complications such as translocation, bleeding and infection. We present the case of a 25-year-old man with an extensive penetrating injury to the orbit and facial structures with a 10.8 cm blade with no neurovascular and ophthalmological compromise.

Methods
Results
Key Messages
A multidisciplinary approach is crucial to managing penetrating injuries to the craniofacial region. Foreign objects penetrating into the maxillofacial region should have a maxillofacial review as the priority. Extensive penetrating injuries should not be trivialised if the patient is clinically stable, patients should be closely monitored in a resus area or equivalent while awaiting definitive management. For penetrating injuries with suspicion of retained foreign body with no access to CT imaging, plain skull X-ray is indicated and can be valuable to further management.

References
A rare cause of young stroke

Authors
Arjun Nehra, Wassim Merzougui
Trent

Background
Homocystinuria is a very rare cause of stroke. It is caused by a deficiency in the cystathionine beta-synthase enzyme (1) and follows an autosomal recessive pattern of inheritance.

Methods
We describe a 28-year-old male who presented with sudden onset left sided weakness of the face, arm and leg, collapse and transient unconsciousness. On examination left sided inattention and a left homonymous hemianopia was noted. Clinically it appeared to be a right-sided total anterior circulation stroke. The only past medical history was a deep vein thrombosis of the left leg 4 years previously.

Results
CT head showed an infarct in the right hemisphere, and all standard stroke investigations were normal, including echocardiogram, MR angiogram and serum autoantibody testing. It transpired that the patient had homocystinuria.

Key Messages
Homocystinuria is an important differential to consider in young stroke patients, especially those who have tested negative on the standard investigations. It predisposes to ischaemic stroke by causing severe atherosclerosis, and other complications may be noted, including history of coronary heart disease, osteoporosis and mitral valve prolapse. It is also important to consider other metabolic causes of stroke, for example Fabry's disease (2), a lysosomal storage disease.

References
An Unexpected Encounter

Authors
Ivana Lutchman
Trent

Background
Case Summary: A 44 year old woman presented to hospital with a 4 day history of a gradually worsening pruritic rash. It initially started on her neck and then spread to her chest, back and face, with a few developing on her legs. She also had a sore throat which started a few days prior to the rash. On examination, the rash consisted of maculopapular erythematous circular lesions that were starting to coalesce over her neck, chest, upper back and face. They were non blanching. The rash appeared to be measles, but this was uncertain. A dermatology referral was made and she was isolated with contact precautions.

Methods

Results
Outcome: The next day the dermatology team confirmed the rash to be measles and discharged her for home isolation. Viral PCR results from a mouth swab confirmed measles 3 days later. She was reassured that this would resolve without specific treatment and that lots of rest and fluids would suffice.

Key Messages
1. Globally, measles led to an estimated 110,000 deaths, most occurring in children aged under 5 years (1,2) 2. Travellers have brought measles cases into the UK recently, and these are expected to continue. The anti-vaccination movement is also influential in parts of the US and Europe (3)

References
A rare case of PEComa of the Liver

Authors
Naomi Piscopo, Dr. Abigail Attard, Dr. John Schembri, Dr. Kelvin Cortis, Dr. Pierre Ellul
Malta

Background
A 69-year-old Caucasian male underwent CT in view of abdominal discomfort. This showed a 4.5x3.3cm hypodense mass in segment VI of the liver. MRI confirmed a lesion hyperintense on T2, hypointense on T1, exhibiting peripheral continuous enhancement on the arterial phase without contrast uptake in the venous and hepatobiliary phases and no intralesional fat on chemical shift imaging. Differential diagnoses include hepatocellular and cholangiocarcinoma. Histological biopsy demonstrated a clear cell neoplasm with immunostaining suggesting a perivascular epithelioid cell tumour (PEC). Endoscopy and PET-CT were performed to identify other malignancies. Given the histology and radiological malignant features, the lesion was resected. Histology was consistent with a hepatic angiomyolipoma (HAML), the neoplastic elements being positive for HMB-45 and Melan-A. Angiomyolipomas are mostly found in kidney. HAMLs are commoner in females and are asymptomatic. They are classified as PEC, capable of differentiating into vascular smooth muscle and epithelial cells. They express melanoma cell marker HMB-45, being only positive in HAML and hepatoblastoma.[1] HAML histological compositions vary, hence are difficult to differentiate.[1] They are sometimes seen in tuberous sclerosis.[2] Correct preoperative diagnosis is less than 25%. Because of its malignant potential, risk of bleeding and tumour rupture, surgical resection is the treatment of choice.[1]

Methods

Results

Key Messages

References
Hepatitis B vaccination as a cause of misdiagnosis of hepatitis B infection in haemodialysis patients: recommendations for avoiding diagnostic confusion.

Authors
April Wilson, Robert Jackson, Jim Moriarty, Severn

Background
This case report details two patients with dialysis-dependant end stage renal failure who tested positive for hepatitis B surface antigen (HBsAg). The patients had recently been routinely screened for blood borne viruses, however both had also received Hepatitis B surface antigen vaccines within the preceding 2 weeks prior to testing positive.

Methods
Using historical data we constructed a timeline that allowed us to track when each patient had been vaccinated, the washout period prior to re-testing and the several rounds of laboratory results along with discussions between teams managing a potential hepatitis B outbreak.

Results
Due to the washout period we were unable to confidently differentiate between a re-activation of hepatitis B/new infection and a false positive result. The consequences of this lead to the isolation of patients, multi-professional input, re-testing on multiple assays, local Health Protection Team involvement and patient distress.

Key Messages
Renal Association guidance does not recommend a washout period following vaccination. The evidence suggests that transient HBsAg positivity can occur in patients following HBV vaccination. Yet, this positivity is unlikely to persist beyond 14 days. Given the higher dose vaccines in renal patients and the cases noted we recommend an extended washout period is considered to avoid potential false positives.

References
Abstracts

Poster Presentations

Quality Improvement Group 1
**Time equals Tissue: An audit of time to imaging and revascularisation in patients admitted with critical limb ischaemia**

**Authors**
Chee Yee Hew, F. Middleton
Scotland

**Background**
The Provision of Vascular Services for Patients with Vascular Disease 2018 document recommends patients admitted with critical limb ischaemia (CLI) receive investigation for revascularisation (imaging) in less than 48 hours and primary revascularization in less than 5 days from admission. This follows the implications of delays to the patient with a CLI, primarily increased risk of amputation.

**Methods**
A prospective audit of patients admitted with CLI to Ninewells Hospital between 1st December 2018 – 31st March 2019. Data collected included: demographics, time to angiography and time to revascularisation.

**Results**
Sixty-two patients were included. Mean age was 70.5 years; female n=19, male n=43. Fifty-nine had an angiogram: Computerised Tomography Angiography (CTA) n=37; Digital Subtraction Angiography (DSA) n=19; Magnetic Resonance Angiography (MRA) n=3. Mean time to CTA, DSA and MRA was 3.2, 5.7 and 5.7 days, respectively. Forty revascularisation procedures were performed (Endovascular n=32, Open n=8), mean time to revascularisation was 8.6 days. Overall 62.7% of patients had angiography out-with the guideline timeframe; and 63% received revascularisation out-with the guideline time frame.

**Key Messages**
Recommended times to imaging and primary revascularisation have not been achieved, raising the questions of the inpatient systems in place and allocation of resource to this critical condition.

**References**
Stethoscope hygiene

Authors
Priyanka Boylla, Josephine Webb
Leicester, Northamptonshire and Rutland (LNR)

Background
A QIP conducted at Northampton General Hospital with the aim to reduce the risk of healthcare-associated infections, by raising awareness of the gold standard of stethoscope hygiene.

Methods
We initially swabbed the stethoscopes of 40 surgical and medical doctors to determine the contamination rates. Screensavers were then rolled out on trust computers for two weeks to highlight the importance of stethoscope hygiene and demonstrate optimal techniques. Stethoscopes were re-swabbed to ascertain the impact of the intervention. Questionnaires were done to determine how often stethoscopes were cleaned and any barriers to this. A pilot teaching session was then delivered to a group of FY1s and their stethoscopes were re-swabbed a fortnight later.

Results
Our survey showed ~20% of doctors go >30 days between cleaning their stethoscopes. A pre-intervention audit of 34 swabs found 45% of stethoscopes were contaminated with organisms, including Pseudomonas and Staphylococcus. This remained static following the screensavers. However following teaching this reduced to 25%

Key Messages
Hand hygiene has become second nature within the NHS. With the impact of health-care associated infections being well documented, the substandard sanitisation of stethoscopes is unacceptable and needs to be brought to the forefront of all health professionals minds.

References
Optimising the Reconciliation and Administration of Medications used in the Management of Parkinson’s Disease on Admission to the Acute Assessment Unit: A Quality Improvement Project.

Authors
Hannah Gil
North West London

Background
Patients with Parkinson’s disease have complex medication regimes with highly individualised dosing schedules. Omitted doses lead to increased length of hospital stay, symptom deterioration and negative patient experience (1-3). Guidance at national and local level states 100% of dopaminergic and anti-cholinergic medications used to manage Parkinson’s disease should be administered within two hours of the scheduled dosing time (4).

Methods
Data on the first dose of these medications due following admission to the Acute Assessment Unit at Chelsea and Westminster Hospital was collected retrospectively from electronic prescribing records over a three-month period. Doctors involved in the medical take were educated and stock was updated to include the most commonly encountered medicines. Feedback was delivered to the acute medicine department and at the neurology clinical governance meeting.

Results
Baseline audit identified only 56.6% (n=83) of initial doses were administered on time. Delayed prescribing accounted for most omitted or delayed doses (83%). Re-audit showed the proportion of medicines administered on time increased by 14.8% following the interventions.

Key Messages
Incorporating education into the induction program of relevant junior doctor groups and publication of a trust guideline informing prescription of Parkinson’s disease medications are recommended next steps to establishing further and sustained improvements.

References
The Audit of Audits

Authors
Simran Kooner, Craig Lambert
Wessex

Background
All doctors are expected to participate in clinical audit. This is a central process in the assessment and improvement of services. This audit examined our own system of clinical audit in the Anaesthetic Department at QAH. Does our audit process meet the gold standard? Are we making SMART (specific, measurable, assignable, relevant, time-based) recommendations and implementing them? Are we re-auditing? Essentially, are our audits improving practice or are they paperwork exercises for a portfolio?

Methods
Every available audit completed by the department from February 2015 to December 2018 was analysed. This involved reviewing presentations and reports and contacting those involved. This enabled the evaluation of how accessible information from past audits was, how SMART recommendations were and whether or not they had been implemented. The total re-audited was noted.

Results
141 recommendations were made from 44 audits. 23 of these recommendations were SMART. 11 SMART recommendations were implemented. 5 audits were re-audited.

Key Messages
It is important for audits to be accessible and for recommendations to be SMART otherwise the likelihood of implementation is low. In addition, an audit cycle is not complete without a re-audit. Due to these findings we are implementing changes to enhance the entire process of audit at QAH.

References
Changes in Clinician and Foundation doctor Self-appraisal of Assessment of Capacity and Consent following Educational Intervention.

Authors
Motaz M S ABULAILA, Professor Sam Dearman
Northern

Background
Due to the pressured and often autonomous nature of contemporary clinical work, our workforce often face ambiguity with regards patient’s ability to give agreement, informed consent1 and capacity2,3 for treatment. Understanding the legal aspects of these concepts prevents potential poor practice with regard to patient and practitioner legal rights4. All clinicians, and especially Foundation doctors as the corner stone of future of medical services need to understand these issues.

Methods
We used an evaluation survey with Likert scales to assess the effectiveness of a bespoke educational intervention, a 60 minutes knowledge based session with interactive, facilitated vignettes, covering medicolegal concepts and implications of agreement, assent, consent and capacity within a multi-disciplinary group of clinicians and foundation doctors.

Results
17 Practitioners (doctors, nurses, occupational therapist and police) completed this intervention. Only 18% reported adequate understanding of the difference between assent and consent in pre-evaluation. This has markedly increased to 100% post intervention. 100% of the audience approved that this is an important topic for staff development.

Key Messages
This concentrated brief educational intervention represents a simple and achievable method for improving staff knowledge as to capacity and consent.

References
A ‘lessons learnt’ presentation that enhanced Foundation Doctor’s knowledge and competency of administering IM adrenaline for anaphylaxis at the Royal Liverpool and Broadgreen University Hospital (RLBUHT)

Authors
Rose Smith, Harriet Clift
North West of England

Background
Prompt treatment in anaphylaxis is paramount to survival. Having been involved in acute management of anaphylaxis, two Foundation Year One (FY1) doctors presented reflection around the case. They further evolved ‘lessons learnt’ around the incident by surveying practical knowledge and skills of managing anaphylaxis among peer FY1 colleagues. This quality improvement project aimed to assess the effect of teaching on doctors’ knowledge and competency of administering IM adrenaline in anaphylaxis.

Methods
A ‘lessons learnt’ presentation to 40 FY1 Doctors outlined management of a case of anaphylaxis at RLBUHT. Pre and post-teaching surveys assessing knowledge and confidence in administering adrenaline in anaphylaxis were completed by the foundation cohort.

Results
The first cycle of this audit showed that 3% of FY1 doctors knew the correct location of adrenaline in clinical areas, 97% reported not feeling competent drawing up and administering treatment. Following the lessons learnt teaching, knowledge of the location of adrenaline for anaphylaxis on the ward improved to 66%. Confidence administering adrenaline increased from 10% to 30%.

Key Messages
- Teaching is required to ensure anaphylaxis is managed appropriately– now formally introduced into the Foundation induction at RLBUHT
- Additional practical teaching is needed to improve confidence administering adrenaline

References
Awareness of glucagon role and location in anaphylaxis amongst staff working in anaesthesia.

Authors
Dafydd Phillips
Wales

Background
Glucagon is used in the treatment of adrenaline refractory anaphylaxis for patients who are taking Beta blockers. Its role in the treatment of this potentially life threatening condition means that it is imperative that it is easily accessible when required. In recognition of this, National audit projects-6 (NAP-6) the guidelines state that glucagon must be readily available (within 10 minutes away) and that stickers should be placed on all anaphylaxis packs to notify staff of its location.

Methods
We undertook a Quality Improvement project using PDSA cycle methodology. A survey of 40 members of staff working in the theatres of the Royal Glamorgan Hospital, including doctors, nurses and ODPS (Operating department practitioner) was completed. The survey asked staff whether they were familiar with the NAP-6 guidelines and whether they knew where glucagon was kept within the department. Each anaphylaxis box was examined to establish if they were labelled with the location of glucagon. Surveys were completed anonymously.

Results
The survey highlighted that the staff as a whole were not familiar with the NAP-6 guidelines and the role glucagon has. 25 of the 40 (62.5%) members of staff surveyed did not know where to locate glucagon in the event of it being required to treat anaphylaxis. 11 of 13 (79%) consultants, 5 of 7 specialty doctors/trainees (71%), 4 of 10 (40%) ODPS and 5 of 4 (55%) of recovery nurses did not know the location of glucagon. None of the anaphylaxis boxes were labelled with the location of the glucagon. The PDSA cycle was completed by doing a re-survey, which showed that 100% of staff now know the location of glucagon.

Key Messages
Despite glucagon being an important part of the treatment of refractory anaphylaxis, a potentially life threatening condition, the awareness of staff working in the theatres of Royal Glamorgan Hospital regarding where to find it is suboptimal. We have sought to enhance staff awareness of the location of glucagon storage by delivering departmental training. In addition, we have designed stickers highlighting the location of glucagon, and placed them on each anaphylaxis packs within the department. We reassessed the change, by doing the survey again and it highlighted that 100% of staff now know the location of glucagon.

References
Improving the Initial Assessment of Patients with Rib Fractures

Authors
Ji Hye Moon, S N Yew, E Teh, T Batchelor, G Casali, E Internullo, R Krishnadas, D West Severn

Background
Traumatic rib fractures are associated with significant morbidity and mortality. Effective and prompt analgesia, chest physiotherapy and early mobilization are the mainstay in the management of rib fractures. The aim of this study was to assess how well patients admitted with rib fractures were assessed and managed in accordance with the trust guideline.

Methods
All patients admitted to Thoracic Surgery with new rib fractures between June to September 2019 were included. Data on patient demography, clinical management, calculation of rib scores and pain management were collected prospectively.

Results
Higher rib fracture scores were associated with increasing age and longer length of stay as shown in Table 1. In comparison to the first audit cycle, the rib fracture score calculation rate has improved from 0% to 50% and the pain management compliance rate from 11% to 71%.

Key Messages
Patient stratification by rib fracture score was a good predictor of the length of hospital admission. There has been a significant improvement in the assessment and management of rib fracture patients according to the trust guideline between audit cycle 1 and 2. The pain scores between Level 1 and 4 were comparable suggesting appropriate mode of analgesia for the higher risk groups.

References
Quality Improvement: Challenging a culture of poor contactibility amongst doctors on an acute general medical ward at Manchester Royal Infirmary

Authors
Benjamin Human
North West of England

Background
A hospital-wide survey in March 2019 found that 46% of nurses reported difficulty in summoning assistance for patients scoring on the EWS in daytime hours. A recurring theme amongst respondents was the need for improved contactibility of doctors. Therefore, this QI project sought to increase by 100% the days that all four Patientrack bleeps were held on ward 6 in 10 weeks.

Methods
Data were collected twice per week for 10 weeks by monitoring whether these four bleeps were responded to. Data points were plotted on a run chart. On week 6, an intervention package was implemented: 1. Clearly displayed poster with bleep numbers; 2. Allocation of bleeps during morning board round by consultant; 3. "Bleep Box"; 4. Each bleep labelled with its price.

Results
Pre-intervention, all bleeps were held on 0% of days. Post-intervention, this increased to 50%. Additionally, the run chart showed a positive median shift – median percentage of bleeps held increased from 25% to 87.5% with the interventions.

Key Messages
Improving the culture of holding bleeps is possible with multi-faceted interventions supported by influential stakeholders.

References
Improving Gentamicin Prescribing In Acute Surgical Patients: a Multidisciplinary Approach

Authors
Hollie Clements, Louise Roberts, Jennifer Gallagher , David Smith
Scotland

Background
Gentamicin is the antibiotic of choice for gram negative infection in NHS Tayside. It is commonly prescribed in our Acute Surgical Receiving Unit (ASRU), using the Hartford Guidance, requiring serum levels 6-14 hours from the first dose.(1) Gentamicin doses are often missed due to missed monitoring levels, particularly when patients are transferred from ASRU.

Methods
Using the “Plan, Do, Study, Act” (PDSA) model (2) we developed a two-pronged approach to improve gentamicin prescribing and handover. A label acting as a prompt attached to the prescription chart and individual guidance for FYs and nurses in the department was piloted between ASRU and the surgical short stay ward. Baseline data were collected during a 7 day period in April 2019, change was implemented in August and post-intervention data were collected 1 month after implementation.

Results
Pre-intervention, 12% of monitoring levels and doses were missed. 1 month after intervention this figure fell to 4%. Handover labels were present on 54% of drug charts and where used, no doses were missed. This intervention is now being rolled out in all the surgical wards.

Key Messages
1) Prompt antibiotic administration reduces mortality.  2) Education and visual prompts are effective in improving gentamicin management.  3) Nursing involvement is important to achieve culture change.

References
Reducing elective ENT theatre delays using the 'golden case' concept

Authors
William Penfold, Joseph Sinnott
Severn

Background
Delays to theatre starting time are a frustrating issue in the NHS. A solution lies in the 'golden case' idea which has already been effective in trauma lists elsewhere. The 'golden case' is a patient identified in advance to be the first case of the list. Their details are communicated to the multidisciplinary team to enable timely patient preparation, aiming to reduce theatre delays (1). We aim to reduce delays in elective ENT lists in Musgrove Park Hospital by introducing this concept.

Methods
We gathered retrospective data from information services to complete cycle 1. This included delay in start time, between send and arrival and in briefing for ENT, Maxillofacial and Ophthalmology elective lists in Head and Neck theatres. For cycle 2 we are implementing the 'golden case' idea to ENT morning lists on Mondays and Thursdays for 4 weeks. We ask the consultant in advance which patient is the 'golden case'. They are identified on paper lists.

Results
ENT lists had the greatest delay in start time (17.7 minutes) and between send and arrival (11.2 minutes). The second cycle is ongoing.

Key Messages
Theatre delays are a key issue which may be addressed by the 'golden case' concept.

References
Foundation Year 1 Induction ‘Cheat Sheet’

Authors
Emma Hockey, Sara Day, Nia Williams
West Midlands North

Background
Medical school prepares new doctors for clinical scenarios however less attention is paid to the logistical challenge of working as a Foundation doctor. Induction aims to orientate one to the new hospital environment however large quantities of material are covered without written reference. The shadowing period was also unlikely to cover all aspects of the job within one week.

Methods
We surveyed our FY1 colleagues exploring what they wished they knew before starting their job. We used this, along with acquired knowledge, to develop an additional document to the trust information pack, the ‘cheat sheet’, which was redistributed. We then re-surveyed the cohort to analyse the role of this in improving confidence commencing FY1.

Results
Confidence was markedly increased in all areas questioned and 100% of respondents said they would use the cheat sheet again.

Key Messages
This cheat sheet has the potential to be a significant part of induction at Royal Shrewsbury Hospital to improve new doctor confidence and effectiveness. The structure is easily transferable to other hospitals and specialties. We believe this would not only reduce time waste but also improve the efficiency of patient care on the floor.

References
Improving Management of Peripheral Cannulas: A Snapshot Study

Authors
Jae Won Yun, Benjamin Lin, Sejlo Koshoedo

East Anglia

Background
Peripheral venous cannulation is the most common method of vascular access for intravenous therapy. Good cannula care reduces complications including infection, phlebitis, extravasation and infiltration (1). The aim of this project was to compare hospital compliance against local trust guidelines on the management of peripheral cannulas (2).

Methods
All cannulas in consenting patients were assessed, across 6 medical wards in a district general hospital, in the form of a snapshot study. Data was collected with regards to correct documentation of insertion, current dwell time and the timing of the most recent intravenous intervention.

Results
Of the cannulas assessed (n=63), 9 (14%) had no documentation of insertion. 4 (6%) were found to have been in-situ longer than 10 days. 16 (25%) were not used for more than 24 hours following the most recent intravenous intervention, and 8 (13%) were not used at all during the patient’s admission.

Key Messages
Findings of the project were highlighted in the monthly “Grand Round” medical meeting and in a communications e-mail distributed to all members of staff. Posters were placed in treatment rooms to encourage correct documentation and adherence to good cannula care. This study will be repeated after 6 months to assess the efficacy of the interventions recommended.

References
Length of stay and barriers to discharge for conservatively managed spinal admissions

Authors
Sally Chan, Yousuf Shafiq
West Midlands North

Background
GIRFT recommends that non-elective (emergency) spinal admissions managed conservatively, should be discharged within 4 days. (1) At Royal Stoke Hospital we audited the length of stay in conservatively managed spinal admissions - whether the 4-day target was met and if not, what were the barriers to patient discharge.

Methods
A prospective audit was conducted over 6 months, including all patients admitted under the spinal team from A&E.

Results
In total there were 247 emergency spinal admissions. 101 (41%) managed surgically; 146 (59%) managed conservatively, of which 73 (50%) discharged within 4 days; 70 (48%) discharged beyond 4 days. 3 patients died. Barriers identified include: • Antibiotic therapy – 26% • Transfers (Oswestry/ rehabilitation bed) – 24% • Medical problems - 18% • Orthotic delay - 13% • Care package - 12% • Awaiting scans – 5%

Key Messages
Identification of barriers enabled changes in categories we could realistically improve; We tried to alter our orthotic provision service from 3 to 5 days and plan to work with our outpatient parenteral antibiotic therapy team for patients requiring prolonged antibiotic therapy i.e. discitis. Ultimately, failure of timely patient discharge results in cancellation of elective surgeries due to bed shortages as well as increasing patient risk for developing medical complications - prolonging patient stay, increasing overall cost.

References
The use of immersive multi-professional simulation to improve fire evacuation strategy in the theatre department

Authors
Natasha Askaroff, Dr Emma Garry, Dr Ben Parish
Peninsula

Background
Hospital evacuation in the case of fire is a complex and challenging process, requiring clear strategy and multi-professional input. A fire within the operating theatre environment adds its own further complexities, due to the nature of the procedures and vulnerability of patients within the theatre complex. Immersive simulation exercises have been shown to support the preparedness of healthcare professionals for emergency situations.

Methods
The Royal Cornwall Hospital Trust (RCHT) Postgraduate Simulation Team ran a 3-hour simulated fire evacuation of 5 theatres and a 7-bed Recovery unit. ‘Exercise Blacktower’ involved theatre staff, the RCHT Fire Safety Team and the Cornwall Fire Service. Simulated patients were at varying stages of surgery and anaesthesia when a fire was detected within the unit. Evacuation of all personnel and patients was required in real time. The exercise included a debrief and questionnaires.

Results
A safe and effective evacuation of all staff occurred within 27 minutes of the fire outbreak. The exercise identified areas for action including latent safety threats, training and equipment needs and alterations to the existing evacuation strategy.

Key Messages
Immersive simulation is a valuable tool for evaluating and improving the preparedness of a multi-professional team for fire within a healthcare setting.

References
Improving the Management of Adult Community Acquired Pneumonia (CAP) in South Tyneside District Hospital (STDH) A&E Department

Authors
Amy Verrinder
Northern

Background
Pneumonia causes 29,000 UK deaths annually and is responsible for more hospital admissions than any other lung disease. There are robust national guidelines for the management of CAP in A&E but no local pathway used at STDH.

Methods
The management of adult patients diagnosed and discharged from A&E July-October 2018 with CAP was audited using statistical analysis of quantitative retrospective case notes.
Aims: -Assess use of CURB65 score -Evaluate antibiotic therapy including choice and duration -Examine requests of follow-up chest x-rays (CXR)

Results
CURB65 score was used appropriately in 57% of presentations. Unfortunately, on 33% of occasions CURB65 was not utilised. Antibiotic choice was correct in 54% of instances but duration was incorrect 33% of the time. Only 71% patients had a CXR on presentation; 28% of which showed consolidation. Unfortunately, merely 14% of these were booked a follow-up CXR.

Key Messages
Clinicians use CURB65 correctly but infrequently. There is scope for substantial local improvement in delivery of antibiotic therapy for CAP. Local performance regarding requesting CXR to diagnose CAP and follow-up patients is significantly below the national standard. Following trust-wide presentation and formal teaching this audit has led to creation of a local guideline and reaffirmation of policy which is currently being re-audited.

References
Low up take of sexual health screening: An audit comparing the use of Intrauterine Contraception (IUC) in an integrated sexual health service (ISHS) against the Faculty of Sexual and Reproductive Health (FSRH) guidelines

Authors
Charlotte Morris, Professor Das, Dr George, Dr Kumari
West Midlands South

Background
STIs are associated with an increased risk of pelvic inflammatory disease, which further increases with IUC insertion(1). The current FSRH guidelines(2) suggest three auditable outcomes for women receiving IUC; bimanual or ultrasound examination prior to IUC insertion, an appropriately trained assistant present and sexually active women requesting IUC to be offered STI screening. We aimed to audit our practice against the National Standards and evaluate the uptake of STI screening.

Methods
We collected information about women who had an IUC device inserted from June 2018 to November 2018, identified from our electronic database.

Results
259 women received IUC. We surpassed the National Standard in 2 of the outcomes, however failed to achieve the target for offering STI screening. Of 239 women offered STI screening, only 123 (51.5%) accepted any testing and 22 (9.2%) accepted both bloods and swabs.

Key Messages
Whilst we achieved the auditable standards in 2 outcomes, further work is required to ensure that all sexually active women are offered STI screening. We are concerned by low uptake of STI testing within this cohort. We propose that ‘STI screening uptake’ should be considered amongst the auditable outcomes, as we may miss infection in a significant proportion of women in this cohort.

References
Underused and undervalued? Are professional skills developed by Foundation Trainees prior to commencing a career in medicine being ignored?

Authors
Leah Gray
Severn

Background
Graduate-entry into medicine is increasingly popular in the UK (7.04% of students) (1). Many graduates have had previous careers prior to commencing medical school. Additionally, a number of undergraduate students have had previous careers. Aim: To ascertain if professional skills developed by Foundation Trainees prior to commencing a career in medicine are being proactively utilised by departments.

Methods
An 11 question survey was designed and completed anonymously by Foundation Trainees in one NHS Foundation Trust.

Results
Out of a possible 103 surveys, 39 were returned. 38.5% of trainees reported working prior to medicine, although the vast majority of these worked on a casual basis (80%). 3 doctors had worked in a professional capacity, all at middle management or equivalent level. Of the 15 doctors who reported previous jobs prior to medicine, only 5 (33%) had been asked about their previous work, despite 100% reporting that they actively utilised the previously acquired skills. Skills included leadership and management.

Key Messages
1. Many Foundation Trainees have developed professional skills prior to commencing medicine. 2. These skills are likely underused by departments as they are not being actively sought out. 3. Encouraging supervisors to understand the professional background of trainees may benefit departments who can utilise the skills of trainees.

References
Intravenous antibiotics: developing a trust specific safe prescribing tool

Authors
Joseph Hogan, Arron Thind, Sania Ahmad
South Thames

Background
Gentamicin, amikacin, vancomycin are commonly prescribed antibiotics with a narrow therapeutic window. This project aims to assess the prevalence of incorrect dosing and the benefits of a new dosing platform.

Methods
Prescriptions of all antibiotics collected from May 2018-May 2019. Trust guidelines were used to calculate patient doses for all prescriptions and compared to the doses actually prescribed. A $>\pm 10\%$ dose discrepancy was considered an error, whilst a $>\pm 50\%$ was a serious error. An antibiotic calculator application was developed and programmed by the authors with incorporated trust guidelines. This programme was compared with contemporary prescribing calculators for time efficiency and dosing errors.

Results
From May 2018-May 2019: 6434 gentamicin, 107 amikacin and 259 vancomycin prescriptions. For gentamicin there were 61\% error and 17\% serious dosing error rate. Amikacin and Vancomycin showed similar error rates. Using the antibiotic calculator developed, there were no errors (0\%) in prescribing across all the antibiotics (n=40 prescriptions). Comparatively, the errors using current prescribing calculators were great (gentamicin = 70\%; amikacin = 90\%; vancomycin = 10\%) with increased overall prescribing time (gentamicin 65\%; amikacin 60\%; vancomycin 55\%).

Key Messages
The development of a bespoke, digital antibiotic dosing calculator has reduced errors, improved efficiency and made prescribing safer for patients.

References
Stereotypes within Medical Specialities: Examining the Views of Medical Students and Foundation Doctors.

Authors
Charlotte Morris
North West of England

Background
This study aims to assess medical students' and newly qualified doctors' perceptions of doctors in an array of different medical specialities, with their views likely to later shape career choices. This is of greatest significance to undersubscribed specialities such as psychiatry and general practice.

Methods
50 medical students and FY2 doctors, at Lancashire Teaching Hospitals, partook in an anonymous, online survey. 10 specialities were listed, with the participants asked to 'write the first adjective that comes to mind when thinking about a doctor working in each of these specialities'. They were also asked their gender and speciality they currently wish to pursue.

Results
Responses were colour-coded dependent on whether they were positive, negative or neutral and displayed as a ‘word cloud’ for each speciality, with the size of each word related to the number of times it was cited.

Key Messages
Strong themes emerged, evidencing the stereotypes held by this cohort of students and doctors, so early in their medical careers. These were largely in line with historical perceptions of these specialities.

Stereotypes: Are they truly a reflection of the current workforce? What perpetuates these long-held beliefs? Are they changeable?

References
Oxtoby, K. (2013). Do the classic specialty stereotypes still hold true for today’s doctors?—BMJ, 347:7454
Abstracts

Poster Presentations

Research / Original Work Group 1
Diagnostic accuracy of multi-parametric(mp) MRI in prebiopsy prostate: a comparison with histology

Authors
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Yorkshire and Humber

Background
Prostate cancer is the most common cancer in men1. Multiparametric(MP) prostate cancer MRI is recommended as first-line investigation for people with suspected prostate cancer prior to biopsy2,3. The study aims to audit the diagnostic accuracy of mpMRI to detect prostate cancer against histology as benchmark.

Methods
Retrospective review of 100 consecutive patients who had mpMRIs assessment category PI-RADS ≥3 and prostate biopsy between April 2017 to November 2017. Data were collected from MRI reports to score lesion level of suspicion and location, which was correlated to Gleason grading from histology.

Results
The cancer detection rate of PI-RADS 3, 4 and 5 lesions were 50%, 68% and 90% with overall positive predictive value of 80%. For clinically significant cancer (Gleason ≥7), the figures were 25%, 46%, 69% and 58% respectively. Cancer lesions were located correctly in 92%. All highly suspicious lesions (PI-RADS 5) on MRI but negative on biopsy, shown histological features of inflammation or high-grade prostate intraepithelial neoplasia(PIN).

Key Messages
There is significant association between PI-RADS assessment category and cancer detection rates. The use of prebiopsy prostate MRI has shown to have high positive predictive value in detecting and localising prostate cancer, which makes it a useful tool for targeting biopsy and detection.

References
Delayed diagnosis of oral cancer in general practice? A systematic review

Authors
Ciaran Grafton-Clarke
Leicester, Northamptonshire and Rutland (LNR)

Background
The incidence of oral cancer is increasing. Guidance for oral cancer from the National Institute for Health and Care Excellence is unique in recommending cross-primary care referral from GPs to dentists.

Methods
This focused systematic review investigates knowledge about delays in the diagnosis of symptomatic oral squamous cell carcinoma (OSCC) in primary care.

Results
From 538 records, 16 articles were eligible for full-text review. In the UK, more than 55% of patients with OSCC were referred by their GP, and 44% by their dentist. Rates of prescribing between dentists and GPs were similar, and both had similar delays in referral. On average, patients had 2-3 consultations before referral. Less than 50% of studies described the primary care aspect of referral in detail. There was no information on inter-GP-dentist referrals.

Key Messages
The results of this review reveal that GP’s should not cross-refer patients to dentists, as this increases diagnostic delay. Instead, they should refer directly to secondary care as suspected oral cancer.

References
Impact of London Underground Air Pollution on the Nose: a review

Authors
Chon Meng Lam
Wales

Background
The London Underground has one of the highest levels of air pollution of any metro system and its effects on the nose is not well understood.

Methods
A review of literature identified using PubMed database and Google search engine. Reference lists were searched to obtain further relevant reports.

Results
Fine particulate matter (PM2.5) is found in increased concentrations on the London Underground. Three potential mechanisms through which PM2.5 causes nasal pathology have been identified: oxidative stress, inflammation and endocrine. These have been associated with nasal pathologies such as nasal polyps and allergic rhinitis. Coarse particulate matter (PM10) is primarily filtered by the nose and constitutes the greatest proportion of total PM found on the London Underground. However, there is little existing research regarding its role in disease and the existing evidence is inconclusive.

Key Messages
There is considerable circumstantial evidence for inhaled London Underground pollutants causing nasal pathology. Given the ubiquitousness of nasal symptoms on the population, and the large numbers of people travelling by this mode of transport, further research is warranted to quantify and prevent potential harm. This review concludes with research questions that have been identified from this review.

References
Use of Biologics in Management of Atopic Eczema

Authors
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Background
Atopic dermatitis (AD) is a common inflammatory skin disease distinguished by intense pruritus, and excoriations. Most can be treated with topical agents. Some require systemic therapy; however, they have multiple adverse effects and limited efficacy. Dupilumab is the first targeted biologic agent, recently approved for the treatment of moderate-to-severe AD. It is a fully-human monoclonal antibody and blocks the shared IL-4 receptor which is proposed to be a critical pathway in allergic diseases.

Methods
A search through Pubmed, Medline, DermNet, BAD Journals, Uptodate, and Embase was performed on the use of dupilumab in treating moderate-to-severe AD. The articles found were reviewed and analysed.

Results
The efficacies of different dupilumab doses were analysed and it showed that patients treated with dupilumab 300 mg weekly had similar clinical outcomes to those receiving 300 mg every alternate week. Therefore, NICE Guidance has recommended a dose of dupilumab every alternate week so as to be cost-effective in the NHS. Its safety profile is considered superior to that of immunosuppressive drugs, as it specifically blocks signals from IL-4 and IL-13 only. Common side effects of dupilumab are conjunctivitis, headaches, and cold sores.

Key Messages
The recommended criteria on indications to initiate Dupilumab treatment for moderate-to-severe AD in adults is when the disease has not responded adequately to at least one other systemic therapy, or these are contraindicated or not tolerated. An adequate response is seen if there is at least 50% reduction in the EASI 50 at least a 4-point reduction in the DLQI from initiation of treatment.

References

Authors
Cleodie Swire, Matthew Hanson
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Background
Surgery is the mainstay of curative treatment for rectal cancer; neoadjuvant therapy is also employed for more progressed cancers. BHRUT is the cancer alliance/trust with the fourth-highest rate of neoadjuvant therapy nationally. [1] Analysis of factors affecting MDT decision-making was carried out to guide local policy and assist national discussion.

Methods
250 patients were coded for rectal cancer diagnosis at BHRUT on the Somerset Cancer Register (SCR) between 2015 and 2018. Their data were extracted and cross-referenced with hospital documentation. 171 were treated with curative intent; a comparison between those who received neoadjuvant therapy and those who went straight to surgery was performed using severity indicators (tumour height, TNM staging, extramural vascular invasion).

Results
In comparison to those who received neoadjuvant treatment, patients who went straight to surgery had cancers which were: higher in the rectum (9.5cm vs 8cm mean, n=168, p=0.023), more likely to be node negative (75% vs 10%, n=149, p<0.001) and of lower T score (n=148, p<0.001). Many patients' data on SCR were incomplete (for example 25% had partial TNM staging).

Key Messages
Treatment pathway for rectal cancer at BHRUT is determined by recognised severity markers; however, the submission of this onto SCR is not currently universal.

References
Research/Original Work Group 1

Post-caesarean adhesions - a look through the laparoscope

Authors
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Wessex

Background
Caesarean section (CS) is the most common major surgical procedure performed on women worldwide. Various studies have attempted to assess ideal technique. The study examines adhesion rates post CS after the era of non-closure of the parietal peritoneum.

Methods
Patients with a history of CS undergoing laparoscopy were identified retrospectively from an electronic database. Gynaecology and maternity operative notes were analysed to identify if adhesions were found at laparoscopy and if the peritoneum was closed during CS.

Results
Of 376 women undergoing laparoscopy, 61 had history of CS. Median age was 42 years and mean CS-to-laparoscopy time was 9.5 years. Indications for laparoscopy included pelvic pain (46%), menorrhagia (48%), ovarian cysts (8%), cancer (18%) and risk-reducing surgery (5%). Thirty-one patients had a history of additional abdominal surgery. Of 61 patients with a previous CS, 32 (52.5%) were found to have adhesions, most of which were omental adhesions to the anterior abdominal wall.

Key Messages
Midline adhesions following CS have been quoted at 24-46% from previous studies and is found to be 52.5% in ours. This may question whether non-closure of the peritoneum contributes to adhesion formation. Additionally, it demonstrates the unique opportunity from laparoscopy to optimise the technique of a commonly performed procedure.

References
Open femoral cut-down versus percutaneous proglide access for endovascular aneurysm repair

Authors
Stephanie Worrall, Anisha Perera, Tian Yeong
South Thames

Background
Suture-mediated closure devices such as the Perclose ProGlide™ are used for repair of large-bore arterial access; with reduction in blood loss, infection, and length of hospital stay. This study evaluates the safety and efficacy of percutaneous ProGlide™ closure compared with open cut-down for femoral artery access in fenestrated/endovascular aortic repair (F/EVAR) at a UK regional vascular unit.

Methods
Analysis of consecutive patients who underwent percutaneous and open F/EVAR between January 2017 and October 2018 was performed. Patient demographics, intra-operative variables, and post-operative outcomes were compared.

Results
112 cases were analysed, with 56 patients in each group. No significant difference in patient demographics and baseline characteristics such as age, BMI, INR and albumin were observed between the groups. Mean number of proglides used were four per patient. Percutaneous cases had shorter operative time, lower estimated blood loss, and fewer antibiotic doses given (all non-significant); but longer length of hospital stay (3.4 days vs 3.6; also NS). Open access had a higher number of groin complications on post-operative CT imaging (12.5% vs 32.1%; p=0.039).

Key Messages
Use of percutaneous closure is an acceptable alternative to open surgical cut-down, with reduced operative duration and peri-operative blood loss, and significant reduction in groin complications on post-operative CT.

References
Long term outcomes after bariatric surgery (5 and 10 years data) analysed using Bariatric Analysis and Reporting Outcome System

Authors
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Essex, Bedfordshire and Hertfordshire (EBH)

Background
Bariatric surgery is an effective therapy for morbid obesity and obesity related comorbidities. Quality of life (QoL) is known to improve after a bariatric procedure short term however data on its long-term effects are inadequate. This study evaluates weight loss and QoL at 5 and 10 years following surgery.

Methods
All patients who underwent bariatric surgery in 2008 and 2013 were included for analysis. Patients with incomplete data, who could not be contacted or refused to participate were excluded. Primary outcome measure was long-term Quality of Life (LT-QoL) according to Moorehead-Ardelt Quality-of-life Questionnaire II. Secondary measure was %Excess Weight Loss (EWL).

Results
The 5-year and 10-year groups were homogeneously matched. LT-QoL was similar between the 2 groups. Mean(SD) EWL did not differ between two groups. Patients who had gastric bypass showed higher EWL compared to sleeve gastrectomy. Major complications, re-intervention, diabetes, hypertension and OSA showed no correlation with EWL or LT-QoL.

Key Messages
EWL from the first 5 years of bariatric surgery seems maintained at 10 years. There is no significant difference in LT-QoL 5 and 10 years after surgery. Choice of surgery predicts EWL long term but does not impact on LT-QoL. EWL achieved by patients shows positive correlation with better LT-QoL.

References
Prevalence of Intracranial haemorrhage in patients on Anti-coagulation (Clopidogrel, Warfarin or Direct Oral Anticoagulants) following head-injury

Authors
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East Anglia

Background
UK emergency departments are seeing an increase in the number of patients on anticoagulant medications who sustain a head injury(1). We seek to investigate the risks of intracranial haemorrhage (ICH) in patients on direct oral anticoagulants (DOAC).

Methods
A 24-month (2015-2016) retrospective observational study of 3033 adult patients presenting to a level II trauma centre, who were either prescribed clopidogrel, a DOAC or warfarin and suffered a head injury. These patients received cranial computerised tomography (CT) scans according to NICE guidelines criteria for head injury(9). The primary outcome was to measure ICH prevalence on initial head CT.

Results
A total of 1,095 patients were identified (193 clopidogrel patients [17.6%], 215 DOACs patients [19.6%] and 687 warfarin patients [62.7%]). The incidence of ICH was lowest in patients on DOACs (7/215, 3.25%; 95% confidence interval [CI] 0.88-5.63%) when compared to clopidogrel (11/193, 5.7%; 95% CI 2.45-8.97%) and significantly lower than warfarin (51/687, 7.4%; 95% CI 5.46-9.38%). The most common reason for head trauma were falls-related.

Key Messages
The data indicates a link between the use of DOAC and a reduced risk of ICH, in comparison to those on clopidogrel or warfarin. Our findings advocate consideration for further research and potential change in national (UK) guidelines(9).

References

Righini M, and Robert-Ebadi H. Anticoagulation in the Elderly. Pharmaceuticals (Basel) 2010: 3(12); 3543–3569


Changing pattern of pheochromocytoma and paraganglioma in a stable UK population

Authors
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Northern Ireland

Background
Pheochromocytomas and paragangliomas (PCC/PGLs) are diagnosed variously with increasing incidence and changing clinical and pathology pattern. The aim was to further characterize PCC/PGLs in a stable population

Methods
A retrospective, single institution study analysed adrenalectomies for PCC/PGLs between January 2010 - January 2019. Demographics, symptoms, blood pressure, preoperative hormones, imaging, histology, hospital stay, complications and three subgroups [based on the modality of diagnosis - incidentaloma group (IG), genetic group (GG) and symptomatic group (SG)] were noted.

Results
86 patients included with IG 51 (59.3%), GG 10 (11.62%) and SG 25 patients (29.06%). Incidence was 5.30 cases/million population. 33.34% of the IG had a delayed diagnosis with a mean interval of 22.95 months (4-120 months). Females presented more often paroxysmal symptoms (PS) (p=0.011). Patients with PS and classic symptoms were younger (p=0.0087, p=0.0004) and those with PS required more inotropes postoperatively (p=0.014). SG had higher preoperative hormone levels (p=0.0048) larger tumours (p=0.0169) and more likely females. GG are younger compared with those from the IG (p=0.0001) or SG (p=0.178).

Key Messages
Majority of patients had an incidental and delayed diagnosis. If symptomatic, patients are more likely to be young females with higher hormone levels and larger tumours.

References
13. Song JH, Chaudhry FS, Mayo-Smith WW. The incidental


Ultrasound for Spinal Dysraphism: when to stop?

Authors
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Scotland

Background
Ultrasound of the spine is the first-line investigation for the assessment of cutaneous stigmata of spina bifida, such as sacral dimples, to exclude spinal dysraphism in infants (1). Ossification of the posterior elements of the spine gradually reduces the utility of this examination as children age (2). This study sought to determine at what age ultrasound is no longer of use in this indication.

Methods
Retrospective interrogation of PACS / EPR between 2009-2018 was conducted to identify patients in whom ultrasound had been performed to identify occult spinal dysraphism. Radiology reports were analysed to determine if examinations were diagnostic, limited, or non-diagnostic, and age at examination determined.

Results
419 patients were identified. In infants under 3 months, 323 of 332 (97%) of examinations were diagnostic, compared to 15 of 27 (55%), 4 of 15 (26%) and 4 of 14 (29%) in infants aged 3-4 months, 4-5 months and 5-6 months respectively. Of 31 examination conducted in patients between 6-14 months only 3 were considered diagnostic.

Key Messages
Spinal ultrasound is of increasingly limited value after 3 months. Our institution no longer routinely performs ultrasound after 3 months of age for this indication.

References
Significant structural congenital anomalies in the West of Scotland: a 45-year cohort

Authors
Wai Ken Chan, Tim Bradnock, Neil Patel, Helen McDevitt, H McDonald
Scotland

Background
Background: 3% of neonates are diagnosed with a congenital anomaly. Significant structural congenital anomalies (SSCA) require specialized neonatal care and may confer lifelong illnesses. Patient-centred services require an understanding of the nature and frequency of SSCAs and subsequent health effects. Aim: Investigate the frequency of SSCAs in a cohort of infants admitted to the Royal Hospital for Children (RHC) over 45 years.

Methods
Methods: SSCAs identified from RHC admission records (1971-2015) and defined as congenital anomalies requiring surgery during neonatal period. Frequencies of SSCAs in each 5-year clusters were compared. Results: 5446 infants with SSCA were admitted over the 45-year period. The 5 commonest SSCAs were: Neural tube defects, NTD, (774, 14.2%), oesophageal atresia/trachea-oesophageal fistula, OA/TOF, (522, 9.6%), hydrocephalus (519, 9.5%), congenital diaphragmatic hernia, CDH, (455, 8.3%) and gastroschisis (398, 7.3%). The highest frequency of the ten commonest SSCAs were found between 1996-2000 (n=489) and lowest in 2010-15 (n= 272). Frequency of NTD declined and gastroschisis increased between 1971-2015.

Results
Results: 5446 infants with SSCA were admitted over the 45-year period. The 5 commonest SSCAs were: Neural tube defects, NTD, (774, 14.2%), oesophageal atresia/trachea-oesophageal fistula, OA/TOF, (522, 9.6%), hydrocephalus (519, 9.5%), congenital diaphragmatic hernia, CDH, (455, 8.3%) and gastroschisis (398, 7.3%). The highest frequency of the ten commonest SSCAs were found between 1996-2000 (n=489) and lowest in 2010-15 (n= 272). Frequency of NTD declined and gastroschisis increased between 1971-2015.

Key Messages
Conclusions  Frequencies of SSCAs have changed between 1971-2015. Understanding SSCA frequencies may influence and improve health services and record linkage with health data will improve understanding long-term outcomes in SSCA.

References
SINGLE CENTRE RETROSPECTIVE STUDY ON COMPLICATIONS POST INTERNAL ILIAC EMBOLISATION WITH ENDOVASCULAR ANEURYSM REPAIR.

Authors
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West Midlands North

Background
Internal iliac embolization (IEM) is performed alongside EVAR when a limb graft is placed at the external iliac artery. Complications reported include buttock claudication (33%), erectile dysfunction (10%) and rarely, buttock necrosis and GI ischaemia1. Iliac branch device (IBD) is used to preserve internal iliac branches and avoid these complications.

Methods
Patients who underwent IEM or IBD with EVAR between May-2007 and June-2018 are included. A retrospective observational study was carried out using data in radiology reports and clinic letters. Patients who developed buttock claudication, buttock necrosis, erectile dysfunction and GI ischaemia were identified and recorded on an audit tool.

Results
75 patients were included. 71 patients had IEMs, 3 had IBDs and 1 had IEM and contralateral IBD. 43 patients had IEM/IBD and EVAR on the same day. Self-limiting buttock claudication was reported by 7 patients with IEMs (10.8%), in which 6 had IEM and EVAR performed on the same day.

Key Messages
The complication rate post IEM in our cohort was lower than that reported in meta-analysis (10.8% vs 27.9%)2. A prospective post-procedure survey may be more effective in identifying post-IEM complications. IEM performed at an interval before EVAR may be considered to reduce morbidity.

References
Post-hoc analysis of placebo-only or no intervention group neonates isolated from a systematic review and meta-analysis of various analgesic interventions

Authors
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Oxford

Background
Determination of pain in neonates is a contentious area, with current pain scores relying on a mixture of physiological variables and behavioural measures. The present study seeks to determine the reliability of common neonatal pain scores, and to attempt to classify procedures by pain intensity.

Methods
Placebo/control groups from 84 studies (3100 neonates in total) were extracted from the database produced by our group's systematic review and meta-analysis, as yet unpublished. Procedures and pain scales were compared using qualitative and quantitative methods.

Results
Heart rate (HR), SpO2, NFCS, NIPS, and PIPP exhibited an increased score at procedure. HR and SpO2 are both increased from baseline at procedure, although SpO2 had a more consistent baseline. The greatest effect was observed in the first minute after the procedure. ANOVA for SpO2 and HR at procedure revealed lumbar puncture to be the most painful procedure analysed. We could not support categorising the transiently painful procedures (e.g. heel prick, ABG, venepuncture, cannulation, IM injection) to mild/moderate/severe.

Key Messages
SpO2 and HR are good measures of pain, although a simple pain score like NIPS can be substituted if required. Classification of painful procedures should be based on prolonged pain (e.g. lumbar puncture), or transient pain.

References
Abstracts

Poster Presentations

Quality Improvement Group 2
Head Injury Management on an Island Hospital

Authors
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Background
We undertook an audit on the management of Head Injuries in the Emergency Department of our hospital. Given its location on an island we are facing unique challenges compared to the hospitals of the mainland.

Methods
We studied a period of 2 months involving 150 patients with head injuries. NICE guidelines regarding management and the appropriate timing of our interventions were compared to our service. Currently we are re-auditing, having implemented changes.

Results
We achieved a 100% accuracy in guiding patients across the different pathways of treatment depending on their injuries. However, given the limited resources in clinicians we did not manage to uphold all the relevant guidance. Almost two thirds of our patients were seen after more than 15 minutes in the initial assessment, whereas some patients received a delayed CT imaging. We designed and implemented a checklist, training triage nurses and doctors in its use, increasing the time-efficiency of this process. We are currently re-auditing and the results so far already illustrate improvement in our timely management of these patients.

Key Messages
Although standards of care are the same nationally, we sometimes need to adapt to the given resources of a department in order to guarantee the high quality of care.

References
Head injury: assessment and early management Clinical guideline [CG176]
Negative Ureteroscopy For Ureteric Stones

Authors
Omar Elhalawaty, Mr. Zubeir Ali, Masood Moghul
Severn

Background
Ureteroscopic surgeries for stone disease have seen major advancements. They generally have low complications but not complication free. There is a debate between how long prior to surgery a CT scan should be performed. There is also a cost-benefit analysis to be considered with the average cost of a ureteroscopy around £2000 compared with around £200 for non-contrast CT scan.

Methods
Audit was done over 6-month period. The audit was registered with our audit department. Negative ureteroscopies were defined as those where the stone has passed or is outside of the collecting system.

Results
16/158 ureteroscopies were negative(10.1%): 13/95(13.7%) for ureteric stones and 3/63(4.8%) for renal stones. If Ureteric stones of 7mm and smaller are looked at the negative URS rate increases to 27.9%-(12/43). Most patients had 1 CT before surgery. The mean time between CT scan and surgery was 126 days(15-238 days). We have seen significant proportion of patients are/were undergoing unnecessary procedures. Time between CT scans and surgery (4 months average) partly responsible for our 10% rate of negative ureteroscopies.

Key Messages
Patients with 7mm Ureteric stones(or less) need CT scan day before surgery. Time between CT scans and surgery to-be less than 4 months.

References
Consent In Urology: Information Anticipated by Patients

Authors
Amirul Adlan, Amar Chadha, Suresh Ganta
West Midlands North

Background
To assess the information anticipated by patients during the consenting process (flexible cystoscopy) and the methods of information delivery preferred by patients during a consultation with consideration of their learning styles (visual, auditory, kinesthetic).

Methods
22 patients undergoing flexible cystoscopy in April 2019 were interviewed with online questionnaires. A set of questions were then put forward to identify their preference for information during the consent process according to their learning styles.

Results
All patients prefer one to one consultation. Majority of patients were visual learners, therefore it is important to use diagrams during the consenting process. Patient information booklets remained the most popular preference. The majority of patients were not very concerned about the minor details of the procedure, but would like to be given basic information and the recovery time. Patients' preference of learning techniques might not correlate to their personal teaching styles on others as visual aids (drawing diagrams) remained as their least popular option during their teaching process.

Key Messages
- To ensure one-to-one consultation takes place for patients with visual aids such as diagrams
- To emphasise on information anticipated by patients during the consultation such as basic information regarding the procedures involved, expected recovery time and methods to address concern post-operatively.

References
N/A
Appropriateness of abdominal x-ray requests

Authors
Calvin Eng
Scotland

Background
>4000 abdominal x-ray (AXR) requests are made at Royal Infirmary Edinburgh annually. Each AXR is equivalent to 6 months of background radiation(1). Inappropriate requests lead to unnecessary patient exposure to radiation, delay in diagnosis, and resource waste for the NHS.

Methods
Inclusion criteria was patients who received AXRs in RIE, from the months of March-April 2019. If they met 1 of the 4 indications listed by Royal College of Radiologists(2), they were deemed appropriate. Following that, an intervention in the form of posters and email notices were disseminated. Data was then collected from May-June and re-examined. Neonates were excluded from this audit.

Results
From March-April 2019, a total of 626 AXRs were completed. The number of appropriate AXRs were 95%. Following the intervention (1 PDSA cycle), a total of 467 AXRs were carried out from May to mid-June. The percentage of appropriate AXRs had increased to 97%.

Key Messages
After one cycle, it can be seen there is a slight increase in appropriate AXRs. What else can be done to improve this percentage to 100%? Furthermore, we noticed that amongst patients with suspected SBO, 75% received a follow up CT, regardless of AXR result. Would CT be more appropriate as first-line investigation of SBO?

References
Pregnancy test completion rate in the Royal Glamorgan hospital SAU for woman of child bearing capacity

Authors
Alice Cains, Mr P. Shah
Wales

Background
This project was performed due to an incident that occurred in our SAU last year, where a pregnant woman underwent an abdominal x-ray as the result of the pregnancy test result not being documented prior to the scan.

Methods
A retrospective audit focusing on woman referred to the SAU between the ages of 18-50. 50 women were selected at random over a 12 week period. I repeated the data collection after implementing changes to complete the cycle. Data was collected using clinical notes.

Results
28% did not have a documented pregnancy test result. Of those 14 who did not, 3 went on to receive harmful radiation. 4 were given antibiotics with 1 receiving ciprofloxacin which is teratogenic. After implementing changes including staff training, educational posters and increased equipment the completion rate improved by 8%.

Key Messages
All women of child bearing capacity should have a pregnancy test done before further investigation and treatment. Organogenesis occurs mainly between weeks 2-15 which is when the foetus is most susceptible to the effects of ionizing radiation (1). This coincides with the time period that patients may not yet know they are pregnant therefore are at more risk if no test is done.

References
Blood requirements for elective caesarean sections in patients with placenta praevia

Authors
Rosie Granville, Angela Yan, Rekha Pillai, Natasha Archer, Helena Maybury
Leicester, Northamptonshire and Rutland (LNR)

Background
Current practice for patients undergoing elective caesarean section for placenta praevia is to cross-match four units of blood. Often, these are not required and many blood products are discarded as a result. Additional measures are used to reduce the need for blood transfusion, including intra-operative cell salvage and optimization of pre-operative haemoglobin. Therefore, the need for cross-matching requires a review.

Methods
Through retrospective data collection, we audited the use of blood transfusions for 46 patients with placenta praevia undergoing an elective caesarean section at University Hospitals of Leicester in 2018.

Results
Mean estimated blood loss was 786 millilitres (ml). One patient required four units of packed red blood cells due to major postpartum haemorrhage. Cell salvage was used in 42 cases. 10 patients (23.8%) had transfusions from their cell salvage, with a mean of 271ml transfused. Four patients had a pre-operative haemoglobin of <105 g/L.

Key Messages
We recommend reducing cross-matching to two units for patients with uncomplicated placenta praevia undergoing elective caesarean section. Further efforts to optimize pre-operative haemoglobin should be made with all patients.

References
Quality Improvement Project – Appropriate urinary catheter insertions in acute admissions

Authors
Hong Kiat Lim, Dr Ammar Mohd Amin, Dr Sofia Zubiaga

Background
Urinary catheters are associated with an increased risk of urinary tract infections and confusion in the elderly. Therefore, it is important to avoid unnecessary urinary catheter insertions.

Methods
A review of case notes was done in the Integrated Assessment Centre (IAC), which is the acute medical admissions unit of Pilgrim hospital, Boston. We collected data about the proportion of unnecessary urinary catheter insertions in elderly patients and implemented changes to reduce the number of inappropriate catheter insertions.

Results
Upon initial review, 35% (9/26) of urinary catheter insertions were found to be inappropriate. Posters were placed in IAC and Emergency Department regarding indications for appropriate insertions such as severe urinary retention and fluid monitoring for septic shock and pulmonary oedema. Despite this intervention, the proportion of inappropriate insertions increased to 41.7% (5/12). Teaching sessions were then carried out in acute admissions by the geriatrics consultant. This led to an improvement resulting in 80% (12/15) appropriate insertions.

Key Messages
Many of the inappropriate catheter insertions were done for input/output monitoring when it was not indicated. Therefore, doctors and nurses should be made aware of indications for urinary catheter insertions in the elderly and avoid inserting catheters in patients with confusion or dementia

References
Identifying Areas to Improve Non-Invasive Ventilation (NIV) Patient Care

Authors
Madeleine Glasbey, Maxwell Cameron
Northern

Background
Compared to “standard care”, initiating NIV for Acute Hypercapnic Respiratory Failure (AHRF) is associated with lower mortality, reduced intubation rates, and faster improvement in pH, PaCO2, and RR after 1 hour. Hence, our aim was to identify changes to NIV care to promote both patient well-being, and treatment tolerance.

Methods
Sixteen patients with COPD, either weaning or successfully weaned from NIV, were selected. All completed a standardised questionnaire evaluating understanding of NIV, the initiation process, escalation status and general patients’ concerns surrounding NIV care.

Results
The majority (68.75%) were unaware of the role of NIV, with 81.25% felt that access to NIV-related patient literature would be beneficial. Patients overwhelming expressed issues with NIV initiation and synchronization process, mask-related facial pressure sores, and inadequate hydration/mouth care. Only one patient declared they would not wish for future NIV.

Key Messages
Identifying the need for better patient education, an NIV patient information leaflet was created, to be distributed widely to patients receiving BiPAP. Mouth care, oral rehydration and attention to nasal skin breaks have all been addressed by enhancing nursing observations on Meditech V6. New use of Philips Respironics AF541 NIV Mask on the Respiratory ward aims to reduce nasal pressure sores.

References
Apixaban Dosing in Primary Care

Authors
Richard Healicon
Severn

Background
Apixaban is an increasingly popular choice for anticoagulation in non-valvular atrial fibrillation (NVAF), due to improved bleeding and drug interaction profiles compared with warfarin, and stable pharmacokinetics. Apixaban for NVAF has clear dosing guidelines: 2/3 of age > 80, weight < 60kg, or creatinine >133 micromoles/L warrant dose reduction from 5mg BD to 2.5mg BD. However, there is a tendency to under-dose, due to overweighting of bleeding risk against the risk of stroke/VTE. Here I audit these dosing criteria in 44,471 primary care patients.

Methods
Electronic records of 44,471 patients were audited in EMIS. Patients with NVAF taking apixaban without prior DVT/PE history, and compared their age, weight, and renal function compared to standard dosing criteria.

Results
Of 44,471 patients, 348 met inclusion criteria. 88 took 2.5mg BD, of which 30 (34.1%) did not meet dose reduction criteria. 260 took 5mg BD, of which 30 (11.5%) met dose reduction criteria. Overall 17.2% were dosed incorrectly. These results were presented at a practice meeting.

Key Messages
This project aims to increase awareness of dosing criteria for apixaban in NVAF, and inform clinicians of the tendency to under-dose in those with a history of major bleeding.

References
EZRef.io: A Referrals Web Application

Authors
Ahmed Abdulaal, Hamish Patel, Boyuan Khor1, Alistair Myers
North West London

Background
Referring to specialists can be daunting for newly qualified doctors, not least because of the often-complicated referral pathways and occasional need to meet with specialists to make referrals.

Methods
To evaluate the nature of referrals at The Hillingon Hospital (THH), we distributed a questionnaire to 26 junior doctors. Nineteen were F1s (73%) and 7 were F2s (27%). We surveyed the number of recent referrals made, their preparatory time and the number recently queried or rejected. We also surveyed whether junior doctors felt they knew the relevant information required and could structure it appropriately. Finally, we assessed how confident they felt when making referrals. To improve referrals at THH, we developed a web application at domain https://ezref.io/. Specialties are represented by collapsible boxes containing information that a specialist may want to know when accepting a referral. The site was distributed via the Medical Education Department. We surveyed the nature of referrals made and whether junior doctors felt they knew the relevant information required, with a re-audit after 1 month.

Results
We re-audited 25 doctors. Eleven were aware of the service and had visited it at least once. Of those, 82% found the website useful for referrals. An independent-samples t-test was conducted to compare average time to prepare referrals pre- and post-intervention. There was a significant difference pre- and post-EZRef use (7.75 vs 5.80 minutes, p = 0.013). Eighty-four percent ‘Agreed’ or ‘Strongly Agreed’ they were aware of the information required to refer, versus 80% on initial audit. Similar improvements were seen in referral structure (76% versus 65%) and confidence (64% versus 62%).

Key Messages
EZRef is a useful reference site which improves referrals. More widespread adoption may be possible as part of F1 induction.

References
N/A.
Quality improvement project to achieve safe prescribing competency during foundation training

Authors
Alok Bahl, Trudi Geach, Dr Sarah Rawlinson
Peninsula

Background
Safe prescribing is a core skill every doctor must possess and must be achieved during Foundation training. Passing the Prescribing Skills Assessment (PSA) is a nationally accepted means of demonstrating this core skill. All UK medical students sit the PSA before entering foundation training. However, non-UK medical graduates start foundation training without this qualification and lack the support and preparation needed to pass the PSA.

Methods
The first PDSA cycle involved a guide on how to pass the PSA along with a buddy system for the identified trainees. The second PDSA cycle involved a teaching workshop for trainees who were unsuccessful with their first attempt. A questionnaire was created to identify whether a teaching workshop prior to the first attempt would have been beneficial.

Results
The number of trainees that passed prior to receiving the workshop was 57% (4/7) and 64% (11/17) in September 2018 and 2019 respectively. The number of trainees that passed after receiving the workshop was 80% (4/5) in March 2019. Early questionnaire results show that 7/8 preferred a teaching workshop prior to the exam.

Key Messages
Teaching workshops prior to the exam ensure trainees are well supported and better prepared to pass the PSA.

References
Evaluation of Trust induction for overseas doctors

Authors
Anna Bogdanova, Mr Tamer Kamal, Mr Mark Jeffery
South Thames

Background
With major staffing shortage in the NHS a large number of overseas doctors are recruited every year. Trusts provide local induction to hospital organisation and the local policies. We designed a Quality Improvement Project to evaluate our induction, identify areas for improvement to allow our overseas doctors to progress and easily integrate in the UK system.

Methods
Anonymous survey was used for feedback in regards to the initial induction and highlight doctors’ needs. A teaching program focused on foundation core competencies was organised for overseas doctors with individual allocation of middle grade support.

Results
An initial 12 responses were collected. Fifty Percent felt that the local induction did not provide sufficient preparation to start their new job and all doctors highlighted the need for more support. All doctors from the Trauma and Orthopaedic department attended the teaching sessions. Sixty percent responded to a second survey and felt the sessions were beneficial and wished they were organised prior to starting their job. Most were able to secure a training post the following year.

Key Messages
Overseas doctors need more support when starting their NHS career. They should be offered training and teaching to insure foundation programme core competencies with more shadowing time at the start.

References
Oral health on the ward

Authors
Miri Aghaki-Allen, Joseph Heath, Amr Mohammed
North West of England

Background
PROJECT CURRENTLY IN PROGRESS: In 2019 CQC released a report entitled ‘Smiling Matters: Oral health care in care homes’ which highlighted the importance of oral health for people in care homes and how it can often be an overlooked aspect of healthcare. It highlighted the fact that not all staff were aware that NICE guidance, which was released in 2016, existed. The report also detailed some of the effects poor oral health can have on people and the growing importance, given that more older people are retaining their teeth.

Methods
29 healthcare professionals on an orthopaedic ward answered a questionnaire regarding oral health at Manchester Royal Infirmary. A teaching session regarding NICE guidance and common oral conditions was delivered after the first round of questionnaires. The same information was then re-audited with another round of questionnaires given out after the teaching had been delivered.

Results
PROJECT CURRENTLY IN PROGRESS

Key Messages
-Current guidance regarding oral health in care homes has a place on the wards -Oral health is often overlooked -Poor oral health has a multitude of effects on the patient -Improvements are quick, easy to implement and can greatly impact patients and their relatives.

References
Streamlining the Investigations used for Patients in the One-Stop Haematuria Clinic

Authors
Jian Shen Kiam
East Anglia

Background
NICE guidelines for bladder cancer diagnosis and management recommend urinary biomarkers and cytoscopy followed by a CT if malignancy is suspected[1]. This audit examined the one-stop haematuria clinic at the local practice and reviewed the sequence and combination of investigations used to reach diagnosis. The results were then discussed and compared with other published studies to determine if local practice could be improved.

Methods
97 patients seen in the One-Stop haematuria clinic during May and June 2018 were included

Results
A total of 97 patients were included, 57 had visible and 40 had non-visible haematuria. The results showed that 12% of the patients had a urinary tract malignancy. Of the patient cohorts, 79% and 50% of visible haematuria patients had a US renal tract and CT urogram respectively. 85% and 35% of non-visible haematuria patients had a US renal tract and CT urogram respectively. 100% of the patients had a flexible cystoscopy.

Key Messages
The results showed that while all patients underwent flexible cystoscopy. The imaging modality of choice was highly variable with a significant portion of patients having just CT, US or both. Several proposals have been put forward to eliminate this variability and to ensure good clinical practice.

References
Assessment of Cognitive Impairment in Older People: A Quality Improvement Project

Authors
Kit Yeng Wong, David Arundel
Yorkshire and Humber

Background
Cognitive assessment is often missed or carried out unreliably in Emergency Department (ED). Delirium is associated with increased morbidity and mortality (1). The National Institute for Health and Care Excellence (NICE) recommends delirium screening at the earliest opportunity in emergency care (2, 3). This project aims to identify and improve the cognitive assessment in older people attending ED.

Methods
Patients aged ≥65 with NEWS2 score of ≤4 attending ED from August 2019 until January 2020 are included in the study. 20 cases are audited monthly for cognitive assessment, delirium screening and documentation of delirium in ED discharge letter. Interventions carried out include implementation of the 4 ‘A’s Test (4AT), delirium education and raising awareness via posters and emails to ED staff.

Results
70% (28/40) of patients had cognitive assessment in August and September 2019. 22.5% (9/40) were identified with cognitive impairment, of which delirium screening was only performed in 11% (1/9). Only 11% (1/9) had diagnosis of delirium included in discharge letter. Among those who did not have cognitive assessment, 50% (6/12) were found to have cognitive impairment. Post-intervention results will be re-audit to assess the impact of quality improvement initiatives.

Key Messages
THINK DELIRIUM. Cognitive assessment using 4AT should be carried out to improve detection of delirium in older people attending ED.

References
Improving antibiotic prescription by using antibiotic champion.

Authors
Muhammad Syarizwan Shafiq Zainudin
West Midlands North

Background
Evidence of insufficient antibiotics review is clear based on the lack of documentation on the drug charts and patient’s medical notes. This QIP was conducted to look at how good the clinicians are at reviewing antibiotic prescription and aimed to increase the awareness of doctors regarding the importance of antibiotics review.

Methods
This QIP was conducted in a medical ward in Walsall NHS Trust over 6 weeks period. The parameters assessed were appropriateness (availability of supporting evidences), indication, duration, route and review (signed review). Intervention was introduced by electing an antibiotic champion among the nurses designated to look for missing information on the drug chart during drug rounds and alert the doctor regarding the issue.

Results
The first cycle of the data suggested a positive impact of the intervention with an increase of appropriateness of antibiotic prescribed from 50% to 80%, better documentation of indication from 84% to 90% and increase in antibiotics review by from 83% to 90%. However, there was slight decrease in the documentation of duration by 7% (87% to 80%).

Key Messages
Poor antibiotic review is due to lack of sense of importance towards the issue. Antibiotic champion is a more proactive way of improving review. Doctors should engage in safer prescribing.

References
Abstracts

Poster Presentations

Case Reports Group 2
Trimethoprim-Induced Sweet's Syndrome: An unusual presentation

Authors
Samuel Audet

Essex, Bedfordshire and Hertfordshire (EBH)

Background
Sweet’s syndrome, also known as acute febrile neutrophilic dermatosis, is characterised by the eruption of erythematous cutaneous plaques or nodules that histologically contain a dense aggregation of neutrophils in the dermis. Drug-induced Sweet’s syndrome is rare but has been reported most commonly following administration of tetracyclines, azathioprine, co-trimoxazole, all trans-retinoic acids and granulocyte colony-stimulating factor. To date, there are seven case reports of trimethoprim-sulphamethoxazole-induced Sweet’s syndrome (2, 3, 4, 5, 6, 7).

Methods
We present, to our knowledge, the first case of Sweet’s syndrome following administration of trimethoprim as a single agent in a 51 year old lady presenting with fever and multiple vesicles on her upper and lower limbs, significantly raised inflammatory markers, a neutrophilic leucocytosis and a negative autoimmune and malignancy screen (figures 1 and 2).

Results
A diagnosis of Sweet’s syndrome was made clinically and later confirmed on biopsy, with complete resolution of all lesions following high dose glucocorticoids.

Key Messages
We draw attention to physicians encountering an acute eruption of painful erythematous vesicles or plaques in a toxic patient to consider Sweet’s Syndrome as a possible diagnosis: careful comprehensive history of antecedents may identify a trigger, and they should be mindful that this may occur as a paraneoplastic phenomenon.

References
An unexpected delivery: A Case of Severe Leptospirosis (Weil's Disease)

Authors
Thomas Poundall
Trent

Background
Leptospirosis is a zoonosis caused by spirochetes of the genus Leptospira which are transmitted to humans via contact with rat urine. We present a severe case of Leptospirosis in a 45 year old male who presented to the emergency department. This case was unusual because the disease had progressed to its most severe form (Weil's Disease) and the patient presented jaundiced with symptoms of the disease affecting multiple organs. The patient denied any of the usual water based activities that would be considered high risk for exposure to Leptospirosis. He worked at a parcel warehouse where a rat infestation was uncovered. The proposed route of infection was the rats urinating on the parcels he was handling on a daily basis.

Methods

Results

Key Messages
This patient had been misdiagnosed as having a self limiting viral illness when he presented to his GP 3 weeks prior. Leptospirosis is frequently misdiagnosed but is treatable with antibiotics therefore it is a diagnosis that foundation doctors should be aware of.

References
An exceptionally raised creatine kinase level in the context of influenza A infection and sickle cell trait

Authors
Harry Bamber
South Thames

Background
A 37-year-old normally fit and well man presented to hospital with fever, lethargy and myalgia. He was found to have an exceptionally elevated creatine kinase level of 1,172,440 IU.l⁻¹. He initially underwent fluid resuscitation, but despite this his renal function declined and he required continuous veno-venous haemodiafiltration. Subsequent testing revealed a positive viral swab for influenza A and that he was a carrier of the sickle cell trait.

Methods
A clinical case report was written due to the exceptional value of his creatine kinase and to investigate whether an association between influenza A, sickle cell trait and non-exertional rhabdomyolysis had been reported previously.

Results
This case may represent a previously unreported example of sickle cell trait augmenting the myositis caused by influenza A, resulting in severe non-exertional rhabdomyolysis.

Key Messages
With this case in mind, clinicians should be alert to the possible interaction of influenza A and sickle cell trait as a potential rarer cause of rhabdomyolysis and suspect an association if patients with sickle cell trait develop an acute kidney injury. More investigation is required to establish whether there is a predisposition towards myositis and/or rhabdomyolysis in those with sickle cell trait infected with Influenza A.

References
Failure to wean and frontal balding: not just a coincidence

Authors
Victoria Cullimore, Niyesha Ranasinghe, Reena Ellis, Pulak Paul

Background
Myotonic dystrophy type 1 is the most common muscular dystrophy occurring in adults, usually presenting with a history of progressive weakness and muscle wasting, its clinical progression is associated with cardiac abnormalities and other multisystem effects. A 29-year-old, previously fit and well, Caucasian male was admitted to hospital following an unwitnessed VF cardiac arrest.

Methods
The patient was difficult to wean from the ventilator on ITU and a cause for this was sought. Suspicion of myotonic dystrophy arose due to the presentation with a cardiac arrhythmia of unknown cause, a CT showing paraspinal muscle fatty infiltration, frontal balding and temporalis wasting. This prompted a thorough history which revealed the patient had developed an abnormal gait over the past decade. He also had difficulty with his grip and had lost physical jobs due to weakness and fatigability.

Results
Genetic screening identified the patient as heterozygous for a mutation consistent with a diagnosis of myotonic dystrophy type one.

Key Messages
A systematic approach for the differential diagnosis of failure to wean off the ventilator was essential to the diagnosis and subsequent management. Another vital component in the diagnosis was a thorough and targeted history. This emphasises the significant importance of this skill in every doctor’s practice.

References
A Case of Takotsubo Cardiomyopathy

Authors
Alexandra Lee
Northern Ireland

Background
Takotsubo cardiomyopathy is an increasingly recognised condition that often mimics acute coronary syndrome (ACS), however there is no underlying obstructive coronary disease and symptoms are transient. 90% of those affected are women(1), with the majority of cases precipitated by an emotional or physical stress trigger(2).

Methods

Results
75-year-old male presented with acute onset central chest pain, radiating to his back, associated with dyspnoea and diaphoresis. He denied nausea, jaw pain, palpitations or recent coryzal symptoms. He had not experienced any recent stressful events, nor physical illness. PMH included hypertension and hypercholesterolaemia. O/E HS I+II+EDM, bilateral crackles, mild pitting oedema, otherwise unremarkable. Investigations revealed elevated cTnT, widespread T wave inversion on ECG and evidence of pulmonary oedema on CXR. Echo, moderately impaired LVSF EF 35-40%, apex akinetic. He was treated for NSTEMI and underwent coronary angiogram. Surprisingly, coronary artery disease was not found, leading to the diagnosis of Takotsubo Cardiomyopathy.

Key Messages
Takotsubo cardiomyopathy should be considered in the differential diagnosis of patients presenting with potential ACS. The mechanism is incompletely understood, but sympathetic overstimulation in response to a trigger may be central in the causation(3). However, the demographics and lack of identifiable trigger make this case unusual, potentially suggesting alternate routes of pathogenesis.

References
Wernicke Encephalopathy: a difficult diagnosis to make

Authors
Jemima Heap, Dr Samuel Solomon, Dr John Jenkinson
North West of England

Background
Wernicke Encephalopathy is an acute and serious neurological condition rarely diagnosed in life.(1) Failure to suspect and diagnose the condition has devastating consequences for patients.(2)

Methods
We report a case of Wernicke Encephalopathy, before reviewing the literature to inform our reflection on why Wernicke Encephalopathy represents a challenging diagnosis for clinicians.

Results
This 54-year-old woman presented to the Emergency Department with vomiting, headache, and generalized blurred vision. On examination, she was found to have reduced conscious level and generalized weakness. After a complex stay in hospital, she was eventually diagnosed with Wernicke Encephalopathy, but the delay in diagnosis prevented her from accessing treatment in a timely fashion. We use this case report to reflect on the difficulties of making a diagnosis in this patient and of making a diagnosis of Wernicke Encephalopathy in general.

Key Messages
Wernicke Encephalopathy is a challenging diagnosis for any clinician and in this case the difficulty was compounded by language and radiology factors. The difficult diagnosis can be mitigated by recommendations from the European Federation of Neurological Societies on Wernicke Encephalopathy, which seek to draw attention to the differing clinical presentation between alcoholic and non-alcoholic patients presenting with Wernicke’s Encephalopathy.(1)

References
The surprise appendix; a case report of an awkward hernia

Authors
Isla Shariatmadari, Nitya Chandratreya
Severn

Background
A surgeon must expect the unexpected when undertaking any surgical procedure. The elusive femoral hernia is a challenging condition, accounting for 3% of all hernias, and is very often a missed diagnosis. Even more challenging and uncommon is the unanticipated finding of an appendix within such a hernia, first described by De Garengeot in 1731 (1).

Methods
We present a case of a 59-year-old male with an undiagnosed Richter’s-type femoral hernia, complicated by the rare appearance of the caecum, terminal ileum and gangrenous appendix, all within the herniated sac.

Results
We found 4 cm of necrotic bowel and carried out a small bowel resection with side-by-side anastomosis, appendectomy and femoral hernia repair. To our knowledge, there are less than 5 similar cases reported in the literature, the first of which was described in 1966 (2).

Key Messages
In addition to presenting a rare surgical case, we discuss a short review of the different operative approaches, and describe our scrupulous approach to this complex emergency hernia repair.

References
The first documented case of drug induced liver injury from Lurasidone therapy

Authors
Charlotte Davey
Wales

Background
Drug-induced liver injury (DILI) is well recognised but a challenge to diagnose. Numerous medications have the potential for hepatic impairment, ranging from mild liver enzyme derangement to acute or chronic liver failure. [1] This is the first documented case of clinically apparent DILI as a result of Lurasidone therapy. [2]

Methods
An adult male presented with a 3 day history of abdominal pain, vomiting and jaundice. He had no background of alcohol or drug abuse and no recent foreign travel. Drug history demonstrated the initiation of Lurasidone for Schizophrenia two weeks prior. Clinical biochemistry revealed bilirubin of 136 umol/L, Alkaline Phosphatase (ALP) of 453 U/L and Alanine Transaminase (ALT) of 577 U/L. Abdominal ultrasound demonstrated gallstones within the gallbladder, mild hepatosteosis and a normal biliary duct system. A non-invasive liver screen was negative for acute viral and autoimmune causes.

Results
Unremarkable imaging findings alongside a normal liver screen made DILI the most probable diagnosis, supported by a clinical and biochemical improvement following discontinuation of Lurasidone.

Key Messages
Systematic monitoring of liver tests may be indicated for drugs known to cause DILI so case reporting is crucial for identifying these new medications and improving physicians awareness of the potential hepatotoxicity when formulating diagnoses.

References
Bilateral Quadriceps Tendon Rupture: Case Report

Authors
Sajan Khullar
West Midlands North

Background
Unilateral quadriceps tendon rupture is a severe injury and mostly witnessed in men over the age of 40. However, bilateral rupture is rare. The weakening of the tendons is thought to be due to certain factors including chronic diseases & long-term effect of medication.

Methods
We report a case of a 69-year-old diabetic individual admitted with bilateral quadriceps tendon rupture following a minor fall. Due to limited literature on this topic, highlighting this case to the medical community aids future management of these patients, should any arise elsewhere.

Results
On examination, he had clinically palpable gaps bilaterally of his extensor mechanism which was treated surgically. Post-operatively, he had bilateral knee hinge-braces. Initially locked in extension, gradual flexion increments at biweekly intervals were made. His diabetes was optimised, with its orthopaedic protective effects considered, and then he was transferred to a rehabilitation hospital.

Key Messages
Although bilateral quadriceps tendon rupture is rare, one should hold a high index of suspicion, thus examining both legs. Diagnosis of quadriceps tendon rupture can be made by clinical examination; earlier diagnosis and intervention leads to a good functional outcome, even in bilateral cases. Commonly reported risk factors are confirmed, and this case continues and will be fully reported shortly.

References
Caecal perforation, a rare first presentation of endometriosis

Authors
Rachael Boyle, Jessica Mulholland
Scotland

Background
Endometriosis often involves the intestines. However, caecal localisation is uncommon. Moreover, colonic rupture secondary to endometriosis is very rare, particularly in non-gravid women. We report the case of a 46-year-old female presenting with abdominal pain and non-specific gastrointestinal symptoms, caused by an infiltrative endometriotic mass which had perforated the caecum and transverse colon.

Methods
Our nulliparous patient presented with abdominal pain, diarrhoea and vomiting. Abdominal examination found her to be diffusely tender on superficial palpation with some voluntary guarding. Blood results showed raised inflammatory markers. CT revealed extensive intra-abdominal inflammation and proximal colonic perforation. In theatre, a perforating caecal mass fistulating into the transverse colon was discovered. This necessitated a right hemicolectomy.

Results
Inflammatory bowel disease was working differential until the histopathology report returned, which described features suggesting endometriosis.

Key Messages
A protracted timespan from first presentation to eventual diagnosis is often experienced by women with endometriosis. Whilst the eventual outcome of colonic perforation could not have been anticipated, it should be appreciated that earlier diagnosis and intervention may have prevented such consequential morbidity. Caecal perforation in a non-gravid woman is a highly unusual first presentation of endometriosis. This case highlights the importance of early symptom recognition in reducing morbidity and mortality.

References
A rare cause of an intra-abdominal mass

Authors
Farzan Dholoo, Amanda Shabana, Rebecca Nunn, Waseem Hameed
Oxford

Background
Mesenteric cysts are a rare and often asymptomatic incidental finding on imaging [1]. Owing to the low prevalence and variability in size and location, literature is limited as is guidance on management [2]. This case report will aim to discuss the presentation, investigation and management options available.

Methods
A case-report of a 73-year-old female that presented with abdominal swelling and a palpable right sided mass.

Results
An abdominal ultrasound scan (USS) identified a right-sided intrabdominal cystic mass, potentially arising from the right kidney which a later Computerised Tomography (CT) scan ruled out. The general surgery multi-disciplinary team meeting concluded that the mass was likely to be a ‘mesenteric cyst’. A surgical approach moved from complete surgical excision to drainage and marsupialisation of the cyst due to the adherent right ureter to the cyst wall and intra-operative cyst rupture. The patient recovered well post-operatively.

Key Messages
Mesenteric cysts should be considered in patients presenting with an intra-abdominal mass. CT scan may be of more benefit than USS, owing to the complex anatomical relations within which mesenteric cysts can present. If complete surgical excision is not an option, partial excision with marsupialisation of the opening of the cyst into the abdominal perineal cavity is a second option.

References
'SEPSIS? SEEMS FISHY TO ME!'

Authors
Basim Ali, John McNamara, Prasanna Rao Balakrishna, James Howard, Rakesh Sajjan
North West of England

Background
An elderly gentleman with a background of AF, hypertension, IHD, previous ischaemic stroke, dementia and prostate cancer, was admitted with acute stroke. Two weeks into admission, he became pyrexial and increasingly confused. Impression was sepsis of unknown origin from observations. Screening investigations were done for sepsis.

Methods
We obtained a urine dip, bloods, blood cultures, CXR, echocardiogram.

Results
Peripheral blood cultures grew Staphylococcus aureus. Bloods revealed elevated inflammatory markers. Urine dip and CXR was negative. Echocardiogram showed no vegetations. PET/CT scan was requested to identify the source of infection. PET/CT demonstrated a high density linear object in the right upper quadrant with surrounding very high FDG uptake consistent with inflammation/ infection surrounding a foreign body, likely a fish bone. This was discussed at radiology MDT and it was agreed that this was the source of sepsis. On review of the patient's previous imaging, a CT scan 3 years earlier demonstrated a high density linear object penetrating the stomach wall. OGD was recommended at this time but not performed.

Key Messages
It is important to consider that some foreign bodies might remain in the gastrointestinal system longer than anticipated and may present significant problems in the future if not dealt with at the time.

References
Tapia’s Syndrome secondary to intubation in Burns ITU.

Authors
Daniel Hathaway, Nader Ibrahim, Sarah Hemington-Gorse, Jonathan Cubitt
Wales

Background
Tapia’s syndrome is an ipsilateral larynx and tongue hemiplegia with the cause originating extracranially.(1,2) The proposed mechanism of injury to these nerves are as a result of tracheal intubation, abnormal head/neck positioning and high cuff pressures.(3,4)

Methods
We report a case of a 16-year-old male with 42% total body surface area mixed-depth burns following an explosion. He underwent a total of 10 theatre sessions during his ITU admission. He received treatment for a ventilator-acquired pneumonia and a tonsillar exudate grew a positive culture for Fusobacterium necrophorum. After two failed extubations, he was successfully extubated on day 19. He was found to be aphonic with minimal laryngeal elevation and a left hypoglossal palsy.

Results
Six weeks after extubation, there has been limited spontaneous recovery in the patient’s symptoms. Tongue denervation persists and his voice remains aphonic and airway protection remains severely compromised requiring NG feeding.

Key Messages
The patient underwent multiple intubations and visits to theatre which may have contributed to his presentation. Compared with other reported cases of Tapia’s syndrome, our patient should expect to have resolution of his symptoms within 3-6 months,(5,6) The growth of Fusobacterium necrophorum which can rarely cause Lemierre’s syndrome (and subsequent CN IX, X, XII palsy) may be coincidental.

References
An unusual presentation of Neurosarcoidosis

Authors
Kirtana Vallabhaneni, Hao Meng Yip, David Williams
North Central and East London

Background
Neurosarcoidosis most commonly presents as cranial neuropathy, peripheral mono or polyneuropathy, myopathy, meningitis or myelopathy(1). There are limited reports in literature on cases of neurosarcoidosis patients presenting with ischaemic stroke(2). We present a 52-year-old man with previous history of cutaneous sarcoidosis presenting with an acute third nerve palsy, facial weakness and ataxia. We looked at difficulties in confirming diagnosis for his presentation and considered distinctions in stroke in neurosarcoid and management in comparison to more common causes.

Methods
(N/A)

Results
MRI brain demonstrated focal signal changes in midbrain consistent with an acute ischaemic event in the region of his third nucleus, suggesting partial Claude syndrome presentation. CSF examination demonstrated elevated ACE. He was extensively investigated for causes of ‘young stroke’ with no positive findings. The only definitive way to confirm diagnosis is via biopsy; an impractical measure considering infarct location. In addition to maintenance immune steroid therapy, and stroke management (dual antiplatelet therapy and statin), initiation of steroid sparing immunosuppression was coordinated.

Key Messages
Despite its rarity, ischaemic infarct secondary to neurosarcoidosis remains an important differential diagnosis for younger stroke patients. In these patients, embolic infarcts are rarer and it is important to consider other vasculopathic processes with underlying autoimmune, infective, drug-related or malignant aetiologies.

References
Antenatally Detected Congenital Hepatic Cyst

Authors
Sarah Ackroyd, Wisam Abbas
Scotland

Background
Simple hepatic cysts are a rare occurrence in infants; a retrospective study in Adelaide over 10 years identified simple hepatic cysts in approximately 1 in 73,000 live births (1). More often than not they follow an asymptomatic course and spontaneously resolve, infrequently however, they can exert a mass effect resulting in respiratory distress, obstruction of small bowel or biliary tree (2). Management options include conservative approach; a ‘watch and wait’ with serial abdominal ultrasounds or a surgical approach of ethanol sclerotherapy, aspiration, deroofing or laparoscopic/open fenestration (2).

Methods
We present the case of an antenatally detected cyst in a female infant that was monitored for an enlarging simple hepatic cyst and later planned for surgery. A literature review was also conducted to identify studies and case reports relevant to paediatric simple hepatic cysts.

Results
A single meta-analysis was found comprising of nine relevant case reports detailing the outcome of congenital hepatic cysts in infants (3).

Key Messages
The rarity of this condition has meant that no specific management guidelines exist, and we are therefore guided by previous experience or literature review (4). Surgical management is undertaken in cases with life-threatening complications or persistent symptoms.

References
A hemiplegic migraine that was not a migraine

Authors
Wassim Merzougui, Arjun Nehra, Dr Sunil Munshi

Background
Patent foramen ovale occur in 20-25% of people and can contribute to paradoxical embolism in the heart and lead to stroke.

Methods
We describe a 28-year old man who presented with episodes of right sided weakness and was labelled as having hemiplegic migraine. He underwent numerous investigations before a cause could be determined.

Results
MRI scan confirmed infarcts in the left cerebral cortex. A 2D-Echo, thrombophilia and genetic tests were negative. A contrast echocardiogram confirmed the presence of a patent foramen ovale with Grade 3 shunt across the inter-atrial septum. He underwent a procedure with occlusion of the defect in the atrial septum.

Key Messages
The recently published RESPECT, REDUCE and CLOSE trials clearly favour PFO closure over medical therapy alone in reducing stroke risk. Previous negative trials like CLOSURE 1 and PC, used transient ischemic attacks (TIA) in both the inclusion criteria and the primary end point. A young person with cryptogenic stroke and PFO will require a skilled clinician(s) to help with decision-making, careful evaluation to see if PFO is causal (TCD may help). Future research should compare DOACs with PFO closure. A multi-disciplinary format would be useful for decision making.

References
Septic Arthritis of the Knee: Evaluation of an Atypical Presentation resulting in Mortality

Authors
Sarah O'Brien
North West of England

Background
Septic Arthritis commonly affects the hip and knee joints displaying cardinal features. Patients with an atypical presentation require investigation as joint destruction can occur rapidly along with morbidity and mortality. Minimal practical training is provided in Foundation years focused on arthrocentesis and management of the condition.

Methods
Review of a case regarding a 78-year-old female who presented complaining of right knee pain, unable to weight bear of one-week duration. Examination revealed; pain over the right knee, limited movement, mild erythema, euthermic, no effusion and unidentifiable swelling. Initial investigations did not indicate Septic Arthritis, however the patient deteriorated. Evaluation of both Datix and completion of a Situation Judgement Review concerning the case, identified learning points, to incorporate into Simulation sessions for Foundation Doctors.

Results
Despite antibiotics, multiorgan failure secondary to septic arthritis was noted as cause of death. Diagnosis of Septic Arthritis can be overlooked but should be considered for an acutely painful joint. Feedback following the simulation session can be collected and evaluated for implementation of future improvements.

Key Messages
Unresolved pain warrants investigation and arthrocentesis. Proposed simulation can be delivered to Trainees incorporating both sepsis and septic arthritis management and how to perform arthrocentesis successfully. This can be mapped to the Foundation Curriculum.

References
n/a
Abstracts

Poster Presentations

Quality Improvement Group 3
An Oxygen delivered (L/min) to Fi02 (%) conversion table for improving accuracy and consistency of inputs at point of care ABG machines.

Authors
Zoe Gray, Matthew Walton, Matthew King, Katelyn Aitchison, Basil McDonald
North West of England

Background
An Ongoing Multicenter Prospective Quality Improvement Project: An Oxygen delivered (L/min) to Fi02 (%) conversion table for improving accuracy and consistency of inputs at point of care ABG machines.

Methods
Methods ABG machine users must input Fi02 data for their patient. This requires the user to make a conversion from the bedside flow rate of oxygen via a given device into Fi02 (%). A novel table was created which used the British Thoracic Society (BTS) guidelines (1) to aid users with that conversion. Compliance pre and post accessibility of guidelines could then be compared.

Results
Results Preliminary results in Imperial College Healthcare NHS Trust displayed 77% input were compliant with BTS guidelines, increasing to 97% following intervention. Furthermore 37% Fi02 inputs were consistent with conversion table values, increasing to 87% following intervention.

Key Messages
Key Messages Nearly all participants said that they would like a formal conversion table and it is planned to include the novel conversion table in ABG SOP and next to trust machines. Further analysis from Southport and Ormskirk Hospital NHS Trust, Chelsea and Westminster Hospital NHS Trust, London North West University Healthcare Trust and Aintree University Hospitals NHS Foundation Trust will be added and compared.

References
Respiratory inpatient smoking cessation – Could we be doing more?

Authors
Jordan Williams
Yorkshire and Humber

Background
With approximately 15% of the UK population being current smokers and 450,000 hospital admissions a year related to smoking, NICE advises that all current smokers should have access to cessation services. Including advice and medicines, patients have access to a locally commissioned support service, One you Leeds (OYL). Services like OYL provide the support that increases the likelihood of successfully quitting up to four times. This project aims to identify if the respiratory department is utilising the available services and methods in which it could increase adherence to national guidance.

Methods
Current smokers on the respiratory wards were asked if, during this admission, they were offered: advice, nicotine replacement, OYL referral or pharmacological interventions.

Results
At baseline interventions offered: Cessation advice (37%), Nicotine replacement therapy (42%), OYL referral (5%). The action plan following this was cessation advice from pharmacist technician during admission and to flag to doctors to prescribe medications. Following this rate of cessation advice (100%), NRT (93%), OYL (67%) and Non-NRT prescribing (13%) improved.

Key Messages
This project highlights the efficacy and value of a structured smoking cessation programme as a core aspect of inpatient medical care.

References
Are Abdominal X-Rays Requested Appropriately For Acute Surgical Patients?

Authors
Byrone Mitchell, Azra Khatun
Wessex

Background
Abdominal X-rays (AXR) are commonly requested for surgical patients presenting to the emergency department (ED) with an acute abdomen. Anecdotally many hospitals report the overuse of AXRs and its limited clinical value1, therefore radiographs should only be requested when necessary2.

Methods
All adult patients (not pregnant) admitted to St Mary’s Hospital by the surgical department that had an AXR between 1st-28th February 2019 were identified retrospectively. ECARELOGIC analysed ED clerking notes and AXR request cards were evaluated using PACS. The Royal College of Radiologists (RCR) iRefer guidelines2 was used to cross reference the indications outlined on request cards. The following data items were collected: 1. AXR indication 2. Department requesting AXR 3. Whether indications on request cards correlated with clinical notes

Results
During the audit period, a total of 52 radiographs were performed, 63% (n= 33) met the RCR referral guidelines. There was an absolute and relative indication for 20 and 13 of these AXRs, respectively, leaving 19 radiographs that were not indicated. There was discrepancy between the indications given on request cards and the patients’ clinical notes.

Key Messages
37% of AXRs performed on surgical patients were not indicated, further interventions are required to avoid unnecessary AXR requests.

References
Improving Awareness of Coding Among Clinicians at Musgrove Park Hospital

Authors
Shriya Kumar, Francine Cheese, Adelaide Griffith, Harriet Munn, Oliver Penfold
Severn

Background
Clinical coding is the translation of medical terminology written by clinicians into a standard coded format; essential for resource allocation, epidemiological and statistical research. Clinicians’ understanding of coding is poor (1) and note taking is sometimes inaccurate. Campbell et al. (2) demonstrated that omission of relevant information in discharge summaries resulted in inaccurate coding and financial loss, as well as erroneous hospital standardised mortality rates. With the current political and financial climate, increased accuracy of clinical coding is essential.

Methods
Discharge summaries from our Urology department were assessed over a 3 month period for written co-morbidities compared to total relevant co-morbidities (identified through GP and clerking records). Interventions, including tutorials and presentations at departmental meetings, were implemented monthly. The percentage of written vs. total co-morbidities was calculated pre- and post-intervention.

Results
On average, discharge summaries listed only 33% of total relevant co-morbidities, with financial loss for one patient’s notes being £806. Simple interventions to raise awareness resulted in an increase to 43%. Subjectively, two-thirds of the coders felt that note taking had improved.

Key Messages
Clinical notes can often be substandard. A greater awareness of clinical coding can increase the accuracy of note taking, and consequently, improve resource allocation and reduce financial ramifications.

References
1) Improving accuracy of coding for HSMR and funding in MPH. (Audit) Dr Peter Campbell, Dr Duncan Whitehead, Julie Carpenter, Dr Rachael Ward 2) The quality of clinical coding in the NHS. Payment by Results data assurance framework. September 2014, Capita Health and Wellbeing Limited.
Management of an acute painful crisis in the Accident and Emergency department at Colchester General Hospital: A clinical audit

Authors
Uyioghosa Faith Asemota
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Sickle cell crisis (SCC) is the main clinical feature of sick cell disease, with an estimated 13,000 different admissions to hospital annually across the UK. Its management varies across the country and is often a source of complaints. This clinical audit compares its management at Colchester General Hospital against existing NICE guidelines.

Methods
This was a retrospective process of care audit analysing the cases presenting to the A&E department at Colchester General Hospital over a 3 year period. Data was collected using the A&E registry of attendees and Electronic Medical Records.

Results
24% of patients were administered analgesia within 30 minutes of arrival, with IV morphine being the opioid of choice in 70% of the cases with severe pain. Difficulty gaining IV access was a common reason for a delay in the administration of analgesia. Adjunctive non opiates were prescribed in less than 50% of cases.

Key Messages
Analgesia should be administered within 30 minutes of presentation. Subcutaneous opioids should be considered to bypass the barrier of difficulty gaining IV access. All patients should be prescribed non opioid adjuncts. An upcoming trust wide guideline is currently being designed to offer a standardised evidence based approach to the management of a SCC.

References
Are Doctors Complying with Leicestershire Partnership Trust Seclusion Policy? An Audit of current practice

Authors
Shayan Butt, Dr Daniel Kinnair
Leicester, Northamptonshire and Rutland (LNR)

Background
This audit focused on assessing the medical input of patients in seclusion. It concentrated on whether medical reviews were taking place by both junior and senior doctors at appropriate times as per CQC guidance therefore aiming to improve the care of patients placed in seclusion.

Methods
Belvoir PICU and the open wards with a seclusion capability (Ashby, Aston, Beaumont, Bosworth, Heather, Thornton and Watermead) were audited for every episode of seclusion that occurred between: September 2018 to February 2019. For each seclusion episode RiO documentation as well as official seclusion paperwork on RiO was reviewed to gather information for each criterion investigated.

Results
A total of 91 seclusion episodes were reviewed, 43 of which lasted >/equal to 8 hours. The number of seclusion episodes on the open wards were: 54  The number of seclusion episodes on Belvoir PICU were: 37  In only 47% of occasions the doctor attended to review seclusion after the first hour, and of these only 38% documented anything on RiO. In 77% of seclusions that lasted over 4 hours the doctor did attend the 4 hourly review. These findings were worse than the previous audit carried out in 2018.

Key Messages
The medical input into seclusions in our trust was below the level we would have expected. As a result new seclusion paperwork was designed to try to ensure that medical input was integral to the review of patients. Training into seclusion reviews was put into the induction package for new junior doctors, and new trust flow charts were created and widely disseminated.

References
CQC Seclusion Guidelines  LPT Seclusion Guidelines
Quality Improvement Project: Improvement of Fluid Prescription Planning

Authors
Chloe Henson, Ryan Hum
North West of England

Background
Fluid mismanagement causes a significant risk for patient safety. Out of hours, fluid prescriptions pose a significant challenge for busy on-call junior doctors, often left with dozens of fluid reviews overnight for patients not known to themselves, with very little information to go on from day team plans. NICE recommends specifically reviewing fluids as part of every ward round.

Methods
Over 6 weeks we reviewed Friday ward round plans for each patient on a 32-bed medical ward and correlated these with any subsequent fluid prescriptions and reviews over the weekend. We established whether or not a plan was in place (only the case for 52% patients) and reviewed the appropriateness of prescriptions out of hours. We then implemented an educational change for the ward team, and re-reviewed another 6 weeks of plans.

Results
A subsequent improvement in presence of fluid planning from 52% to 78%, and a reduction in unsafe out of hour prescriptions.

Key Messages
Inappropriate fluid prescriptions are a risk to patient safety, and an unnecessary waste of resources. Having a good plan in place each day regarding fluids made by the patient’s parent team can reduce need for out of hour fluid reviews by on-call doctors and reduce risk.

References
Introduction to specialities - A formalised handover to junior doctors when rotating onto new specialities

Authors
Hitesh Mistry, Florence Bell
Wessex

Background
Junior doctors rotate regularly through several specialities as they progress through training, often without a formalised handover process to ease the transition stage. As such, uncertainty revolves around understanding of the role, impacting morale, and potentially disrupting patient care.

Methods
We surveyed local foundation doctors to establish preparation levels going into the first rotation, clarifying if they had received a specific handover from the outgoing doctor and usefulness thereof. We also wanted to establish an outcome measure, gauging how long it took before they felt comfortable. Follow-up revealed handovers from outgoing doctors rarely occurred, and if existent, they were not helpful, leading to under-confidence in care delivery. We therefore implemented a formalised handover process presented by outgoing doctors to the incoming cohort. This encompassed daily running of the ward, highlighting key information from medical, technical and practical viewpoints.

Results
All measurable parameters were improved on re-survey, with individuals reporting better confidence and objective understanding of the roles. We therefore added a comprehensive document, to provide universalized information throughout specialties.

Key Messages
From this project, it appears provision of cohesive, objective and unified role expectations allows for increase in confidence, and subsequently care delivery, within the junior doctor cohort.

References
Inpatient referral directory

Authors
Zak Maas, Amin Manssouri
Scotland

Background
Lack of electronic referral systems and local guidance on inter-speciality referrals has been shown to cause delays to patient care and discharges (1, 2). University Hospital Monklands (UHM) does not have such systems. With junior doctors regularly rotating, referrals are inconsistent and time consuming. Induction app has recently become popular amongst junior doctors (3). This app provides hospital telephone directories and local clinical guidelines.

Methods
We used surveys to measure junior doctors’ opinion of inter-specialty referral guidance. We collated information from colleagues, secretaries, switchboard and the intranet. This was used to form a document giving guidance on how to refer patients to each specialty and service. This document was made available via the Induction app. We took further surveys gauging engagement and using feedback to further improve our directory.

Results
Junior doctors reported increased accessibility to referral guidance across all specialties, procedures and investigations. Creating an electronic document accessible via mobile app meant UHM had institutional memory. Presenting this project at a hospital wide meeting raised the topic of implementing electronic referrals.

Key Messages
We improved accessibility to referral guidelines, increasing efficiency of referrals reducing delays and saving time junior doctors spent referring. An electronic referral system would provide a consistent audit trail.

References
Automated Continuous Electrocardiogram Monitoring improves time management in TIA clinic.

Authors
Su yin Lim, Dr Soma Banerjee, Dr Lucio D'Anna
North West London

Background
Rapid and sensitive atrial fibrillation (AF) detection following transient ischemic attack (TIA) is crucial for anticoagulation initiation, which significantly reduces stroke risk recurrence in comparison to standard antiplatelet therapy. (1, 2) A previous study demonstrated 58% of TIA patients received routine cardiac monitoring following considerable delay. (3) We aimed to improve time interval between TIA and routine cardiac monitoring. We investigated whether automated analysis of continuous electrocardiogram monitoring (ACEM) would be an effective intervention.

Methods
TIA patients reviewed in clinic were prospectively identified during two recruitment phases: between June-December 2018 for routine practice, and January-June 2019 for ACEM. Event characteristics, patient history and demographics were obtained from medical records. Time between clinic review and routine cardiac monitoring, or ACEM, performed and reported were obtained from medical records and Xerox Docushare software.

Results
128 patients received routine cardiac monitoring, while 31 received ACEM. Median time from clinic review to performed routine cardiac monitoring was [104 days (IQR 72-114)], and [1 days (IQR 1-3)] with ACEM. Median time from clinic review to reported routine cardiac monitoring was [36 days (IQR 13-70)] and [2 days (IQR 1-3)] with ACEM.

Key Messages
ACEM accelerates time interval between TIA clinic review and cardiac monitoring compared to routine practice.

References
An audit on the effectiveness of the introduction of a bowel management protocol in a tertiary critical care unit

Authors
Cameron Cole
Northern

Background
Recent ICU in-unit audit identified loose stool or constipation on >50% days. New protocol introduced. re-audited to 1) identify efficacy of protocol 2) further observe reasons for loose stools/constipation on ICU

Methods
Bowel motions recorded for patients on unit each day. categorized as 1) constipated 2) 'normal' or 3) loose. additionally, number and results of all DREs recorded.

Results
1) 512 bowel days collected. Percentage of each category: Constipation 17%, ‘normal bowel activity’ 59%, loose stools 24%  2) PR results as follows: 86 PRs. 65% identified empty rectum, 35% identified stool present  3) Total number of days BO 157. Total number of days BNO 355  4) When BO number of days with each type of stool: Type 1-2 3 days; Type 3-4 30 days; Type 5-7 124 days

Key Messages
1) Constipation and normal stools improved significantly with protocol  2) Number of loose stool days unchanged - further discussion ?cause  3) When bowels open - predominant motion is loose stool ?to be expected  4*) PR results show 65% empty rectum  5*) Days of none defecation 69% compared to defecation 31%  6*) Number hard stools only 3/512  *all evidence that non-defication on ICU more likely the result of reduced activity/empty gut rather than constipation.

References
Managing diarrhoea in intensive care, Ferrie et al. 2007  Bowel motions in critically ill patients: a pilot observational study, Bishop et al. 2010
**Closing the Loop: The safety of patient Handover in the Emergency Department**

**Authors**
Amanda Shabana, Farzan Dholoo, Muhammed Riaz, Claudia Hawes, Jamie Banks, Bethan Tyler, Janna Ahmed, Carl Robinson, Stef Worrall
South Thames

**Background**
Effective patient handover and its failure is recognized as a major preventable cause of patient harm [1]. In 2018, The Professional Record Standards Body (PRSB) provided national standards on the structure and content of information that should be recorded at handover [2]. A previous audit showed poor compliance with PRSB guidelines (2018) for patients being transferred within the Emergency Department (ED). The aim of this re-audit is to improve the safety of patient handovers by implementing an ED “Transfer Sticker” setting out the PRSB guidelines.

**Methods**
A prospective analysis of the clinical handovers of 120 patients transferred from the main ED department to the Emergency Department Observation Unit at Frimley Park Hospital.

**Results**
Patients that had an ED transfer sticker completed compared to those that did not have a sticker completed were significantly more likely to: be handed over to a doctor (97.8% vs 58.7%; p<0.05), be handed over to a nurse if not handed over to a doctor (100% vs 58.1%; p<0.05), have a completed drug chart (69.0% vs 52.0%; p<0.05) and have a documented plan in the notes (84.4% vs 77.3%; p=0.034).

**Key Messages**
This re-audit demonstrated improvement in patient handover in ED by implementing an ED Transfer sticker. Other hospitals/wards may find patient transfer stickers useful in promoting patient safety.

**References**
Venous thromboembolism prophylaxis on an acute mental health ward in a psychiatric hospital

Authors
Ganesh Sathanapally
Trent

Background
There is a high risk of venous thromboembolism (VTE) in inpatient psychiatric units(1). Treatment with antipsychotic medications(2), use of physical restraint(3) and presence of catatonia(4) are associated with elevated risk of VTE. NICE and Trust-wide guidance mandate that all psychiatric patients should have a VTE risk assessment (VTERA) using a validated tool(5). This project assessed concordance with VTERA and developed recommendations to improve practice on an acute mental health ward.

Methods
Drug charts and online notes of all inpatients were analysed to identify documentation of completed VTERA. Prescribers were informed that VTERA is mandatory, a poster echoing this information was synthesised. Coincidentally, an online VTERA tool was published by the trust– a reminder to complete this was included in the poster. Data was resampled 8 months later using the trusts newly implemented online "physical health assessment completeness report".

Results
Initially, only 50% of patients had a completed VTERA; 0% had a documented VTERA using a validated tool. Following the intervention, 95% of patients had a completed VTERA using a validated tool.

Key Messages
Educating prescribers of the importance of VTERA, and the implementation of visual reminders may improve concordance. The availability of an online VTERA tool is likely to simplify this process for prescribers.

References
Improving Handovers between Jobs for Foundation Doctors

Authors
Charles Nye, Angus Kitchin
Severn

Background
Foundation doctors change jobs every 4 months. Prior to this QIP 37.5% of F1s surveyed at Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT) received a job handover prior to changeover. We performed a QIP to improve job handovers using standardized handover documents.

Methods
Two PDSA (Plan, Do, Study, Act) cycles were carried out. The baseline quality of handovers was assessed through surveying F1 doctors and a handover template was developed and distributed for use. Handover documents were shared through Google Drive and after changeover the doctors were resurveyed. Cycle 2 involved further F1 engagement in the project and using the Trust network for distribution before surveying again.

Results
Pre-intervention 94% of the 16 survey responders felt that receiving a handover document prior to starting was important and all wanted easily accessible digital handover documents. The average quality of job handovers improved from 3.3/5 to 4.2/5 in cycle 1 to 4/5 in cycle 2. By cycle 2 86% of F1 had accessed their handover prior to changeover. >90% felt the new system was an improvement.

Key Messages
F1s feel receiving a job handover is important. Results showed an easily accessible standardized digital handover was easy to access and effective.

References
nil
Foundation year’s doctors experience of Intravenous cannula placement using ultrasound

Authors
Jonathan Wareing, Basim ES Dawoud, Andrew Power, Christopher Mannion
Yorkshire and Humber

Background
Intravenous cannula insertion is common practice throughout the United Kingdom for providing patients intravenous fluids and antibiotics. Patients have varying anatomy and it can be difficult to locate and place a cannula. Ultra sound guided cannulation is a useful skill set for junior doctors to obtain to prevent a delay in patients receiving medication. This skill set is taught at some universities at undergraduate but not all and we wanted to assess if there is a need for foundation doctors to be trained in this technique.

Methods
A survey was sent out to all foundation doctors in West Yorkshire using the Bristol online survey. The survey was sent out via the foundation school three times which resulted in 225 responses.

Results
80% of foundation doctors believe this delay in cannula placement has an adverse effect on patient care. 99.5% would like some training in placement of cannulas under US guidance and 96% feel this would reduce delays in patients receiving intravenous fluid/antibiotics.

Key Messages
Up skilling our junior doctor workforce in placement of ultra sound guided cannulation will reduce delays in patients receiving intravenous fluid/antibiotics. This will improve patient’s outcomes and reduce hospital costs by decreasing length of stay of patients.

References
Improving the Foundation Doctor Surgical Rota in NHS Tayside to support Patient Centred Care, Training and Education and Doctor Health and Wellbeing

Authors
James Lucocq, Fearghas Middleton, Zhi Jap, Achyut Valluri
Scotland

Background
The Professionalism Compliance Analysis Tool (PCAT) has been used over the past three years to highlight areas of good practice and areas of improvement within the Acute Medical Unit (AMU) rota at Ninewells Hospital, Tayside. Through direct feedback with junior doctors it has helped to visualise the areas in need of change and has encouraged action through Quality Improvement work.

Methods
An adjusted PCAT has been employed to improve the current surgical rota for FY1s and FY2s and to guide the distribution of FYs across the surgical wards. Feedback was collected through an adapted PCAT questionnaire and aimed to raise issues on rota non-compliance, training, education, doctor wellbeing and patient safety.

Results
We have successfully increased the exposure to acute surgical admissions for FY1s and FY2s to support training. A specific induction to each surgical ward has been introduced to orientate foundation doctors to their new placement. We have restructured the rota to provide cover on the acute admission unit during handover and redistributed foundation doctors across centres in Tayside to meet demand.

Key Messages
The PCAT can be utilised as a framework to improve rota design and improve patient safety, doctor wellbeing, training and education.

References

Authors
Gabriel DeGiorgio, Mohamed Shoukry
Malta

Background
The progression of Minimal Invasive Surgery (MIS) in childhood has advanced greatly, with laparoscopic instrument miniaturization and advanced surgical skills resulting in a substantial increase in the use of MIS for increasingly complex procedures. Prospective randomised trials and high-level evidence for benefit of endoscopic surgery are still limited.

Methods
A retrospective study of using MIS in 45 cases as standard in paediatric acute appendicitis in a tertiary referral centre in Malta. The team reviewed patients' demographics, presentation, hospital stay, investigations and radiological studies, operative time, technique and outcome, hospital stay, post-operative analgesia and antibiotic use, morbidity, mortality and follow-up (including histology).

Results
No cases required conversion and all procedures were carried out by single paediatric surgery firm as emergency cases. Age at surgery ranged from 4-15 years. Mean operative time of 60 and 90 minutes for simple/perforated cases respectively.

Key Messages
Advantages included better cosmesis, superior exposure, less trauma and enhanced post-operative mobility. With endoscopic instruments of adequate size and possession of appropriate surgical skills, there seem to be no age/weight limitations for MIS. We strongly believe that MIS has found its place in paediatric surgery and children will continue to benefit from this technique. Numbers were small but representative of the Maltese population.

References
None
Abstracts

Poster Presentations

Research / Original Work Group 2
Patterns of alcohol consumption and mental wellbeing: an analysis of data from the 2008 sweep of the National Child Development Study

Authors
James Keasley, Oyinlola Oyebode
West Midlands South

Background
Hazardous drinking is associated with significant mortality and morbidity. While the associations between alcohol and mental wellbeing have been explored elsewhere, this study presents secondary analysis of data collected from a large longitudinal study with a representative sample adjusted for a large number of confounders.

Methods
The data was taken from the 2008 sweeps of the National Child Development Study. Alcohol Use Disorders Identification Test scores (AUDIT) and mental wellbeing scores (WEMWBS) were derived for 9790 participants, all aged 50 or 51. Participant AUDIT scores were grouped by lower, increased and higher risk of hazardous drinking and wellbeing scores were grouped by interquartile range. Binary logistic regression was used to produce odds of low wellbeing in comparison to middle wellbeing. This was repeated to compare high wellbeing and middle wellbeing. The regression was adjusted for sex, qualifications, job status, marital status, smoking status, self-reported health, disability status and if health limited everyday activities.

Results
There was no significant association between AUDIT score and high wellbeing, however, there is a significant association between AUDIT score and low wellbeing. Final results will be available in November pending further statistical analysis.

Key Messages
Hazardous drinking is associated with low mental wellbeing.

References
A change in perspective to see the bigger picture. A thematic analysis of Audit and Quality Improvement submissions to the last five UK based SAM Conferences.

**Authors**
Mark Boyle
North West of England

**Background**
The concept of this project was to assess what Quality Improvement (A&QI) is happening in the UK. The Society of Acute Medicine (SAM) was chosen, as an International body, to be a proxy for what is happening on the “shop floor” on a national scale. The aim was to succinctly profile A&QI submissions, to identify themes and to highlight avenues for future analysis into cause and effect.

**Methods**
Data was compiled from the five most recent UK-based SAM conferences. Abstracts were classified based on key aspects of each submission. Further sub-categorisation was performed to facilitate more detailed profiling. Data was plotted by Pareto chart and assessed cumulatively, by category and by conference.

**Results**
Almost 300 AaQI abstracts were submitted. 50% of submissions fall within 20% of categories. Of the top 9 categories, at least 56.25% of submissions fall within 2 of their respective sub-categories.

**Key Messages**
The majority of submissions fall within a small cohort of categories, suggesting that there are a few widespread key issues facing acute medicine that are difficult to implement effective solutions to. Further causative analysis into these key themes may provide a platform for positive and permanent quality improvement.

**References**
The implantation of Cardiac Implantable Devices in patients with Deep Brain Stimulation: is it safe?

Authors
Sheikh Muktadir Bin Momin, Mark Elliott, Afzal Sohaib
North Central and East London

Background
The need for cardiac implantable devices (CIDs) such as permanent pacemaker (PPM) and implanted cardioverter-defibrillator (ICD) in patients receiving deep brain stimulation (DBS) is increasing. There is a theoretical risk of interaction between the two systems, but there are currently no guidelines for clinicians in managing this cohort.

Methods
We performed a systematic review based on the PRISMA guidelines to evaluate efficacy and safety (1). A comprehensive search of major biomedical databases was undertaken using variations of the terms: ‘deep brain stimulation’ combined with ‘cardiac pacemaker’ or ‘implantable cardioverter-defibrillator’. Articles were included if they were primary studies referring to the use of CIDs and DBS.

Results
14 case reports, involving a total of 20 patients were identified. Aside from one case, where an ICD caused a reset of the DBS system in a patient with bilateral DBS, there were no reported interactions, and the efficacy of both systems was maintained.

Key Messages
Current evidence suggests CIDs and DBS can co-exist safely if certain precautions are taken. All such patients should be managed in a multi-disciplinary team. Given the low quality of evidence in the literature, significant interactions may possibly be under-reported. A large, prospective observational study is required in this cohort to fully assess safety.

References
Human Papillomavirus in Head and Neck Cancers: An end to gender-bias in the United Kingdom’s national immunisation programme?

Authors
Bethan McLeish
West Midlands North

Background
Human Papillomavirus (HPV) is a risk factor for Head and Neck Squamous Cell Carcinoma (HNSCC). HPV is detected in 26% of all HNSCC (1), most commonly in oropharyngeal squamous cell carcinomas (OPSCC) (1, 2). HPV-associated HNSCC is more common in males (3), however until recently the United Kingdom (UK) offered routine HPV vaccination only to females.

Methods
This article aims to summarise the relationship between HPV and HNSCC, along with the history and rationale behind changes to the HPV vaccination programme in the UK. An evidence search was conducted, relevant articles critically appraised, and evidence summarised and presented as a literature review.

Results
HPV vaccination was introduced to the UK’s national immunisation programme in 2008 for girls aged 12-13, with the focus of preventing cervical cancer. In 2019, the programme was extended to include adolescent boys. It is forecasted that 8681 cases of OPSCC in girls and 21395 cases of OPSCC in boys will be prevented by 2058 as a consequence of the UK’s vaccination programme. (4)

Key Messages
HPV is implicated as a causal factor for HNSCC on a molecular level. Evidence supports the prediction that incidence of HPV-associated HNSCC will decrease as a result of the gender-neutral vaccination programme.

References
Urogeriatrics-A new field?

Authors
Adio Kokayi, Jacques Gallois
North West of England

Background
The improvement in patient care since the introduction of orthogeriatricians is well documented (1). This study assessed whether acute urology admissions may benefit similarly from regular medical input. It also examined if reciprocal input from urology would improve outcomes in geriatric patients.

Methods
Patients included in the study were: aged 65 or older, acute admissions and discharged during the same two week period (24/09/18-04/10/18; 1 week for geriatrics admissions). Information was collected from electronic patient notes.

Results
Of the 38 acute urology admissions, 13 (34%) developed acute medical issues. These patients had higher mortality rates (38.46% vs 20%) and lengthier inpatient stays (Median stay: 3.35 vs 2.6875; Median stay 3 vs 2). Of the 44 geriatric admissions, 12 (27%) developed acute urological issues. These patients had increased lengths of hospital stay (Mean stay: 13 vs 6 days; Median stay: 8.5 vs 5). However, compared to patients with medical issues alone, their mortality rates were lower (47% vs 33%).

Key Messages
Acute urology admissions would benefit from increased input from the medical team. Evidence suggests ‘Urogeriatrics’ teams would improve mortality rates and reduce duration of hospital stay. Urology input into care of geriatric patients may reduce the duration of admissions.

References
Hospital educational leaders’ perspectives of general practice

Authors
Yusef El-Sobky
Northern

Background
A recent RCGP report revealed 70% of medical students had been exposed to negativity directed towards general practitioners in clinical settings[1]. Aim: To explore opinions of educational undergraduate leaders in hospital specialties towards general practitioners. The “By choice, not by chance” document by the Medical Schools’ Council (MSC) proposes recommendations for raising the profile of general practice in medical schools, including: 1) Increasing awareness of General Practice (GP) career options 2) GP role models 3) Recruitment reforms 4) Reorganisation of undergraduate curricula 5) Reducing ‘tribalism’ and ‘negativism’

Methods
An opportunity sample of hospital specialist educational leaders from the Tyne Base Unit within the Northern Trust. Medical educational leads answered questions based on the MSC document recommendations to ascertain: a) Personal attitudes towards general practice b) Experiences of GP denigration within education they may have witnessed c) Impressions of students’ perception towards general practice

Results
7/20 respondents had witnessed overt criticisms of GPs by staff in front of students. Recurrent themes were as follows: Inappropriate referrals Inadequate consultation times Insufficient specialist knowledge Poor working conditions (Table data)

Key Messages
Attitudes among educational leaders in Newcastle University are mixed, and do not appear to reflect the distribution of student attitudes in the BMJ report. The educators’ perspectives raised concerns around GP recruitment compared to the MSC report and student views.

References
The relationship between venous thromboembolism, thrombophilia and outcomes in patients undergoing ilio-femoral venous stenting for post-thrombotic syndrome

Authors

South Thames

Background
Thrombophilias are prothrombotic conditions that increase the risk of venous thromboembolism (VTE). This study aimed to examine the relationship between the presence of thrombophilias with cumulative patency and re-intervention rates following stenting for post-thrombotic syndrome (PTS).

Methods
Consecutive patients (2012-2017) receiving a nitinol venous stent for PTS with a minimum 18 months follow-up in one centre were included. Clinical history and thrombophilia testing were reviewed. Stent patency was assessed using duplex ultrasonography at 24hrs, two & six weeks, three months, six months, and at yearly intervals. Re-interventions were performed when stent diameter was <50% or occluded.

Results
Fifty-five (55/130; 42%) patients undergoing intervention had a provoked DVT. Seventy-five (75/130; 58%) patients met the criteria for thrombophilia testing. Thirty-eight (38/75; 51%) patients had either inherited (19/38; 50%) or acquired (19/38; 50%) thrombophilia. Of 161 limbs stented, eighty required re-intervention (80/161; 50%) to maintain patency. Eighteen (18/42; 43%) re-interventions occurred in patients with thrombophilia, and twenty-four (24/50; 48%) without (P=0.763). Cumulative patency was 93% for patients with thrombophilia and 88% without (P=0.475).

Key Messages
Patients with thrombophilias should not be excluded from ilio-femoral venous stenting as there is no significant difference in outcomes in conjunction with appropriate post-operative anticoagulation therapy.

References
The Impact of Risk Factors Contributing to Poor Surgical Outcomes of Humeral Non-unions

Authors
Luke Tan, Harish Shanker
Scotland

Background
Non-union of the humeral shaft is a known complication of closed treatment for humeral fractures. Depending on the fracture location, the incidence of non-unions is up to 15%.(1) We aim to study how commonly cited risk factors such as smoking, alcohol, diabetes, osteoporosis and psychiatric history impacts surgical outcome.

Methods
Case-control study. Patients who underwent a corrective procedure for non-union of the humeral shaft were included. All patients had a minimum of 1 year follow-up period. Risk factors from these group were identified and outcome scores (Oxford shoulder score and DASH score) was calculated.

Results
27 cases of humeral non-unions were identified. 5 deceased prior to commencement of the study. 7 patients had to undergo a revision operation due to complications (failed implant, infection, peri-prosthetic fracture). Patients with alcohol excess had a statistically significant worse outcome score. Mean outcome scores for patients who had secondary operations were worse. Mean outcome scores of those who had a revision operation plus smoked or had alcohol excess were also worse than those that did not.

Key Messages
Alcohol excess is a strong predictor of poor outcomes after humeral non-unions and smoking generally leads to worse outcomes. Having a revision operation itself would result in a poor outcome.

References
A content analysis for Mobile Applications for the diagnosis, treatment and prevention of urinary tract infections

Authors
Prabhleen Puri, Sophie Vaggers, Bhaskar Somani
Wessex

Background
Increasing use of smartphones has allowed for a wider uptake of mobile phone applications (apps) in healthcare including for the management of urinary tract infections (UTIs). UTIs are the second most common infection in the community, apps could be used to support patient awareness. There appears to be a deficit of expert opinion and regulation for these apps. We reviewed which apps for UTIs adhere to the National Institute of Clinical Excellence (NICE) guidelines.

Methods
34 apps were identified from the two most popular mobile app download platforms. 23 apps were excluded due to not containing information about UTIs, or not allowing access to external users or not being in English language. A total of 11 apps were evaluated. They were analysed for their adherence to a 36 point checklist based on the NICE guidelines for UTIs.

Results
The average adherence to the checklist was low at 42.26%. The apps performed particularly poorly for complicated cystitis (7.95% adherence). The apps performed better for ‘signs of being systemically unwell’ (52.60%) and best for ‘diagnosis’ of UTIs (66.23%).

Key Messages
Apps to support the management of UTIs could be improved by better adherence to NICE guidelines, especially for the management of ‘complicated UTIs’.

References
Does RSV cause a more severe bronchiolitis? 
Examining the severity of Bronchiolitis in Children admitted to University Hospital of Wales based on the virus detected on oropharyngeal swabs and therapy required

Authors
Margarita Delgado Thompson, David Vick, Jack West, Martin Edwards
Wales

Background
Bronchiolitis is a viral inflammatory response in the lower airways of young infants, commonly caused by respiratory syncytial virus (RSV). Studies comparing the severity of RSV bronchiolitis to other viruses are inconclusive. Our study aims to compare the virus detected on oropharyngeal swabs to the treatment required by patients.

Methods
Data was collected from 1,152 babies under one year admitted to University Hospital of Wales over the winter months of 2014-2019. The cohort was divided based on the virus detected: RSV, RSV with another virus or another virus. Using t-tests and Fisher exact statistical test, the groups were compared based on length of hospital stay, admissions PICU/HDU, intubations, and need of nasogastric (NG) nutritional support.

Results
56% throat swabs were RSV positive, 17% had RSV with another virus and 27% had another virus. Children positive for RSV had statistically longer hospital admissions and were more likely to need NG nutrition; however, there was no difference between number of PICU/HDU admissions or intubations. The RSV group and RSV with another virus group had no statistical differences.

Key Messages
Children with RSV bronchiolitis needed longer admissions and were more likely to need NG nutrition, suggesting their disease was more severe.

References
Targeting hepatocyte growth factor using Tivantinib combined with chemotherapy on myeloma in vitro

Authors
Amy Lloyd, Dr. Andrew Chantry
Yorkshire and Humber

Background
Multiple myeloma (MM) is a haematological malignancy arising from plasma cells. Myeloma cells create an autocrine loop by activating hepatocyte growth factor and its receptor c-met, stimulating their own growth. Tivantinib is a small molecule inhibitor of c-met and has been shown to have anti-myeloma effects in vitro and in vivo.

Methods
MM cell lines (JJN3, U266 and OPM2) were incubated for 48 hours before treatment with Bortezomib (10nm, 5nm, 2.5nm, 1.25nm, 0.625nm, 0.3125nm), Dexamethasone (1mm, 10µm, 1µm, 10nm, 1nm), Melphelan (1mm, 100µm, 10µm, 1µm, 100nm, 10nm, 1nm) or Lenalidomide (1mm, 100µm, 75µm, 25µm, 10µm, 1µm). Cell viability was measured after 72 hours by Alamar blue assay. The half maximal inhibitory concentration doses (IC50) of Bortezomib and Dexamethasone were combined with Tivantinib (1µm) to investigate for synergistic effects. QPCR, Western blot and flow cytometry will be used to investigate potential mechanisms for the synergistic relationship.

Results
Combination of Tivantinib (1µm) with the IC50 of Bortezomib and Dexamethasone resulted in a synergistic reduction of MM cell viability. The analysis of results to investigate the mechanisms of synergy is currently ongoing.

Key Messages
Bortezomib and Dexamethasone have a synergistic anti-myeloma effect when combined with Tivantinib. Future work will investigate these anti-myeloma effects using an in vivo model of myeloma.

References
Determining the effect of self-reported comorbidities on the Oxford Knee Score following primary total knee replacement

Authors
Michal Woyton, Andrew Price
North West of England

Background
Over 100,000 total knee replacements (TKRs) are performed annually in the UK (1). TKR outcomes are measured nationally using the Oxford Knee Score (OKS) patient-reported outcome measure (PROM) (2). The aim of the study was determining whether the pre-operative patient-reported comorbidities and the number of comorbidities are predictors of patient-reported outcome of TKR.

Methods
We analysed the NHS PROMS dataset, containing data on 96,805 TKRs. The primary outcome was the post-operative OKS. The included predictor variables were: 12 patient-reported comorbidities, number of comorbidities, gender, duration of symptoms, living arrangements, assistance with questionnaire completion, previous surgery on the affected joint, self-reported disability. ANCOVA modelling was fitted to identify the predictors of the outcome.

Results
The comorbidities which were the strongest determinants of outcome (p<0.001) were: heart disease, stroke, poor circulation, lung disease, diabetes, depression. Having three or more comorbidities was a predictor of poorer outcome. The models explained ~21% of the variability.

Key Messages
1. Certain pre-operative patient-reported comorbidities and the number of comorbidities are predictors of post-operative OKS
2. They can aid identifying patients at risk of poor outcome of TKR
3. They are not strong enough predictors to warrant exclusion from surgery

References

Authors
George Pooley
Trent

Background
A case study of a patient whose incorrect labelling of carotid stenosis location after a lacunar stroke led to him not receiving surgical treatment resulting in a further debilitating stroke one year later. Was this preventable? Current guidelines (6) suggest surgical interventions are not usually indicated for asymptomatic carotid stenosis, due to risks outweighing the benefits. However, is this still relevant, even in younger patients who have lower surgical risks?

Methods
I have combined recent research (1) (2) (3) (4) (5) in a meta-analysis to determine if surgical interventions should be offered to patients with severe asymptomatic carotid stenosis; assessing its possible role in stroke prevention.

Results
Evidence from the meta-analysis is inconclusive in comparing the efficacy of medical versus surgical management for asymptomatic carotid stenosis and goes as far as to suggest surgical interventions do not carry any more significant risk than medical management. This goes against current guidelines of asymptomatic carotid stenosis not being an indication for surgical intervention due to increased risks.

Key Messages
Further research is needed into identifying the optimum management for asymptomatic carotid stenosis, but surgical management of asymptomatic carotid stenosis should be a larger option in lower risk patients.

References
Genetic diversity of urogenital Chlamydia trachomatis before and after mass drug administration for trachoma

Authors
Ioannis Baltas, Harry Pickering, Mathew Beale, Martin Holland, Aalbartus Versteeg, David Mabey, Chrissy h Roberts, Anthony Solomon, Nick Thompson, Michael Marks, Robert Butcher
Oxford

Background
The WHO recommends treatment of trachoma with community-wide mass drug administration (MDA) with a single dose of azithromycin. In the Solomon Islands, this programme demonstrated collateral benefit, reducing the prevalence of urogenital Chlamydia trachomatis (Ct) infections. We evaluated the impact of this treatment on population genetics of urogenital Ct.

Methods
Two vaginal swabs were collected from consecutive women attending antenatal clinics before and after MDA. For every swab positive for Ct infection, DNA was extracted from the second swab, enriched and sequenced using paired-end sequencing. Diversity was assessed using genome-wide pairwise diversity and a high-resolution multi-locus sequence typing scheme. ARIBA software was used to test for evidence of antimicrobial resistance.

Results
Most strains were serotype E and F, and tissue tropism genes are consistent with their urogenital nature. Genetic diversity of Ct was lower by both pairwise and hr-MLST-6 diversity metrics in the post-MDA sample than the pre-MDA sample. There was no evidence of mutations conferring resistance to macrolides in any of the samples collected.

Key Messages
Reduced diversity after MDA may represent selection pressure from mass antibiotic delivery. The absence of antimicrobial resistance is encouraging. The collateral impact of large-scale preventative chemotherapy programmes should be considered when deciding whether should be implemented.

References
Abstracts

Poster Presentations

Sustainability
Emergency nephrostomy insertion out of hours: How long does it take to transfer to a tertiary centre?

Authors
Maria Pieri, N O’Connell, J Stephenson, T Fang, T Tien, P Pal, S Graham
North Central and East London

Background
An infected and obstructed urinary tract is a urological emergency requiring urgent decompression. Patients from a district general hospital requiring an emergency nephrostomy out of hours are often transferred to a tertiary centre where 24-hour interventional radiology (IR) is available. We aimed is to assess the timings of decision, transfer and nephrostomy insertion from a district general hospital.

Methods
All patients transferred from a single district general hospital for an emergency nephrostomy insertion in 2016-2019 were included. Data on decision for transfer, arrival at tertiary centre and nephrostomy insertion were collated.

Results
A total of 34 patients were transferred for emergency nephrostomy insertion in 2016-2019. However, 10 were excluded from analysis due to lack of documentation. On average, transfer to the tertiary centre took 5.3 hours (range 1-17 hours). Mean time from arrival at tertiary centre to nephrostomy insertion was 8.2 hours (range 0-33 hours). Mean time from decision to nephrostomy insertion was 13.9 hours (range 4-43 hours).

Key Messages
Average time from decision to nephrostomy insertion out of hours from our unit was 14 hours. On weekdays, medical optimisation until in-house IR is available during normal working hours could be considered.

References
The Effect of the Integrated Assessment Centre on Surgical Admissions at Pilgrim Hospital

Authors
Simon Deacon, Sarah Sonde, Deeksha Arora, Milind Rao

Background
The NHS is facing tremendous demands on its resources from acute admissions (1). The Integrated Assessment Centre (IAC) at Pilgrim Hospital (2), established in September 2018, provides a joint platform for assessment of surgical and medical patients in the same area. Patients can be reviewed by the surgical team in IAC prior to being admitted to the surgical ward. We assessed the effectiveness of IAC in reducing surgical admissions.

Methods
Data on surgical admissions was collected retrospectively from trust IT systems between June-July 2018 and Nov-Dec 2018. IT logs were cross-referenced with surgical hand-over sheets to identify admissions.

Results
There were 877 surgical referrals from A&E in June-July and 837 in Nov-Dec. In June-July, 42% of the A&E referrals were admitted to the surgical ward whereas in Nov-Dec, 17% referrals were admitted to surgical wards, with the rest being discharged from IAC. This is a reduction in overall surgical admissions by 27%, leading to cost saving of £5780 per month for the first day of hospital stay.

Key Messages
This study demonstrates that the Integrated Assessment Centre is highly effective in reducing unnecessary admissions. The IAC pathway could provide a model for other trusts developing strategies to ease bed pressures.

References
How can we improve? An Audit of the Surgical Proforma: A Lister Hospital Experience

Authors
Sarah Edbrooke, Aksa Ahmed, Oonagh Clarke, Joel Daramola
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Surgical clerking proformas are reviewed by a variety of healthcare professionals throughout a patient’s hospital stay and therefore are required to be concise. The aims were to analyse current proforma usage; identify the sections of the proforma that are relevant to initial admission; and to create a more concise clerking proforma to reduce paper waste.

Methods
100 surgical proformas, containing 52 sections, from January to March 2019 were analysed. Sections were recorded as “complete” or “incomplete”.

Results
The sample size was 100. The mean number of completed boxes was 46.01 ± 37.06 with total criteria to be met of n=52. Two of the most consistently complete sections were: n=52 (100%) for History of Presenting Complaint; n= 49 (94%) for Management Plan. Two of the most consistently incomplete sections were: n=0.52 (1%) for ECG and n=0 (0%) for Exercise Tolerance.

Key Messages
Due to the demanding pressures of emergency oncall shifts, surgical proformas are not being thoroughly completed. Therefore, creating a more concise proforma, for example by removing sections such as Exercise Tolerance, should create more efficient clerking and reduce paper waste.

References
Multi-professional working in the NHS

Authors
Alexander Noar
Yorkshire and Humber

Background
Multi-professional working holds promise to move the NHS towards financial sustainability as well as enhancing patient care. It is defined as three distinct frameworks (1): 'Multidisciplinary', 'interdisciplinary', and 'transdisciplinary'. However, this is often poorly understood, which is not helped by the multidisciplinary team (MDT) being incorrectly named, as the working environment is in fact 'interdisciplinary'. Nevertheless, MDTs, along with community healthcare professionals and advanced care practitioners (ACPs), have all increased the cost-efficency of the NHS and improved patient outcomes.

Methods
Integrative literature review.

Results
'Multidisciplinary' work can be seen in the interaction between community and hospital services. A minor eye condition scheme run by optometrists reduced the number of first attendances to hospital eye services by 26.8%, and of those referred 89.2% were appropriate (2). ‘Interdisciplinary’ work is best displayed by MDTs which have been shown to reduce mortality by 10% whilst being cost-effective (3). ‘Transdisciplinary’ work can be seen with ACPs. They have cut clinic waiting list numbers by 78% (4) and taken on minor surgery theatre lists that reduce the load on other lists (5).

Key Messages
Multi-professional working increases sustainability of the NHS and improves patient outcomes. Community based healthcare, MDTs, and ACPs are the main drivers.

References
Impact of inpatient Magnetic Resonance Cholangiopancreatography (MRCP) for suspected choledocholithiasis

Authors
Ahmed Elamin Ahmed, Joel Tay, Zoheb Ahmad
North West of England

Background
Current practice of investigation of ductal gallstone in UK is variable. This relies on the diagnosis of choledocholithiasis radiologically either by MRI or a cholangiogram. This study aims to assess the impact of delay in treatment and cost of MRCPs on management of patients with suspected ductal stones.

Methods
Patients admitted with gallstone related obstructive jaundice between 1st April 2016 – 29th March 2019 who had an inpatient MRCP as part of their investigation were included. Local Trust costings were obtained from relevant finance departments.

Results
188 patients were included in the study who had inpatient MRCPs. 97 of those were negative for choledocholithiasis, however 20 of these patients still required an ERCP or EUS to investigate further. Conversely, 91 MRCPs demonstrated choledocholithiasis. 81 of these went on to have an ERCP.

Key Messages
The excess bed stay cost of those who had negative MRCPs was £127050, and the excess MRCP cost was £10626, giving a total of £137676 (£1788 per patient). The wait for an inpatient MRCP can result in excess bed day stay, increasing the burden on NHS and radiology departments unnecessarily. One should consider laparoscopic cholecystectomy and operative cholangiogram as part of the skillset necessary for anyone performing gallbladder surgery.

References
Saving patients’ and clinicians’ time: Follow up after simple eyelid excision surgery

Authors
Abdurrahman Al Jabbouri, Ihsan Fazal
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Common surgeries including chalazions, meibomian, sebaceous and dermoid cyst removals usually involve following patients up 2-4 weeks in clinic. Having noticed that the vast majority of patients attending these appointments were discharged, I wondered whether it was more time and cost efficient for patients’ and the NHS to discharge patients directly after surgery.

Methods
We have identified patients between 2017-2019 whom underwent simple eyelid surgery as mentioned above. Looking at their clinic letter post-surgery to quantify the number whom were discharged, DNA’d (did not attend) and required further follow ups.

Results
Out of the 37 patients identified only 2 required subsequent follow up appointment, 4 patients DNA’d and the remaining 31 were discharged. A total of 95% were discharged or DNA’d, with only 5% needing a second appointment. After the second appointment both patients were also discharged. We have managed to change common practice by discharging post-surgery with a simple patient information sheet on when to seek further medical advice. This has tremendous cost savings for the NHS and the wider economy by freeing up appointment slots and for patients reducing time of work to attend hospital appointments.

Key Messages
Uncomplicated simple eyelid excision surgery does not need routine follow up in clinic.

References
Nose Fracture Appointment Audit

Authors
Hamad Khan, Sarah Law, Jenni Pillai
Severn

Background
To assess and reduce the number of appointments patients with nose fractures attended before manipulation under anesthesia (MUA).

Methods
Retrospective data collection of patients who sustained a nasal fracture and attended Emergency Clinic from May to September 2019, and complained of unhappiness with appearance or breathing difficulties, with subsequent MUA.

Results
41 out of 450 patients were identified to have a nasal fracture who attended Emergency Clinic. 26% of patients complained of breathing symptoms, 85% were concerned about their appearance and nose shape. 68.3% attended 2 appointments before surgery, however 26% of nasal fractures did not undergo any surgery and were discharged from the ENT clinic.

Key Messages
We will introduce a new telephone conversation proforma by calling patients 1 week post injury. We based the questions to ask the patients on the Gloucestershire Hospitals NHS nasal fracture proforma. If any perceived nasal deformity or breathing problem is present we will book them an appointment in emergency clinic, otherwise we will discharge them avoiding an extra appointment. Potentially 26% of nasal fractures could be saved from attending an emergency clinic appointment, freeing the appointment space for other patients. We will reaudit one month after the proforma has been started.

References
Gloucestershire Hospitals NHS Foundation Trust intranet nasal fracture proforma. (2019), NHS.
Quality improvement project: reducing unnecessary coagulation testing on the ICU

Authors
Matthew Gowshall
Yorkshire and Humber

Background
Decreasing regular blood tests on ICU can lead to a reduction in costs and iatrogenic anaemia without adversely affecting patient outcomes. [1] In particular, coagulation testing has been associated with the largest proportion of inappropriate testing costs [2] and the second largest amount of blood drawn during an ICU stay. [3]

Methods
We audited the mean number of coagulation tests per patient on our 10-bedded mixed medical and surgical ICU/HDU over a 45 day period. We then introduced a new electronic template for requesting regular blood tests so that patients only had a coagulation screen done on admission. We re-audited the rate of coagulation tests following this intervention and also surveyed clinicians about any issues or adverse clinical events.

Results
The mean coagulation test rate was 1.0 test per patient per day (range 0.8-1.0) before intervention and 0.4 (range 0-1.0) after intervention. This represented a 60% reduction. No clinician concerns were raised. Annual cost savings were estimated at £8,403.82. [2]

Key Messages
Simple changes to routine blood testing templates can significantly reduce daily test burden and costs with no effect on clinical decision making or patient care.

References
Community Management of Hyperemesis Gravidarum at Dorset County Hospital: An Audit and Service Implementation

Authors
Asha Gibbs, Sam Hennessy
Wessex

Background
Nausea and vomiting (N&V) is the most common medical condition associated with pregnancy and has an enormous impact on the NHS financially(1) and to patient quality of life(2). At the end of the spectrum of N&V is hyperemesis gravidarum, defined as severe and persistent N&V, potentially leading to dehydration, weight loss and electrolyte imbalance(3). RCOG guidance states that ambulatory/daycare management should be used for all suitable patients when community and primary care measures have failed(4). Initial auditing found 0% compliance at Dorset County Hospital (DCH) due to lack of service implementation. We therefore implemented this service and re-audited to establish compliance, and barriers to compliance.

Methods
Electronic databases of patient list, discharge summaries, patient notes and blood test were used to identify suitable women for ambulatory treatment, and the reasons why ambulatory treatment was not conducted following service implementation.

Results
After service implementation, overall compliance had reached 38%. With 57% of women unable to receive ambulatory care due to lack of resources.

Key Messages
Ambulatory care is invaluable in treating suitable patients, however, due to lack of capacity this service is being underutilised. Strategies must be employed to increase capacity, allowing for the financial and quality of life benefits of this service to continue.

References
Is a second group and save sample necessary for elective laparoscopic cholecystectomy?

Authors
Esther Ngan
Scotland

Background
Laparoscopic cholecystectomy is often associated with low bleeding rates. There are no national guidelines for the use of group and save (G&S) sample. The need for it depends upon likelihood of blood loss. At Perth Royal Infirmary Hospital, we follow our local guidelines indicating that a valid G&S sample is required all laparoscopic surgery. Two G&S samples usually from two different sites at two different times are required before cross matched bloods can be provided. We aim to review the need of the second G&S sample for elective laparoscopic cholecystectomy patients aiming to potentially reduce cost on the trust without compromising patient care.

Methods
Data collection in a district general hospital (PRI) over April-June 2019 - Age and gender of patient - If two samples of pre-operative G&S sample are taken - If peri-operative transfusion is required - Timing of transfusion if required

Results
95% of patients had G&S sample None required blood transfusion Total cost of the G&S sample is £ 28.71 Total cost over the three-month period is £ 1,780.02

Key Messages
We recommend to omit the second G&S sample unless abnormal antibodies are detected or patients are deemed high risk with the benefit of cost reduction.

References
Pre-Operative blood tests and the cost implication in Ninewells Hospital

Authors
Zhi Jiu Yap, Dr Gary Paul, Dr N Record, Dr C Beecroft
Scotland

Background
Routine pre-operative testing has become a firmly embedded component of innumerable integrated care pathways which shape the ‘patient journey’. All patients scheduled for elective surgery in Tayside attend the pre-assessment clinic (PAC) where, guided by 2016 NICE guideline, preoperative blood tests are performed if indicated. In some cases, further testing is performed on admission for surgery which may or may not be necessary. This project aimed to establish current practice in day of surgery blood testing in Ninewells Hospital, before and after introducing guidance to standardise practice.

Methods
Centricity™ Opera was used to generate a list of all patients admitted for elective surgery between 25-29th of March. Blood tests performed on the day of surgery were deemed necessary if they met the criteria set by the PAC Adult Pre-operation Investigation Guide. The audit was repeated after Foundation Doctor education and introduction of blood testing guidance sheets on wards.

Results
After intervention, unnecessary investigation worth £88 was saved per week, which is approximately £4500 over a year.

Key Messages
Unnecessary blood tests amounted to a huge financial cost and waste of resources, adding to the pressure on clinicians. Excessive pre-operative testing causes anxiety and unnecessary treatments which often do not influence outcome or change perioperative management.

References
Abstracts

Poster Presentations

Quality Improvement Group 4
Implementation of a Green Wristband Visual Identification System Improves Rates of Day-Case Surgery

Authors
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Scotland

Background
Increased utilisation of day surgery is a Scottish Government priority and has been identified as a means of enhancing patient flow in our Health Board. We assessed the impact of a ‘Green Wristband’ visual identification system on rates of discharge on the day-of-surgery (DoS).

Methods
We identified patients undergoing elective inguinal hernia repair (IHR) and laparoscopic cholecystectomy (LC) via the Glasgow Royal Infirmary day surgery unit (DSU). Following engagement with DSU staff, patients undergoing uncomplicated procedures, suitable for criterion-based nurse-led discharge on the DoS were visually identified using a Green Wristband. We retrospectively analysed 240 DSU patients (February-September 2019). Rates of patients discharge on the DoS were ascertained. Further analysis was performed 4 months post-implementation. A paired t-test was used for statistical analysis with SPSS.

Results
Prior to our intervention, 26/48 (54.1%) IHR patients were discharged on the DoS. In the 4 months following intervention, 37/51 (72.6%) were discharged on the DoS (p=0.04). 15/65 (23.1%) of LC patients were discharged on the DoS, versus 33/76 (43.4%) post-intervention (p=0.06).

Key Messages
Following introduction of the ‘Green Wristband’ system, we observed a significant increase in DoS discharge. Staff awareness initiatives and process interventions likely to improve and sustain the system’s effectiveness have been identified.

References
The Importance of Daytime Fluid Prescribing: A Quality Improvement Project in Medicine for the Elderly

Authors
James Noyes, Neil Gillespie
Scotland

Background
Prescribing maintenance fluids (MF) to elderly patients overnight is a complex yet common task for foundation doctors. A quality improvement project was carried out that aimed to improve daytime fluid prescribing to benefit both patients and staff overnight.

Methods
Fluid charts across two medicine for the elderly wards were reviewed daily and were assessed in 10 domains over 7 days. Additionally, night staff reported the number of MF they prescribed. After the initial results were reviewed a guidance document was created and circulated within the department. The previous method was repeated over 5 days.

Results
Run 1: 46 charts reviewed with night staff asked to prescribe 15 MF. Run 2: 36 charts reviewed and night doctors asked to prescribe 2 MF. Significant improvements were also observed in the documentation of daytime fluid charts after guidance was issued. The documentation of out-of-hours guidance increased by 73%, daily targets/restrictions by 50%, and indication by 49%.

Key Messages
MF prescribing should be carried out during the day by the ward-team with provisions made for out-of-hours. Small changes made at a ward level can have a positive impact on the busy workload of night doctors resulting in better patient care.

References
Missed breaks within Emergency Medicine Junior Doctors - A quality improvement project.

Authors
Kirsten Sellick
Yorkshire and Humber

Background
The importance of breaks is well documented, for both doctors’ health(1), and safe patient care(2). The BMA’s Fatigue and Facilities Charter recently highlighted this(3), however evidence shows that junior doctors struggle to take adequate breaks(4). This project explores attitudes and reasons for missed breaks within the BRI Emergency Department, and highlights possible solutions/improvements.

Methods
Based on initial discussions, I surveyed for; knowledge of break entitlement, attitudes towards taking breaks, breaks successfully taken over one month, and reasons for missing breaks. As an intervention a break entitlement infographic was displayed within view of doctors’ working environment, including senior encouragement to take breaks. I will re-survey to evaluate whether ‘break-taking’ has improved, and the perceived effect on work performance and stress.

Results
Only 60% of the initial survey respondents reported knowing break entitlement, with only 54% knowing entitlement for longer shifts. Over half of respondents missed over 50% of their breaks, and most reported negative effects on work performance and stress.

Key Messages
Breaks are important for doctors’ health, and patient safety. Bradford ED junior doctors are missing breaks, and one cause is knowledge of entitlement. As a QIP I created educational intervention, and will re-audit to evaluate for any positive impact.

References
Patient Recorded Outcomes in Benign Peripheral Nerve Sheath Tumour Surgery at Manchester Foundation Trust Hospitals

Authors
Meghan Connolly
North West of England

Background
Patient recorded outcome measures (PROMs) are an increasingly popular method of assessing healthcare outcomes, being described as ‘critical’ to achieving excellence within the NHS.(1)

Methods
Research into Benign Peripheral Nerve Sheath Tumours (BPNSTs), their impacts and existing surgical assessment tools was carried out in clinical and academic settings. A literature review appraised PNST surgical outcome assessment methods and evidence for PROMs. A PROMs tool was developed and feedback collected from BPNST patients at MFT. Feedback was evaluated and the tool adjusted accordingly.

Results
- There is a significant national evidence base for the use of PROMs tools for PNST surgical outcomes assessment.(2) - PROMs tools can be more effective than previously popular surgical outcome measures as they bypass limitations of other tools.(2) - A PROMS tool was produced based on validated structures as per NHS PROMS guidance. - The tool was positively received by both patients and surgeons.

Key Messages
- There is evidence suggesting PROMs of surgical outcomes have equal validity alongside other assessment methods, such as motor/sensory/pain scales.(2) - Language is a key factor in determining the efficacy of a tool for data collection. (3) - Surgical outcome assessment tools should evaluate the impact of symptoms on patients’ quality of life.(2)

References
Does reconfiguring laboratory Influenza testing processes in the era of the 24 hour laboratory offer an alternative to near patient point of care Influenza testing to support the infection control demands of a district general hospital?

Authors
Elliot Revell, Jonathon Moore
Northern

Background
Point of care testing (POCT) has been shown to aid the management of Influenza(1,2). However, Public Health England highlight that many of the advantages of POCT 'may also be delivered through reconfiguration of existing hospital laboratory testing services'(3). As opposed to conducting one or two large volume batch testing molecular runs each day, we performed 2 hourly testing in the laboratory 24 hours a day, 7 days a week during the Influenza season.

Methods
Between 02/01/19-10/03/19 all positive Influenza cases were identified from the laboratory information management system. A standard data capture form was completed using patients medical and electronic records.

Results
1,327 Influenza tests were sent and 317 positive Influenza A results obtained. The mean turnaround time for positive results was 164 minutes. Overall, hospital wide 268/300 (89.3%) patients were isolated (or deemed to be non-infectious) at the time results were obtained.

Key Messages
Reconfiguring existing laboratory Influenza testing processes can drastically reduce turnaround times and expedite the availability of Influenza results. This makes it possible to effectively manage and isolate Influenza cases without the need for POCT, freeing up time for front line clinicians to care for patients.

References
Audit and review of the Ambulatory Emergency Care Unit (AECU) discharge process: improving safety and efficiency

Authors
George Dixon
Trent

Background
AECU is a short-stay ward for patients who are too unwell to be discharged from ED but are unlikely to require full hospital admission. Due to high turnover rates, doctors are under constant pressure to write concise discharge letters that are essential for maintaining patient safety and continuity of care with GPs(1). This project examines the current discharge process and the effect of one simple intervention to improve efficiency.

Methods
To assess baseline performance, we measured: average number of admissions per day, average rate of writing discharge summaries using the existing template, and average time between patient discharge and letters being written. Finally, we calculated the necessary rate for the system to function. In response to results, a new streamlined e-discharge template was created, and electronic letters were distributed to GPs instead of printed copies, in-line with nationally published specification(2).

Results
March 2019, the average delay between patient discharge and letters being written was 38 days. This is significantly more than the national target of 24 hours(3). Using the existing template doctors completed 3.8 letters per hour. The required rate is 8.1 letters per hour. Post-intervention data is still being collected.

Key Messages
Delayed discharge communication is associated with significant patient harm(1).

References
Quality Improvement Project looking at Improving Concordance of NEWS2 in an Inpatient Mental Health Hospital

Authors
Anna-Marie Dale, Naomi Jordan, Berenice Cunningham-Walker, Rhys Elwood
Severn

Background
Physical observations are a regular occurrence in hospital settings; however within mental health inpatients there is a notable difference in how NEWS2 charts are perceived, understood and utilised. Our aim is to increase concordance of NEWS2 in Wotton Lawn Hospital in line with their standard of weekly physical observations; or more frequently as clinically indicated. Many mental health nurses do not have a physical health background therefore appropriate use of NEWS2 can provide a reliable objective measurement of deterioration. NEWS2 also provides a universal standard when patients are transferred between mental and physical health hospitals (1).

Methods
Three interventions were implemented in four wards at Wotton Lawn Hospital. These involved introducing a proforma on each ward, reviewing NEWS2 charts during ward rounds; and education of nursing staff. In total 68 patients were audited at baseline, with subsequent interventions being implemented, followed by re-auditing at each stage.

Results
A final audit is being undertaken; where data will then be collated and analysed.

Key Messages
NEWS2 has a role in mental health inpatient settings which is highlighted by the reduced life expectancy of those with mental health problems (2). This project may provide evidence that national or specialty guidance may be needed in the future (3).

References
Evaluation of Patients Referred to the Fast Track Gynaecology Clinic with Suspected Ovarian Cancer

Authors
Hannah Jeffery, Madeleine Macdonald
Yorkshire and Humber

Background
Ovarian cancer is a disease which sadly in the majority of cases presents late, when curative treatments are not possible. NHS England aims to improve the numbers of patients diagnosed with stage 1 cancers and thus improve survival rates. Anecdotally, the majority of patients who are referred to the Two-Week Wait Gynaecology clinic for suspected ovarian cancer do not have ovarian cancer.

Methods
Evaluation of the number of patients referred on a Two-Week Wait pathway in 2018 diagnosed with ovarian cancer at the Royal Hallamshire Hospital, Sheffield, by analysing an existing database using Excel and Stata.

Results
Preliminary results from analysis of the first quarter of 2018 show that of 53 women referred, 9 (7%) were diagnosed with cancer, and 3 (5%) were diagnosed with borderline tumours. 14 women under the age of 50 were referred and none of these were found to have ovarian cancer.

Key Messages
By identifying patient groups, such as pre-menopausal women, who are referred inappropriately, the fast track service can be made more efficient, with patients who need investigating being seen and treated earlier. Additionally, this will reduce anxiety for women referred to the clinic with non-suspicious cysts who have been informed that they may have ovarian cancer.

References
Clinical Audit of the correct assessment and subsequent prescription of pharmacological thromboprophylaxis in acute IBD patients on admission to the QE and on transfer to the gastroenterology, ward 727 (IBD Unit)

Authors
Joseph O’Keeffe, Fatimah Nasrullah
West Midlands Central

Background
IBD patients are an established very high risk category for VTE events.[1][2] In this population, such events are severe and account for the largest cause of inpatient mortality.[3] Major international IBD guidelines routinely recommend pharmacological thromboprophylaxis for acutely flaring inpatients, so long as any per rectum bleeding is not haemodynamically compromising. We carried out the first part of a QIP aimed at improving the VTE assessments and thromboprophylaxis prescription.

Methods
We retrospectively assessed 50 IBD admissions to a tertiary centre and reviewed their documented VTE assessment and prescription on the acute medical take and on transfer to the gastroenterology ward.

Results
Neither team achieved our recommended standard of 90% of patients being correctly assessed on admission nor correctly prescribed VTE prophylaxis; the acute medical team achieved the combined standard 40% of the time and the GI team 76% of the time. The main reasons for incorrect VTE assessment and subsequent prescription centred on not considering IBD an inflammatory condition requiring anticoagulation and considering PR bleeding as a direct contraindication to it.

Key Messages
Accurate VTE risk assessment and thromboprophylaxis prescription has a significant impact on IBD inpatient morbidity and mortality. Interventions are needed to improve current practice.

References
Post-appendicectomy complications and timing of surgery before and after the implementation of a second emergency operating theatre

Authors
David Molinas Zocche, Rabeet Khan, Richard Dumbill, Giles Bond-Smith
Oxford

Background
Appendicitis is the most common surgical abdominal emergency with a prevalence of approximately 1 per 1500 population in the UK (1). Time delays in surgical intervention increases hospital length of stay and postoperative complications (2). We aim to shorten waiting times for appendicectomy and reduce readmissions by implementing an additional operating theatre.

Methods
We conducted a retrospective analysis of all appendicitis readmission cases over a 3-month period at the John Radcliffe Hospital using a prospectively compiled database. The number of overnight admissions, associated complications, and the timing from admission to surgery was recorded for each readmission. We estimate that the unit carries out 235 appendicectomies per year. New data is to be collected 2 months after the implementation of another emergency operating theatre to assess impact.

Results
58 patients were reassessed following appendicectomy. Of these, 39 were admitted overnight. 28 patients had complications resulting from appendicectomy, with the most common diagnosis being post- operative collections. The mean time from admission to theatre for cases with complications was 14 hours 37 minutes.

Key Messages
We predict that the implementation of an additional operating theatre will minimise the wait time from presentation to appendicectomy, reducing readmission due to postoperative complications and reducing costs.

References
Teaching as tool to improve recognition and management of peri-operative malnutrition in the adult surgical department.

Authors
Robert Brown, Harry Spiers
North West of England

Background
Malnutrition is an under-identified issue with far-reaching impacts on health and clinical outcomes [1,2]. MUST is a validated screening tool used to identify adults at risk of malnutrition [3]. A review of 219 patients across the adult surgical department of a single UK hospital highlighted concerns about the lack of robust screening for malnutrition.

Methods
Data analysis highlighted ward-specific areas for improvement. This was used to create a bespoke teaching package on malnutrition and MUST. Pre- and post-teaching questionnaires were used to assess knowledge and determine the perceived value of the teaching. Wards were re-visited after one month to determine the impact of teaching, if any, on the recognition and assessment of malnutrition.

Results
All staff that attended teaching found it useful, 95% reported improved understanding. Weight loss was previously under-reported in 47% (23/49) of patients, leading to inaccurate MUST scores in 30% (15/49) of patients. Following the teaching session, fewer patients (26%, 12/46) had under-reported weight loss, leading to fewer erroneous MUST scores (11%, 5/46). No dietitian referrals were missed following the teaching, compared with six missed referrals previously.

Key Messages
Departmental teaching results in improved recognition and management of malnutrition on surgical wards.

References
Section 47 reports completed by the Paediatric Department on the Isle of Wight.

Authors
Nikolaos Skoutelis, Blessing Abhulimhen-Iyoha
Wessex

Background
We tried to determine if section 47 reports completed by the Paediatric Department on our Trust comply with the recommendations found in the RCPCH Child Protection Companion. We also involved the police and social services (multidisciplinary approach) who were asked to provide their requirements for a complete S.47 report. Gathered data were presented in an audit meeting as for the first part of this QI project. At this stage, we have adjusted our S.47 proforma and aim to re-audit in 2 months.

Methods
Retrospective study of the S.47 reports submitted from 1st January to 31st May 2019. SPSS was used for the data collection and analysis.

Results
Significant results: compliance with documentation of verbal or written consent for examination (26.3%)/ information sharing (0), Parental responsibility (0) and parental health history (21.1%). Interestingly, a documented consultant opinion was only given in 79.8% of the cases.

Key Messages
Every S.47 process has a tremendous effect on a child and its family. Therefore, it should be efficient and effective. Every report has significant medicolegal implications and needs to follow the recommendations. Our Paediatric department’s compliance was found to be problematic in important categories. Implementation of a new proforma will address this issue and contribute to quality improvement.

References
Improving Fast Track Continuing Health Care (FTCHC) pathway for terminally ill patients: standardising documentation to identify delays to fast track discharge times.

Authors
Soo Oh, Kirsty Biggs, Syed M H Kazmi
West Midlands North

Background
The FTCHC pathway allows terminally ill patients to be discharged to a preferred place of care within 48-hours [1]. Missing or fragmented documentation is a critical factor in the national failure to deliver 48-hour discharge [2].

Methods
We designed and piloted a FTCHC discharge proforma on Ward233 at Royal Stoke Hospital in July 2019. Education was provided at multi-disciplinary team meetings. Data was collected January-October 2019 including indications for FTCHC, date of decision, date patient profile sent, date of discharge and reasons for delay. Average time to discharge (TTD) from FTCHC decision was calculated.

Results
Pre-proforma, no formal records existed. Five patients were identified; TTD for one patient was three days, the remaining patients (n=4) died before FTCHC delivery. Average time from FTCHC decision until death was six days. Post-proforma, nine patients were identified. Average TTD was 9.1 days and 11.1% of patients (n=1) died prior to delivery of FTCHC. Reasons for delay were: late referral to hospice, limited bed availability at hospice, re-discussions required with family, termination and re-initiation of FTCHC due to deterioration and stabilisation of patient.

Key Messages
Current standards for FTCHC are poor. Our proforma provides a method of standardised FTCHC documentation, which is the first step in identifying areas for improvement.

References
Improving the level of accuracy and completion of vital observations of service users in an elderly psychiatric unit: A full audit cycle

Authors
Antonio Bardoli
Essex, Bedfordshire and Hertfordshire (EBH)

Background
Individuals with severe mental illness have a higher risk of mortality than the general population. Studies have shown a reduction in extent and frequency of vital sign measurements in mental health units compared to an inpatient hospital setting[1]

Methods
A full audit cycle was conducted analysing the accuracy and completion of observation charts for a total of 13 service users at an elderly psychiatric unit. A baseline standards audit was initially performed before introducing a series of two teaching sessions to nursing, occupational therapy and clinical support workers highlighting importance of recording vital observations.

Results
Prior to intervention vital signs were poorly recorded and documented with only 8% of service users having a respiratory rate and 38% having a temperature recorded. 0% of service users had a total NEWS2 score calculated. 1 service user became tachycardic without escalation or repeat observations as per protocol. Upon intervention there was a 10-fold increase in recording of respiratory rate and a 53% increase in temperature recording. All service users had a total NEWS2 score calculated. One service user had a NEWS2 score of 6 and was appropriately transferred to hospital for urgent medical assessment.

Key Messages
Improving staff education regarding the importance of vital sign measurements has ensured acutely deteriorating patients are escalated appropriately.

References
Proposal for Use of Nasal Bridles in Stroke Patients at Kingston Hospital

Authors
Emily Moore
South Thames

Background
Dysphagia is common after acute stroke (1). Swallow should be assessed as soon as possible and a nasogastric (NG) tube inserted if necessary (2). The NICE and RCP guidelines support using nasal bridles in patients unable to tolerate NG tubes.

Methods
Data was collected over 2, 3 month periods about 27 patients who had NG tubes inserted following a stroke at Kingston Hospital. We recorded how many times NG tubes were removed, whether patients had DOLs and restraining devices, delays in re-insertion, interruption to feeding, and number of chest x-rays.

Results
130 (average 4.81) tubes were placed. 1/3 required DOLS and mittens, and a further 2 agreed for mittens. 2 patients required 1:1 care. Total number of CXR was 51; 30 due to reinsertion of the NG and 21 due to no aspirate being obtained. Patients had on average 1.89 CXR. Interruption to feeding occurred in every patient.

Key Messages
We argue that using a bridle would lead to fewer tubes being dislodged or removed. Every patient would avoid at least 1 CXR, reducing radiation exposure. Removal of tubes in spite of wearing mittens would be more difficult as tubes would be better secured. Overall, there would be fewer interruptions to feeding.

References
Patient and Clinician Education to Improve Antibiotic Prescribing

Authors
James Common
Severn

Background
Antimicrobial resistant (AMR) infections cause around 700,000 deaths each year globally, due to rise to 10 million by 2050 if no action is taken (1). Around 70% of antibiotic prescriptions occur in primary care and 20% of these are inappropriate (2,3). Improving this is key in the fight against AMR. One barrier to appropriate prescribing is patients’ expectations of receiving antibiotics (4). I audited and attempted to improve antibiotic prescribing in acute sinusitis at a GP practice in Bristol with >25000 patients.

Methods
Over four weeks consultation records relating to acute sinusitis were audited against NICE and local guidelines. The results, alongside guidance on the management of sinusitis, were presented to practice clinicians. An EMIS template was created to aid decision making and provide information to patients on why antibiotics were not recommended. Re-audit will occur in one month.

Results
There were high rates of antibiotic prescribing. 45% of consultations resulted in immediate prescriptions with 77% of these not meeting the criteria for antibiotics.

Key Messages
Antimicrobial stewardship in primary care is vital in the fight against antimicrobial resistance. Educating clinicians and patient is simple yet effective method to improve prescribing practice (5,6).

References