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221QFA_00655/September 2021
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1. **Outcomes of Home Isolated COVID-19 Patients: Longitudinal Retrospective Study in Shimoga, Karnataka**

Kumari Sakshi; Koppad; Raghavendraswamy,
Shimoga Institute of Medical Sciences, Shimoga

**Correspondence to:** sakshiupadhyay0912@gmail.com

**Background:** COVID-19 is a current global pandemic caused by the newly discovered novel SARS-CoV-2. According to studies in comparison to those who have recovered, patients who have died thus far were older, more likely to be male, and to have a comorbidity such as hypertension, diabetes, cardiovascular disease, or lung disease thus necessitating the assessment of risk variables in various demographic groups or contexts.

**Aims:** To estimate the proportion of different outcomes such as recovery, hospitalization, and mortality among home isolated covid-19 patients. To estimate the proportion and to determine various risk factors associated with COVID-19 adverse outcome.

**Methods:** The study was carried out in Shimoga Institute of Medical Sciences, Shivamogga, Karnataka. Data was collected by telephonic Interview Study Design: Longitudinal retrospective study on home isolated COVID-19 patients. All the patients who reported in Mcgiann triage during April 20th-June 20th, 2021. The basic information and phone numbers of all the patients were collected from the triage.

**Results:** A total of 168 people participated in this study, with 93 men (55.3%) and 75 women (44.7%). More than 90% of patients in the Home Isolated Covid 19 patients recovered, 10.75% required hospitalisation, and 3% died. One third of the patients (37%) had one or more comorbidities.

**Conclusion:** Our systematic overview of the results to determine the relationship between COVID-19 infection, and outcomes such as hospitalisation, death, and recovery shows that older age, male gender and comorbidities have higher hospitalisation rates. Comorbidities and older age were associated with a higher risk of death in hospitalised patients. Even though recovery rate is very high, a significant (10.75%) home isolated patients need hospital admission in the disease course. So, the proper monitoring of home isolated patients can save the lives of many COVID-19 patients.

2. **Fracture clinic day care Orthopaedic surgery: A novel model.**

Joshi Pushkar Prafulla; Roy Kunal; Ross Dawn; Higgins Debbie; Barlow David
Wrexham Maelor Hospital, Wales, UK

**Correspondence to:** dr.pushkarj@gmail.com

**Background:** Day care surgery is a very cost effective and safe model in orthopaedic surgery. The tough and challenging times during Covid-19 pandemic ushered in the need for a new practical, safe and cost effective model to continue day care surgery for treating patients with Orthopaedic injuries.

**Methods:** Fracture clinic inpatient beds were set up following safety assessment for day care surgery. The patients were seen in fracture clinic by a senior clinician and consented. Patients were screened for undergoing surgery safely by preoperative assessment team and were given dates for surgery. These patients were monitored by Orthopaedic trauma nurse and clinic nurses with supervision by doctors in fracture clinic post operatively. Discharged safely on the same day after doctor review, safety netting advise and given follow up clinic appointments. The data was gathered retrospectively for analysis and compared to ward based day care orthopaedic surgery over a period of 2 months from October-November 2020 & February-March 2021 respectively.

**Results:** 39 day cases each were planned on ward based day care surgery and new fracture clinic day care model. There was a saving of 75 inpatient bed days with the new model. Same day successful discharge was attained at a high of 82.05% with new model compared to 38.5% with previous model. This accounted to a cost effectiveness of 90,155 pounds. To add to that there were no complications during hospital stay or failed discharges & re-admissions.

**Conclusion:** Fracture clinic day care model is safe and cost effective during times of...
pandemic & winter pressures. It can be utilised on a regular basis in strained NHS system.

3. Mental Health Related Quality of Life at Baseline Predicts Dementia: findings from the EPIC-Norfolk prospective population-based study.

Chintapalli Renuka Devi; Keevil Victoria
MRC Epidemiology Unit, University of Cambridge
Correspondence to: rdc41@cam.ac.uk

Background: Lower Health Related Quality of Life (HRQoL) predicts dementia in older adults in the USA. It is unknown if this association persists in other populations or mid-life, when interventions to prevent or delay cognitive decline may benefit.

Methods: 7,452 community-dwelling participants (57% women; mean age 69.3) attended the European Prospective Investigation of Cancer-Norfolk study’s third health examination and answered the Short-Form Health Survey (SF-36), measuring HRQoL. Longitudinal associations between standard deviation differences in Physical Component (PCS) and Mental Component Summary (MCS) scores, as well as eight SF-36 sub-scales (physical functioning, role-physical, bodily pain, general health, vitality, social functioning, role-emotional, mental health), and incident dementia over ten years were explored using Cox Proportional Hazard regression. Additionally, cross-sectional relationships between HRQoL and global cognitive function were explored using Logistic regression (n=4435). The cohort was examined as a whole and by age groups (50-69, >70), considering socio-demographics and co-morbidity.

Results: Higher MCS scores predicted lower dementia risk (HR= 0.75, 95% CI 0.69-0.81; p<0.001) and odds of poor cognitive function (OR 0.82, 95%CI 0.76-0.89), with similar observations across age-groups (e.g., incident dementia: 50-69yrs- HR 0.75, p=0.005; >70yrs- HR 0.75, p<0.001). Associations between higher scores on subscales pertaining to mental but not physical health and lower dementia risk were also observed. Higher PCS scores were associated with poor cognitive function in younger (OR 0.81, 95%CI 0.72-0.92), but not older participants. All associations with incident dementia attenuated with adjustment (50-69yrs- HR 0.89, 95%CI 0.69-1.16; >70yrs- HR 0.94 95%CI 0.83-1.06).

Conclusions: Lower mental HRQoL may help identify adults in mid and late-life at risk of cognitive decline.

4. Training In Foetal Monitoring – A Game Changer

Kumar Anangsha; Elis Catrin; Ali Abdi
Singleton Hospital, Swansea Bay University Health Board, Wales
Correspondence to: anangshakumar@yahoo.in

Background: Intrapartum foetal surveillance is routinely offered to women in labour to reduce adverse neonatal outcomes.

Aims: In this study we aim to look at the reduction in the rate of Hypoxic Ischaemic Encephalopathy (HIE) after dissemination of mandatory CTG training in the obstetric unit at a tertiary care centre in Wales.

Methods: In this comparative study we reviewed the incidence of adverse neonatal outcomes i.e. HIE over a period of 8 years i.e. 4 years before and after commencement of formal CTG training. From 2019 onwards, variously themed training sessions were organised every year as outlined in Table 1.

Results: After analysing the 8 years’ data-set, we concluded that these sessions with an attendance compliance rate of over 95% each year has created a significant reduction in the mean incidence of HIE from 18.5 to 10.5.

Discussion: We did receive a positive feedback from the attendees. Every year over 90% of the attendees felt that the training was informative and interactive thereby helping them to translate the acquired knowledge in clinical practice.

Conclusion: The significant change in the incidence of HIE justifies how building a robust CTG training framework is imperative and effective over self-directed e-learning in
order to appropriately identify foetal hypoxia, thereby improving neonatal outcome.

Table 1

<table>
<thead>
<tr>
<th>Content for CTG Training over the years</th>
<th>2010</th>
<th>2020</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reassess Physiology</td>
<td>Revision</td>
<td>Loss of Contact</td>
<td></td>
</tr>
<tr>
<td>Acute Hypoxia, SPM, Cord Blood Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hypoxic CTG - Neonates, Neonates, DKA</td>
<td>Anticoagulated CTG - Effect of maternal drug, Diabetes, cardiac, Angioplasty</td>
<td></td>
<td></td>
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<tr>
<td>Computerized NST Anticoagulated CTG</td>
<td></td>
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<tr>
<td>Human Factors - Dirty Ovarian, SBMP, Learning Continuation</td>
<td>Human Factors - Learning Conversation, Psychological Safety</td>
<td></td>
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<tr>
<td>Human Factors - Learning Conversation, Psychological Safety</td>
<td>Human Factors - Learning Conversation, Psychological Safety, Civility</td>
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</table>

5. ‘Does Every Patient with Post-Menopausal Bleeding and Endometrial Thickness <4mm Need Hysteroscopy?’ A retrospective study.
Zakaria Reza Md; Anisuddin Neha Singleton Hospital, United Kingdom Correspondence to: reza.zakaria@nhs.net

Aims: To assess the safety and efficacy of the standard operating procedure for patients with postmenopausal bleeding who present with a low-risk history and normal radiological and clinical features at Swansea Bay UHB during covid pandemic.

Methods: The clinical data were retrospectively analysed in Welsh Clinical Portal of 1007 patients who were referred for hysteroscopy as urgent suspected cancer over a period of 6 months (Nov 2020 to April 2021). Inclusion criteria were patients who did not undergo outpatient hysteroscopy as part of their evaluation. According to the standard operating procedure, patients with a low-risk history and an USS report confirming no abnormalities and a regular contour endometrium that was completely visualised and with normal clinical findings do not need an endometrial sample performed.

Results and Discussion: A total of 1007 patients were referred for hysteroscopy over 6 months. Among them 290 patients were included in the study who had Endometrial Thickness less than 4 mm in US Scan. Among 290 patients, total 115 patients underwent hysteroscopy for evaluation of PMB as they had associated risk factors or irregularity in US scan. 1.74% patients were on tamoxifen, 37.39% had BMI>35, 43.21% was diabetic, 6% had PCOS, 6% was nulliparous/late menopause, 2.6% had previous endometrial hyperplasia and 11.3% had scan abnormality. Among 290 patients, 175 patients did not have hysteroscopy and were managed conservatively. Among them 1 patient was later on diagnosed with endometrial cancer. This patient should have hysteroscopy as she had associated risk factor (Nulliparity).

Conclusion: Women with ET < 4mm; a low-risk history and an USS report confirming no abnormalities and a regular contour endometrium that is completely visualised do not need OPH or endometrial sampling and can be examined & discharged as clinically appropriate. This has significantly reduced the waiting list in outpatient hysteroscopy clinic.

6. Assessment of administration of VTE prophylaxis within 14 hours of hospital admission
Odedara Dhaval Bhimabhai; Alsauodi Tareq, Glenfield Hospital, United Kingdom Correspondence to: dhavalodedara8@gmail.com

Background: Hospital acquired thrombosis (HAT) accounts for 50-60% of all VTEs seen. As per NICE guidelines, in patient aged 16 and above, pharmacological VTE prophylaxis should be administered within 14 hours of hospital admission to reduce risk of HAT.
Aim: To assess whether the guidelines were being followed or not in HPB ward at Glenfield hospital.

Method: We excluded pre-op, post-op patients and in whom prophylaxis was not needed or contraindicated as per the VTE assessment.

Results: Around 39.2% patients didn’t receive the treatment within 14 hours.

Conclusion: There were 2 main reasons: a) Fixed time schedule (73%), b) Patient refusal (27%). In Glenfield hospital, patients are given VTE prophylaxis at 17:00 irrespective of when they arrive. Hence, patients arriving after
22:00 at night, received treatment on next day at 17:00. This was the main cause of the delayed treatment.

7. **DVLA driving advice to Cardiology Patients**

Eldesouky Ayah; Omar Ahmed Moemen; Kenawi Abdelrahman; Walsh Morgan; Muthurajah Jagan
St George’s Hospital NHS foundation Trust
Correspondence to: ayamudes@gmail.com

Background: Doctors at St Georges Hospital tend to see intervention, EP, non-invasive and heart failure patients. We need to ensure that clinicians looking after patients are aware of the importance to give sound and accurate advice are responsible for guiding these patients regarding any driving restrictions to ensure patient’s safety even beyond hospital doors. This is particularly important following specific procedures. The Driving and Vehicle Licensing Agency provides guidance to medical doctors to aid the assessment of their patients with respect to driving.

A three-step QIP project was undertaken to evaluate the accuracy of documenting driving advice on electronic discharge summaries and to counteract any lack of proper advice or documentation.

Method: Data were collected retrospectively from electronic discharge summaries of patients admitted over a period of three months from 1st March-30th April 2022. Implementation of change through setting up posters and giving verbal advice to colleague doctors. Assessment of improvement in documentation of driving advice through reviewing electronic discharge letters over the period from 3rd May-26th July 2022.

Results: 53 patients were interventional, 34 patients were EP and 13 patients were HF. Of these, 46% had driving advice documented and 54% did not have any driving advice on their discharge summaries. Furthermore, only 76.4% of the driving advice given were accurate. In order to assess the improvement in documentation, During second review, 62% had driving advice documented, 98% of the advice was accurate.

Conclusion: The Driving and Vehicle Licensing Agency gives precise guidance to all patients undergoing cardiac intervention with regards to resuming driving or not. Clinicians have the ultimate responsibility to ensure all patients are given the accurate driving advice as this is directly related to both patients’ and people on the road. Continuous education for doctors is crucial either through posters, lectures, or induction programs.

8. **A&E management of AUR**

Abu-Nayla Islam; Geary Georgia
Royal Glamorgan Hospital, South Wales
Correspondence to: driamabunayla@gmail.com

Background: AUR is a common problem encountered in the A&E. It presents as a sudden inability to voluntarily void. Its aetiology can be varied and multifactorial. Treatment of AUR aims to relieve the obstruction and mitigate the underlying cause of retention. This can generally be accomplished in the ED without immediate urologic consultation.

Aims: We assessed the quality of referrals to TWOC clinic directly from A&E. The aim was to measure the quality of the initial management of AUR patients presenting to A&E, quality of the documentation being fed back to the Urology department, and the appropriateness of referrals.

Methods: A urinary retention proforma was provided which included patient’s details, history and examination, urine dipstick and blood tests. Common causes of urinary retention were included along with specific admission and discharge criteria. In addition, the size and type of catheter, urine drained in 15 minutes, 1 hour, and 2 hours drained in ml were all included. 48 cases were added in the period from June 2021 until November 2021.

Results: 50% of patients had size 14Fr inserted, and in 77% of the cases, silicone catheter was inserted. Mean time of TWOC was 40 days. Surprisingly, only 50% of the cases were offered an alpha blocker prior to TWOC, and in 20% of the cases, DRE was documented. The overall recording of urine output was adequate in most patients. 96% of the
proformas performed were incomplete. The TWOC pass rate was 57% compared to the national average of 20-40%.

Conclusion: DRE documentation among ED physicians should be encouraged. Silicone catheters should be the catheter of choice as the time of follow up could exceed the lifespan of PTFE catheters. Consideration of Tamsulosin should be established if no contraindications. Finally, admission should be considered if the urinary output drained is >1500ml.

This case raises questions about the pathophysiology of the virus and viral associated inflammation on the heart both acutely and longer term and raises questions about the outpatient care requirements for cases such as these.

10. Multidisciplinary acute knee clinic, cost effective model for managing knee injuries
Hanoun Abdullah, Greenfield Christopher; McCarthy Christopher; Chandratreya Amit; Kotwal Rahul
Princess of Wales Hospital, Wales, United Kingdom
Correspondence to: ahanoun@hotmail.com

Background: Acute knee injuries can be time-critical, and need specialist input according to BOAST/BASK guidelines. These injuries used to be referred to fracture clinic for assessment, then to the knee specialist. This delayed management, and affected outcomes. During COVID pandemic we established an MDT “Acute Knee Clinic” service, to reduce the number of patients visits while maintaining an efficient service and speed up the definitive management. A pathway was designed to assist ED staff, and 2 experienced physiotherapists were allocated to ED.

Aims: We assess this service through the number of visits, time to seeing a specialist and definitive management and cost implications.

Methods: The notes for all patients attending AKC between Feb 2021 – July 2022, were assessed regarding time to review by a specialist, time to operative management, appropriateness of referral and of MRI request and cost implications.

Results: We had 365 patient-visits, for total of 205 patients. 84.4% of the referrals to the clinic were appropriate. 162 MRIs were ordered (positive in 87.7%, average 42.6 days). Average time to seeing a specialist was 36.7 days. 80 patients (39%) listed for surgery, of them 43 had their surgery (average 128.6 days). Patient’s average visit was 2.08 with estimated cost of £294.48 per. Physiotherapist in ED saw 83 patients with 71 MRI requests (94.4% appropriate), in 33.7 days on average). Average time to AKC was 40.25, and to listing

9. The diagnosis and long term management of AVNRT as an initial presentation of COVID-19 infection in the absence of cardiovascular disease
Rosa Eleanor De; Drury-Smith Mark; Jones Samantha
Cardiff and Vale University Health Board, Wales
Correspondence to: elliederosa@gmail.com

Atrial tachyarrhythmia is known to be associated with severe COVID illness and is commonly seen in the ICU setting. Many patients will also have a history of arrhythmia yet this case reports SVT in the context of undiagnosed COVID infection with the clinical and biochemical absence of significant infection or previous cardiac disease.

Outpatient investigation demonstrated long runs of narrow complex tachycardia persisting after viral resolution.
for surgery 69.5 days. Average patient visit was 1.71, (average cost of £242.44 per patient)

Conclusion: Establishing an Acute Knee Clinic is a cost effective and safe way to reduce the time to definitive management in acute knee injuries, with reduction in patients’ footprint, and number of unnecessary MRIs. The MDT nature of the clinic improves outcome as well.

11. The efficacy of ENT elective surgical post operative information leaflets to improve health literacy
Goyal Sanay; Addams-Williams Julia
Royal Gwent Hospital, Newport, Wales
Correspondence to: sanayg2511@gmail.com

Background: An adverse event in an elective ENT post operative patient post discharge led to the introduction of procedure specific patient information leaflets. This was done in order to improve patient knowledge and to sign post appropriately when there are concerns.

Objectives: To evaluate the effectiveness of providing information leaflets post elective ENT surgery in improving health literacy of patients.

Method: The survey was carried out over 6 months. Information leaflets were handed prior to discharge. We created a questionnaire to be completed at the patients’ first appointment post-surgery. The survey assessed patient experience, health literacy, understanding and retention qualitatively and via Likert scales.

Results: We collected 33 completed questionnaires. The introduction of post operative information leaflets had positive patient feedback. There were no post-surgical complications. 70% of patients felt involved in the plans to take care of themselves post-surgery and 88% reported retention of care information. The questionnaire reported a health literacy of 73% amongst patients and 88% of patients felt they were aware of the emergency services available. 22% of patients reported they would prefer an electronic version of the leaflet alongside a paper copy.

Conclusions: The introduction of post-surgical information leaflets has led to patients being more informed and aware of how to deal with complications arising from the surgery.

Recommendations: To further improve the accessibility of leaflets it would be valuable for the patients to have online PDF versions available to be downloaded via the use of QR codes.

12. Day Case Partial and Total Knee Replacement- A District General Hospital Experience
Mathai Naveen Joseph; Guro Randy; Kotwal Rahul; Chandratreya Amit
Princess Of Wales Hospital, Bridgend, UK
Correspondence to: naveennmathai@live.in

Background: There has been a significant increase in the demand for arthroplasty as a result of the Covid 19 pandemic and lack of beds on the green pathway. The average length of in-hospital stay following knee replacements has been successfully reduced over the years following introduction and adoption of enhanced recovery protocols.

Aim: Day case arthroplasty has the potential to be efficient as well as cost-effective. We present our day case pathway for elective knee arthroplasty and early results of its adoption at a district general hospital.

Methodology: Our pathway was developed through a multidisciplinary input from surgeons, anaesthetists, physiotherapists, nursing staff, administrative staff, surgical care practitioners and pharmacists. Inclusion criteria were defined to identify patients suitable for day case arthroplasty. Results of 32 patients who underwent day case partial and total knee replacement at our institution are presented.

Results: 31 out of 32 (97%) were discharged safely on the day of surgery. These patients
were compared to 38 knee replacements undertaken as in-patients over a 2 year period. DSU patients were discharged at a mean of 7 hours following surgery, while in-patient TKR were discharged at an average of 2.7 days. There were no re-admissions following discharge in the DSU group. DSU group: There were no surgical complications at a mean follow-up of 2 years. Patient feedback revealed high levels of satisfaction and that they would recommend the pathway to others. Cost analysis revealed savings towards bed costs.

Conclusion: Our early results demonstrate day case knee arthroplasty to be safe and cost effective. With limited resources to tackle the enormous backlog of arthroplasty, it offers the potential to make theatre utilization efficient.

13. Reducing length of stay in the National Health Service.

Gogineni Anurag; Appidi Phani; Gudla Sushmitha; Kakarla Siva Sainath; Kolli Sreedhar; Price Annie; Madamala Joshtnavi Reddy; Vuribindi Manjusha; Eedara Likitha Reddy; Gupta Gaima Gupta; Kaur Gurleen Kaur; Gavini Pradeepthi Chowdary Morriston Hospital, Swansea, Wales, UK Correspondence to: anurag.gogineni1998@gmail.com

Background: The increasing waiting times in the NHS is a burning issue that has been gradually worsening over the past few years, particularly following the Covid-19 pandemic. As well as delayed hospital discharges, prolonged waiting times in the Emergency Department (ED) are becoming incessant. The latest data from NHS England (2021/2022) shows that over 900,000 people waited more than 12 hours in ED from arrival to transfer, admission or discharge. NHS England also reported over 350,000 long hospital stays per year, associated with higher costs and risks to patients.

Methods: A review of the literature was undertaken to explore the reasons behind the increased waiting times and length of stay and to find practical and tested solutions in various NHS organisations to these problems.

Results: There is a paucity of high quality evidence describing proven effective ways of reducing length of stay. However, a number of initiatives and ideas have been successful in different areas. We have incorporated some of these ideas into a 6-step plan to address some of the factors that lead to long waits in the NHS.

2. ED: Consultant-led triage, virtual wards, hot clinics, spinal and head injury middle grade doctors.
3. Inpatient: Discharge to assess model, winter field hospitals, enhanced recovery programmes.
4. Rehabilitation: Needs-based rather than condition-based services, therapeutic gardens, faster access.
5. Elective procedures: Patient hotels or care homes, proactive infection control, backup plans for cancellation.
6. Prevention: Screening programmes, food and exercise incentives.

Conclusion: Long waits in the NHS are a multifactorial problem. We have summarised some healthcare innovations that have proven useful, however further research is needed in this area.


Leighton Jemma; Poacher Arwel T; Smith Harry; Ramage Gregor; Froud Joseph; Crook Daniel; Carpenter Elenor C Cardiff University, Wales, UK Correspondence to: Leightonjk@cardiff.ac.uk

Background: Early detection of developmental dysplasia of the hip (DDH) is associated with improved outcomes from conservative treatment.

Aims: To evaluate the impact of the presence of multiple risk factors on the predictive value of a national screening program in detecting DDH.

Methods: A 5-year prospective cohort study of all live births in the study’s catchment area (n=27,731), of whom 4,016 underwent
ultrasonographic screening for DDH. Each child was evaluated for the presence of risk factors prospectively, and findings were documented in a prospective registry. Multivariate odds ratios following regression evaluation of variables was used to evaluate statistical significance.

Results: The prevalence of DDH (Graf type IIb-IV) within the study population was 5.3/1000 live births. The rate of missed presentation of DDH was 0.43/1000 live births. The presence of multiple risk factors demonstrated a significantly increased association for DDH than for patients with primary risk factors alone. The presence of any primary risk factor had a positive predictive value (PPV) of 9.6% while those with multiple risk factors had a PPV of 18.4% (p=0.014) and significant increase in odds ratio (p=0.048). When these same groups were compared alongside an abnormal examination with a single risk factor against those with multiple risk factors, those with multiple risk factor demonstrated a significant increase in the PPV from 16.4 to 28.6 (p=0.045).

Discussion: This novel paper demonstrates a need to risk stratify children based on the presence of multiple risk factors to ensure early detection of DDH. In doing so, we may avoid system pressures that cause late diagnosis and by screening those at high risk earlier, we can ensure effective treatment of DDH is given through early detection.

Conclusion: There is a significantly increased association between children with multiple risk factors and the likelihood of the presence of pathological DDH.

15. Two-hole DHS fixation of Garden I and II neck of femur fractures- Radiological outcomes and predictive factors of AVN

Badurudeen Abdul Azeem; Mathai Naveen; Altaf Danish; Mohamed Wasiulla, Deglurkar Mukund
Princess of Wales Hospital, Bridgend, UK
Correspondence to: abdul.badurudeen@wales.nhs.uk

Background: Garden I and II NOF fractures are traditionally known for reduced incidence of AVN

Aim: The aim of this study is to analyse the radiological outcomes and predictors of AVN following 2-hole DHS in Garden I and II neck of femur fractures in patients more than 60 years of age with a minimum follow up of one year.

Methods: We retrospectively reviewed 51 consecutive patients aged more than 60 years who underwent DHS fixation for Garden I and II fractures. Demographics, fracture classification, time to surgery, pre-operative AMTS, preoperative posterior tilt angle, quality of reduction, pre and post-operative haemoglobin (Hb), creatinine and comorbidities were analysed for correlation with AVN using Chi-Square test, Independent sample and paired t-test.

Results: There were 40 (78.4%) females and the mean age of the cohort was 77 years. Union was observed in all our patients except one. (kappa =1). 12/51 (23.5%) developed AVN of the femoral head. Statistically significant higher incidence of AVN was noted in patients with a pre-op tilt angle > 200 (p = 0.006). The mean drop in Hb was higher in patients who developed AVN (21.5 g/L) versus the non-AVN group (15.9 g/L) (p = 0.001). There was no difference in AVN rates with respect to laterality, mean time to surgery, pre-op AMTS and Charlson comorbidity index.

4/52 (7.6%) had re-operations (one hardware prominence, two conversions to arthroplasty, one fixation failure during the immediate post-op period). The 30-day and one year mortality rates were 1.9 % and 11.7 % respectively.

Conclusion: A preoperative posterior tilt angle of >200 and a greater difference in pre and post operative haemoglobin were found to correlate positively with the progression to AVN following 2-hole DHS fixation in undisplaced NOF fractures. No correlation was observed between AVN and time to surgery, laterality, quality of reduction and comorbidities.
16. Clinical Assessment Preparation with 360-degree Films: A Future-Proof Approach for Medical Students

Nwosu Olivia; Bedar Leya; Rodwell Vanessa; Bird Terese
Leicester Medical School, United Kingdom
Correspondence to: on32@student.le.ac.uk

Background: COVID-19 changed the landscape of clinical teaching. In its aftermath, novel Medtech resources can target gaps in struggling medical students’ clinical knowledge in preparation for Observed Structured Clinical Examinations (OSCEs). Livestreamed ward rounds give pre-clinical students the opportunity to prepare for the next phase of medical education, which involves more patient interaction. Students experience the clinical environment and can practice their consultation skills in preparation for assessments.

Aims: A new virtual learning initiative delivers immersive exam preparation. It partners student-led 360-degree filmed mock OSCEs, with Professional OSCE Examiners’ feedback. In providing immersive exam simulations, we aim to increase students’ confidence and preparedness as well as impart crucial clinical history and examination skills.

Methods: 1. Students film mock 360-degree OSCEs. 2. Student participants watch videos and read an examiner’s commentary. 3. Participants engage in a live-streamed ward round where they take a history from several patients. 4. Participants quizzed to check confidence and awareness of how OSCEs run. 5. Participants join focus group to examine learning value of videos, ward round and contextual teaching. 6. Participants’ comments analysed for emerging themes.

Results: 360-degree films, posted on YouTube and watched on computers, phones or Google Cardboard, provide immersive clinical learning anywhere, without exposing patient data- a future-proofing aspect.

Discussion: 1. Students appreciated the immersivity and authenticity, enabling flexible and engaging learning. 2. 360-degree videos effectively help students learn empathy, professionalism, and equitable attitudes.

Conclusion: Students commented that technology-themed learning improved confidence in communication skills with patients.

17. Do trainees need more senior support to help with the post pandemic recovery?

Ahmed Ahmed Elamin; Selvasekar Chelliah
The Christie NHS Foundation Trust, UK
Correspondence to: ahmed.elaminahmed@nhs.net

Background and Aim: The COVID pandemic resulted in significant disruption to trainees throughout the country. The aim of this project was to assess the impact this has had on trainees’ experiences at The Christie NHS Foundation Trust.

Method: A prospective study looking at data from end of rotation surveys in the 18 month period following the start of the COVID-19 pandemic, using a 5-point Likert Scale. Comparisons were then made with data in the 18 month period prior to the pandemic. The surveys were completed by junior medical staff.

Results: A total of 80 surveys were included in this study, 38 in the Pre COVID group and 42 in the Post COVID group. The results showed that 33.3% of trainees reported a good level of Consultant support and supervision after the start of the pandemic, a fall from 47.1% in the period prior to it. The number of trainees who thought they were receiving adequate feedback fell, with 41.5% of trainees rating their feedback as poor, compared with 27.1% prior to the pandemic. No difference in workload intensity was reported between the two periods.

Discussion: The Christie Hospital is a specialist cancer care centre and took steps to minimise the impact of COVID-19 on the running of routine services and delivery of care.
to patients. The results of these surveys show that despite these efforts, juniors were receiving less supervision and feedback than they were prior to the pandemic. This has led to a project, which is currently underway, exploring the potential impact that this will have on the quality of training being delivered, identifying areas for improvement, as we look to move past the pandemic.

18. An Evaluation of Bone Health in Paediatric Neurodisability

Kirollos Miray; Carpenter Clare
University Hospital of Wales, Cardiff, UK
Correspondence to: kirollosmm@cardiff.ac.uk

Background: Children with neurodisability (conditions caused by impairment in the nervous or musculoskeletal systems) who have decreased ambulation or who have been prescribed certain medications are at higher risk of having low bone mineral density (BMD). This increases the risk of osteoporosis and fragility fractures. Identifying the risk factors associated with low BMD and their effects can help us create individualised care plans for children to improve their bone health.

Aims: To evaluate the risk factors associated with neurodisability and explore bone protection medication use.

Methods: Data was collected by a retrospective review of 110 patients (age range 3-20 years), under the Paediatric Orthopaedic team, using Welsh Clinical Portal. Factors analysed include biochemical biomarkers, nutritional status, and weight-bearing activity. Results: 63.3% of patients were classified as non-ambulatory and 21.1% sustained fragility fractures. 40.4% of patients did not have a vitamin-D measurement and 60.9% of patients who had fractures were not on vitamin-D supplements. Most patients who sustained fractures (52%) had feeding difficulties requiring feeding adjuncts. 83% of patients who had fractures were caused either by non-traumatic injury or as an incidental finding. None of the patients who had multiple fractures were assessed using a DEXA scan and only 2/23 of patients were prescribed bisphosphonates.

Conclusions: Bone health is affected by the cumulative effect that results from all the risk factors together. A new management pathway can help prevent low BMD and secondary complications. Preventative measures are essential in future practice by ensuring vitamin-D supplements are provided to all patients, and raising awareness among staff, carers, and family to help with handling of patients and earlier recognition of fractures. Consideration for early involvement of DEXA scans and bisphosphonates can prove useful alongside the other measures.

19. Do other inquiries affect the outcomes of flexor tendon repair in the hand?

Jenkins Evam; Gleed Pippa; Pringle Heather; John Hannah; Watts Andrew; Yim Guang
United Kingdom
Correspondence to: evan.jenkins@nhs.net

Background: There is limited data reporting on the influence of concurrent injuries have on outcomes of upper limb flexor tendon repairs (1). Our aims were to compare the Strickland and Glogovac’s (2) TAM classification of flexor tendon repair outcomes in patients with and without concurrent neurovascular injury, fracture and extensor tendon divisions.

Methods: A retrospective case note review from 1st Jan 2016 to 31st Dec 2020 of a prospectively maintained hand therapy database was undertaken. The clinical notes were interrogated to determine the zone of flexor tendon injury, rupture rate, TAM outcomes and complications.

Results: Overall, 386 digits in 337 patients were available for analysis. Concurrent injuries included: 23 fractures; 10 extensor tendon lacerations and 138 neurovascular injuries. Having concurrent injuries was associated with greater fair/poor outcomes (46%) compared against patients with isolated injuries (33%). Patients with fractures had the greatest incidence of fair/poor outcomes (57%) compared with neurovascular injury (56%) and extensor tendon injury (44%).

Conclusions: Patients with concurrent hand injuries have reduced functional outcomes after flexor tendon repairs. The effects of extensor tendon injury on post-operative
outcome have not previously been addressed. A better understanding into rehabilitation strategies is needed to improve functional outcomes in these patient groups.

20. Incidence and Management of Intraoperative Fractures Around Knee Joint During Primary Total Knee Arthroplasty – A Systematic Review.
Iqbai Asif; Adla Prashant; Kumar Abhijeet; Jayachandran Jayadeep
Glan Clwyd Hospital, United Kingdom
Correspondence to: drasifiqbal.ortho@gmail.com

Background: Intra-operative fracture is one of the complications associated with TKA. Due to the low incidence rates a lack of research evidence pertaining to the complications associated with TKA has been indicated.

Aim: This systematic review aims to analyse intra-operative fracture during primary TKA to establish its incidence rate, risk factors, and the stage during the surgery that it occurs, clinical outcome and management.

Method: The report adopts a systematic literature review strategy.

Result: 17 research articles were screened and identified for this systematic review. Only ten out of the 17 identified literature's met the eligibility criteria.

Discussion and conclusion: The intra-operative incidence rate fell below 2%, its consequences however distressing since it may lead to TKA revision. Further research on the topic is recommended to increase the body of literature available.

Hathaway Isaac; Poacher Arwel; Lloyd Crook Daniel; Horner Matthew; Carpenter Eleanor
Cardiff University
Correspondence to: hathawayif@cardiff.ac.uk

Background: Developmental dysplasia (DDH) of the hip is a common disease however its true incidence remains unknown. DDH can be managed effectively with non-surgical interventions when diagnosed early, however with age there is less likelihood of successful conservative intervention and the need for complex surgery increases. Hence, an effective screening program for DDH is essential to reduce the morbidity of late diagnoses in the population.

Methods: A systematic review and metanalysis of the epidemiological literature from the last 25 years in the UK. Articles were selected from databases searches using MEDLINE, EMBASE, OVID and Cochrane. 13 papers met the inclusion criteria. Standard meta-analytic models utilising MOOSE protocol were used to produce the results.

Results: The incidence of DDH within the UK over the last 25 years is 7.3/1000 live births with females making up 86% of the DDH population (OR 6.14, CI 3.3, 11.5 p<0.0001). The incidence of DDH significantly increased following the change in NIPE guidance from 6.5/1000 to 9.4/1000 live births (p<0.001). The rate of late presentation also increased following the changes to the NIPE guidance, rising from 0.7/1000 to 1.2/1000 live births (p<0.001), however, despite this increase in late presenting cases there was no change in the rates of surgical intervention (0.8/1000 live births, p=0.94).

Conclusion: The literature demonstrates that the implementation of a selective screening program has, increased the rate of DDH in the UK. It has led to increased rates of late presentation, whilst failing in its primary goal of reducing rates of surgical intervention. The increase in late presentation without subsequent increase in surgery is likely due to the lack of clarity in the literature when defining a late and a missed case. This study suggests that there is a requirement to reconsider defining terminology and compartmentalising the late (>12 weeks) and ‘missed’ case >24 weeks.

22. Prehabilitation: A Patients’ Perspective
Zagni Matthew, Anieran Bevan Health Board (Grange University Hospital)
Correspondence to: zagnizagni@gmail.com
Background: Prehabilitation is a growing concept and proven effective tool, demonstrated by multiple studies. Most of the research into Prehabilitation is focused on exercise-based interventions and clinical outcomes. In this study, I have attempted to improve our Prehabilitation service and also gain a general view from patients on the idea of Prehabilitation.

Methods: To develop the breadth of our Prehabilitation service, I produced a leaflet aimed at colorectal cancer patients; providing advice on diet, exercise, wellbeing, smoking, alcohol and the concept of Prehabilitation. After publication on the trust website, I presented the leaflet to our pre-assessment nurses and asked them to give it to patients undergoing colorectal surgery. I then collected feedback from the team. The nurses would pass on the patients’ details, with their consent, so I may call them to find out their views on the leaflet. To structure the feedback I wrote a short survey (figure 1).

Results: I contacted four patients in the first two weeks. Each patient had the leaflet for around one week and gave in-depth feedback. Patients had many constructive comments—including considering patients whose first language isn’t English and use of technical terms; a larger font version; querying the usefulness of referencing for patients and exercises for patients who may have disabilities. The patients had different areas which they were most interested in, giving evidence for a holistic service. Interestingly, all four patients thought written information was more useful than the links.

Conclusion: Most of all the leaflet made an impact on patients’ perspective; patients know that a healthy diet and keeping fit is beneficial but each one described a new sense of motivation after reading the leaflet. They all expressed that the leaflet gave them confidence that making a change before surgery would result in a smoother recovery.

23. The Virtual Trauma Meeting – Adapting to the New Normal after COVID-19

D’sa Prashanth; Mercer Scott; Bajada Stefa; Ennis Owain; Williams Rhodri
West Wales General Hospital, Carmarthen, UK

Correspondence to: drprashanth.dsa@gmail.com

Background: COVID-19 has changed the NHS. Hospitals have had to adapt to meet the ever-changing strain of safety measures that are necessary to keep the workforce running and more importantly safe. Our orthopaedic department has implemented a virtual trauma meeting (VTM) using the Microsoft Teams conferencing platform. This ensures adequate social distancing, safety and efficient running of the morning trauma meeting. Objectives: We aim to explore whether a VTM is a viable alternative to the traditional face-to-face trauma meeting and aim to demonstrate not just increased efficiency, but elevated satisfaction amongst staff.

Study Design & Methods: A questionnaire was distributed amongst involved staff members using a purposeful convenience sampling technique. The questionnaire was organised into Likert-type and free text questions. These were subsequently analysed via tabulation and thematic analysis.

Results: A total of 47 responses were received with completed questionnaires. All members of the multidisciplinary team were represented. An overall positive satisfaction rating of 98% was demonstrated. It was felt amongst staff that a VTM increased departmental organisation, facilitated safe attendance, whilst maintaining efficiency in comparison to traditional trauma meetings. The educational value of the meeting has remained the same. Only 22% of those in
attendance experienced log on issues. 87% of users did not have an issue technically with the format. 87% of study participants would like the VTM to continue in its existing format and 77% felt its implementation improved the standard of care delivery.

Conclusions: A VTM is a viable replacement for the traditional face-to-face trauma meeting. More staff are able to attend safely and facilitates all members of the multidisciplinary team to be aware of the upcoming day’s events. Our VTM has demonstrated excellent satisfaction levels, however efforts must be made to maintain the educational/business balance of the meeting.

24. Spinal Injury Management In Trauma Units In South Wales
Sai Appidi Phani Krishna; Cogineni Anurag; Gudla Sushmitha; Kakarla Siva Sainath; Kolli Sreedhar; Price Annie; Mudamala Joshtnavi; Eedara Likitha; Vuribindi Manjusha; Gavini Pradeepthi Chowdary; Gupta Carima; Kaur Gurleen
Morriston Hospital, Wales
Correspondence to: phani.appidi@gmail.com

Background: The South Wales Trauma Network was established in September 2020. The Major Trauma Centre (MTC) is based in Cardiff, with designated Trauma Units (TU) in other hospitals throughout South Wales. These include Morriston Hospital (MH) in the Swansea Bay and West Wales General Hospital (WWGH) in Hywel Dda. Patients with Spinal Injury (SI) are often repatriated back from the MTC after completing specialist treatment. Until recently, these patients were admitted to a variety of wards depending on bed availability. Cohorting patients on a single ward, or landing pad, has a number of advantages. Spinal Injury leads to complex problems and a trained, experienced multidisciplinary team is vital to provide a good standard of care.

Aim: To provide centralised, timely care to patients with SI admitted to TU in Swansea Bay and Hywel Dda health boards, by designating a specific ward as a landing pad where all their needs are met.

Methods: A retrospective review was undertaken of the patients with traumatic SI treated at MH and WWGH between February and September 2022 using data from the major trauma teams.

Results: Since February 2022, there has been an attempt to cohort patients with SI on designated landing pads. So far, 24 ward nurses in MH and 14 nurses in WWGH have received specific training to provide holistic care to these patients. The total number of patients with SI admitted to MH and WWGH in the timeframe was 20 and 7, respectively.

Conclusion: Establishing a clear pathway and designated landing pads ensures smooth patient flow and trained, experienced staff managing a cohort of patients with often complex needs. Further work is planned to look at the effects on patient experience and length of stay.

Kamath Archith; Halliday Dorothy; Downes Susan
Oxford University Hospitals NHS Foundation Trust, United Kingdom
Correspondence to: aktallur@gmail.com

Background and Aims: Von Hippel Lindau Disease (VHL) requires regular retinal screening due to the risk of developing capillary haemangioblastoma. There was no database of VHL patients requiring retinal screening in Oxford University Hospitals (OUH). This quality improvement project (QIP) sought to create, audit, and re-audit a database of patients requiring retinal screening to ensure safe and timely follow-up, particularly important during COVID-19, which posed a risk of loss of face-to-face follow-up.

Methods: VHL clinic lists across two years were consulted to identify all patients. Electronic patient records were used to identify appointment dates and outcomes. The database was created and password protected; ‘standard’ data were collected at the time of creation. The database was re-audited after four months.
Results: 85 patients were included in the original database, of whom 75 (88%) had a clear follow-up plan, with a screening appointment already booked, not requiring an appointment for several (≥3) months, or only requiring follow-up in the genetics clinic. Nine patients were overdue an appointment, and one patient did not have sufficient information available to determine whether they were being screened correctly. Upon re-audit, 45 patients were included in the updated database. All were being screened appropriately, with appointments already booked, a clear follow-up plan, or several (≥3) months until their next appointment.

Conclusion: Most patients were receiving optimal VHL retinal screening prior to creation of the database; all were receiving optimal screening upon re-audit. Implementing this QIP has helped to ensure all patients receive appropriate and timely retinal screening. The authors recommend re-audit the database after a longer duration of use (e.g., one year) to determine whether there has been any change in the screening process.

26. Delays in Accident and Emergency services
Gogineni Anurag; Phani Appidi; Gudla Sushmitha; Sreedhar Kolli; Siva Kakarla; Joshtnavi Mudamala; Manjusha Vuribindi; Reddy Eedara Likitha; Kaur Gurleen; Gupta Garima; Chowdary Gavini Pradeepthi
Morriston Hospital, Swansea, UK
Correspondence to: anurag.gogineni1998@gmail.com

Background: The Accident and Emergency (A&E) ‘four-hour’ waiting time standard has been one of the highest profile NHS targets. But, it has declined from 95% (reaching the standard) to a mere 60% in a decade, with over 900,000 people having to wait over 12hours from arrival according to data published by NHS England (2021/2022). A study done by Simon Jones et al. on 26,738,514 patients has shown an increase in all-cause 30-day mortality in patients with a delay of more than 5 hours from arrival in A&E to admission.

Methodology: A review of literature has been undertaken to determine the gravity of the problem and explore practical tested solutions.

Results: Proven effective ways of reducing waiting times in A&E are scanty. However, several initiatives have been proposed and were successful in various regions. We have derived the following list from integrating such models along with ideas suggested by experts. An increase in out-of-hospital care and primary care, Patient awareness campaigns, Consultant led Triage has proven to decrease the need for investigations and waiting times, with over 50% being discharged back home from triage, Spinal and head injury middle grade or nurse practitioners input, Basic diagnostic training for A&E staff, Specialist frailty assessment unit, Virtual wards, Hot clinics, Avoid co-existing Minor injury units, balance demand and capacity by identifying patterns, compensating excess demand with increased capacity by rescheduling or re-allocating, and the evident need to increase staffing and beds.

Conclusion: This substantial problem of A&E doesn’t have a straightforward solution, but rather multiple interventions to be made at various stages. The focus should be shifted to the whole patient pathway to identify and address bottlenecks along with further studies and regular audits.

27. Covid in pregnancy: are we following the guidelines?
Aggarwal Shilpy; Aly Youssef; Cording Vicky; Rao Sandhya
United Kingdom
Correspondence to: shilpy@doctors.net.uk

Background: Covid-19 was first detected in the UK in February 2020, having originated in Wuhan, China. According to MBRRACE rapid report 10 Pregnant women died with Covid between 1/3/2020 and 31/5/2020. Since very little was known about the disease and safety of the vaccination could not be proved when it was introduced, it was very important to get the right treatment in pregnancy to prevent maternal morbidity and mortality. Our aim was to audit the symptomatic and preventative treatment of Covid in pregnancy.
Methods: Retrospective audit of all pregnant women diagnosed with Covid from February 2020 until July 2021. We compared maternal corticosteroid use, VTE compliance (Clexane injections for at least 10 days) and steroid use for foetal lung maturation (in deliveries <38 weeks) with the published guidelines at the time.

Results: A total of 73 patients had symptomatic Covid-19 infection during the study period. Compliance with maternal corticosteroid use was 89% (target 90%). VTE compliance was 88% in severe disease and 60% in moderate disease (target >90%). Results for steroid use for foetal lung maturation were inconclusive, since it was unclear at what gestation steroid were given and whether these were given for foetal lung maturation or not (target 100% in deliveries <38 weeks).

Conclusions: Overall the audit showed reasonable compliance with guidelines, especially considering guidelines for Covid in pregnancy changed several times during the study period. Clinician documentation could be improved in digital health records to help more accurately assess steroid use in pregnancy, which would help obstetric doctors understand this better when considering foetal lung maturation.

28. Longitudinal Analysis of Childhood Body Weight Trajectories and Determinants of Weight Gain
Mehta Dhruv
University of Birmingham
Correspondence to: dhruvmehta1997@yahoo.co.uk

Objectives: To describe the change in BMI z-score over time among a cohort of UK primary school children and to identify differences between weight trajectories by socioeconomic and behavioural characteristics. Ultimately, to help identify groups of children at higher risk of gaining weight to aid obesity prevention strategies in the UK and similar high-income countries.

Methods: Secondary data analysis of WAVES study data; 1052 primary school children aged 5-9 in 2017, from 54 primary schools across the West Midlands, UK. BMI z-score calculated at three time points T1 (baseline), T2 (15-months), and T3 (30-months) are described by weight trajectory, as a combination of their baseline weight status and subsequent weight change. Combined weight trajectories are compared using Pearson’s Chi2 and SPSS logistic regression to identify significant differences by demographic factors and behavioural patterns.

Results: Mean BMI z-score increased with time with 1-in-5 participants (20.9%) classed as overweight or obese at T1, increasing to almost 1-in-3 (31.2%) by T3. “Sex”, “Deprivation”, and “meeting guideline portions of fruit and vegetables”, were not statistically significant determinants for weight gain in either baseline weight group. Significant associations with weight gain included being of “South Asian” or “Other” ethnicity when healthy or underweight at baseline, alongside “not meeting recommended levels of physical activity” when overweight or obese at baseline.

Conclusions: Carrying excess weight is highly prevalent in the study population, with participants displaying a tendency for weight gain throughout their critical primary school years. Multilevel prevention strategies should target the susceptible demographics identified. Public health campaigns encouraging healthy lifestyles are required to help tackle the UK’s obesity crisis, prevent it tracking into adulthood, and reduce the public health burden of childhood obesity.
29. Creating a standardised drug chart for continuous IV infusion of Omeprazole after successful endoscopic haemostasis of bleeding peptic ulcers
Rangedara Don Edward
Wrexham Maelor Hospital, Betsi Cadwaladr University Health Board, Wales
Correspondence to: edwardrangedara@hotmail.co.uk

Background and Aims: There is high quality evidence that a continuous PPI infusion (CPPII) over 72 hours following successful haemostasis in bleeding peptic ulcers at endoscopy can decrease ulcer rebleeding and improve mortality. Anecdotally, healthcare professionals (HCPs) have limited experience in prescribing and administering a CPPII which can create confusion and force prescribing errors. Aim of my QIP was creating a standardised drug chart for a CPPII to help HCPs prescribe and administer it confidently and to ensure Helicobacter Pylori (HP) eradication therapy is given as appropriate.

Methods: Two PDSA cycles were performed. A pre QIP questionnaire was distributed to 18 doctors from 08/02/21-19/02/21 to ascertain the background knowledge regarding the rationale of a CPPII and whether a standardised drug chart would be beneficial. Their answers helped to create the drug chart which then had to be approved by the Drug and Therapeutics Group (DTG) for official use across the health board. Following its approval on 05/05/21, a post QIP questionnaire was distributed to 13 doctors from 24/05/21-28/05/21 to assess its effectiveness.

Results: The pre QIP questionnaire demonstrated a poor understanding of the indications for a CPPII with nearly 40% being unaware of the indications, 95% stating they did not know how to prescribe it and 90% being unaware of how it was administered. 100% thought the QIP was worthwhile and would be helpful to improve overall patient safety and care. 100% of responses from the post QIP questionnaire showed improved understanding and confidence in prescribing CPPII and HP eradication.

Conclusion: A standardised drug chart for CPPII has been shown to improve knowledge and confidence for HCPs to provide optimal care to a subset of patients who are critically unwell and who carry a high mortality. It will theoretically reduce prescribing errors and by implementing best practice, improve patient safety.

30. Impact of COVID-19-related delays to arthroplasty surgery on patient reported outcomes
Mehta Dhruv
University of Birmingham, UK
Correspondence to: dhruvmehta1997@yahoo.co.uk

Objectives: To describe the impact of COVID-related delays to arthroplasty surgery on patient reported outcomes measures (PROMs), pain, and quality of life (QoL). The hope is to highlight the importance of attending to these patients needs in a timely manner and potentially inform and facilitate change at a regional level in response to such unprecedented times.

Methods: This patient-based service evaluation looked at a random selection of urgent arthroplasty patients from multi-surgeon waiting lists at the Royal Gwent Hospital, South Wales. The cohort were consented, assessed, and listed for surgical treatment in the pre-COVID era and subsequently were not able to have their required treatment due to COVID-related delays. Patients were listed for Total Hip Arthroplasty; Total Knee Arthroplasty; and Uni-Compartmental Knee Replacement. Validated patient reported outcomes (Oxford Hip or Knee Scores) and QoL tools (EuroQol) assessed at Pre-COVID and Current intervals are used to identify the impact of delays in hip
or knee replacements attributed to the first year of the COVID-19 pandemic.

Results: Mean Oxford Score worsened from 27.2 at Pre-COVID level to 40.7 at Current level, with the percentage of patients exhibiting a clinically significant worsening of Oxford Score at 85.3%. All five dimensions of quality of life reported maintained or worsened outcomes, with the worst affected being Usual Activities (53.0%), Pain or Discomfort (44.1%), and Anxiety or Depression (32.4%).

Conclusions: Findings illustrate the overwhelmingly negative impact of COVID-related delays to arthroplasty surgery on patient reported outcomes measures (PROMs), pain, and quality of life (QoL), as well as prompting research into expanding post-procedure outcome measuring alongside larger sample sizes.

### 31. Comparing Outcomes of Traditional vs Magnetically Controlled Growing Rods at Graduation

**Mehta Dhruv; Tahir Muaaz; Mehta Jvalant**  
**University of Birmingham, UK**  
**Correspondence**  
**dhruvmehta1997@yahoo.co.uk**

Objectives: To compare the clinical and radiological outcomes in patients with early-onset scoliosis who have undergone spinal fusion (graduation) following distraction-based spinal growth modulation through either traditional (TGRs) or magnetically-controlled growing rods (MCGRs).

Methods: A retrospective single-centre review of skeletally mature EOS patients treated with either TGR or MCGR. Measured outcomes included sequential coronal T1-S1 height and major curve (Cobb) angle on plain radiographs from pre-operative to latest follow-up and any complications requiring unplanned operations before final fusion.

Results: 43 patients were identified (63% female) with mean age 6.4 ± 2.6 years at index procedure, and 12.2 ± 2.2 years at final fusion. Mean follow up was 8.1 ± 3.4 years. 16 patients were treated with MCGR and 27 with TGRs. Mean number of distractions in MCGR group were 7.5 vs 10 in TGR group (p=0.47) with 3.4 months versus 8.6 months in between each distraction in the respective groups (p < 0.001). Mean Cobb angle improved by 25.1° in the MCGR and 23.2° in TGR group (p=0.66) at final follow-up. The mean coronal T1-S1 height increased by 16% in the MCGR and 32.9% in TGR group (p=0.001), although the mean T1-S1 height achieved at final follow-up was similar in both groups. Unplanned operations occurred in 43.8% of MCGR and 51.2% of TGR cases (p=0.422)

Conclusion: In this retrospective single-centre review of MCGR and TGR graduates, there were no significant differences in major curve correction or gain in spinal height at fusion. Although the number of planned procedures were fewer with MCGR, rates of implant-related complications necessitating unplanned revision surgery were similar in the two groups.
32. Characteristics and outcomes of patients with hospital related venous thrombo-embolism: A retrospective hospital study
Selvaraj Dhiraj Ravindran; Rana Radha; Nawaz Sarfaraz; Crasto Winston
George Eliot Hospital, Nuneaton, United Kingdom
Correspondence to: r.s.dhiraj@gmail.com

Background: Venous thromboembolism (VTE) is a preventable cause of death and occurs during the immediate period post-hospitalisation. Early risk assessment and adequate prophylaxis can reduce mortality.

Methods: We screened hospital records for radiologically confirmed deep vein thrombosis (DVT) or pulmonary embolism (PE) among adult hospitalised patients in the preceding 3 months. We interrogated hospital and GP records for mortality related outcomes at 3 months after diagnosis.

Results: Among 2907 records screened, there were 298 VTE events (10.3%), of which 64 (21.5%) were hospitalisation related. Median age was 73 years, and 62.5% (n = 40) were female. The most common presentation was PE (n = 35, 54.7%), and equal proportion of people had hospital VTE during hospitalisation and three months post discharge. Hospital VTE were higher among emergency medical admissions 65.6% (n = 42). Median duration of hospitalisation was 9 days and median duration since admission to diagnosis of VTE was 13 days. 98.5% (n = 63) were VTE risk assessed and 82.2% (n = 53) received prophylaxis. 76.6% (n = 49) received pharmacological and 18.8% (n = 12) mechanical prophylaxis. 95.3% (n = 61) of patients were discharged and 4.7% (n = 3) died. Cumulative mortality, 3 months post-VTE was 25% (n = 16). Post VTE mortality was significantly higher among medical patients and those aged more than 60 years.

Conclusion: Among hospitalised patients, significant burden of VTE occurs in medical patients. VTE appears to be a strong determinant of mortality although other factors including COVID-19 infections and co-morbidities may have contributed.

33. Rural-Mobile Based Rehabilitation Program. (Access to early intervention therapy for children with disabilities)
Waiswa Ronald; Kehoda Rose; Kaudha Agnes
Makerere University/Busoga region
Correspondence to: waiswaroni@gmail.com

Background: According to WHO, if children with development delays are not provided with appropriate early intervention, their difficulties can lead to lifetime consequences, increased poverty and profound exclusion. There are more than 102,600 in Eastern region of Uganda with disabilities in age 0-6.85% of these have no access to EI therapy because of a lack of rehab specialists in rural areas and long distance. Therefore, bringing therapy to a child's own home through Community Rehabilitation Workers with GPS monitoring systems and guided by rehabilitation specialists provides a high fidelity solution that can be accessed by rural children.

Aims: Enable parents and caregivers to support their children's overall development and also prepare children for primary school through exploration and early literacy skills.

Methods: We hire and train local women in the community to become Community Rehabilitation Workers through a 3 week intensive training program. All children in our surrounding community age 0-6 are screened for developmental delays in health centres and nursery schools using a validated tool in our app. Children identified with disabilities are then assessed by our team of Rehab specialists. Community Rehab workers provide the EI therapy in child's own home (guided by the therapy program set out in the App). Impact evaluation and management through periodic evaluation of children is done. Reach: Our monitoring and evaluation of the program has revealed high engagement with 87% of therapy visits booked being completed. As of date we have managed to screen 22,000 children, 55 health workers and nursery teachers have been trained to use our RmBRP app and finally we have provided therapy for 1240 children.

Results: Parents: Decreased strain (74%), increased engagement (73%) and improved child interaction (62%) through the
Canadian occupation performance measure tool. Improved children developments: cognitive speech model, social development and improved child interaction. School enrolment: increased enrolment (55% to 79%) through family empowerment scale.

34. Audit of AF Management in Acute Medicine
Vijayan Arjun Karappilly; Ngu Lydia Wen Yien
Good Hope Hospital, University Hospitals Birmingham, United Kingdom
Correspondence to: arjun.vijayan@nhs.net

Background: Atrial fibrillation (AF) is the most common heart rhythm disorder detected as an irregular pulse or an irregular rhythm on an Electrocardiogram. Drug treatment includes anticoagulants and anti-arrhythmic. ORBIT and HAS-BLED scores have been recommended to assess the bleeding risk in patients while offering anticoagulation.

Aim: The purpose of this audit is to evaluate the patient management standards of AF as compared to the latest NICE AF guidelines at a single centre.

Methods: Data were collected retrospectively from patients’ notes and discharge letters of patients discharged with primary or secondary diagnoses of AF from the Department of Acute Medicine, Good Hope Hospital over a period of 2 months from January to February 2022 and compared against the latest NICE AF guidelines.

Results: The NICE standards are 100% documentation of the discussion, including ORBIT & HAS-BLED score while offering anticoagulation with a direct-acting oral anticoagulant to people with AF and a CHA2DS2-VASc score of 2 or above.

A total of 25 patients were selected of which 21 (84%) patients were initiated on anticoagulation with a direct-acting oral anticoagulant. 10 (40%), 4 (16%) and 1 (4%) patients had their CHA2DS2-VASc, HAS-BLED and ORBIT scores documented respectively.

Conclusion: Results of the audit showed that although 21 out of 25 patients were started on a form of Anticoagulation, there was an inadequacy in the documentation of the discussions along with the ORBIT, HAS-BLED and CHA2DS2-VASc scores before initiating the treatment. A departmental meeting was conducted to improve awareness among doctors following which frequent messages on social media were forwarded to ensure adherence to the guidelines. A re-audit of the same would be performed in October 2022 and the target is to attain 100% compliance with the NICE guidelines.

35. Did the COVID Pandemic affect outcomes for patients having total hip arthroplasty for hip fracture?
Jambulingam Raja; Bhattacharjee Atanu; Lloyd John
Grange University Hospital, Wales, United Kingdom
Correspondence to: rajajamb@doctors.org.uk

Background: The COVID-19 Pandemic caused widespread changes to the delivery of healthcare worldwide. Hip fractures continued to be prevalent despite otherwise decreasing trauma trends. In appropriate hip fracture patients, total hip arthroplasty (THA) can provide superior clinical and functional outcomes to other operations.
Aims This study aimed to observe changes in outcomes in the THA patient cohort compared to the previous year. The primary outcome measure was length of stay (LOS), with secondary outcome measures including mortality, discharge destination, time to follow up and complication rate.

Methods: Data was collected for a one-year period in 2020 during COVID and an equivalent period in 2019 using the National Hip Fracture Database. This data was further examined using local IT systems. Only patients treated with THA were included.

Results: 59 patients had THA pre-COVID vs 47 during. Gender and ASA distribution was equivalent however the patients operated were significantly younger at 73 vs 77 (P=0.05) during the pandemic. 2 patients developed asymptomatic COVID-19 infection. Average LOS during COVID was 13.2 days vs 10.8 pre-COVID, however this was not statistically significant (P=0.167). Zero mortalities happened during COVID compared with 3 pre-COVID (P=0.116). 100% of patients returned to their pre-hospital discharge destination during COVID compared with 87.7% the previous year, which was significant (P=0.0126). Mean time to follow up was less during COVID averaging 27.7 vs 44.4 days before (P=0.015), with a similar follow up rate (78% during vs 79% before). Complication rates were not significantly different at 27% pre-COVID vs 21% during (P=0.5). 1 Re-operation occurred pre-COVID vs 0 during the pandemic (P=0.3).

Conclusion: Despite numerous regulations being introduced, patients receiving THA during COVID experienced slightly better secondary outcomes. We should seek to employ lessons learned during COVID to continue improving care offered to our patients as practice returns to normal.

36. Patient attitudes towards re-use of orthopaedic braces
Jambulingam Raja; Mirza Yusuf; Kemp Mark
United Kingdom
Correspondence to: Rajajamb@doctors.org.uk

Background: Climate change poses the greatest danger to global health in the 21st century. Paradoxically, healthcare contributes enormously to climate change, from manufacturing pharmaceuticals to disposing of waste products. Healthcare facilities produce 660 tonnes of waste daily. Rising use of disposable materials has led to a progressive annual increase in waste since 1992. The evidence regarding “green orthopaedics” has mainly examined waste generated perioperatively.

Aims: The aim of this study was to examine patient attitudes to the recycling of orthopaedic braces in fracture clinic. Methods: Brace wearing patients in fracture clinic were invited to complete a questionnaire, examining personal attitudes to climate change, single use plastics and the reuse of orthopaedic braces. The importance of climate change and recycling was recorded using a Likert scale (0, no importance - 10, very important). The degree of agreement to personal use of a recycled brace was assessed using a 4 point Likert scale.

Results: 211 patients attended clinic, of whom 93 were wearing orthopaedic braces (44.1%). 40 responses were collected, (response rate 43%). Of respondents, 22 were female patients (55%) with a mean age of 49 (range 16-82). 38 patients (95%) were aware of the issue of climate change whilst 37 (92.5%) were aware of the issues of single use plastics. 22 patients (55%) described the issue of climate change as Likert scale 8,9 or 10 whilst 24 (60%) described the issue of single use plastics as Likert scale 8,9 or 10. 36 patients (90%) were in strong or very strong agreement that braces should be reused.

Conclusion: Orthopaedic trauma patients are mindful of the importance of climate change and brace reuse. Our data suggests positive attitudes towards re-use of braces. Orthopaedic surgeons and the orthotics
industry should aim to develop sustainable, reusable orthopaedic braces.

37. Comparison of the Inter-Observer Reliability and Reproducibility of Oswestry Bristol Classification vs the Dejour Classification For Trochlear Dysplasia of the Knee

Joshi Pushkar Prafulla; Roy Kunal; Shenoy Pritom; Ali Ibrahim; Malek Ibrahim; Barlow David; Syed Asad; Joshi Yogesh Wrexham Maelor Hospital, Wales, UK

Correspondence to: dr.pushkarj@gmail.com

Background: Classifying trochlear dysplasia (TD) is useful to determine the treatment options for patients suffering from patellofemoral instability (PFI). There is no consensus on which classification system is more reliable and reproducible for this purpose to guide clinicians in order to treat PFI. There are also concerns about validity of the Dejour classification (DJC), which is the most widely used classification for TD, having only a fair reliability score. The Oswestry-Bristol classification (OBC) is a recently proposed system of classification of TD and the authors report a fair-to-good interobserver agreement and good-to-excellent intraobserver agreement in the assessment of TD.

The aim of this study was to compare the reliability and reproducibility of these two classifications.

Methods: 6 assessors (4 consultants and 2 registrars) independently evaluated 100 magnetic resonance axial images of the patella-femoral joint for TD and classified them according to OBC and DJC. These assessments were again repeated by all raters after 4 weeks. The inter and intra-observer reliability scores were calculated using Cohen’s kappa and Cronbach’s alpha.

Discussion: Both classifications showed good to excellent interobserver reliability with high alpha scores. The OBC classification showed a substantial intra-observer agreement (mean kappa 0.628) whereas the DJC showed a moderate agreement (mean kappa 0.572). There was no significant difference in the kappa values when comparing the assessments by consultants to those by registrars, in either classification systems.

Conclusion: This large study from a non-founding institute shows both classification systems to be reliable for classifying TD based on magnetic resonance axial images of the patella-femoral joint, with the simple to use OBC having a higher intra-observer reliability score compared to the DJC.

38. Early Management of Paediatric Forearm Fractures in Cardiff A&E

Goyal Shivam; Abdul Wahid; Murch Hannah; Carpenter Clare University Hospital Wales, Cardiff and Vale University Health Board

Correspondence to: shivam.goyal@wales.nhs.uk

Background and Aims: The most common site of fractures in children is the forearm. Casting is the gold standard for most fractures as children have a greater remodelling capacity compared to adults. For most forearm fractures that exceed remodelling potential, early closed reduction by manipulation, avoiding the need for admission and general anaesthesia is the treatment of choice. The British Orthopaedic Association (BOAST) released guidelines in May 2021 on ‘Early Management of Paediatric Forearm Fractures.’ The aim of this audit is to compare the early management of paediatric forearm fractures in Cardiff with the BOAST guidelines.

Methods: A retrospective audit was conducted on data between January 2020 to December 2020 was collected. Patients aged 16 or less at presentation with an angulated (but not offset) forearm fracture were included. Patients with complex fractures not suitable for manipulation were excluded. Information was collected through radiology imaging software and clinic letters. Data was collected on
patient demographics, mechanism of injury, time to first clinic appointment, management and outcome.

Results: 168 patients with forearm fractures were identified. 106 were managed conservatively, 56 were manipulated in A&E and 6 were manipulated under general anaesthetic. Of the 56 manipulated in A+E only 2 required further intervention. Of the 12 standards set by BOAST, 8 were met and 3 were partially met.

Conclusion: The current management of early paediatric forearm fractures in Cardiff meets most of the standards set by BOAST. In 2020, 54 patients that required manipulation avoided hospital admission and general anaesthetic. As a result of this audit a formal pathway was created, displayed in A&E and a re-audit is in progress.

39. Incidence and Management of Intra-Operative Fractures Occurring Around The Hip During Primary Total Hip Arthroplasty-Systematic Review
Adla Prashanth Reddy; Iqbal Asif; Mehta Sonu; Suraj Sankar
Glan Clwyd Hospital, Rhyl, Wales
Correspondence to: prashanthreddyrrr66@gmail.com

Background: Intraoperative forearm fractures in Cardiff meets most of the standards set by BOAST. In 2020, 54 patients that required manipulation avoided hospital admission and general anaesthetic. As a result of this audit a formal pathway was created, displayed in A&E and a re-audit is in progress.

Results: Fourteen studies were identified. The reported range of occurrence of fracture while performing hip replacement surgery was found to be 0.4-7.6%. Major risk factors identified were surgical approaches, Elderly age, less metaphyseal-diaphyseal Index score, change in resistance while insertion of the femur implants, inexperienced surgeons, uncemented femoral components, use of monoblock elliptical components, implantation of the acetabular components, patients with ankylosing spondylitis, female gender, abnormal proximal femoral anatomy, different stem designs, heterogeneous fracture patterns and toothed design. Intraoperative fractures during THA were managed with cerclage wire techniques, femoral revision, use of an intramedullary nail and cerclage wires and use of internal fixation plates and screws for management of intraoperative femur and acetabular fractures.

Discussion: The main reason for intraoperative fracture was found to be usage of cementless implants but planning and timely recognition of risk factors and evaluating them is important in the management of intraoperative fractures. Adequate surgical site exposure is critical especially during dislocation of hip, reaming of acetabulum, impaction of implant and preparing the femoral canal for stem insertion.

40. Enhanced International Medical Graduates (IMG) Induction Programme At St George’s Hospital.
Puthupparmbil Jomine James; Muhammad Amaran; Latheef Afzal; Puthupparmbil Jomine James; Fernandes Sharon; Iliadou Kassiani; Kumar Tanvi; Saseendran Dhanya; Alcala Silvana; Chakravorty Indranil.
St. George’s University Hospital, United Kingdom
Correspondence to: j.puthupparmbil@nhs.net

Aim: To explore the challenges faced by IMGs at St George’s Hospital, London and provide appropriate framework and support to adapt to the NHS system.

Background: The National Health Service (NHS) from its very inception is dependent on its international workforce. IMGs are doctors who have obtained a primary medical qualification from outside the UK and
migrated to join the NHS. Acclimatisation to a new environment could be challenging given their varied backgrounds and experiences. IMGs without induction or supervision could take longer to adapt to the NHS culture. The enhanced induction programme is designed to provide clinical and lifestyle support to these doctors.

Methods: An anonymised online survey was undertaken among the IMGs via Google forms looking at their confidence in communication, portfolio development assistance, work-based assessments, career and educational opportunities awareness. We then delivered a bespoke induction day for IMGs and weekly modules to address these issues. A post-programme survey was also done.

Results: Of the 110 IMGs at the Trust, 41.2% were new. Out of 40 responses, 67% lacked confidence in professional communication. 34% were dissatisfied with the Trust’s support on portfolio development and career guidance. 12.5% were not familiar with General Medical Council’s Good Practice or medico legal aspects. On the post programme survey, 96% of the IMGs affirmed that enhanced induction, mentorship programme, and IMG forum have positively influenced their confidence improving access to career guidance, education and research opportunities.

Conclusion: The enhanced induction, mentorship programme and IMG forum helped with transition into the new working system, boosted confidence, and ameliorated the required skills of the IMGs at St. George’s. We recommend that this be taken as a standard pathway at all NHS trusts.

41. Evaluation of the Effects of Deprivation on DDH Screening

Hariharan Nathan; Poacher Arwel; Crook Daniel; Froud Joseph; Ellis Owain; Abdelrazak Mohammed; Carpenter Clare
Cardiff and Vale University Health Board, UK

Correspondence to: nathanhariharan@hotmail.com

Background: Developmental dysplasia of the hip (DDH) encompasses a spectrum of conditions that can lead to childhood disability and premature arthritis in adulthood. Early detection (through screening programmes) is essential in minimising the risks of these complications. There are well-documented links between lower socioeconomic status and poorer health outcomes.

Aims: This project aimed to study the link between socioeconomic status, DDH outcomes and screening programme effectiveness.

Methods/design: A cohort study involving studying live births from a single tertiary centre between 2011 and 2020. Various demographic variables were collected and stored in a secure database. We then collected data from the DDH screening programme and identified the number of cases that were diagnosed. We also collected data on the number of late presenting cases (presenting after 24 weeks of age). We then collected data on socioeconomic status of screening-identified cases and missed cases using the Welsh Index of Multiple Deprivation (2019) (WIMD).

Results: There were significant links between missed DDH cases and the total WIMD score, income, employment, health and education scores. This indicates that individuals who live in a more deprived area are less likely to have been picked up by DDH screening programmes. Interestingly, residing in an area with a worse score for physical environment led to higher rates of DDH detection.

Discussion: Missed DDH cases increase the likelihood of more invasive treatment for patients. There is also a significant financial cost associated with treating missed DDH cases when compared to early identified cases. Further analysis is needed to determine whether there is a need for an enhanced screening programme to detect as many cases as possible.

Conclusions: In conclusion our preliminary data suggests that those who live in a more deprived area are more likely to have a late diagnosis of DDH.
42. Impact of Walk-in Trauma Clinics in the NHS Post Covid-19
Nand Raghav; Kakuturu Siddarth; Bodapati Venkata
Scunthorpe General Hospital, United Kingdom
Correspondence to: raghav.nand@hotmail.com

Background: The NHS was faced with extreme pressures during the pandemic, most notably on Emergency Departments. To reduce the burden on ED and provide quick, easy access to Orthopaedic specialist services this busy District General Hospital introduced a Specialty Doctor and Consultant led walk-in Trauma Clinic running on weekdays from 9am-5pm.

Aims and Methods: Data was collected from 100 patients at random in October 2019 (Prior to Covid 19) in comparison with once these clinics were introduced in April 2020. Patients who were admitted to the ward directly or referred to other specialties were removed from the overall total. Our aim was to evaluate the impact this service provided by focusing on three measurable factors. Firstly, the average time spent in ED, secondly the average time taken for patients to receive basic radiographic imaging and finally the availability of a fracture clinic appointment.

Results: The results show the average time spent in ED reduced by 86% from 197 to 27 minutes. The average time taken to receive an Xray reduced by 18.5% from 81 minutes to 66 minutes. Looking at the data in depth we concluded 56% of patients who attended the walk-in trauma clinic were discharged on the same day with no further follow up hence relieving pressures on fracture clinics. This was reflected by the fact that since the introduction of these clinics a patient can be seen by a Consultant in a fracture clinic the next working day.

Discussion: These results show that these clinics have proven to have a positive impact on all aspects of patient care. Furthermore Walk-in trauma clinics can deal with inappropriate referrals sooner and prevent unnecessary admissions hence reducing unnecessary costs for the NHS. To conclude Walk-in Trauma clinics have proven to be an invaluable service during this challenging period.

43. Audit of Communication Between ED and Radiology Departments, Leicester Royal Infirmary, UK 2022.
Bhattacharya Avhishek; Choudhary Siddharth
Leicester Royal Infirmary, U.K
Correspondence to: avhishek.bhattacharya@nhs.net

Background: The department of radiology raised concerns regarding inadequate referrals from ED. We investigated requests for suspected Neck of femur (NOF) fractures which lacked information that allows the radiographer to perform a patient centred imaging strategy. Different imaging is usually required for existing metalwork/prosthesis and patients with history of malignancy.

Aim: To evaluate x-ray requests made for NOF fracture from ED particularly looking at adequacy of clinical information. We aimed to make improvements in requesting that result in less time wastage, less radiation dose for patients and reduced workload for the radiology department.

Methodology: Data was collected from a cohort of 30 randomly selected patients from ED at Leicester Royal Infirmary between the month of May and June who were admitted with a NOF fracture. This data was carefully reviewed and compared to the set targets during planning of the audit. 1. History and Clinical examination findings, 2. Previous metalwork/prosthesis in-situ, 3. History of any primary malignancy

Result: The data showed the requests for x-ray were lacking information on all three questions. Less than 50% of the request had the clinical background with examination findings. Only 40% of the request had information regarding any prosthesis or any implants. Unfortunately, none of the requests had any information regarding any malignancies.

Conclusion: With the advent of technology and electronic requesting for imaging, there lies a gap in communication which leads to
under-diagnosis, inappropriate use of resources and a poorer quality of care. We aim to highlight this issue and look to improve on it by educating the requester and implementing a prompt-based request system, asking for all the relevant information.

44. Mental Health of Migrant Workers In The United Kingdom: Systematic Mixed Studies Review
Akinlua Justina Ayobola; Tayyaba Saadia; Umla-Runge Katja
Cardiff University
Correspondence to: pureheart.jd@gmail.com

Aim: This systematic mixed studies review aims to identify the mental disorders manifested by migrant workers in the United Kingdom and to highlight preventative strategies to help combat the issues identified. Migrant workers form a significant number among migrants in the United Kingdom.

Methods: Six electronic databases were searched. In addition, reference lists of selected papers were screened to identify other relevant papers that were not present in the databases. The search included published articles in the last twenty-one years (2000-2021). The Critical Appraisal Skills Program checklist was used to assess the quality of primary qualitative studies and the AXIS critical appraisal tool was used for the appraisal of primary quantitative studies. The most recent version of the Mixed Method Appraisal Tool was used to assess the quality of the mixed method studies.

Result: The search yielded in total 1050 potentially eligible publications. Of these, 12 articles met the inclusion criteria for this systematic mixed studies review (7 Qualitative studies, 4 quantitative studies and 1 mixed methods study). Based on the findings from this review, the main mental health outcomes among migrant workers are work related stress, somatization, depression, anxiety, paranoia, social exclusion, suicidal attempt, and schizophrenia.

Conclusion: Globally, migration is of benefit to both the host country and the country of origin. Migrant workers are at risk of health inequalities. This may be due to several factors including their working conditions, immigration policies, as well as language and cultural barriers. Findings from this review will guide policy makers on the implementation of laws that may help reduce distress among migrant workers and hence making workplaces safe and healthy for migrant workers.

45. Audit of MRI IAM Referrals for Investigation of Hearing Loss and Tinnitus
Agarwal Tanvi; Dawod Omar; Jackson Harry; Spinner Jack; Jones Mathew
Princess of Wales Hospital, Brigend, UK
Correspondence to: tanvilohiya1987@gmail.com

Background: MRI IAMs are requested for various otological conditions. NICE guidelines recommend MRI IAM for the investigation of 1) asymmetrical sensorineural hearing loss (defined as ≥15db at two or more contiguous frequencies) 2) unilateral tinnitus 3) pulsatile tinnitus 4) hearing loss with localising symptoms (tinnitus/facial palsy).

Aim: To assess the adherence to NICE guidelines in requesting MRI IAM in patients with hearing loss and tinnitus

Methods: We performed a retrospective analysis of the MRI IAM requests and their indications from the ENT department of a DGH from July 2019 to December 2019, and assessed their appropriateness as per NICE guidelines. Following intervention in the form of re-discussion of guidelines and laminated prompts for consultation rooms, we re-audited the MRI IAM requests from June 2022 to August 2022.

Results: In the first cycle, we found adherence to NICE guidelines in 60.75 percent of requests, 39.25 percent of requests being inappropriate. The second cycle revealed adherence to guidelines in 92.5 % of cases.

Conclusion: Our closed loop audit has significant results in terms of improvement in compliance to guidelines from 60.75 % to 92.5 % (p value <0.0001) following intervention. This shows massive implications on cost saving for NHS and reduction of burden on radiological services. Re-education
of guidelines every 4-6 months, especially in departments with a high turnover of doctors will ensure future adherence to guidelines. A 100% adherence would lead to a potential saving of £39,360 per year.

46. Diversity and Inclusivity in the NHS
Cogineni Anurag; Gupta Garima; Kaur Gurleen; Chowdary Pradeepti
Morriston Hospital, Swansea, Wales
Correspondence to: garima.gupta.gg.13@gmail.com

Background: Racism costs lives, careers and prevents people from reaching their reach full potential to make a meaningful contribution to society. Despite many efforts to address racial discrimination against ethnic minority doctors in NHS, the problem still remains. According to a recent survey published by BMA in 2022, among 2030 respondents, 84% overseas doctors experienced racist incidents in their workplace in last two years, compared to 69% who trained in the UK. 60% of respondents from Asian backgrounds, 57% from Black backgrounds and 45% from Mixed background felt racism had been a barrier to their career progression, compared to 4% of White British respondents. Of those who reported experiences of racism, nearly 58% said that doing so had a negative impact on them. Another BMA survey published in 2018, reported that 55% of ethnic minority doctors felt included in workplace, compared to 75% of white doctors.

Aim, Methodology: A review of literature from various journals was used to identify and understand the extent of racial inequality experienced by medical personnel at the workplace and different approaches that can be used to tackle this problem.

Results: Although many surveys were conducted over the years and research was published on ways to tackle this issue, it remains clear that much more is required to tackle racial disparities against medical professionals. No single intervention can make a difference.

Conclusion: It's important to practice different approaches to create a lasting effect. The cornerstone is creating an independent body that can address the problem, should it not be resolved locally. It can be prevented by education and implementation of anti-discriminatory strategies and managed by 3R's approach which involves, Recording the incident, Recording the witnesses and Reporting the incident and providing due support later on.

47. Factors Impacting Junior Doctor Attendance at Weekly Teaching in Acute Medicine
Shoaib Marium; Srinivas Keertan Rao; Naing Zaw Myo; Raees Tayyaba
Blackpool Victoria Hospital, NHS Foundation Trust, UK
Correspondence to: marium.shoaib@nhs.net

Background: The AMU is one of the busiest departments in the hospital, which means it is one of the best places to learn things. (1) Keeping that in mind, teaching sessions are a great way of staying up to date during the busy week.

Method: A survey was sent to all AMU juniors working in the department (n=18), including FY1/FY2, GPST/IMT, and Trust grade ST1/2 doctors. There was an 88.8% response rate. Teaching sessions were held once a week, and this study was used to analyse different variables, including understanding ideas from a presenter's as well as an audience's point of view.

Results: 81% responses were from trainees/trust grade doctors. Unfortunately, only 18% of participants attended weekly teaching every week, whereas 31% said they do not attend the sessions at all. From those attending, 50-60% said they found the topics relevant, kept them up to date, appreciated fixed timing, found the presenters engaging, with up to 75% saying the teaching sessions have impacted their clinical practice positively. 75% said they enjoyed sponsored pharmaceutical input as it helped keep them up to date with new medicines. 81% of junior doctors said they found it difficult to attend due to workload in the wards, and similarly 61% said they did not present actively due to difficulty in finding time to make presentations; 93% said they would be
interested in improving their teaching skills by taking courses.

Conclusion: This survey helped us identify the positives, and gaps that need bridging. Protected teaching time needs to establish for continuing medical education, and encouragement is needed to bring in presenters. Incentives, such as teaching/attendance certificates can be provided, and recorded lectures can be made available for later watch.

48. Audit of New Heart Failure Diagnosis and Management
Shoaib Marium; Farooq Amina; Jamal Sarim; Jawaid Aryba; Iqbal Maria; Fatima Sadaf
Blackpool Victoria Hospital, NHS foundation Trust, UK
Correspondence to: marium.shoaib@nhs.net

Background: Heart failure is an increasingly prevalent condition in the UK. It is a condition where the heart develops structural and functional abnormality resulting in its inadequacy. Diagnosing heart failure involves not only clinical judgement by doctors and specialist nurses, it also involves quantitative assessment via tests such as echocardiography and pro-NT-BNP, all of which should be done within specific timeframes. In this audit, we reviewed the patients who were presenting with undiagnosed heart failure symptoms, against the guidelines provided by the Trust for managing suspected heart failure patients.

Method: We gathered data from 28 patients who presented with heart failure symptoms at Blackpool Victoria Hospital, and recorded if the heart failure investigations and referrals were being done according to Trust guidelines. The major aspects measured were utilisation of PRO-NT-BNP levels, involvement of heart failure teams within 24 hours, conducting echocardiography within 48 hours of presentation, and appropriate outpatient follow up arrangements after discharge.

Results: We found out that rate of complete adherence to the guidelines was much lower than expected. While all 28 patients with suspected heart failure had pro-NT-BNP done (all patients had proNT BNP levels >400 ng/L), the biggest challenge being faced in heart failure management was with the time-frames involved. We found that only 7 out of 17 echocardiographs conducted were done within 48 hours, and only 1 out of 9 patients reviewed by the heart failure team was within 24 hours of presentation.

Discussion: The goal of this audit cycle is to recognize shortcomings in the management of heart failure in medical wards. The time frames can help us optimise inpatient management, reduce workload on the GPs, and overall reduce duration of inpatient stay. The second cycle is due in October 2022.

Dalavaye Nishaanth; Gamage Movin Peramuna; Mukhopadhyay Srinjay; Baskaran Ravanth; Ng Vincent; Hodgson Megan; Mahesh Sahana
Cardiff University, Cardiff, United Kingdom
Correspondence to: dalavayen@cardiff.ac.uk

Background and aims: Active learning strategies, such as formative assessment, has been associated with stronger academic performance. Moreover, the COVID-19 pandemic has widely demonstrated the positive impact of blended learning methods through appropriate use of the virtual platform. Peer-lead education has also become widely accepted as a powerful adjunctive teaching tool. To capitalise on these educational strategies, we delivered a peer-led virtual mock assessment as a method of university finals assessment preparation for UK undergraduate medical students. We subsequently evaluated student perceptions on this mock assessment.

Methods: Vevox is a cloud-based interaction tool that was used to deliver the examination. Zoom was used to co-ordinate information with live participants. Thirty single-best answer questions, testing core clinical knowledge, were added to the platform as a series of live polling options that participants could answer remotely on their mobile/laptop device. Ninety seconds was allocated per
question. A cross-sectional survey with Likert-type options was disseminated.

Results: 198 students completed the survey. Most students agreed the assessment aided in their preparation for university finals assessments (median: 8, IQR: 7–9). The assessment was perceived as useful preparation for both written and online assessments (median: 10, IQR: 8–10). Most participants (n=104, 52.5%) felt the total number of questions and time allocation per question was ideal for a mock assessment. Vevox was regarded as an effective platform for delivering the assessment (median: 9, IQR: 8–10), and was agreed as superior to other live polling software (n=129, 65.2%).

Conclusion: The virtual mock assessment was implemented to simulate a controlled summative assessment environment, and was perceived to be a pedagogical educational experience. The designated number of questions with limited answering time allowed time-pressured evaluation of knowledge, with little opportunity for cheating.

50. Burnout Amongst LED-IMGs in Acute and General Medicine  
Shoaib Marium; Iqbal Maria; Salian Zinal  
Blackpool Victoria Hospital, NHS foundation Trust  
Correspondence to: marium.shoaib@nhs.net

Background: Doctors worldwide face burnout. Koutsimani et al. defines burnout as a psychological syndrome characterized by emotional exhaustion, feelings of cynicism and reduced personal accomplishment. In 2021, about 1/3rd of trainee doctors in the UK reported feeling burned out as per GMC National Training Survey, however there is no data regarding LED doctors.

Aim: The aim of this study was to identify how many LED-IMG doctors at this hospital experienced burnout on average, relevant factors, and whether this has impacted their decision of coming to the UK.

Methods: During August 2022 there were a total of 26 LED IMGs working in AMU/Gen Med at a North West Hospital – a survey was shared, consisting of questions in regards to experiences with burn out. There was a 96.1% response rate.

Results: Majority of the responses (64%) were from doctors between the ages of 26-30. Majority of doctors (48%) had been working in the trust between 6-12 months, stating it took them 3-6 months to adjust to the UK culture. 60% managed to develop work friendships within 3 months. 48% said they were able to adjust to the NHS, however, 80% said they felt burned out. Burn-out was experienced at least once a week by a 52.2% doctors, with staffing, work load, and attitude of co-workers being the top reasons. 48% felt they were unable to speak up about their problems, 76% stated they try to be positive about stress. 40% said they felt moderately homesick, however, majority (64%) said they are happy with their decision to come to the UK.

Conclusion: Working in the NHS is a vastly diverse experience for many new doctors. There is a rise in burn out amongst many doctors coming to the UK, and despite showing resilience in the face of adversity, a lot more support needs to be garnered.

51. Maintaining Student Engagement Post Covid-19: Using ‘Simpsons’ Characters to Teach Jaundice  
Dalavaye Nishaanth; Baskaran Ravanth; Gamage Movin Peramuna; Mukhopadhyay Srinjay; Ng Vincent  
Cardiff University, Cardiff, United Kingdom  
Correspondence to: dalavayen@cardiff.ac.uk

Background and aims: The use of popular culture as a vehicle for knowledge delivery and enhancing engagement has great potential. However, its educational value has not been extensively evaluated. Moreover, there are concerns regarding learning fatigue from excessive use of video conferencing platforms in the aftermath of the pandemic. Innovative solutions are mandated to ensure effective learning is maintained during online teaching sessions that enhance audience understanding while maintaining attention span. To address this, we evaluated the use of popular culture in an online near-peer teaching session.
Methods: An online teaching session, titled ‘Jaundice for Finals’, consisted of a series of clinical vignettes and single-best answer questions (SBAs). Characters from ‘The Simpsons’ were utilised to deliver knowledge on jaundice through a series of carefully designed clinical vignettes. The vignettes were written using ‘Simpsons’ characters as context for the different causes of jaundice. No prior knowledge of the ‘Simpsons’ TV show was necessary to correctly answer the SBAs. A cross-sectional survey, with 7-point Likert questions, was disseminated.

Results: 53 survey responses were collected. 92.5% of participants had heard of the Simpsons TV show before the session. The participants’ reported understanding of jaundice after the session was significantly higher than before the session [median:6 (IQR:5-6) vs median: 4 (IQR:3-4.5), p<0.0001]. Participants agreed the addition of ‘Simpsons’ characters improved their knowledge of jaundice, and made the teaching more memorable and engaging [Knowledge (median:5, IQR:4-6), Memorability (median: 6, IQR: 5-7), Engagement (median: 6, IQR: 5-7), p < 0.01].

Conclusion: Popular culture, if appropriately integrated, can be effective in engaging students while increasing self-perceived knowledge retention. ‘Simpsons’ characters can be pedagogically and professionally utilised as patient analogies to deliver teaching on the topic of jaundice.

52. Tuberculosis in Immigrants in the United Kingdom
Sushmitha Gudla; Gogineni Anurag; Chinappa Narendra; Appidi Phani; Kakarla Siva; Kolli Sreedhar; Muddamala Joshtnavi; Viribindi Manjusha; Eedara Likitha Reddy Garima Gupta; Chowdary Pradeepthi
Neath Port Talbot Hospital
Correspondence to: sushmithagudla16@gmail.com

Background: According to Tuberculosis (TB) in England report 2021, TB rates in UK continue to be highest among immigrant population accounting for 72.8% of total cases in 2020. It has also been observed that the incidence of Multidrug resistant TB (MDR TB) is high among immigrants compared to native population. The TB risk among migrants has been noted to highest within 2-5 years following immigration. A variety of factors have contributed to the increased risk of TB infection or reactivation of latent tuberculosis infection in immigrants.

Methods: Review of literature published in different journals were used to understand the factors contributing to increased incidence of TB infection in immigrants as well as to devise preventive measures that aid to decrease the TB rates.

Results: A broad variety of contributing factors such as differential pathogen exposure, transnational movements, BCG vaccination, genetic susceptibility, vitamin D deficiency, co-morbidities, socioeconomic status, experiences of migration, differential treatment seeking have been identified which have contributed to increased incidence of TB in immigrants. NHS has also access to faster diagnostic methods like the use of polymerase chain reaction techniques in detecting MDT TB

Conclusion: Pre-entry tuberculosis testing, early primary care registration by increasing awareness, latent tuberculosis infection screening are measures that can help in effective diagnosis and reduce the risk of progression to active disease among immigrants.

53. Case Report - Bilateral Adrenal Haemorrhages
Qazi Umer; Fernando Devaka; Muraleedharan Vakkat
Sherwood Forest Hospitals NHSFT, UK
Correspondence to: umer.qazi@nhs.net

Background: Adrenal haemorrhage is a rare clinical presentation with an incidence of only 5 in 1,000,000 [1]. 10% of these are bilateral adrenal haemorrhages, which has very high mortality rate of 15 % [2]

Case summary: 22 years old female had C-section for persistent to breech presentation at term. She has a history of preterm delivery due to chorioamnionitis during previous pregnancy. Patient had about 1.2L post-
partum haemorrhage. She deteriorated after 24 hours of C-section, with hypotension pyrexia, and decreased urinary output. The blood result showed acute kidney injury (AKI), raised INR, raised procalcitonin>100ng/ml, severely deranged liver function tests, hyperkalaemia (K+ 6.9mmol/L) and hyponatremia (Na+ 129mmol/L). CT- abdomen showed bilateral acute adrenal haemorrhages. She was started on IV hydrocortisone along with treatment for post-partum haemorrhage, sepsis, and AKI in critical care. Following clinical improvement, hydrocortisone dose was reduced, and she had a short Synacthen test which showed subnormal response to Cosyntropin (cortisol of 207 nmol/L and 192 nmol/l) with raised ACTH of 102 ng/L. She was discharged on hydrocortisone 10/5/5 dose with outpatient endocrine follow up.

Discussion: Bilateral adrenal haemorrhages have been reported in patients with infection, trauma and anticoagulants [3]. Due to very high mortality rate, it is important to have a very high index of suspicion for treatment. IV steroids are the key if there is a suspicion of adrenal insufficiency in patients. In this case the aetiology of bilateral adrenal haemorrhage is likely multifactorial, including postpartum haemorrhage and sepsis. It is also important to distinguish in such cases whether the adrenal insufficiency is not due to central cause as postpartum haemorrhages was also noted. In this case the anterior Pituitary hormones were normal, and ACTH was raised.

54. Case Report – Severe Insulin Resistance and Insulin Allergy
Sathyanarayanan Abilash; Sheik Riyad; Sheldon Tracey; Higgins Elaine; Fernando Devaka; Muraleedharan Vakkat Sherwood Forest Hospitals NHSFT, UK Correspondence to: drabisat@gmail.com

Background: A 63-year-old gentleman diagnosed with type 2 diabetes in 2004, started insulin in 2010. Has background of diabetic peripheral neuropathy, retinopathy, hyperlipidaemia, hypertension ischaemic heart disease, and obstructive sleep apnoea. Patient had a good diabetes control with HbA1c between 50 to 57mmol/ml. Referred to diabetes clinic due to allergic reactions to Humalog Mix30. Patient tolerated Bovine Insulin with modest effect on blood sugars but discontinued due to lack of availability.

An immunology review confirmed multiple insulin allergies. IgG antibodies for insulin and autoantibody screen were negative. Patient seemed to be tolerant Humulin R u500 and Toujeo with no overt allergic reactions. However, the requirement of insulin was increasing with seemingly little effect on blood sugars, requiring 900 units of insulin/day with Metformin and SGL21, with blood sugars in twenties. The HbA1c was 115mmol/mol.

To assess adherence and response to IV insulin, patient was admitted. SC insulin given under supervision had no discernible effect on blood sugars. With IV insulin the blood sugars improved immediately requiring less than 0.5units/kg/day to achieve euglycaemia. A trial of high dose prednisolone given did not make any change. A trial of continuous subcutaneous insulin infusion, CSII, (Omnipod pump with Novorapid) showed dramatic improvement glycaemic control (75% time in target, on 1.1u/hr basal rate and bolus 1:10) with latest HbA1c 49mmol/mol.

Discussion: This patient showed features of severe subcutaneous insulin resistance (SIR) and insulin allergy. SIR is rare and were first reported in the 1970s by Schneider (1) and Paulsen (2). There are reports of SIR treated with CSII with limited long-term success, requiring inhaled insulin, intraperitoneal or in some cases islet cell transplant3. Insulin allergies on the other hand are managed by avoidance, alternative insulins, CSII or immune suppression4. This case shows a successful treatment of these two syndromes with CSII.

55. Case Report - Melioidosis /Whitmore's Disease
P Raniya; R Sundararaman; Bhargav Aravind; Naushad Ashiq Sims Hospital, Vadapalani, Chennai, Tamil Nadu, India Correspondence to: raniyagafoor12345@gmail.com

Background: Melioidosis, caused by the gram-negative saprophyte Burkholderia pseudomallei, is a disease of public health
importance in southeast Asia with high case-fatality rates in animals and humans.1

Case History: A 62 years old male, presented with fever for weeks (high grade, intermittent, no diurnal variation) and generalized tiredness and decreased appetite. He reported vomiting and passing dark stools with foul smell for 3 days. He had recently returned from Sri Lanka. He had a history of diabetes mellitus and hypertension for 10 years.

Clinical Findings: HbA1c - 8.4%, INR:1.44, D-DIMER: 3.39. His CT – Abdomen showed hyper density within the gastric antrum, D1 and D2 segments of duodenum suggestive of haemorrhage / clots and cholelithiasis. There was evidence of bilateral mild perinephric fat stranding with thickening of pararenal fascia seen. His CT Chest showed small airway disease.

Course In Hospital: He was evaluated for sepsis complicated with disseminated intravascular coagulation. Empirical antibiotics were started after sending cultures. Hypotension was managed with fluid resuscitation, transfusion and inotropic support. An UGI endoscopy showed pooling of altered blood in the body and fundus of the stomach. Blood Cultures grew Burkholderia pseudomallei (S-Imipenem, Meropenem, Ceftazidime). Antibiotics were changed to Imipenem and doxycycline and later de-escalated to Ceftazidime + Doxycycline. Patient’s fever subsided on day 5 of hospital stay. Due to persistently elevated WBC count and further drop in Haemoglobin, a further endoscopy showed a duodenal ulcer which was managed by injection sclerotherapy.
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