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Abstracts

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OP-1. Perceptions of organ donation in young UK South Asians: a questionnaire survey

Kotecha Pinky; Shah Rahul; Raj Siddarth; Khawaja Abdullah; Rai Amar; Daga Sunil

King's College London & University Hospitals Sussex NHS Foundation Trust, UK; *University of Cambridge; University Hospitals Coventry and Warwickshire NHS Trust; King's College London; Imperial College London; University Hospital Leeds Teaching Hospital NHS Trust, BAPIO Institute for Health Research*

Correspondence to: pinky.kotecha@nhs.net

Background and Aims: According to an NHS Blood & Transplant (NHSBT) report, people who identified as Asian represented 3% of total deceased donors, 14% of transplants from deceased donors but 18% of the transplant waiting list.

Our aims were to identify the perceptions of and level of engagement with organ donation since the law in England changed in 2020, both in terms of willingness to donate and overall awareness of the topic, amongst young people who self-identify as South Asian.

Methods: A questionnaire survey on perceptions and knowledge of organ donation was designed based on prior literature and information by NHSBT. The study was reviewed

(BAPIO) Institute for Health Research (BIHR).

Results: 365 people between 18-24 years old completed the questionnaire. 72.3% were female, 57% were healthcare students, 86.3% were of Asian ethnicity, 43.6% were registered to donate and 56.4% had other statuses. Our results show that being more knowledgeable about the organ donation process suggests a higher likelihood of being registered to donate. South Asians, particularly those of Pakistani ethnicity, are less likely to donate compared to White participants. Subgroup analyses showed that females, people from non-religious groups and healthcare students are more likely to be registered to donate compared to respective controls.

Discussion and Conclusion: The reluctance of young South Asians (compared to young White participants) to donate stems from cultural and religious reasons as well as a lack of knowledge about the organ donation process. This study demonstrates the need for further targeted education to improve perceptions of organ donation amongst the younger generation of UK South Asians, in order to produce positive associations that will percolate to older and future generations of UK South Asians, reducing the disparity between the current low supply and high demand of organs from this population in the long-run.

OP-2. Clinics but no clinical training: Decoding the impact of COVID-19 lockdown on Indian medical undergraduates

Jindal Meemansa; Singla Anshuja; Khan Amir Maroof

University College of Medical Sciences, New Delhi, India; Department of Obstetrics and Gynecology, UCMS & GTB Hospital Delhi; Department of Preventive and Social Medicine, UCMS & GTB Hospital Delhi

Correspondence to: meemansa13@gmail.com

Background and Aims: With the implementation of the COVID-19 lockdown, conventional teaching methodologies had to be replaced with online teaching, to ensure the continuity of medical education. This impacted the clinical training of medical undergraduates across India. We aimed to find out their perception about, and the differences between the clinical training before and during the COVID-19 lockdown. **Methods:** A mixed method cross-sectional online survey using a self-administered, retrospective pre-post questionnaire was conducted among medical undergraduate students from pre-final and final year. Agreement scores with 8-items about the various domains of clinical training were recorded. Open-ended question was asked to know about the reasons for the students' preferences. Chi-square test was used to compare

the proportion and Wilcoxon signed rank test was used to compare the median.

Results: We received 1000 responses from students of 191 medical colleges {Median responses (IQR): 6 (2, 10) per college}. Most (816, 81.6%) opined that their experience with clinical training was better before COVID-19 lockdown, irrespective of the mode of teaching clinical skills ($P < 0.001$). The proportion of private medical colleges shifting to online clinical training during COVID-19 lockdown was significantly more than that in government medical colleges ($P < 0.001$). In addition, the responses indicated that despite being more comfortable, focused, and interactive, online clinical training could not offer interaction with patients, residents and colleagues. Students who had gone through in-person training also perceived disadvantages like limited exposure to patients, limited time for faculty to teach, and less time for clinical practice.

Conclusion: The learning experiences of clinical training during COVID-19 lockdown were perceived as inferior than that before lockdown by the medical undergraduate students, irrespective of the mode of clinical training.

Keywords: COVID-19, Clinical clerkships, clinical competence, Undergraduate medical education

OP-3. Developing a briefing tool to set a personalised dietary goal for Type 2 Diabetes patients: A cross-sectional Leicester based study

Joshi Kshama; Vartak Manjiri; Antonio Pena-Fernandez; Parvez I. Haris

School of Allied Health Sciences, De Montfort University, Leicester, UK.

Correspondence to: kshamarjoshi@gmail.com

Background: Currently, there is little or no provision at NHS primary-care for collecting dietary information from T2DM patients, let alone the general population. This is a missed opportunity, since even a modest attention could be effective for not only managing but reversing T2DM.

Objective: To compare dietary nutrients in people with and without T2DM, in order to develop preventive and management strategies for T2DM.

Methods: This cross-sectional multi-cited study developed a culturally sensitive questionnaire based on amended version of EPIC- Norfolk FFQ. Data analysis was carried out on 392 participants (184 with and 208 without T2DM) aged 18 to 80 within Leicester, UK. Study questionnaire collected information based on demographics, body and lifestyle information along with daily dietary intake of 22 nutrients (specific to T2DM) using Feta software (version 2.46) and Microsoft Excel (version 10). Chi-Square test used to find statistical significance using IBM SPSS (version 26).

Results: Fourteen statistically significant variables were identified at univariate level. Average daily lower consumption of carbohydrate ($p = 0.048$), MUFA ($p = 0.006$), selenium ($p = 0.022$), Zinc (0.000), vitamin-A ($p = 0.325$), vitamin-D ($p = 0.182$) was observed among T2DM participants. Whereas higher consumption of carbohydrate, selenium, zinc, recommended levels of vitamin-A and lower consumption of MUFA, vitamin-D was prominent among without T2DM participants. High consumption meat & meat products were reported among White British T2DM participants. Low intake of milk and milk products was identified among South Asian (Indian, Pakistani & Bangladeshi), White British and African T2DM participants. Average higher daily intake of non-alcoholic beverages was observed among White British, African, Pakistani, and Bangladeshi T2DM participants.

Conclusion: A questionnaire can be adopted as a "briefing tool" to set personalised dietary goal for T2DM patients in clinical settings for management and prevention of T2DM.

Keywords: Diet, ethnicity, type 2 diabetes, macro, and micronutrients, FFQ.

OP-4. Radiological Criteria for Acceptable Alignment in Paediatric Mid-Shaft Forearm Fractures: A Literature Review

Scotcher Megan; Chong Hong Han; Asif Aqua; Kulkarni Kunal

University Hospitals of Leicester NHS Trust

Correspondence to: Megan.scotcher@gmail.com

Background: Forearm fractures are common paediatric injuries. The remodeling capacity of growing long bones in children makes these potentially forgiving injuries, healing with good outcomes despite minimal intervention. Clinicians rely upon age-dependent radiological parameters to guide clinical decision making and limit complications.

Aims: This study aimed to consolidate the evidence base in determining radiological indications for intervention for paediatric mid-shaft forearm fractures, thereby guiding clinicians treating these fractures.

Patients and Methods: This review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidance. Citable research output reporting radiological criteria for mid-shaft forearm fractures in paediatric patients (age \leq 16 years) was screened and analyzed to ascertain acceptable radiological criteria for non-operative management.

Results: 2,059 papers were initially identified; 14 were included after screening. The most common radiological indications for intervention in children aged between 0 to 10 years were: sagittal angulation $>15^\circ$, coronal angulation $>10^\circ$, and/or $>50\%$ (or $>1\text{cm}$) translation. For children aged ≥ 10 years the most common radiological indication for intervention were sagittal angulation $>10^\circ$, coronal angulation $>10^\circ$, and/or $>50\%$ (or $>1\text{cm}$) translation.

Discussion: This study has highlighted the paucity of high-quality evidence to guide management, with marked heterogeneity in outcomes reporting across the published literature. In the absence of high-quality evidence, there are other strategies clinicians can adopt to guide decision making, such as Isala graphs and the radiographic cast index. **Conclusion:** There has been no major evolution

in threshold for intervention of paediatric mid-shaft forearm fractures since Noonan and Price's 1998 recommendations. There remains a pressing need for a robust RCT to address this complex and controversial area of uncertainty in paediatric trauma practice.

OP-5. Foot and Ankle Fracture Nonunion and Delayed Unions Treated with Low-Intensity Pulsed Ultrasound Therapy: A Clinical Series

Bhan Kavyansh; Patel Ronak; Hasan Kamrul; Pimple Mahesh

Barts Health NHS Trust

Correspondence

to:

kavyanshbhan1993@gmail.com

Background: The incidence of nonunion of foot and ankle fractures has been steadily rising owing to improved life expectancy following severe injuries along with rising cases of polytrauma. Once a nonunion is established, the chances of spontaneous healing are deemed to be quite low. Foot and Ankle Fracture nonunion continue to be a challenge in clinical practice with nonunion having a considerable impact on patient's quality of life. Low-Intensity Pulsed Ultrasound (LIPUS) therapy is being projected as a viable and non-interventional alternative to surgical management of nonunion and delayed unions.

Aim: In the current scenario of varying results and unclear clinical role of LIPUS therapy, we present a case series of fracture nonunion and delayed unions treated with LIPUS therapy at a large District General Hospital.

Methodology: All patients were seen face to face in the outpatient clinic for a clinical evaluation. Nonunion was confirmed by the absence of any cortical or cancellous bone bridge between the fracture fragments on AP and Lateral Radiographs. The patients were explained about the role of LIPUS and its proposed mechanism of action. They were then provided with the portable LIPUS device.

Results: A total of 41 patients with foot and ankle fracture nonunion were eligible between December 2016 to June 2020. They comprised 16 males and 25 females aged from 24 years to 86 years. 34 patients out of 41 showed a radiographic union on X-rays at the end of LIPUS therapy treatment

Conclusion: Our series demonstrates a success rate of 82.92% with the use of LIPUS therapy in the treatment of foot and ankle nonunion or delayed union. The LIPUS therapy union rate is also comparable to the union rates obtained following surgical revisions of nonunion and delayed unions. As outcomes are comparable, one may consider LIPUS therapy over surgical treatment.

OP-6. The Situational Judgement Test (SJT) and Differential Attainment (DA): Rapid review of the literature

*Mousindha Arjunan ; Bishop Fiona
Health Education England, Yorkshire and Humber
Correspondence to:
mousindha.arjunan@hee.nhs.uk*

Background: SJTs measure how a candidate believes they should behave when posed with a challenging professional dilemma. It forms part of the Multi-Specialty Recruitment Assessment, an entrance test used in 10 post-graduate training programs, despite racial differences in performance outcomes (Whetzel, 2008).

Aim: To determine whether current literature indicates the presence of differences in SJT scores between ethnic minorities compared with the majority in post graduate medicine.

Method: Using PubMed/EMBASE/Medline a narrative synthesis strategy incorporated qualitative/quantitative research, systematic reviews, reports and opinions analyzing ethnic minority performance in the SJT.

Results: 25 out of 109 papers met the inclusion criteria. A conceptual map was created producing three main themes: firstly, cultural sensitivity of questions, secondly question construction, response formats and scoring methodology and finally a broader DA issue.

Discussion: From the review it emerged that three papers reported negative associations between ethnicity/nationality and SJT scores.

Although SJTs are designed to assess interpersonal skills rather than cognitive ability, two papers found SJTs continue to test cognitive ability via multiple-choice response format, despite evidence that this type of test creates greater

racial differences in performance outcomes. An alternative response format such as constructive or audio-visual responses could reduce subgroup differences.

A significant issue commented by two papers highlighted SJTs may be culturally sensitive with recommendations to diversify the expert question panel. Another paper found adjustments to scoring approaches can reduce mean racial differences in outcomes.

There is a lack of consistency in the literature regarding whether interventions such as coaching reduce the DA gap.

Conclusion: Overall, the cause of differential attainment in SJTs appears to be multifactorial. However, interventions such as coaching, diversity in the panel of question experts, adjustments in question formats/ responses/ scoring could reduce this gap. Future research into differential item functioning to evaluate potential bias in SJT questions is recommended.

OP-7. Five-year impact of Good (General ownership of Diabetes) pregnancy care in South West Essex (2013-2018).

*Mannan Shaheen; Ikomi Amaju
Basildon University Hospital, UK
Correspondence to: shaheen.mannan1@nhs.net*

Objectives: A rising prevalence of gestational diabetes mellitus (GDM) outstripped the capacity of our specialist clinics, resulting in delayed assessments, poor patient experience and a peak in diabetes related perinatal mortality in 2013. This fueled the establishment of an innovative clinical care framework (General ownership of Diabetes: Good) that equipped and empowered all maternity staff to deliver the basic management of GDM. It incorporates Shared Medical Appointments, Tele-clinics and utilisation of new decision support aids. The aim was to assess the impact on clinical performance and operational efficiency, after Good commenced in January 2014.

Design: A quality improvement project.

Methods: Serial measurements of performance indicators at 6 monthly intervals. This was

enabled by recording the outcomes of 2970 diabetic pregnancies and analyzing outpatient clinic logs, between July 2013 and December 2018. Impact was measured by the number of specialist clinic consultations and perinatal mortality.

Results/ Baseline: From July-December 2013, specialist clinic consultations was > 90 consultations/ month with 3 perinatal deaths. In 2013, GDM caesarean section and macrosomia (> 4 kgs) rates were 43% and 12.6% respectively.

Outcome: Performance continuously improved and peaked in January 2014 - December 2016 with overbooked capacity down to 0% with no perinatal deaths. From January 2014 - December 2018, the improvement remains sustained with overbooked capacity remaining at 0% with no perinatal deaths. GDM caesarean section and macrosomia rates decreased, averaging 36.9% and 7.7% respectively from 2014 - 2017. This demonstrable realignment of clinical demand and improvement in perinatal mortality was despite a 44% increase in caseload.

Conclusion: A right place, right time approach empowered both patients and standard clinic staff with a cost-effective approach to improving and sustaining operational efficiency and performance, despite increasing caseloads.

OP-8. The strategies employed by overseas-trained south Asian doctors in healthcare interaction.

Dr Yasmin Ghazala Farooq

The University of Manchester

Correspondence to: yasminfarooq@hotmail.com

Background and aims: This research is based on an ESRC funded doctoral study in 2014 at the University of Manchester that investigated structural and socio-cultural integration experiences of overseas-trained South Asian doctors in the UK who migrated between 1960s-1980s.

Methods: A mixed method was used to investigate integration experiences. For structural integration, a statistical analysis was carried out which examined whether there were any

particular patterns and trends regarding their geographical location. In order to investigate the process of socio-cultural integration experiences and perspectives of overseas-trained South Asian doctors in the UK, a case study approach was applied with the expectation that localities are likely to have an impact on individuals' identity and community cohesion experiences. The study included 27 in-depth interviews with overseas-trained South Asian doctors practicing as GPs in the UK.

Results: The findings provide a wealth of information regarding migration and identity experiences of this highly skilled group. The quantitative analysis shows that a significant and increasing proportion of NHS doctors continue to be overseas-trained South Asian doctors. However, it also provides evidence of geographical clustering with South Asian doctors being over represented in deprived areas with high and low ethnic minority concentrations. Evidence shows that entry into General Practice was an entrepreneurial step for overseas-trained South Asian doctors and that they integrated their own cultural/religious values creatively in their adaptation to Britain and in their work, ethos thus importing innovation into their everyday experiences. The results also show that doctor-patient relationships may have been more of a reciprocal nature than of medical dominance as always assumed in such interactions.

Conclusions: The strategies employed by the overseas-trained south Asian doctors are still of a significant value and can help new migrant doctors as well as UK trained doctors learn about successful and innovative models of healthcare delivery.

OP-9. Are infrared digital thermometers as accurate as tympanic thermometers? A critical care unit quality improvement project

*Thacker Jeet; Kesharwani Damini; Dsouza Walston; Somasundaram Karthik
Ashford & St. Peter's NHS Hospital Trust
Correspondence to: jeetthacker10@gmail.com*

Background and Aim: An accurate determination of body temperature in critically ill patients is a fundamental requirement for initiating the proper process of diagnosis and therapeutic management.

Infrared digital thermometers are easy to use and noninvasive but costly and sensitive to environment (cold, sweating). On the other side, tympanic thermometers are cost effective but invasive. Various observational studies over the years have concluded that tympanic thermometers have high specificity and sensitivity. This QI project was undertaken to demonstrate preferability of tympanic thermometers over infrared thermometers.

Methods: In this observational prospective study, total eighty patients (forty in each cycle) admitted in intensive care unit from February 2021 – July 2021 were selected. Temperature measurements with tympanic and digital infrared thermometers were conducted and the difference in temperature readings was measured. A Plan Do Study Act cycle was used to facilitate change. Excel and SPSS software were used for data analysis.

Results: There was statistically significant ($p < 0.01$) difference in the readings with mean difference being 1.18°C (highest: -6°C , lowest: -0.5°C). Four patients had pyrexia which wasn't detected by infrared digital thermometer. In two patients receiving hypothermia therapy post cardiac arrest, infrared thermometers didn't detect hypothermia. Therefore, infrared thermometers were found to be very inaccurate and unsafe and were replaced with tympanic thermometers. A second cycle was conducted after this intervention which also showed statistically significant ($p < 0.01$) difference in the temperature readings with mean difference of 1.92°C . (highest: -6.5°C , lowest: -1°C). This

QI project scored thirty two out of forty-two for quality impact analysis.

Conclusion: We managed to establish change during our two-cycle audit based on evidence that there are variable readings when measuring temperatures by infrared thermometers which can give false observations and affect patient care. Use of tympanic thermometers should be encouraged.

OP-10. Platelet-Rich Plasma in Acute Achilles Tendon Rupture: A Systematic Review and Meta-Analysis

*Elbashir Mohamed; Boksh Khalis; Thomas Owain; Divall Pip; Mangwani Jitendr
Leicester Royal Infirmary – UK
Correspondence to: elbashirmb@gmail.com*

Background: Platelet Rich Plasma (PRP) is known to exert multi-directional biological effects favouring tendon healing. However, conclusions drawn by numerous clinical studies on the efficacy and safety of PRP for acute Achilles' tendon rupture are inconsistent.

Aims: To perform a systematic review and meta-analysis to investigate and compare the biomechanical and clinical efficacy of local injection of PRP in acute Achilles' tendon rupture.

Study Design

Meta-Analysis

Methods: The Cochrane Controlled Register of Trials, PubMed, Medline and Embase were used to perform a systematic review and meta-analysis using the PRISM (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) criteria with the following search terms: ('plasma' OR 'platelet-rich' OR 'platelet-rich plasma' or 'PRP') AND ('Achilles' tendon rupture/tear' OR 'calcaneal tendon rupture/tear' OR 'tendon calcaneus rupture/tear'). Data pertaining to biomechanical outcomes, patient-reported outcome measures (PROMs) and incidence of re-ruptures were extracted. Meta-analysis was performed for same outcomes measured in at least three studies.

Results: After abstract and full-text screening, 6 studies were included. In total there were 510

patients of which 256 had local PRP injection. The average age was 41.6 years, mean time from injury to treatment 5.9 days and mean follow-up at 61 weeks. Biomechanically, there was similar heel endurance, isokinetic strength, calf circumference and range of motion between both groups. In general, there were no differences in patient reported outcomes from all scoring systems used in the studies. Both groups returned to their pre-injured level at a similar time and there were no differences on the incidence of re-rupture (OR 1.13, 95% CI, 0.46 to 2.80, $p = 0.79$). Conclusion: PRP injections for acute Achilles' tendon ruptures do not improve medium to long-term biomechanical and clinical outcomes. However, future studies incorporating the ideal application and biological composition of PRP are required to investigate its true clinical efficacy.

OP-11. Moving into the iron Age: Anaemia Management at a Tertiary Oncology centre during COVID-19

Patel Jaishel; Joshi Kunal; Raja Meera; Abeysiri Sandarunwani; Agarwala Rita; Dormido Chantal; Black Ethel; Raobakaidy Ravishankar
The Royal Marsden NHS Foundation Trust; Royal Free Hospital; St Mary's Hospital, London
Correspondence to: jaishel84@gmail.com

Background: Perioperative anaemia is associated with adverse outcomes such as increased length of stay, complications, and mortality. Anaemia may shorten survival time in cancer patients and worsen tumour control. The most common cause of pre-operative anaemia is iron deficiency, which can be treated with iron therapy. At our centre, a pre-operative intravenous iron infusion service was an established service pre COVID-19 pandemic. During the pandemic, our service shifted to delivering IV iron post-operatively.

Aim: Assess the feasibility of a post-operative IV iron Infusion service.

Methods: A trust quality improvement service evaluation form was submitted for a retrospective analysis. We identified patients who had received

IV iron infusion in 2020 via the patient electronic health records system.

Results: We retrieved data for 733 patients, 594 (81%) infusions were for patients undergoing surgical procedures, 139 (19%) were delivered for medical reasons in the outpatient setting. The highest numbers of infusions were given to patients undergoing major intra-abdominal surgery (43.4%). In the surgical patient group, 171 received iron pre-operatively, and 423 received iron post-operatively. Increments in Transferrin saturations and ferritin in both the pre- and post-operative iron infusion groups were comparable. The increments in Hemoglobin (Hb) in both the groups were not significantly different ($P= 0.79$).

Conclusion: Although our data did not reveal any significant difference in Hb increments in the pre- or post-operative iron infusion groups, it demonstrates that a post-operative iron infusion service is feasible. The non-significant increments could also be due to post-operative test values taken at discharge without enough time elapsing between blood test and an increment to have occurred. In the current climate, the benefits of post-operative iron infusion are favorable to prevent an additional patient visit, particularly when the demonstrated Hb increments are comparable to the pre-operative setting.

OP-12. Deprivation and Early Involuntary Retirement: Area-Level Analysis across English Local Authorities Is health inequality playing a major part?

Giri Abhrajit; Basu Subhashis; Giri Prosenjit
Barts and The London School of Medicine and Dentistry (when study done); Sheffield Teaching Hospitals NHS Trust (Currently); Sheffield Teaching Hospitals NHS Trust; Sheffield Teaching Hospitals NHS Trust

Correspondence to: prosenjit.giri@nhs.net

Background and aims: Retirement is a major transition point in life. Over the last two decades there is a worldwide trend to rise the state retirement age and changes for state and occupational benefit schemes as Governments seek to curb expenditure. As a direct

consequence permanently, incapacitated people are facing increasing financial challenge with potentially significant consequences for morbidity and mortality among most deprived. This study was designed to explore early involuntary (ill-health) retirement from a societal perspective.

Methods: A retrospective analysis of the association between deprivations with Ill Health Retirement (IHR) success rates for Local Authorities (LA) in England between 2015-18 was conducted. Deprivation status was assigned according to the proportion of Lower-Layer Super Output Areas in the most deprived 10% nationally using data from the National Statistics Socioeconomic Classification 2015. Freedom of Information Requests were sent to all 326 LAs in England to obtain data on successful IHR applications, number of active members of respective pensions schemes and numbers of applications.

Results: 131 (131/326; 40%) LAs provided complete data. The national IHR approval rate was 2.16 per 1000 members (range 0.16 to 8.96). There was a trend towards a greater number of applications per 1000 eligible members (range 3.89 to 1.56) towards most deprived LAs with greater proportion of approved application in more affluent LAs.

Conclusions: There is an association between increasing rates of ill-health retirement and higher area-level deprivation. Policy should note that those in more deprived areas face a quadruple whammy; a greater risk of becoming incapacitated from public health and occupational exposures, more limited access to medical support, less opportunities for alternative work and potentially disproportionate disadvantage from stringent pension eligibility criteria.

Keywords: Health inequality; deprivation; ill-health retirement (Word: 283)

OP-13. Pooled waiting lists for primary hip and knee arthroplasty: Are the outcomes inferior to a named consultant list?

Thacker Jeet; Peake Christopher; Balasubramani Priyanka; Chongbang Til; Jayakanathan

Malvika; Unnithan Ashwin; Ashford & St. Peter's NHS Hospital Trust

Correspondence to: jeet.thacker@nhs.net

Background: NHS waiting list times for hip and knee replacement are exponentially increasing whilst the quality of life of the patients waiting on them is deteriorating at the same rate. A pooled waiting list model is where patients are treated in turn by the first available surgeon and works to more efficiently use existing resources to better match demand.

Aim: To compare quantitative data of patients on the pooled list and named-consultant' list and to determine the superiority of either list based on favorable outcomes.

Methods: This single center, retrospective study compared the outcomes of primary elective hip and knee arthroplasty for osteoarthritis in patients from pooled and 'named-consultant' waiting lists over a 1-year period. The study period was before the corona virus pandemic. 371 total knee replacements (TKR) and 373 total hip replacements (THR) were included. Baseline characteristics were compared between patients from pooled and named-consultant lists.

Results: In the pooled TKR group, a significantly higher proportion of patients were older with higher BMI and ASA grade ($p=0.027$, $p=0.479$, $p<0.001$ respectively). There was no difference in baseline characteristics in the THR cohort. Waiting time to surgery was less in the pooled TKR group (mean = 4.17months) with no significant difference in mortality, revision and infection rates, length of stay, operative blood loss, DVT/PE rate, proportion requiring pain team referral and the number with unsatisfactory range of motion at follow-up. There was no significant difference in any outcomes between two groups in the THR cohort.

Discussion & Conclusion: Pooled lists can therefore be an excellent tool in primary THR/TKR to efficiently utilize all available resources (surgeons and theatre time) without compromising on patient outcomes and therefore prompting there in all UK arthroplasty centers.

Keywords: Pooled, THR, TKR

OP-14. Faecal immunochemical test (FIT) during COVID-19 pandemic

Umakanthan Tharshni; Abuelgasim Mona

Kingston Hospital NHS Foundation Trust

Correspondence to: t.umakanthan@nhs.net

Background: Colorectal cancer (CRC) is the fourth most common cancer in the UK. The use of faecal immunochemical screening test for CRC is longstanding. The COVID-19 pandemic led to limited endoscopy capacity. Consequent delays to the CRC diagnostic pathway have been modelled to lead to significant mortality. In response to pandemic pressures, NHS England recommended the use of FIT in the triage of high-risk patient groups.

Aims: To evaluate the impact of FIT as a systematic triage tool in CRC screening.

Methods: Single center retrospective audit of over two hundred patient referrals to Colorectal Multidisciplinary Team Meeting (MDT) over a five-month period. Data collection undertaken using electronic patient record systems.

Results: 30% of patients with an available FIT result tested positive (>10ug Hb/g faeces). Patients with a positive FIT had a 70% incidence of CRC cancer as confirmed on tissue pathology. Polyps were found in 14 (7%) cases of which 7 (50%) were identified to have high grade dysplasia. All patients with a FIT <10 underwent investigation with colonoscopy, of which findings included one case of colorectal cancer.

Conclusions: Results indicate a comparatively high yield of colonic malignancies and polyps. The results support the use of FIT as a triage tool to expedite patients for access to colonoscopy. Benefits include reduction in diagnostic delay and ability to better direct endoscopy resources. The use of FIT is advantageous as invasive investigations may be avoided in patients with a negative result. However, it is imperative these patients are appropriately safety netted and closely monitored for persisting symptoms. FIT results used in conjunction with clinical assessment allow consideration of individual CRC risk and subsequent investigations of choice.

OP-15. Assessing the level of training provided to foundation doctors regarding caring for LGBTQ+ patients

Shanmugam Reshma; Vadeyar Sharvari;

University Hospitals Birmingham Trust, England

Correspondence to: reshma.s@hotmail.co.uk

Background: Existing evidence shows that health outcomes are generally worse for those who identify as lesbian, gay, bisexual, transgender and queer (LGBTQ+) than for the rest of the population. Many report experiencing inappropriate questioning and curiosity from healthcare staff (1) and feeling their specific needs are not considered (2). The importance of appropriate training for healthcare professionals in this area has become increasingly recognised (3), with studies showing a need for dedicated LGBTQ+ health training (4).

Aims: This project aims to assess the level of training provided to foundation trainees in Birmingham's Heartlands, Good Hope and Solihull Hospitals regarding caring for LGBTQ+ patients compared to the standard: "All health and social services should deliver mandatory equality and diversity training for all staff, which explicitly includes: needs and experiences of trans patients and service users."(5)

Method: We conducted a retrospective questionnaire of 30 foundation trainees, collecting data on types of LGBTQ+ training received and its impact on their knowledge and confidence in patient care. **Results:** 90% of respondents had never received any formal training regarding caring for LGBTQ+ patients and of the remaining 10%, all formal training was received during undergraduate training. Only 55% of those who reported receiving informal teaching stated that these sessions improved their confidence in caring for such patients while 87% of respondents felt that receiving formal education on this topic would be useful.

Discussion: There is a clear need for the integration of formal LGBTQ+-centered teaching in the core foundation training syllabus. Such training may not have occurred thus far due to issues surrounding delivery and prioritisation of LGBTQ+ education.

Conclusion: We believe that imparting such teaching through specialist external speakers would greatly benefit both healthcare workers and the care experience of the LGBTQ+ patient community.

OP-16. Smartphone surgical simulation for Transforaminal Lumbar Interbody Fusion (TLIF) procedure amongst orthopaedic registrars

Patel Preemal; Judkins Nicholas; Hunt Alex; Hadi Mohammed

St Georges Hospital.

Correspondence

preemal_patel93@hotmail.co.uk

to:

Background and aims: Simulation provides a safe environment for trainees to prepare for both assisting and performing surgical procedures. Our aim was to assess whether a smartphone surgical simulator app (Touch Surgery, Medtronic, Minnesota) improved trainees' knowledge of a complex procedure and whether trainees felt that this form of simulation was beneficial for training.

Methods: All orthopaedic registrars within the deanery were invited to participate. Transforaminal Lumbar Interbody Fusion (TLIF) was the chosen procedure as few registrars had previous experience of it. Registrars completed pre-intervention and post-intervention questionnaires specific to TLIF. The intervention consisted of two modules of the TLIF simulation application on Touch Surgery.

Results: 47 of 48 registrars (ST3-ST7) completed the initial analysis and 22 completed the entire study. In the pre-module questionnaire the technical questions were answered inaccurately and over 90% thought their ability of performing a TLIF would be poor or dangerous. Post-simulation, there was a statistically significant improvement, both objectively in the technical answers, and subjectively in the perceived ability of the trainee. Mean scores on the simulator app modules were 98% and 94% following simulation. Over 90% of trainees found the simulation useful and thought it should be part of surgical training.

Conclusions: Barriers to simulation training can be bridged by app-based simulation. Most trainees found this form of training useful. As Touch Surgery is a cognitive trainer, this should be used to supplement training rather than replace hands-on surgical experience. The long term impact of simulation training on improving surgical skill acquisition or patient safety must be validated in future research. Smartphone based simulation should be integrated into higher surgical training and assessment.

Keywords: Simulation, Medical education, App

OP-17. Assessing the efficacy of ReSPECT documentation in the Elderly Medicine Setting at Eastbourne District General hospital

Kumaresan Maithrayie; Fonseka Mahilal; Premathilaka Rusiru

Eastbourne District General Hospital

Correspondence to: maithrayiek@gmail.com

Background and Aims:

Compromise of patient care, relatives/guardians not being involved in treatment decisions and equating DNAPCR forms to not treating patients actively led to the development of the ReSPECT process. ReSPECT form was introduced in the East Sussex Healthcare Trust from April 2019. Two years down the lane, this audit is being undertaken to see how effective the transition from traditional DNACPR forms to ReSPECT forms has surfaced. We hope to identify areas of inadequacy in the ReSPECT form documentation and institute measures to improve the same

Methodology: This is a multidisciplinary local audit carried out within the Elderly care medicine unit at the Eastbourne District General Hospital. The data was collected prospectively from the selected patient's clinical notes in the ward. The collected data was entered in Google spreadsheets to analyse later on. The patient's weren't directly involved in the data collection. The first 30 % of the sample size was double reviewed by the registrar and the results were compared before continuing with the data collection. The data was analysed using Excel.

Results: Only 60/130 patients had been through the ReSPECT process. 19/60 forms did not have a legible handwriting. 48/60 forms did not mention personal details of the patient. 54/60 forms did not have a clear medical summary, diagnosis and prognosis mentioned. 42/60 forms did not have a well laid out clinical recommendation. Emergency contacts were missing in 37/60 forms.

Conclusion:

Overall, the quality of ReSPECT forms is very poor. Of particular concern, is the missing out on the ReSPECT process for frail and sick elderly patients. Lack of documented involvement of patients/relatives in the decision-making process continues to be a problem. Clinical recommendations are sparse and usually limited to ceilings of treatment, and the form continues to be used, largely, as a DNACPR order. There is decreasing evidence of consultant involvement in the ReSPECT process. It being two years since the induction of ReSPECT forms, adequate education and training support regarding the process should be offered to doctors to improve the outcomes of this process for the benefit of the patients and the trust alike.

OP-18. Complex Factors Affecting the Career Progression of Female vs Male Doctors in India and the UK

Shukla Anushka; Dominic Cathy; Aggarwal Nikhil

Imperial College London

Correspondence: ads-2001@outlook.com

Background: The disparity between genders relating to career progression within medicine is a highly discussed topic. The BMA's 2008 report on Women in Academic Medicine highlighted that only 11% in the field are female. Furthermore, there is limited data regarding career progression disparities between genders for doctors living in India. The purpose of this study was to understand the differences, if any, in the career progression between genders of doctors living in India and the UK.

Methods: Data was collected through a questionnaire sent to doctors working in both the UK and India, who had graduated from Indian universities. Recipients of the questionnaire were

members of BAPIO. The questions included topics on career choice, career progression, and career satisfaction.

Results: This survey received responses from 91 doctors, 56 working in UK and 35 in India. Male doctors in India and UK, attained academic posts around 20 years after graduating whilst female doctors attained these at around 25 years. Of doctor's surveyed working in the UK, 45.2% of female doctors were neutral, disagreed or strongly disagreed with the statement that they had access to good professional opportunities whilst this only reflected in 28% male doctors. Two sample z-tests revealed a significant difference in perception of discrimination in females vs males ($p < 0.0001$) and whether gender impacted their choice of speciality ($p < 0.0001$) for both those working in the UK and in India. More female doctors reported taking time out than males in both the UK and India with the primary reason being for maternity leave and being a caregiver whilst for males, academic reasons were the most common.

Conclusion: This study highlighted a number of disparities in the career progression between female and male doctors in both India and the UK. It provides a foundation to conduct larger scale surveys and create change.

OP-19. EBUS in malignant and non-malignant lymphadenopathy

Kharbanda Sidharth; Zaki Irfan; Somani Vikas; Daripally Vinod; Patil Veeresh

Milton Keynes University Hospital, Thames Valley (Oxford) Deanery; Royal Berkshire Hospital, Thames Valley (Oxford) Deanery

Correspondence:

sidharth.kharbanda@mkuh.nhs.uk

Introduction: Endobronchial ultrasound (EBUS) bronchoscopy with transbronchial needle aspiration (TBNA) is a well-established modality for mediastinal staging in lung cancer and assessment of non-malignant lymphadenopathy. Given the rapid expansion of EBUS services over the past few years, we aimed to analyse the status of the EBUS service in a secondary care centre in the UK.

Methodology: A retrospective, single-centre and observational evaluation of EBUS procedures performed between January 2018 and February 2020 was carried out. Data was collected using online hospital records. Adequacy of sample obtained and final histopathological diagnosis was assessed. Nodal staging at EBUS was compared to that of PET-CT.

Results: A total of 248 patients underwent EBUS-TBNA during the given time frame. 10 procedures had to be aborted without any sampling due to poor tolerance. An adequate sample was obtained in 234 cases (hit rate 98.31%). Malignant pathology was confirmed in 52.52% (125/238). 21 cases with malignancy did not undergo a PET-CT scan. In 80.76% (84/104), the EBUS and PET-CT nodal staging did not differ. The nodal staging was down-staged in 17 cases on EBUS in comparison to PET-CT. 47.48% (113/238) TBNA samples showed non-malignant pathology. 12 of these had avid lymph nodes on PET-CT which were proven non-malignant on EBUS. 4 of these cases underwent minimally invasive surgical procedures to confirm a non-malignant diagnosis post EBUS.

Conclusion: EBUS-TBNA in a secondary care centre is a useful diagnostic tool in both malignant and nonmalignant lymphadenopathy with a very high yield. EBUS nodal staging helps in confirming, and in some cases, changing the PET-CT nodal staging. This in turn impacts the management of Lung cancer

Keywords: Lung cancer, Endobronchial ultrasound bronchoscopy with transbronchial needle aspiration (EBUS-TBNA), PET-CT.

OP-20. DVT prophylaxis in sixteen and seventeen-year-olds and the NICE guidelines – should adult risk assessment tools be used for children?

Muhammad J; Rudge S; Mangwani J; Langford N; Best A

University Hospitals of Leicester NHS Trust

Correspondence *to:*
mrjanmuhammad@gmail.com

Background and Aims: In 2018 NICE produced their guidelines with regards to the prevention

of hospital acquired thrombosis (HAT) which extended the age range to include 16- and 17-years old patients. NICE now suggests that these patients are risk assessed and receive thromboprophylaxis if indicated. We analysed the incidence of Venous Thromboembolism (VTE) in this age group over a 7-year period and found that the incidence is extremely low and often not related to risk factors commonly included in adult risk assessment tools.

Methods: We retrospectively reviewed the data of 13,951 patients aged 16- and 17-years of age in our admission and imaging databases at the University Hospitals of Leicester (UHL) between 2013 and 2019 and any positive scans were screened for analysis.

Results: There were 1,275 admissions and 12,676-day attendances. Of these, 145 patients had scans for suspected VTE. 13 patients had positive scans and fulfilled the inclusion criteria. Of these, 13 were excluded as either they were admitted with VTE (6) or were mislabeled entries (4). Of the remaining 3 positive scans, 1 patient had a below knee cast for fractured Calcaneus and had received VTE prophylaxis. One patient had cancer and a long line associated VTE, and 1 patient was in a below knee back slab for fracture of the Talus and was taking the Combined Oral Contraceptive Pill.

Conclusion: This study shows that the risk of developing VTE in the 16- and 17-year-old age group is extremely low (overall 0.02% - 0.1% in admitted patients and 0.007% in day attenders). We question whether routine risk assessment for VTE in this age group, especially using existing adult tools, is efficacious. The guidance itself acknowledges, the evidence for prescribed drugs is lacking and the prescription for such agents being outside their Licensing Authorisation.

Keywords: Thromboembolism, Thromboprophylaxis, NICE

OP-21. Case Study: The Use of Deceased Donor Organs in Kidney Transplantation

*Chakravorty Triya; Dengu Fungai
University of Oxford*

Correspondence:

triya.chakravorty@queens.ox.ac.uk

Background and aims: Globally, over 2.5 million people are receiving renal replacement therapy (RRT), and this is estimated to double by 2030. End Stage Renal Disease (ESRD) is responsible for 2.3-7.1 million premature deaths due to lack of access to this treatment. In most high-income countries, renal replacement services include renal transplantation services, which is the most effective form of RRT.

To meet the growing demand for transplantation, the organ donor pool has been extended from using the brain stem death donors (DBDs) to include donation after circulatory death (DCD) organs. However, these DCD grafts have traditionally been associated with worse short-term outcomes which as deterred clinicians from utilising them.

Methods: This case takes us through the transplant journey of Mr A, who has benefited from deceased donor transplantation in the COVID era under an adapted immunosuppression protocol.

Results: The psychosocial impact of ESRD and social determinants of health are illuminated by this case and highlight the critical need to expand transplant services. We explore the differences between types of deceased donor organs and the mechanisms of the clinical syndromes associated with each, including delayed graft function. Finally, we explore how emerging perfusion technologies may be able to influence the rates of delayed graft function and early complications associated with deceased donor transplantation.

Conclusion: There is a great mismatch between supply and demand of kidneys available for transplant, which has only been worsened because of the pandemic. DCD kidneys represent a novel and valuable source of donor organs. It has become increasingly clear that DCDs grafts are in fact comparable to other deceased donor organs in terms of long-term patient and graft

survival. Furthermore, with the advent of novel technologies such as machine perfusion as well as Normothermic Regional Perfusion there is scope to improve the short-term outcomes as well.

OP-22. Health Outcomes of Kidney Transplantation in Recipients Over 70 Years of Age Relative to Recipients Aged 60-69 at the Leeds Kidney Unit, United Kingdom

Mathur Tara; Saeed Nimrah

University of Leeds School of Medicine, United Kingdom

Correspondence to: um16tm@leeds.ac.uk

Background and aims: In the UK, end-stage renal disease prevalence is increasing faster in elderly patients than all other ages. Kidney transplant is the gold-standard treatment, with better outcomes for elderly patients versus dialysis. Whilst there is no age limit, access to transplantation remains low for elderly patients. This audit reviewed health outcomes after kidney transplant for recipients aged over 70 compared to aged 60-69, due to limited study of the former age group to date.

Methods: All patients transplanted and followed-up at the Leeds Kidney Unit between January 2016 and November 2020 aged over 60 at transplant were included in this retrospective cohort audit. Patients were identified from the renal database. Outcomes were compared to national data available from NHS Blood and Transplant.

Results: 97 patients were included; 62(63.9%) aged 60-69 and 35(36.1%) aged over 70. Difference in patient survival between recipients aged 60-69 and over 70 was not significant; 93.6% and 85.7% respectively 1-year post-transplant, and 87.1% versus 74.3% during the overall follow-up period. Difference in death-censored graft survival was not significant; 93.2% versus 100% 1-year post-transplant and 89.1% versus 96.2% during overall follow-up. Difference in eGFR during year-one post-transplant was not significant. Difference in 1-year patient survival using deceased-donor kidneys between recipients

over 70 at Leeds (85.2%) and all recipients irrespective of age in the UK (97%) and Leeds (97%) was statistically significant.

Conclusions: Health outcomes are similar between recipients aged 60-69 and over 70 in Leeds, thus age over 70 alone should not limit access to transplant. Patient survival is poorer in recipients over 70 in Leeds relative to all recipients nationally and in Leeds but not compared with age 60-69. Further research is necessary to establish whether this difference is expected due to greater mortality in the older population and how to optimise short-term outcomes.

OP-23. Neonatal Pain and Stress Management In NICU Phase I: Knowledge and Skills Assessment QI Project - It matters!!)

Hills Emily; Hoey Ana; Rebelo Ana; Agunias-Daantos Arlene; Bellusova Martina; Domingo Jerkins; Gourin Batia; Lagahid-Rejas Larabell; Perez Elena; Rosales Rakel; Smith Emma; Taimroy Glenn; Sohail Mahreen; Idriss Hamid; Kumari Nisha; Kariholu Ujwal
Imperial College Healthcare NHS Trust
Correspondence to: nisha.kumari2@nhs.net

Background: Historically it was thought that babies were incapable of experiencing pain. We now know this is not true.

Every healthcare professional working in neonatal care has an ethical responsibility to manage neonatal pain.

There is a wealth of information that reports poor short- and long-term neurodevelopmental outcomes from unmanaged neonatal pain.

In addition, unmanaged neonatal pain has a profoundly negative impact on parental wellbeing.

Aims: To improve pain management it is essential that health care professionals understand when a baby is in pain. This was the primary objective of the first phase of the project.

Appropriate measures to prevent or minimize pain will be addressed in the subsequent phases of this QI project.

Methods: Knowledge and skills: A survey was sent to all members of staff to record their knowledge of behavioural cues, non-pharmacological strategies (i.e. skin to skin, non-nutritive sucking, breast feeding, use of breast milk or sucrose, etc.) and parental role in pain management.

Practice: The audits focused on observing implementation of non-pharmacological approaches to minimise pain during immunisations, lumbar punctures, blood tests, nasogastric tube insertion, cannulation and eye testing etc.

A five-point rating scale was used about the knowledge of NICU workers on neurobehavioral cues and the impact of parental involvement during painful procedures, ranging from [strongly agree] to [strongly disagree], an audit that focused on the use of non-pharmacologic strategies in practice.

Results: Total of 54 staff completed a survey.

88% [strongly agreed] that neonates could experience pain.

82% [strongly agreed] that even minor procedures could cause pain.

75% [strongly agreed] that infants were able to communicate non-verbally.

60% [strongly agreed] that non-pharmacological interventions were effective in managing neonatal pain.

32% [strongly agreed] that skin to skin was an effective non-pharmacological strategy in contrast with 41% who [strongly agreed] that sucrose was effective.

64% [strongly agreed] that parents should be involved in infant pain management procedures.

Conclusion: There is a gap between knowledge and understanding of health professionals regarding pain perception and management compared to what is happening in the practice.

The ongoing QI project is looking at the implementation of the Pain Assessment Tool (Stage II), and reduction in the number of painful procedures (Stage III).

Recommendations: In order to prevent or minimize pain in neonates

Pain assessment tool should be consistently used before, during and after painful procedures.

Non pharmacological strategies should be used for all short-term mild to moderately painful procedures.

Oral sucrose should be prescribed tracked.

Need to weigh benefits/burdens of pharmacologic treatment.

Paediatricians, HCP and family should receive education on recognition/assessment and management of pain address gaps in practice.

OP-24. Micronutrient model as a predictive tool for detecting Type 2 Diabetes in a multi-ethnic population.

Joshi Kshama; Vartak Manjiri; Antonio Peña-Fernández; Parvez I. Haris

School of Allied Health Sciences, De Montfort University, Leicester, UK.

Correspondence to: kshamarjoshi@gmail.com

Background: Scientific evidence for dietary risk predictors for type 2 diabetes (T2DM) is lacking.

Objective: To identify risk predictors (dietary & non-dietary) to develop predictive model for T2DM using binomial logistic regression.

Methods: This cross-sectional multi-cited study developed a culturally sensitive questionnaire based on amended version of EPIC- Norfolk FFQ. Data analysis was carried out on 392 participants (184 with and 208 without T2DM) aged 18 to 80 within Leicester, UK. Study questionnaire collected information based on demographics, body and lifestyle information along with dietary intake. Chi-Square test used to find statistical significance (set at $p < 0.05$) using IBM SPSS (version 26). Discrimination was assessed using the area under the receiver operating characteristic curve (AUROC) and the area under the precision-recall curve (AUPRC).

Results: Fourteen statistically significant variables were identified at univariate level to develop four predictive models of T2DM. Micronutrient model (K, Mg, Cu, I, Se, Zn, folate) with AUROC 0.704 (95% CI: 0.652 to 0.755) & AUPRC (0.65) was observed with highest predictive power for estimating T2DM incidences. Whereas macronutrient model (carb, fat total, MUFA) and all nutrient model (macro & micronutrients) showed the same predictive performance AUROC 0.703 (95% CI: 0.652 to 0.755) & model quality

AUPRC (0.65) which is more than the base model (gender, ethnicity, hypertension, family history) with AUROC 0.663 (95% CI: 0.610 to 0.717) & AUPRC (0.61). Thus, the study suggested that by adding dietary risk factors to already known risk predictors the predictive power of T2DM model improves.

Conclusion: The micronutrient model can be adopted as a useful non-invasive pre-screening tool in clinical settings for the early detection of T2DM before applying invasive routes.

Keywords: Type 2 diabetes, diet, nutrients, logistic regression model

OP-25. A validation study of the Diabetes Related Risk in Pregnancy (DRRiP) warning system.

Mannan Shaheen; Ikomi, Amaju; Mukherjee, Gargi

Basildon University Hospital, Essex, United Kingdom

Correspondence to: shaheen.mannan1@nhs.net

Aims/Objectives: To assess the efficacy of the DRiPP score to predict neonatal morbidity and mortality.

Background: A rise in our local prevalence of gestational diabetes fuelled the innovation of scoring decision tools to enable consistent decision making. The DRiPP score converts the evaluation of clinical parameters relating to glucose and ultrasound findings into a single composite score. Its usefulness as a communication aid led us to evaluate DRRiP as a tool for predicting neonatal morbidity.

Methods: A retrospective population-based observational study of 400 women with diagnosis of gestational diabetes mellitus (GDM) during (2015-16).

Individual DRRiP scores & neonatal morbidity data analysis.

Rates of neonatal morbidity outcome were correlated to DRRiP score levels of 0 (Low risk), 1-2 (Moderate risk) and ≥ 3 (High risk).

Results:

DRRiP scores were 47% in low risk, 40.5% in moderate risk and 50% in high-risk group.

For 5 out of the 7 studied neonatal outcome parameters, there was evidence of predictive

value with sensitivity of the DRRiP score trigger ranging from 60.6% to 87.5%.

Shoulder dystocia occurred in 0.5%, 1.2% and 2% in respective group.

Macrosomia occurred in 0.5%, 2.4% and 6% in respective group.

Preterm delivery occurred in 3.7%, 7.4% and 18% in respective group.

Neonatal hypoglycaemia occurred in 20.7%, 26% and 36% in respective group.

NICU admission was necessary in 9%, 15.4% and 32% in respective group.

The differences between the high-risk scores and the group of low-risk scores (mild and moderate) were statistically significant for outcomes of NICU stay ($P = 0.004$), hyperbilirubinemia ($P = 0.026$) and preterm delivery ($P = 0.003$) when Chi square test was applied.

Conclusion: These preliminary findings are encouraging and suggest DRRiP may be a useful tool for predicting neonatal morbidity. This thereby highlights promise as a decision support aid for practicing clinician.

OP-26. Absolute indications for Robotic Assisted Total Knee Replacement in Complex Primary Arthroplasty

Patel Preemal; Alazzawi Sulaiman

St Georges Hospital, London, England

Correspondence:

preemal_patel93@hotmail.co.uk

Background and aims: Evidence for Robotic Assisted Total Knee Replacement (RA-TKR) is rapidly evolving. By comparison, the use of RA-TKR in low volume, complex arthroplasty cases is poorly reported. In our tertiary referral unit, we have established three specific indications where RA-TKR may confer several advantages to conventional jig-based TKR, discussed herein.

Methods: Using case examples and imaging, we discuss three indications for RA-TKR. These include: retained intramedullary metalwork; multiplanar intra-articular deformity; and severe multilevel extra-articular deformity. Retrospective analysis of a prospectively collective database of cases and images was performed.

Results: Good clinical and radiographical outcomes were achieved using RA-TKR. RA-TKR may obviate the need for metalwork removal or osteotomy. In cases where intra-articular deformity obliterates normal parameters for component alignment, such as Whiteside's line, robotic assistance can ensure accuracy and precision. Furthermore, registration using the mapping tool may overcome severe extra-articular deformity where the relationship between mechanical and anatomical axes is grossly abnormal. The system does not violate the medullary canal and may therefore lead to reduced blood loss and fat emboli compared to conventional TKR. All patients were discharged after one year.

Conclusions: RA-TKR may be used in complex arthroplasty cases that would otherwise be difficult to manage using conventional jigs. Good clinical and radiographical outcomes were achieved using the NAVIO system. Further research on long term outcomes is needed.

OP-27. Feasibility of development of a super green pathway for running Oesophago-gastric resection service during Covid-19 pandemic

Khan Khurram; Gall Lewis; Paulina Kiosk; Colin K MacKay; Craig Carol

Glasgow Royal Infirmary

Correspondence: dhruvsatya2949@gmail.com

Introduction: Elective surgery including cancer surgery throughout the world including the UK came to a halt during the early part of the COVID-19 pandemic. This has significant impacted on the outcome of cancer patients. Various pathways have been developed in an attempt to continue cancer services during the pandemic. This study aimed to assess the super green pathway for oesophago-gastric (OG) cancer resections and the outcomes during the pandemic.

Methods: A retrospective cohort study of all consecutive patients who were had resection for OG cancers over a 12-month period from the first UK National Lockdown, between 23 March 2020 and 23 March 2021. Barring two intervals

each lasting 3 weeks, urgent elective surgery continued with the establishment of Super Green ERAS pathway.

All patients underwent COVID-19 swab testing 24–72 hours before surgery and during admission at 3 days interval. It was mandatory for all patients to strictly self-isolate for 14 days prior to surgery. Those who did not comply with the policy were cancelled on the day of surgery and re-scheduled after period of self-isolation.

Owing to previous institutional experience of lower ITU stay and lower aerosol exposure, transhiatal oesophagectomy was the preferred over other approaches of oesophagectomy.

Results: A total of 45 patients had OG resection, further 3 patients were cancelled on the day of surgery due to non-adherence to the self-isolation policy and rescheduled. The median age was 64 (IQR 58-71) years and 37 (82.2%) were males. 28 (62.2%) were ASA-2 and 17 (37.8%) were ASA-3. A total of 33 oesophagostomies, 10 gastrectomies and 2 trial of dissection were performed.

No patients tested positive for COVID-19 postoperatively. Hence, there was no COVID-19-related morbidity. There was no in-hospital mortality. 9 patients developed pneumonia, which settled with antibiotics. 7 patients developed an anastomotic leak, which was treated conservatively. One patient had a damage control thoracotomy followed by return to theatre owing to intra-operative cardiac arrest. The median length of hospital stay was 12 (IQR 9-18) days.

Discussion and Conclusion: OG cancer resections can be performed safely during the COVID-19 pandemic with favourable outcome when super green ERAS pathway is strictly adhered to. During the ongoing waves for COVID-19 pandemic the cancer services including OG cancer resections should continue to be performed to prevent negative outcome of COVID-19 pandemic.

OP-28. Does the effectiveness of Ultraviolet light disinfection at inactivating viruses in non-clinical settings warrant further research into its use in clinical settings? A systematic review

Omkaar Divekar; Priyanshu Saha; Bisola Ajayi; Ben Barkham; Jason Bernard; Tim Bishop; Darren Lui

St. George's Hospital, Tooting, London

Correspondence to: m1800437@sgul.ac.uk

Background: The necessity for viral disinfection methods beyond those currently utilised within clinical settings is vital. An attempt during the COVID-19 pandemic to manually disinfect the air and surfaces within these environments has proved immensely difficult; nosocomial infection rates have surged and contributed to 10 million Britons awaiting surgery. A more efficient method, not requiring human intervention, is required to ensure the safety of healthcare professionals and their patients. Ultraviolet (UV) light has been proposed as a method of doing this. We hence conducted a systematic review to evaluate the effectiveness of UV light at inactivating viruses in clinical and non-clinical settings.

Methods: We searched the electronic databases PubMed, Medline (Ovid) and Embase and included all studies published in English which showed reduction in virus detection levels before and after a UV light disinfection intervention.

Results: After exclusion based on duplication and irrelevance to our inclusion criteria, 46 full-text articles were used for review. 37 utilised UV light disinfection in non-clinical settings. Of these, 27 studies were conducted in aerosol chambers or using viral suspensions indicating consistent disinfection within controlled environments. The remaining 10 studies showed efficacy in uncontrolled environments including food, water or material surfaces. 9 studies showed reductions of viral population in clinical settings. 7 of these were in controlled environments including disinfection of medical or personal protective equipment. The remaining 2 were in uncontrolled clinical environments.

Discussion: The success with which UV light disinfection has been utilised in controlled and uncontrolled non-clinical settings warrants greater research into its utility within clinical settings. It's effectiveness at sterilising the equipment, surfaces and air within clinical settings such as hospital wards and operating theatres should be tested as this may aid prevention of viral nosocomial infection and its associated morbidities.

PP-1. Role of blood cells to predict test-positivity and outcome of patients with COVID -19 infections

*Nizar Hisham; Othmane El Hadj Taha
Croydon Health Services NHS Trust.*

Correspondence to: sharon.fernandes3@nhs.net

Background: In patients admitted to the hospital, it is well known from previous trials that lymphopenia was used as a marker to predict the COVID-positivity, mainly at the beginning of the pandemic due the time window between the patient's admission and the time necessary to confirm the infection from the patient's samples who are suspicious to COVID-19 infection.

Aim: In our study we tried to aid diagnosis to identify which blood cell could be the marker to predict COVID-19 infection in patient's admitted to the Hospital in London.

Method: 196 patients admitted to Croydon University Hospital were included (mean age 67 ± 18.8 years, 41.4 % female, 51% with Hypertension and 30.3% with Diabetes Mellitus). 51 patients who tested negative were considered as control-group, 145 patients who tested positive for COVID-19 infection were followed up in the hospital, 33.1% of them died due to the infection-complications. We examined the correlation of blood cell counts (BCC) with test-positivity and the mortality.

Results: The test-positivity showed significant and negative correlation with admission platelet, eosinophil, and basophil count (p value was 0.0004, 0.003 and 0.0002, respectively). Among admission BCC only the eosinophil count showed a significant and negative correlation with mortality (p=0.04). Among last BCC it determined the platelet, eosinophil and lymphocyte count showed significant and negative relation, while

white cell count showed significant and positive relation with mortality (p value: 0.001, 0.001, 0.002 and 0.00001, respectively).

Conclusion: In south London population, eosinophil count, but not lymphocyte count, seems to play the central role in predicting the test positivity and mortality. This result raises the question of ethnical diversity impacting the role of predictors.

PP-2. A Census of Skin Cancer Specialist Nurses led by Melanoma Focus and the British Association of Skin Cancer Clinical Nurse Specialists (BASCNS)

Corrie P.G; Rammanohar J

Cambridge University Hospitals NHS Foundation Trust

Correspondence to: dk537@cam.ac.uk

Background and aims: Melanoma is the fifth most common cancer in the UK. Skin cancer nurse specialists (CNS) are based in secondary care trusts and play a key role in the management and support of patients with melanoma. CNSs also support dermatologists, oncologists, and surgeons at various stages of disease. No previous skin CNS Census has even been undertaken across the UK. We aimed to determine what specialist nurse resources are available to patients diagnosed with and treated for skin cancer across the country.

Methods: A weblink to an electronic survey consisting of 24 questions assessing various aspects of CNS posts was sent to secondary care trusts and members of Melanoma Focus and BASCNS. The Census data was 1st June 2021, and all data collected was anonymous, identifiable only by the name of the trust.

Results: We received responses from all 21 Cancer Alliances in England and the 3 Devolved Nations, representing 87 secondary care trusts across the UK. 92% trusts had at least 1 established CNS post; of those without a post, 56% said they were planning to create a CNS post. There was a wide variation in resource available within trusts across; the average manpower was 2.4 WTEs, ranging from 0 to 7 WTEs. The Covid-19 pandemic saw a decrease in face-face client consultations and trusts expected

this change to remain over time. Change in practice associated with use of telemedicine was evident in various settings – patient assessments, photography, MDT working, training and education.

Conclusions: Whilst geographical variation exists, we did not identify any specific areas in the country which were deficient in skin cancer CNS provision. Overall, however, workload is increasing and in many cases the work outstrips the manpower able to manage the volume of patients. This has been worsened by COVID-19.

PP-3. Tertiary centre experience of robotic abdominoperineal excision of rectum and anus (APER) in locally advanced rectal cancer

*Mathur Mayank; Selvaekar Chelliah
The Christie NHS Foundation Trust, Manchester, United Kingdom
Correspondence to: mayank.mathur@nhs.net*

Background: Low rectal cancer surgery is a challenge because of the complex anatomy of the pelvis. There have been quite a lot of discussion in past regarding the approach for performing Abdominoperineal resections which is the standard treatment for locally advanced low rectal and recurrent anal cancers. In this study, we present the experience of Robotic approach to Abdominoperineal resection.

Method: All the patient who underwent Robotic Abdominoperineal excision of rectum and anus from 2012 till 2021 were enrolled in the retrospective cohort study. The data analysis included mortality and morbidity within thirty days of surgery.

Results: In total 106 Robotic rectal resections performed from January 2012 to September 2021, of which 47 were APER, 26 Anterior Resection, 15 Pelvic Exenteration and 18 extended resections. 43 patients underwent APER for primary rectal cancers with 0% conversion to open surgery, 0% reoperation and morbidity of 37.2% respectively. 27 patients were discharged on post-operative day 7 (+/- 2days). 3 patients had Clavien-dindo grade 1 complications, 7 have grade 2, 6 patients have grade 3 complications with 0% 30 post postoperative day.

Conclusion: Robotic Abdominoperineal resection for primary rectal cancer is safe, feasible and is associated with reduced morbidity and hospital stay.

PP-4. Incidence of hypophosphatemia after I/V iron infusion.

Shahani Madhu Mati; T Premini; Chakravorty Indranil

Correspondence to: indranil.chakravorty@stgeorges.nhs.uk

Background: Hypophosphatemia is a frequent, but underrecognized side effect following administration of intravenous iron, which can persist for weeks or months. Even though hypophosphatemia following iron infusion is well reported in the literature, it is underrecognized in clinical practice.

Aim: To understand and clarify the true risk and incidence of hypophosphatemia after I/V iron infusion, so that appropriate monitoring, prevention and treatment strategies can be developed.

Methods: We collected data on 35 patients who attended our acute assessment unit for I/V iron infusion. All patients received Ferinject formulation (ferric carboxymaltose). There was no specific selection criteria, the participants in the study were selected according to the convenience for availability for blood tests. Patients were referred from different specialities including GP, gastro, gynaecology and acute medicine. All these patients had at least one blood test to check their phosphate level after I/V iron infusion. The timing of sample collection varied from one week up to few weeks after the infusion. Patients who developed hypophosphatemia were followed for the period till the level normalised. Severe hypophosphatemia < 0.3 not normalising with increased dietary intake of phosphate rich foods within a week was treated with supplements.

Results: Out of 35 patients, 19 patients developed hypophosphatemia < 0.8 at some stage after I/V iron infusion which is 54.2% incidence. Patients who had multiple doses of iron infusion hypophosphatemia in some lasted beyond 8 to 10 weeks.

Conclusion: Our study showed that incidence of hypophosphatemia is quite high and repeated iron infusions can cause hypophosphatemia for a prolonged period which can result in osteomalacia. We recommend phosphate should be monitored after iron infusions.

PP-5. Absence of coding in an outpatient paediatric orthopaedic department- where does the money go?

Dhingra Mohit; Chong, Han Hong; Shyamsundar Srinivasan

Kettering General Hospital

Correspondence to: mdhingra@doctors.org.uk

Background and Aims: Paediatric orthopaedics conditions are often managed in the outpatient department (OPD) setting. Due to the lack of official coding for these minor procedures in our OPD, the hospital receives neither financial benefit nor evidence for a formal auditing process. With the Paediatric Get It Right First Time (GIRFT) report underway, we have looked at building a coding pathway for paediatric interventions in our OPD as well as do a cost analysis on our current practise compared to projected tariffs.

Methods: The number of paediatric orthopaedic interventions were collated and grouped in a 6-month period, and a clinical outcome form was created accordingly. After consulting with the coding department, a cost analysis of prospective earnings was conducted, as well as comparisons to current standard tariff rates for OPD attendance.

Results: From January 2021 to June 2021, 100 interventions were performed in our OPD with the breakdown of: 21 clubfoot serial casting, 70 serial casting for pathology such as tip toe walkers, 6 Botox injections in spastic contracture limbs and 3 Pavlik harnesses for developmental dysplasia of the hip. With the assistance of coding department, a new paediatric procedural coding form was created with 14 relevant interventions listed. A loss of £6110 was calculated due to tariff rates being solely attendance based compared to interventional based.

Conclusion: Paediatric orthopaedic OPD should have clinical coding outcomes in place for each intervention that is performed to ensure that the hospital trust receives appropriate financial commission as well as ensure a formal audit trial can be produced.

PP-6. Covid-19 vaccine status and outcomes amongst ethnic minority groups

Umakanthan Tharshni

Correspondence to: t.umakanthan@nhs.net

Aims: To evaluate the demographics, vaccination status and clinical outcomes for patients admitted with suspected Covid-19 admissions to a tertiary London hospital.

Method: Observational study of patients admitted with suspected Covid-19 to a tertiary London Hospital. Data collection undertaken using electronic patient record systems.

Results: There were 42 patients with a positive COVID-19 serology, of which 23 (55%) were from ethnic minority groups. A total of 7 (30%) were admitted to Intensive Care Unit (ICU) and were of a younger age (mean age 60). The predominate sex in both groups requiring ITU admission was male (86% for ethnic minority and 67% for whites). White patients in ITU were aged >50 and had varied vaccination status. Of the ethnic minority patients admitted to ITU, 86% (6) were over 50 years of age and male. 71% (5) were unvaccinated and 29% (2) fully vaccinated. There were 5 BAME patients with a healthcare background, of which one was unvaccinated. Similarities in inflammation response were seen with similar proportions of white and ethnic minority patients with a CRP level ≥ 75 . Ethnic minority patients are recognised to have cardiovascular risk factors however higher cardiac markers were not identified, with equal numbers of patients from both groups with a troponin level ≥ 30 .

Discussion: The results indicate unvaccinated ethnic minority patients have higher rates of admission to ITU. This reflects much debated vaccine hesitancy amongst this population. The reasons explored include healthcare inequalities and systemic discrimination eroding trust and

persistent underrepresentation in clinical research. The COVID-19 pandemic has a continued disproportionate impact on the lives of ethnic minority people. The results indicate good COVID-19 vaccine uptake in ethnic minority patients with a healthcare background. The role of healthcare workers in building trust with patients is integral in reducing future COVID-19 ICU admission and mortality.

PP-7. Impact of second stage caesarean on preterm births in subsequent pregnancy: Study of 1000 cases over 10 years

Datta, Tamal¹; Ramesh, Jayanth²; Viswanatha, Radhika¹; Shehata, Hassan¹; Ganapathy, Ramesh¹

1. Epsom and St Helier university hospitals NHS trust UK

2. St George's University of London

Correspondence to: yuti.khare@gmail.com

Background and Aims: Caesarean in the second stage of labour is performed in around 1.5-2% of deliveries. The hypothesis is that damage to the cervix secondary to surgery and/or pressure damage from the fetal head during labour predisposes women to a risk of preterm birth in subsequent pregnancies. This study evaluated gestational and demographic factors associated with the primary second stage caesarean, which had not been done in previous studies.

Methods: This cohort study included only singleton births over a decade period and analysed all second stage caesareans that had a subsequent birth in our hospitals. Analysis included maternal demographics and risk factors in primary caesarean and studied outcomes in subsequent births including gestation at birth.

Results: During the study period, the hospitals had 50924 live singleton births. There were 984 (1.93%) births by caesarean in the second stage of labour. In this cohort, 300 women had subsequent births in our hospitals. We noted an 11%(n=33) rate of preterm births in subsequent pregnancies. However, when we excluded the women (n=9) who had a preterm caesarean at the first surgery, the incidence was similar to

background rates of preterm births (7.72%). The cohort analysis also did not suggest an impact of age or ethnicity.

Conclusions: Preterm birth in subsequent pregnancies is increased in women who had a second stage caesarean in their previous birth, however this effect is not seen if the primary caesarean was performed before 36+6 weeks of gestation. Larger cohort studies are needed to confirm these findings. At present the evidence does not suggest second stage caesarean should be considered a risk factor for preterm birth in subsequent pregnancies.

PP-8. The Impact of Remote Consultations on Care Quality in Community Mental Health: A Quantitative Study

Muthukumar Keerthi; Ali Ayesha; Bihani Urvi;

Hasanic Alan; Khasati Aya; Ohri Raja;

Sheikh Yusuf

Imperial College School of Medicine; St George's University of London; Imperial College School of Medicine; King's College London; King's College London

Correspondence

to:

keerthi.muthukumar17@imperial.ac.uk

Background and Aims: The COVID-19 pandemic sparked rapid virtualisation of mental health (MH) services. Remote consultations (RC), including telephone and video, became central to MH provision. The reduced requirement for physical examinations in MH supported the use of RC particularly in this area. The study explored GP and psychiatrist perspectives on the impact of RC on care quality (CQ) in MH consultations, with the overall aim of investigating benefits and challenges surrounding RC use in MH services.

Methods: A quantitative cross-sectional web-based Qualtrics survey was disseminated to GPs and Psychiatrists (n=44). Questions were framed as statements and respondent agreement was assessed using a 5-point Likert scale.

Results: 81% of GPs considered RC suitable for initial assessment of MH patients compared to just 33% of psychiatrists. Meanwhile, the majority of respondents agreed that RC was generally

suitable for follow-up appointments (86%) and transactional consultations like medication reviews (91%).

Mild anxiety and/or depression were deemed suitable for RC (86%), whilst suicidal (77%), psychotic patients (86%) and those with severe disease (55%) were considered less suitable for RC.

Telephone consultations reportedly were disadvantaged by the absence of non-verbal clues (86%) and a switch to video was perceived to potentially facilitate information gathering.

The impact of RC on diagnostic confidence appeared to be more marked in trainee staff. Respondents suggested issues with safeguarding, inappropriate consultation environments, and distractions at home when conducting RC.

Conclusions: Though RC has clear benefits to patients and staff, the study reveals varying impacts on CQ across patient groups, consultation types, consultation modalities and seniority of consulting MH staff.

PP-9. Streamlining Shift Swap Requests in Acute & General Medicine

Al-Alousi Salam; Ramakrishnan Maheema; Shah Ruchir

Correspondence to: s.alousi@gmail.com

Introduction: In acute & general medicine departments (AIM&GIM) at our NHS Trust, junior doctors have historically found it difficult to take leave when scheduled to be on an on-call shift, despite requesting it well in advance. They struggle to arrange a 'swap' with a colleague. The GMC commissioned "Caring for Doctors, Caring for Patients" review and BMA Good Rostering Guide identified the negative impact of 'swap' difficulties on doctors' wellbeing, affecting quality of care for patients. We aimed to streamline the swap process and to empower junior doctors to manage their leave requests.

Methods: There are approximately 200 junior doctors in AIM&GIM, who we surveyed, along with junior doctor administrators (JDA), and for baseline data and to guide areas for improvement. We then instigated three PDSA (plan/do/study/act) cycles:

1. Creation of WhatsApp groups for each grade of doctor to improve communication.
2. Working with JDA to share updated spreadsheet of swap requests regularly with junior doctors.
3. Raising awareness of the swap process at induction.

We re-surveyed after each intervention, with the project running over an 8-month period covering three junior doctor rotations over 2020-2021.

Results

At baseline, only 37% of those requiring a swap previously were successful in arranging one. After the first intervention, this improved to 60%, despite a greater proportion requiring a swap compared to baseline (83% vs 46%). The last and third intervention resulted in 71% success in arranging a swap. Due to COVID, less swap requests were made during second and third interventions.

Discussion & Conclusions: Utilizing modern platforms such as WhatsApp can improve communication between junior doctors, helping to facilitate swapping of on-call shifts and leave requests. The second intervention took place during the COVID pandemic second peak pressures, where staffing levels and sickness impacted on swap success.

PP-10. OSLR as a medium to organise feedback based small group teaching in times of COVID-19

Satya Sahni Dhruv; Golder Allan

University of Glasgow

Correspondence to: dhruvsatya2949@gmail.com

Aims: The COVID-19 pandemic has disrupted undergraduate medical education worldwide. This has highlighted the need to maximise teaching opportunities. OSLR, a freeware phone app allows clinicians to arrange sign-up teaching sessions, potentially at short notice. The present study audits the early use of this application at a single institution.

Methods: OSLR has been rolled out to medical students on a General Surgery placement within a single Teaching Hospital. We audited its use over a four-month period from September to December 2020. Student feedback was provided

electronically and was used in real-time to plan future teaching sessions.

Results: 17 sessions were posted on OSLR for a median number of 3 students. The majority of clinicians conducting tutorials through this route were Foundation Doctors (75%). These sessions covered 8 individual modules within the curriculum including General Surgery and Urology. Sessions were carried out in the format of either Bedside teaching (41%) or tutorials (59%). Student feedback on teaching was generally excellent with >90% of attendees rating sessions 5/5 for relevance and overall quality.

Conclusion: The present results show that the use of OSLR in undergraduate medical education is well received by students and tutors alike. This study supports its use more widely and further use of built-in features including feedback should be encouraged.

PP-11. A prospective cross-sectional study for early prediction of difficult laryngoscopy by ultrasound guided quantification of anterior soft tissue of the neck

Baliyambra Jaseem; Antony Prema; Kumble Shanfer

Lisie Hospital, Kochi, Kerala, India; Indiana Hospital, Mangalore, India

Correspondence to: jaseem.baliyambra@nhs.net

Background and aims: Airway management being the most important responsibility of an anaesthetist has been recognised as a serious safety concern since decades. The consequences of an unanticipated difficult airway are always catastrophic. This highlights the significance of a proper pre-operative airway evaluation. Although there are various clinical criteria used to predict the difficult laryngoscopy, unanticipated difficult airway still happens. Our study aimed to identify a bedside, reliable tool with very high predictive value in assessment of difficulty laryngoscopy before induction of anaesthesia.

Methods: The study was conducted over 3 centres between 2016 and 2019. After the routine pre-operative airway assessment by an experienced anaesthetist, a second anaesthetist quantified

ultrasound guided measurements of anterior soft tissue of the neck at 3 levels; hyoid bone, thyrohyoid membrane and vocal cords. After the induction of anaesthesia, a 3rd anaesthetist with at least 2 years of experience did the direct laryngoscopy and graded according to Cormack-Lehane-Grading; Grade 1 and 2 were considered as easy intubations and Grade 3 and 4 as difficult. We analysed the data and compared the efficacy of prediction of difficult laryngoscopy by ultrasound guided quantification and routine pre-operative airway assessment.

Results: The neck circumference and the ultrasound guided measurements of the anterior soft tissue thickness at the level of thyrohyoid membrane, hyoid bone and the vocal cords were identified as the independent predictors of difficult laryngoscopy. The clinical predictors routinely used in preoperative airway assessment like Modified-mallampatti-scoring, interincisor-gap, Thyromental distance offers limited and inconsistent association in predicting difficult laryngoscopy.

Conclusion: In the era of ultrasound, and being available as a bedside tool, ultrasound guided measurement of anterior soft tissue thickness of neck should be included as a part of routine airway assessment pre-intubation. This could help in predicting the difficult laryngoscopy and plan the airway management accordingly, thus avoids catastrophe.

PP-12. The Association of Breastfeeding with Childhood Asthma: A Case-Control Study from India

Harish Kumar Peri; Devgan Amit

Armed Forces Medical College, Pune

Correspondence to: kumarperiharish@gmail.com

Background: The role of breastfeeding in childhood asthma has long been controversial. Majority research pertains to developed countries with scant literature available in a developing country like India, where a different phenotype of asthma is prevalent. This study examined the association of breastfeeding duration and exclusiveness with childhood asthma and its severity as measured by Peak Expiratory Flow Rate (PEFR), in India.

Method: We conducted a matched case control study in Pune, India. 180 children with asthma (cases) and 180 without (controls) were included. A standardized questionnaire recorded demographics, medical and breastfeeding history. PEFR readings were obtained from each child. Conditional logistic regression and linear regression were used to explore the association of breastfeeding with asthma and PEFR, respectively. **Results:** Median duration of breastfeeding among cases was [5(2.5-10)] months as compared to controls [9(3.5-16.8)] months. The prevalence of exclusive breastfeeding among mothers was 60% (50% among cases and 69% among controls). Exclusive breastfeeding was associated with 46% lower likelihood of having asthma ($p = 0.025$) (OR 1.85 ; 95% CI 1.08-3.16). Breastfeeding duration was significantly associated with lower likelihood of having asthma ($p = 0.001$) (OR 0.87 ; 95% CI 0.79-0.94) and a 1 month increase in duration of breastfeeding was associated with 23% reduced risk of the disease. The odds of maternal asthma [21.4(4.22-109.36)], paternal smoking [1.44(0.22-0.86)] and maternal smoking [5.14 (1.78-14.80)] were higher among cases as compared to controls.

Weight of the child and duration of breastfeeding was negatively associated with PEFR. Maternal asthmatic history, associated allergies, paternal smoking and parent's education were positively associated with PEFR for the overall sample.

Conclusion: Prolonged and exclusive breastfeeding were found to be protective factors against development of asthma. Behavior change communication models like breastfeeding promotion and parental smoking cessation should be a priority in the control of childhood asthma.

PP-13. The impact of acute out of hours (OOH) rota on the learning opportunities of Community Child Health (CCH) grid trainees.

Hussain Saba; Bradley Emma

Sirona care and health

Correspondence to: saba.hussain2@nhs.net

Background: CSAC guidance states that grid trainees should spend 70% of time within the

sub-specialty. An RCPCH survey found only 30% of grid trainees spending 70% of their time in sub-specialty. These trainees were more likely to report difficulties in obtaining competencies compared to the trainees working > 70% of their time in sub-specialty.

Aims: To compare the differences in learning / training opportunities for Community Child Health (CCH) grid trainees had whilst covering an acute Out Of Hour rota (OOH) and then once doing no OOH, and to identify whether this improved their training.

Methods: Pro-forma completed by CCH grid trainees before and after coming off OOH for 3 working weeks on both occasions. Data was collected about hours worked in CCH and covering acute OOH; time spent in developing specialist skills, doing clinical work and non-clinical work (e.g. audit); missed learning opportunities and a free text section.

Results: Whilst participating on the acute rota, CCH trainees spent a significant amount of time (41%) covering OOH shifts. On multiple occasions they missed learning opportunities and got less time for CCH related work. Once off OOH; trainees spent all of their time in CCH, attended activities to develop specialist skills and got adequate time for clinical/non-clinical tasks.

GMC training survey 2021 showed Sirona care and Health on the top in South West region for overall training satisfaction.

Conclusions: Spending all working hours with the core specialty (unsurprisingly) significantly improves CCH grid trainee's access to relevant training and learning opportunities. This enables them to develop the specialty specific skills required to be a consultant in CCH. There is a secondary benefit to improved patient care.

We recommend that CCH trainees are given the opportunity to spend some of their training (from ST7) working solely in CCH.

PP-14. Multiple Myeloma patients with imminent pathological hip fracture due to High Mirels' Score lesions may benefit from chemotherapy over prophylactic Femoral nailing

Omkaar Divekar; Priyanshu Saha; Bisola Ajayi; Ben Barkham; Jason Bernard; Tim Bishop; Darren Lui

St. George's Hospital, Tooting, London

Correspondence to: m1800437@sgul.ac.uk

Background: Bone metastases presents in 70-95% of patients with multiple myeloma. This causes bony lesions for which prophylactic surgery is indicated to prevent pathological fractures if the lesion is graded $\geq 9/12$ on the Mirels' score. Although successful, these surgeries have risks and lengthy recovery periods. We present a case indicating chemotherapy may obviate prophylactic femoral nailing for high Mirels' score lesions in the femoral head with impending pathological hip fracture.

Case Presentation: A 75-year-old Afro-Caribbean woman presented to the hospital in December, 2017. Plain X-Ray indicated degenerative anterolisthesis in her lumbosacral spine. Serum analysis, immunofixation and protein electrophoresis revealed abnormal biochemical markers of multiple myeloma, immunoglobulin and serum kappa light chain levels, respectively. She was diagnosed with ISS stage 3 IgA Kappa Light Chain multiple myeloma which was successfully treated with chemotherapy that year. She presented again to the hospital in June, 2020; MRI scans showed myelomatous deposits in her left femoral head and spine, the former being graded 10/12 on the Mirels' score indicating prophylactic femoral nailing. Instead, she was treated with chemotherapy as it was thought that surgery would provide limited cytoreductive effect and prevent chemotherapy occurring for 6 weeks post-surgery, potentiating pathological hip fracture. This reduced the deposits such that the femoral lesion was graded < 8 on the Mirels' score, improved her pain and restored her ability to traverse stairs.

Discussion: Chemotherapy substantially reduced myelomatous deposits in the femoral head such that indications of prophylactic surgery were eliminated according to Mirels' score recommendations. This reduced the risk of pathological hip fracture whilst eliminating surgical complications. Further research should be conducted into the safety and efficacy of this

treatment regimen in patients with high Mirels' score lesions. With this knowledge, consideration can be taken as to whether prophylactic femoral nailing is necessary given strong indications.

PP-15. Comparison of Vitamin B12 and Folic acid levels in Type 2 diabetes patients with and without metformin usage: A study from A South Indian Tertiary care hospital

Bora Nayanika; Shriram Vanishree; Asirvatham Reena Adlyne; Mahadevan Shriram

Sri Ramachandra Medical College.

Correspondence to: nayanika.rvs@gmail.com

Background: Type 2 Diabetes Mellitus is a chronic metabolic disorder that results in micro and macro-angiopathic complications. Metformin is increasingly recognised to cause vitamin B12 deficiency by impairing its absorption with attendant consequences. There is paucity of studies especially from South India on prevalence of vitamin B12 and especially folate in diabetic patients.

Aim: To establish and compare vitamin B12 & Folate levels with their clinical manifestations in both users and non-users of metformin.

Objectives: To compare serum B12, serum folate, CBC findings in metformin and non-metformin diabetic users.

To assess and compare the prevalence of vitamin B12 deficiency in both the groups.

Methodology: A cross-sectional study was conducted with 48 voluntary participants each in control and study group separately within a time period of 2 months. They were assessed for serum vitamin B12, Serum Folic Acid, CBC and HbA1C. Clinical manifestations of Neuropathy including peripheral neuropathies, foot ulcers, loss of reflexes and psychiatric symptoms such as insomnia were examined. Haematological manifestations such as pallor, angular Cheilitis and glossitis were also screened for.

Results: The prevalence of B12 deficiency among Metformin users was 28 (60.9%) and that among non-users was 16 (34.0%). This difference in prevalence was statistically significant ($p=0.002$). The prevalence of Folate deficiency among

metformin users was 8 (30.8%) and that among non-users was 18 (69.2%). This difference also is statistically significant ($p=0.022$).

Conclusion: The prevalence of vitamin B12 deficiency is higher among metformin users compared to non-users. Diabetics on Metformin should be supplemented with B12 and Calcium.

Key Words: Vitamin B12, Folate, Diabetes

PP-16. Assessing information dissemination of Group B Streptococcus in Chelsea & Westminster Hospital antenatal clinics

Aakriti Chetan Shah

Correspondence

to:

aakriti.shah16@imperial.ac.uk

Background/purpose: Group B Streptococcus (GBS) is the leading cause of severe early onset infection in newborns, with its incidence in the UK and Ireland rising from 0.48 to 0.57 per 1000 births from 2000 to 2015. A 2017 WHO study showed 38.5% of cases can result in stillbirth and infant deaths. Current Royal College of Obstetricians and Midwives (RCOG) guidelines do not recommend bacteriological screening for pregnant women due to its low sensitivity for the neonate having GBS but advise a patient information leaflet is given to pregnant women. However, a Healthcare Safety Investigation Branch (HSIB) 2019 learning report found only 50% of trusts reported giving GBS information leaflets. Therefore, this audit aimed to assess current practices of information dissemination about GBS at Chelsea & Westminster (C&W) Hospital.

Methodology: A quantitative cross-sectional study was carried out using a questionnaire. The study was conducted in antenatal clinics at Chelsea & Westminster Hospital, over 2 weeks, with twenty-two practicing obstetricians and midwives participating in the survey. The main outcome measure was the proportion of obstetricians and midwives who disseminate information about GBS to pregnant women, and the reasons behind why they do or do not.

Results: 18 complete responses were gathered, of which 58% believe it is necessary to inform all

pregnant women about GBS, but only 17% do so. The primary reason for not informing women about GBS was lack of time in clinic appointments.

Conclusion: It is vital for obstetricians and midwives to inform all pregnant women about GBS due to the high prevalence of incidental carriers in the population, and its harmful effects on neonates. To ensure RCOG recommendations are followed our proposed implementations include an information leaflet incorporated into the Mum and Baby app, an informative video and end-to-end digital clinic documentation to include an information sharing prompt.

PP-17. People Treat Me Differently- Aspirations of People With A Learning Disability And Their Family Carers To Be Employed

Giri Abhrajit; Aylott Jill; Giri Prosenjit

Barts and the London School of Medicine; Currently Sheffield Teaching Hospitals NHS Trust; World Academy of Medical Leadership, UK; Sheffield Teaching Hospitals NHS Trust

Correspondence to: prosenjit.giri@nhs.net

Background: Disabled-adults and Family-Carers suffer from massive labour market disadvantage. Over 50% of 1.4million UK-based Learning-Disabled people, reside at home depending on unpaid-care from 0.84million Family-Carers. Initiatives to individualise care by offering disabled-adults to commission services through fund-holding has increased their dependence on Family-Carers. Despite governmental pledge for facilitated-work to promote financial independence; the employment rate among Learning-Disabled adults (18- 64 years) has fallen from 6.6% (2010/11) to 6% (2017/18). Among Family-Carers only 39% were in paid employment (2019).

Aims: This study was designed to examine the empirical data generated within a local authority to review experience of employment of Learning-Disabled adults and their Family-Carers.

Methods: A public consultation within a local authority was organised to identify the current employment status and perception towards work

among Learning-Disabled adults and Family-Carers. Qualitative and quantitative data was gathered and analysed thematically and statistically.

Results: Among 227 participating Learning-Disabled adults, 96% (217) were in the working age (18- 64 years) but only 8% (18/227) in paid-employment. Slightly higher than the national average (6%). Among responding Family-Carers, of whom 80% (72/91) were in working age, two fifth were out of job (21%; 19/91 retired and 20%; 18/91 never worked).

Both Learning-Disabled adults (74%; 167/227) and their Family-Carers (49%; 45/83) were less enthusiastic about the prospect of work, but 25% wanted to be employed or to volunteer. A lack of support was identified as the primary barrier for Learning-Disabled adults, whereas Family-Carers prospects were severely hampered by their care commitments.

Discussions and Conclusions: Despite government initiatives, employment for adults with a learning disability and their family-carers remains challenging as their barriers in support frustrate the employment of people with a learning disability, which creates an over-reliance on their family carers. A limitation of this study was the failure to consult with employers.

PP-18. The Surgical Society of International Doctors - IMGs helping IMGs

Akshay Vinoo, Aaliya Uddin, Mohamed Eldolify, Suhaib Abualsaud, Harsha Pratap, Dhruv Satya Sahni, Praveen Subbiah, Gaurav Jha, Vinayak Korde, Myat Mon Win, Sharon Glenn Basildon and Thurrock University Hospital, Basildon, Essex

Correspondence to: akshay.vinoo@nhs.net

Background and aims The Surgical Society of International Doctors is a national independent voluntary organisation of doctors based in the United Kingdom. Our aim is to connect, support and promote aspiring surgeons. We seek to provide a platform to network, advocate education and build global surgical research opportunities for doctors to progress on in this challenging journey of becoming a successful

surgeon. In particular, we hope to aid International Medical Graduates (IMGs) in paving their way into surgical training in the UK. Methods Our society began with the President and Vice-President sending out invitations online on international doctor forums. Following a deadline date, we carefully picked our team after an analysis of their CVs and online interviews. We recruited leads for education, research and networking. Additionally we appointed a secretary and regional representatives as well. We currently have 13 members and have our own website www.surgicalsociety.com with details on our members and projects. Results We have two major projects currently ongoing- 1. An introductory series for junior surgical IMGs (International Medical Graduates) - This is a 6 session online teaching series organised by our team. It aims to clarify common issues IMGs face when starting their first surgical job in the UK. We are halfway through this series currently. 2. A mentor-mentee programme- With our team having worked in surgery in the UK and acquiring a core surgical training numbers, our society have taken new IMGs under our wing to guide them through the core surgical training portfolio, help them garner points and aid them in their interviews. Conclusion We are slowly expanding as a society with numerous followers on our Facebook, Instagram and twitter pages. In the future we plan on organising our own virtual conference, research collaborations and MRCS teaching sessions.

PP-19. A case of sight threatening pituitary macro-adenoma in pregnancy

Savi Prabha Krishna Prasad, Shyamsundar Vachhani

Ashford and St Peter's NHS

Correspondence to: savi.prabha@nhs.net

Introduction: Pituitary adenomas account for 10% of intracranial tumours and are almost benign. In some individuals, the pituitary gland undergoes hyperplasia, especially during pregnancy, due to increase in oestrogen levels leading to increase in the tumour volume causing mass effects. This case report reviews a pregnancy with incidental finding of pituitary macro adenoma causing visual

field defect, its management and further follow up. Case Presentation: A 32-year-old pregnant female of 37 weeks gestational age presented to the emergency department with 1-week history of sudden deterioration in visual acuity. Visual field examination revealed a supero-temporal defect in both eyes. MRI showed a pituitary macroadenoma measuring 16+12+15 mm, extending to the suprasellar region causing upward displacement and compression of the optic chiasma. Blood tests including pituitary profile were within normal reference range except mildly raised prolactin. She underwent elective C-section under hydrocortisone cover in view of her visual field defect. Following the delivery, her visual acuity improved significantly. A follow-up MRI pituitary with contrast done 2 months later showed a reduction in the size of adenoma measuring about 9 mm. Patient was started on cabergoline and has been advised to use contraceptives. Discussion: Managing pituitary adenoma during pregnancy is challenging. In our case, the tumour was diagnosed after conception. Hence for future pregnancies, an MRI should be done before conception to document tumour size with a monthly follow-up and visual field examination at every trimester. Patients with large adenomas and those with suprasellar extension are strongly discouraged from conceiving until definitive therapy or surgery is undertaken. What can be more challenging in planning for the future pregnancies is that surgery of the gland can lead to infertility whilst future pregnancy may again cause macro adenoma which may even lead to blindness as pituitary once enlarged, never shrinks back to its normal size.

PP-20. An Evaluation of a Gift Based Wellbeing Initiative to Support NHS Staff During the COVID-19 Pandemic

Shafiah Muna Abdul Gafoor, Kandhari-Navneet
Correspondence to: shafiah.abdulgafoor@nhs.net

Background: The COVID-19 pandemic has been the defining health crisis of our generation. In the UK healthcare industry, where pre-pandemic surveys already demonstrated high levels of stress, it is imperative that actions are taken to support the mental wellbeing of staff from its expected

psychological fallout. Feasible, low cost and time efficient interventions are warranted. Rewards-based incentives may carry promise. Objectives: To evaluate the acceptability and feasibility of a gift-based wellbeing intervention in supporting staff mental health and wellbeing. Design: Qualitative study using open-ended and anonymised surveys. Setting: A busy tertiary care centre in London. Intervention: Free wellbeing packages comprising of dietary supplements, food, and mementos were delivered to ward staff caring for patients with Covid-19. Participants: A total of 129 healthcare professionals (109 junior doctors and 20 non-specified other Allied health professionals) received wellbeing packages. Main outcome measures: 52 survey responses were analysed thematically and collated into 5 core themes: Emotional Response, Reaction to Initiative, Reaction to Product Choice, Gratitude, and Feeling Valued. Most respondents (n=50, 96%) were highly appreciative of the intervention, deeming it both useful and relevant to supporting their mental health. The intervention was also deemed feasible with respect to financial and time constraints. Conclusion: Rewards-based initiatives may pose a reasonable consideration for organisations looking to implement low-cost and feasible wellbeing strategies. This study bears useful findings for other organisations looking to implement similar low-cost wellbeing strategies.

PP-21. A retrospective cost analysis of group and save samples performed prior to vascular procedures

Bharathi Akulka, Badri Vijaynagar

Leicester Glenfield hospital

Correspondence to: drakulabharathi@gmail.com

Aim: To assess if routine group and save is indicated prior to all vascular procedures.

Method: A retrospective review of all patients who were admitted to vascular ward between 1st to 30th June 2020 was performed using our hospital database. The following data was retrieved: admission diagnosis, preoperative haemoglobin, number and type of vascular surgeries performed, number of G&S sent and total number requiring transfusion. Results: Total

81 patients were admitted; all had a G&S on arrival with routine bloods. All preoperative patients need 2 G&S prior to surgery as per trust policy. 69 patients underwent surgery. 111 G&S were processed. 51 patients had 1 G&S on admission as they had a previous sample. 28 patients had 2 G&S either because they had no previous records or had postoperative complications. 2 patients required multiple transfusions so had >3 G&S each. 8 out of 81 patients needed peri-operative blood transfusion. 7 of them had undergone limb or toe amputations and 1 patient had ruptured AAA. The cost of single G&S sample is £30.8. Patients undergoing angioplasty, bypass, carotid endarterectomy (n=46) did not require transfusion but the expenditure incurred by performing g&s in these patients was £1570.8

Conclusion: Peri-operative blood transfusion rates were 9.8%. Judicious use of G&S could have saved £1570.8 to the trust. Rationalising preoperative G&S policy would lead to substantial financial savings.

PP-22. Revisit the past and change the future - experiences of stranded doctors of various specialities in NHS England and their survival during Covid-19 pandemic.

Sandhya Govindarajan

Correspondence to: ggsan28@gmail.com

Background: Corona virus disease (COVID-19) has infected more than 220 million and killed more than 4.5 million globally. The United Kingdom (UK) saw rise in Covid -19 cases with maximum number of deaths recorded during 1st wave (April 2020 to July 2020) and 2nd wave (October 2020 to February 2021), thereby overwhelming the staffs and front-line workers of National health service (NHS) UK. With uncertainties, insecurities and stressful conditions, the IMG's (International Medical Graduates) who constitute 36% of NHS doctors continued to work for the well-being of their patients in the pandemic era. Aims: The study is aimed to understand the lived experiences of stranded international doctors and their survival who

worked in the NHS during the peaks of COVID-19.

Methods: IMG's workings across multiple trusts in various specialities were enrolled in the survey. A questionnaire was sent to 116 doctors out of whom 26 responded.

Results: Of the 26 doctors, 5 were re-deployed to Covid -19 ICU or ward from different specialities mainly from trauma and orthopaedics, anaesthesia and GP trainees. 4 doctors out of 26 doctors felt that they did not have appropriate Personal Protective Equipment (PPE) at all times. 9 of the 26 doctors suffered from or tested positive for corona virus, out of which 2 needed hospital admission for COVID-19. All 26 doctors were vaccinated with 2 doses of Covid vaccine – 24 with Pfizer and 2 with Oxford vaccine. 7 doctors who received Pfizer vaccine reported vaccine induced side-effects. During the pandemic, majority of doctors felt that sick leave and annual leave were the areas that were well-supported while education and training, financial needs and mental health support could have been advocated better by their trusts.

Conclusion: Overall, there is an undeniable need to encourage and support the welfare of International Medical Graduates in NHS.

PP-23. Accuracy of Bayesian modelling in predicting COVID-19's impact on gestational diabetes rates

Shaheen Mannan, Ikomi Amaju

Basildon University Hospital, United Kingdom

Correspondence to: shaheen.mannan1@nhs.net

Background: RCOG guidance for diagnosis of gestational diabetes mellitus (GDM) recommended avoiding the 'gold standard' 2-h oral glucose tolerance test (OGTT) during COVID-19 pandemic. Instead, random glucose and HbA1c tests were stipulated at booking and HbA1c and fasting glucose testing at 24–28 weeks, with an elevation of any of these test results constituting a positive diagnosis. Of great concern was the danger of under-diagnosis due to incomplete OGTTs. Aims/Objectives: To compare 'predicted' and 'actual' under-diagnosis rates of

gestational diabetes (GDM) during the COVID-19 pandemic

Methods: A retrospective analysis of our Maternity Database. We aimed to compare GDM numbers before and after implementation of the guidance in May 2020.

Results: 'Predicted' GDM cases (May 2020 – April 2021): 619, applying the predicted detection rate of 7.4% meant 45.8 women were predicted to be missed. 'Actual' GDM cases (May 2020 – April 2021): 573. This suggests that 46 women were missed.

Discussion: We used Bayesian modelling in generating an estimate of the number of women at risk of 'falling through the net'. We used 75-g OGTT results of 3805 women completed at 24–28 weeks between 1 January 2009 and 31 December 2013. Our analysis revealed that 18.2% of the OGTTs were abnormal based on WHO 2013 diagnostic thresholds. This data was applied to the Bayesian modelling steps with corrected increase in population in 2020. This projected a failed detection rate of 7.4% hence the guidance was implemented. A year later we evaluated the accuracy of this prediction. The results confirmed strong predictive accuracy.

Conclusion: Bayesian modelling has proven to be highly accurate in predicting appropriate suitability of the RCOG GDM diagnostic pathway during the pandemic in our population. This case study also highlights the advantage of utilising local datasets and the role of meeting the evolving needs of patients during pandemic.

PP-24. Differential Attainment and CESR: Providing Support And Breaking Down Organisational Barriers

Arif Muhammad, Jill Aylot, Prakash Subedi
Mid Yorkshire NHS Trust, Pinderfields Hospitals,
UK

Correspondence to: dr_arif_m@yahoo.co.uk

Background and aims: Recruitment in medicine disproportionately favours white applicants when 54% of doctors identify as BME. 60-70% of doctors with PMQ outside the UK are without a training place, becoming SAS or LED, embarking on Certificate of Eligibility for Specialist

Registration (CESR) pathway. The pass rate is low at approximately 52%.

Methods: An online survey (n=22) explored barriers to completing CESR.

Results: Barriers experienced include: securing rotations; a lack of understanding and volume of paperwork.

Conclusions: Improvements include: "proper training"; "guidance" "mentorship" "help to secure rotations" and "protected time to complete the paperwork" It is recommended that a hospital based CESR support team be set up.

PP-25: Going BEEOND (BAPIO EoE Education Online Development Session) Horizon-an online educational platform

Abinaya Seenivasan, Veena Daga, Udupi Alam,
Anshoo Delaria

Lister Hospital, Stevenage, UK

Correspondence to: abinaya.seenivasan@nhs.net

Background: BAPIO Divisional inclusion is imperative in ensuring that members and alike benefit from the organisation's contributions. Accessibility to "Zoom" platform gave opportunity to easily reach out to them. BAPIO East of England (EoE) division is the only division in the country that successfully runs these free regularly recurring monthly educational (clinical/non-clinical) sessions called BEEOND in collaboration with BAPIO Training Academy (BTA). Each session held via "Zoom" platform has 2 speakers covering various clinical and non-clinical topics for about 75 minutes. The team also collaborates with a BAPIO partner- a financial advisor team "Quilter" who provide snippets of financial advice on topics related to medical field.

Aim: To highlight the implementation of BEEOND sessions and analyse feedback from participants.

Methods: We conducted retrospective analysis on the feedback received from participants in each session.

Results: The feedback from a total of 5 sessions was obtained as an ordinal scale ranging from 1 (unsatisfied) to 5 (totally satisfied). We had 48 responders in total and the overall satisfaction rate was 97.9%. We sub-categorized the feedback into 5 aspects along with the individual

satisfaction rates- relevance (97%), understanding (96.3%), concept (95.8%), delivery of the topic (97%) and ability to respond to the questions (96.6%). The participants were consultants (39.5%) followed by Trust doctors/SAS/Clinical fellows (25%), trainees (14.5%), medical students/foundation year trainees (12.5%) and general practitioners (8.3%).

Conclusion: Creating a virtual platform with brief discussion on topics was welcomed as a mode of personal development. The most preferred aspect was the conciseness of the topics. Case-based discussion techniques were best preferred. Majority of them did not feel there were any drawbacks in the sessions, but committee members acknowledged that the sessions needed to be further widely disseminated for increasing interest and participant numbers.

PP-26: Day case surgery for major foot and ankle procedures: what are the perceived barriers and facilitators? A scoping survey of UK surgeons.

Amber Leigh Berry Linzy Houchen-Wolloff, Jitendra Mangwani, Natalie Crane, David Townshend, Robert Clayton

University Hospitals Leicester NHS Trust United Kingdom

Correspondence to: amber.berry@uhl-tr.nhs.uk

Background: Recent advances in minimally invasive surgery and improved post-operative pain management make it possible to contemplate performing major foot/ ankle operations as day-case. This could have significant impact on length of stay, saving resources and is in keeping with government policy. However there are concerns about post-operative complications and patient satisfaction due to pain.

Aim: The aim of this survey was to scope the practice of UK foot and ankle surgeons in terms of perceived barriers and facilitators to performing day-case surgery for major foot/ankle procedures.

Methods: An online survey (19 questions) was sent to UK foot and ankle surgeons via BOFAS (British Orthopaedic Foot & Ankle Society) membership

listing August 2021. Major foot/ankle procedures are defined as surgery that is usually performed as an inpatient and day-case as same day discharge, with day surgery as the intended treatment pathway.

Results: A total of 130 respondents: 83% working in Acute NHS Trusts. The current practice around day-case work for major foot/ankle procedures- 78% of respondents thought that more procedures could be performed as day-case at their centre. The top 2 perceived barriers to performing more major foot and ankle procedures as day-case were: no physiotherapy provision pre/ post-operatively 22%, no out of hours support for patients 20%.

Conclusions: There is consensus among surgeons to do more major foot/ ankle procedures as day-case. Despite theoretical concerns about post-operative pain and satisfaction this was only measured by a third of those surveyed. Out of hours support and physiotherapy input pre/post O ops were perceived as the main barriers to increasing the number day-case procedures. There is a need for nationally agreed protocols to optimise the delivery of care for this patient group and to scope the provision of physiotherapy pre/post-operatively at sites where this is a perceived barrier.

PP-27: Review of child protection experience, training and emotional health of paediatric junior doctors and their views on structured child protection proforma – A South West Regional study

Saba Hussain and Saras Hosdurga
Sirona Care and Health/University Hospitals Bristol

Correspondence to: saba.hussain2@nhs.net

Background: Paediatricians carry out medical assessments when there is a suspicion of child maltreatment. They contribute their findings to multiagency assessments. This involves making emotionally challenging decisions. Difficulties are faced by all paediatricians, especially international medical graduates (IMGs) due to lack of induction/ orientation to child protection

(CP) practices. Dealing with CP cases has known to cause psychological morbidity and reservations to proactively engage with safeguarding process.

Aims: To assess CP experience, training and emotional health of paediatric junior doctors at South Western and Peninsula Deanery. To identify if CP proforma assists trainees to have a structured approach to CP medical examination and report writing.

Methods: The survey questionnaires were distributed to 31 level 2 and 3 Paediatric trainees. Data collected included; demographics, level of safeguarding training, experience, supervision, emotional health and a free text for comments.

Trainees were able to opine on a safeguarding regional proforma which was designed collaboratively based on RCPCH companion.

Results and discussion: 31 responses were included. Majority had level 3 safeguarding training and was aware of safeguarding guidance. Only 20% of the trainee's felt that their CP experience did not fulfill their learning needs.

39% described safeguarding experience being negative. 35% reported anxiety before the CP on call and 29% felt low afterwards.

Majority (81%) commented that the safeguarding proforma will be a useful supportive tool to benefit all paediatricians in their clinical practice: Full results and CP proforma handouts will be shared during the presentation.

Conclusions: The CP work involves good diagnostic, communication and team working skills. Training, supervision and additional supportive tools (e.g., CP proforma) are key to get everything right for the child and for psychological wellbeing of trainees. As CP is a national priority, recommendations and supportive tools are applicable widely across the regions.

PP-28: HYBRID doctors in Emergency Medicine (HIEM): A medical workforce solution to reduce health inequalities

Prakash Subedi, Jill Aylot

QiMET International and QiHETIndia and Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust, UK

Correspondence to: psubedi@yahoo.co.uk

Background and aims: Reducing health inequalities is a global priority and one that should be led by physicians though the transformation of health systems. A four year integrated 'HYBRID' clinical (MRCEM) and leadership (Fellowship in Quality Improvement) post graduate Training in Emergency Medicine was designed. The Fellowship was supported by RCEM and met the health priorities of Nepal while also a solution to the UK NHS Emergency Medicine workforce shortage.

Methods: A mapping exercise of the health priorities in Nepal; the RCEM speciality curriculum⁵, and General Medical Council (GMC) Professional Capability Framework was undertaken across a stakeholder group in UK and Nepal.

Results: Twenty two doctors have been recruited and outcomes are:

- 1) High levels of trainee satisfaction measured by PHEEM,
- 2) The development and approval of 21 patient centred clinical and health system improvement research proposals in Nepal to improve accessibility of healthcare in rural and poor areas of Nepal; and
- 3) Changes in practice evidenced in Sepsis, Trauma and reduced health cost in Head injury care

Conclusions: The HIEM programme is in its infancy as it is three years through a four-year programme. Further evaluation data are required to assess the full impact of this programme and its contribution to reducing health inequalities in Nepal.

PP-29: Nutritional intakes in people with Irritable Bowel Syndrome

Nishant Aggarwal, Claire Williams

Molecular Gastroenterology Research Group, Department of Oncology & Metabolism, The University of Sheffield, The Medical School, Beech Hill Road, Sheffield, S10 2RX, UK

Correspondence to:

nishantaggarwal98@gmail.com

Purpose: First-line management of IBS involves dietary change involving the avoidance of trigger-foods. A restricted diet may impact overall

nutritional adequacy, yet few studies have explored dietary intakes in people with IBS.

Methods: 115 individuals with IBS were recruited to complete a Food Frequency Questionnaire, a validated long-term dietary assessment tool. Nutritional intake data were compared against UK dietary reference values (DRVs) and observed intakes from the general population. Analysis by IBS symptom-severity was also carried out.

Results: Macronutrient intakes in the IBS participants met recommended requirements, but overall energy intake was below recommended intake. For micronutrient and mineral intakes, IBS participants met or exceeded almost all the dietary reference values (DRV). IBS participants similarly met or exceeded intakes from the general population, except for vitamin A where IBS women consumed less than their general population counterparts. Participants with mild or moderate IBS symptoms consumed more non-starch polysaccharides (NSPS), a measure of fiber intake, than those with severe symptoms.

Conclusion: Our findings are in line with older nutritional intake assessments: suggesting that despite the emergence of new dietary therapies, people with IBS compensate for any dietary restrictions imposed. For vitamin A, however, lower intakes have been observed previously in IBS cohorts, this study restates this claim by observing a similar result in our IBS women. This anomaly should be further investigated in future research. Further investigation is also required to explain the novel finding of lower fiber intake amongst people with severe IBS symptoms. Perhaps this difference reflects changing attitudes towards universal fiber intake in the setting of IBS.

PP-30: Massive Appendiceal Mucocele presenting as Left Upper Quadrant Mass.

Mayank Mathur, Spyridon Dritsas, Chelliah Selvasekar, Jonathan Wild,

The Christie NHS Foundation Trust, Manchester, UK

Correspondence to: mayank.mathur@nhs.net

Background: Appendiceal Mucocele is usually due to a locally malignant low grade adenomatous mucinous neoplasm (LAMN) with an incidence of 0.2 – 0.4%, with predominance

in women with the ratio of 4:1 around 50 years of age.

Methods: 58-year-old man presented with upper abdominal discomfort, weight loss and palpable mass in the left upper quadrant (LUQ). A CT scan report demonstrated a large cystic tumour in left upper quadrant with some calcification. The patient was initially referred to the sarcoma MDT, however on closer assessment the mass was noted to be of Appendiceal origin and referred to tertiary peritoneal tumour centre.

Review of computerised tomography at the Peritoneal Tumour Service MDT concluded that the tumour was a massive Mucocele of the appendix with tip lying in LUQ. Mucinous disease was involving spleen and both sub diaphragmatic space. The MDT recommended cytoreductive surgery (CRS) + / - combined with heated intraperitoneal chemotherapy (HIPEC), potentially as a staged approach.

Result: Patient underwent laparotomy and major debulking surgery (Appendiceal mass excision, mucinectomy, subtotal colectomy, umbilectomy, anterolateral peritonectomies, with end ileostomy). Intraoperatively 3 liters of mucinous ascites drained, base of appendix was normal in caliber and huge Mucocele (25cm) pointing to LUQ identified. Colon was covered with mucinous deposits. Small bowel, its mesentery and splenic flexure was adherent to appendix mass.

Pathology report showed an acellular mucin (pM1a) that has originated from a pT4a, pN0 (LAMN).

Plan is for a second stage cytoreductive surgery and HIPEC to achieve complete cytoreduction.

Conclusion: Although rare, challenging surgically specialised MDT discussion and management in dedicated centres achieves a potential cure in these complex presentations.

PP-31: Impact of COVID-19 on Tamilnadu Health care workers and students

Zahir Hussain, Wajith Hussain, Gulam Kadher, Nigel Langford

Tamil Nadu, India

Correspondence to: wajith4794@gmail.com

Background: Health care workers (HCW) throughout the world have suffered from apprehension, psychological stress, insecurity, mental breakdown and more as a consequence of pandemic. COVID-19 negatively impacted HCW as well as medical students. The support for both medical students and HCW were grossly inadequate. Virtual interactions sometimes acted as counterproductive for younger generations.

Aims: To determine the psycho-social impact of Covid – 19 on HCW and medical students of state of Tamilnadu, we surveyed randomly selected group of HCW and students.

Methods: Due to the pandemic and the change in circumstances the study was aimed at identifying the several factors that affected “the routine” life of the sample population. This is a retrospective study using an online survey via a pre-designed questionnaire on Google forms which was aimed at the above stated sample population targeting about minimum of 50 people via the snowballing technique. Keeping these identified factors as stressors, we applied the DASS-21 questionnaire to determine the psychological impact due to the pandemic.

Conclusion: HCWs are generally very caring people but need to make conscious effort to create time for self-care. These support mechanisms need to be developed even at student life.

PP-32. HAPPI of Hob

Shreya Poddar, Aayush Sinha, Vittal Jadhav, Biju Simon

University Hospitals of Leicester NHS Trust, United Kingdom

Correspondence to: kolkatasurvey1@gmail.com

Hidden Aspects of Pandemic: Psychosocial Impact and support received by Healthcare Workers of Bengal (HAPPI of HoB)

Introduction: West Bengal reported to have 1.5 million Covid Cases and about 20000 deaths. Health care Workers (HCW) worked tirelessly to control, contain and survive the pandemic. 2.8% of the health care workers in India were reported to have COVID-19 pandemic-related burnout (Kulkarni et al., 2020).

Aim: This study focuses on understanding these impacts and extrapolating the wellbeing support received by the healthcare staff in West Bengal.

Method and Conclusion: A pre-prepared questionnaire through Google forms used to ask specific questions to randomly selected group of health care workers from Bengal, predominantly from Kolkata. We will be addressing the psychosocial, emotional, economical aspect of being a pandemic HCW. We are elaborating on the support systems available to HCW at West Bengal area and Kolkata.

Many of health care workers might have felt apprehensive and anxious during pandemic. The risk of spread would have been worse considering the demographic and geographic position of Kolkata. The support might have been inadequate considering the limitation of resources.

PP-33: Omeprazole induced hypomagnesemia leading to hypocalcaemia

Jeet Thacker, Gautam Das

Ashford & St. Peter's NHS Hospital Trust

Correspondence to: jeetthacker10@gmail.com

Background and Aim: Omeprazole is quite effective in gastric acid suppression by inhibiting the parietal cell H⁺/K⁺ ATP pump. Long-term side effects of chronic acid suppression on the absorption of vitamins and nutrients absorption/metabolism is gaining attention and is poorly understood Here, we discuss one such case that developed hypocalcaemia and hypomagnesemia.

Methods: Data was collected retrospectively through hospital electronic records for this case report.

Results: A 58 year old female was referred by the GP to hospital for symptoms of tingling and numbness in fingers and toes, muscle cramps in arms and legs and swollen legs. The patient had a history of gastroesophageal reflux disease (GERD), irritable bowel syndrome (IBS), hypertension, fibromyalgia, iron deficiency anaemia, knee osteoarthritis, and heart failure. On admission, a corrected calcium level was 1.9 mmol/l and serum magnesium 0.37 mmol/l, parathyroid hormone (PTH) was 7.6 pmol/l and Vitamin D-

level was 48 nmol/l. She was treated with intravenous replacements till she managed to maintain the levels within normal reference range. It was identified that she was taking Omeprazole for a long time and she recently had worsening of reflux symptoms two months ago and the dose was doubled. Therefore, it was stopped and replaced with famotidine (H2 blocker), and then serial calcium and magnesium levels became stable. Calcium levels normalised to 2.35 mmol/l from 1.9 mmol/l after stopping omeprazole. Magnesium levels were increased to 0.74 mmol/l from 0.3 mmol/l. She was discharged on Vitamin D and calcium supplement. A repeat set of bloods was done one month later, and all electrolytes levels were normal without Omeprazole.

Discussion and Conclusions: Chronic use of omeprazole can lead to hypocalcaemia and hypomagnesaemia causing tetany, arrhythmias, and seizures. Mechanism of omeprazole induced hypocalcaemia in patients with normal PTH levels is unknown and requires further research.

PP-34: Management of Acute Appendicitis during COVID-19: Lessons learnt

Dhruv Satya Sahni, Ivory Huang, Danielle Cunningham, James Park
Glasgow Royal Infirmary, UK
Correspondence to: dhruvsatya2949@gmail.com

Aims: The Covid-19 pandemic brought about unprecedented changes in the management of common emergency surgical pathologies. This audit was performed to assess how the presentation and management of appendicitis differed throughout 2020 in response to COVID-19.

Methods: The COVID-19 pandemic brought about unprecedented changes in the management of common emergency surgical pathologies. This audit was performed to assess how the presentation and management of appendicitis differed throughout 2020 in response to COVID-19.

Results: 146 patients were admitted with acute appendicitis. Median time to presentation was 2.5, 1, 2, 6 days across the four time periods. The percentage of patients undergoing pre-operative CT during first wave was 83% (compared to 63% before and 58% and 63% subsequent time periods). Non-operative management (NOM) was attempted in 46% during first wave (26%, 22%, and 5%); failed NOM with subsequent operation occurred in 33% of patients during first wave (28%, 25% and 0%). Laparoscopic approach was attempted in 73% of cases, with rates following first wave returning to baseline levels (85%, 86%, 83%). Median length of admission was 5 days.

Discussion And Conclusion: The COVID-19 pandemic resulted in clear changes in management of appendicitis. Despite a further wave, clinical practice appeared to return towards original practice with respect to imaging and operative modality.

PP-35: Use of injection sclerotherapy to treat symptomatic haemorrhoids in high risk anticoagulated patients

Paras Batra, Tracy Noone, John Walmsley, Abhiram Sharma, Wal Baraza
Correspondence to: parasbatra7@gmail.com

Background and Aims: Haemorrhoids are one of the commonest causes of ano-rectal bleeding. There are multiple procedures available to treat symptomatic haemorrhoids (SH); however the safest option in the high-risk anticoagulated patient remains unknown. Rubber band ligation (RBL) is recommended as first-line treatment but carries a risk of post-operative haemorrhage. Concurrent anticoagulation is a contra-indication to RBL. We appraise the use of injection sclerotherapy in high-risk anticoagulated patients as a safe alternative treatment option for SH.

Methods: A retrospective review was performed of high-risk anticoagulated patients who had undergone injection sclerotherapy (5% oily phenol). The primary outcome measure was resolution of symptoms at follow up. Secondary outcomes were the incidence of complications and the need for further treatment.

Results: Two surgical consultants performed 32 procedures on 20 patients over a 5-year period.

60 % (n=12) underwent a single procedure, reporting resolution of symptoms. 15 % (n=3) and 25 % (n=5) required two or more procedures, respectively, due to ongoing symptoms. The mean volume injection used was 5.64mL. There were no reported complications. 2 patients proceeded to subsequent RBL or haemorrhoidectomy off anticoagulation.

Conclusion: Injection sclerotherapy is a safe and effective treatment for SH in high risk anticoagulated patients with an initial success rate similar to RBL.

PP-36: How novel is Dapagliflozin?

Shyamsunder Kineshkumar Vachhani, Gautam Das

Ashford & St. Peter's hospital NHS Trust, England

Correspondence to:

shyamsunder.vachhani@nhs.net

Background: Dapagliflozin is one of the novel class of glucose-lowering agents known as sodium-glucose co-transporter-2 (SGLT2) inhibitors and is used in the treatment of patients with type 2 diabetes. Diabetes Ketoacidosis (DKA) is defined by the triad of hyperglycaemia, anion-gap acidosis, and increased plasma ketones. Euglycemic DKA is an uncommon form of ketoacidosis which is characterized by metabolic acidosis with a pH <7.3 and a serum bicarbonate of <18mEq/L, ketosis, and a blood glucose level of <200 mg/dl. This can be caused by SGLT2 inhibitors. Euglycemic diabetes ketoacidosis is a rare complication that occurs in patient taking SGLT2 inhibitors. Here we describe a patient with Euglycemic DKA. The incidence of DKA associated with Dapagliflozin has been reported to be < 0.1%.

Case presentation: This 55 year's old gentleman has past medical history of obesity, type 2 diabetes (since age of 27 yrs.), hypercholesterolemia, hypertension and osteoarthritis. He recently suffered from myocardial infarction discharged 2 days back and presented to emergency department with central chest pain radiating to both arms in the morning. ECG reported as normal and venous blood gas

showed pH- 7.10, pCo2- 3.84, pO2- 5.54, glucose-

10, lactate-1.8, bicarbonate- 8.5, base excess 19.2, anion gap 25. And Dapagliflozin was stopped as a part of discharge planning and followed up in our diabetes clinic. Urine dipstick revealed Glucose +2, ketone +4, pH 5. He was diagnosed to be suffering from Euglycemic diabetic ketoacidosis & treated as per protocol. When he recovered from DKA his insulin was optimised and Dapagliflozin was stopped as a part of discharge planning and was followed up in our diabetes clinic.

Discussion & Conclusion: In patients on Dapagliflozin, cases of Euglycemic diabetes ketoacidosis are increasingly being reported. Diagnosis of Euglycemic diabetes ketoacidosis can be easily missed in the emergency department due to absence of marked hyperglycemia, often leading to delayed diagnosis and treatment. Mechanism of action of Dapagliflozin is by selectively inhibiting the transporter protein SGLT2 in the renal proximal, which prevents glucose reabsorption and subsequently induces the elimination of filtered glucose via urine, the process is known as 'glycuresis' which reduces the blood glucose levels. SGLT-2 inhibitors should be initiated by a clinician cautiously and only after adequately weighing the risks and benefits of treatment. It is advisable to do urine test on patient taking Dapagliflozin on admission which will help diagnose Euglycemic DKA early. To prevent this potentially dangerous complication, patients taking SGLT2 inhibitors who become ill should discontinue the medication, undergo ketone evaluation, and start basal insulin, if ketones are positive. In addition, patients should be educated to stop their SGLT2 inhibitor at least 1 week prior to elective procedures.

PP-37 Anatomical alterations of the cerebellum in Parkinson's Disease: State of the art and future perspectives of neuroimaging studies

Rakshanda Sadavarte, Antonella Macerollo, Simon Keller

University of Liverpool, United Kingdom

Correspondence to:

R.Sadavarte@student.liverpool.ac.uk

Background: Neuroimaging studies have helped in understanding the role of the basal ganglia, but also the cerebellum, in the pathogenesis of Parkinson's Disease (PD). PD is a neurodegenerative disorder characterised by bradykinesia, pill-rolling tremor, rigidity, gait changes. Several explanations have been postulated regarding cerebellar changes in PD; including hyperactivity of the cerebellar lobules to compensate for the loss of functionality of the striato-thalamo- circuit.

Aims: The research question focuses on the role of the cerebellum in PD, evaluating future advances in neuroimaging techniques including Voxel-Based Morphometry (VBM), Functional MRI (fMRI), and Diffusion Tensor Imaging.

Methods: A literature search was performed using the databases Embase, Medline, PubMed, Scopus, and Google Scholar. Key terms in the search were: Cerebellum, Parkinson's Disease, Anatomical Alterations, Neuroimaging. Limiting factors including English language papers, articles from 2015 onwards were used. 10 articles (which included meta-analyses, case-control studies, and comparative studies) were analysed in the review using the Critical Appraisal Toolkit. Results Of the 10 studies selected, 5 used fMRI to highlight the role of the cerebellum in PD. 3 studies analysed the use of VBM. Cerebellar hyperactivation was noted on Crus I and II ($p < 0.001$) in the fMRI studies. Hyperconnectivity was noted in the two connections spanning the vermis and both the right and left cerebellar cortex ($p = 0.041$).

Conclusion: Functional neuroimaging has been increasingly used to indicate the role of cerebellum in pathogenesis of PD. Using this, numerous studies have been able to suggest the hyperactivation of the Crus I and II of the right cerebellum due to reduced activity of the basal ganglia in PD and the cerebello-cortical pathway which works to compensate for this change. This indicates promising work for future treatment in PD patients targeting this pathway.

PP-38: The effects of COVID-19 re-swab form in following NICE guidelines

Shyamsunder Kineshkumar Vachhani, Keffai Yeong

Ashford & St. peter's Hospital NHS Trust, United Kingdom

Correspondence to: shyamvachhani9@gmail.com

Introduction: NICE published a guideline which suggested that all in-patients who were tested negative upon admission should be retested between 5-7 days¹. This Quality improvement project aims to increase the compliance of re-swabbing patients as per NICE guidelines. We compared trust practices with NICE guidelines. The aim is to reduce the spread of COVID-19 infection in hospitalised patients & to further improve patient safety.

Methods: We collected retrospective data of Covid-19 SAMBA test date of all patients that were discharged from 2 of green wards where all the patients with negative Covid-19 SAMBA test were admitted from ICE software & anonymised the data. Considered day of admission as day zero. The time frame for first cycle was from 6th August to 30th August 2020. We excluded those patients who were discharged on or before 7th day.

Results: In first cycle, 22.2% patients met the criteria out of 43. The most common barrier was that nurses were not able to remember date of last swab. We developed COVID19 Re-swab Form in Microsoft Excel, it auto-populates next 10 due dates for re-swabbing the patient once date of admission is entered. It reminds staff to perform swab on right dates as per NICE guidelines. We printed this form, attached to bedside notes of every patient & used it. In second cycle, 64.3% patients meet the criteria out of 42 patients (from 22.2% in 1st cycle). So, there was significant improvement in compliance rates ($p < 0.05$). Quality impact analysis score 32.

Discussion: This form also helped in timely discharging patients. Still some nurses are not frequently using computer & softwares. We believe mandatory training & IT support will further help in improving compliance.

Conclusion: Introduction of Covid-19 Re-swab Form significantly helped in increasing the compliance in following the NICE guidelines for re-swabbing admitted patients in the hospital.

PP-39: Health Heroes of Telangana, Probing their wounds!

Rafi Sumaya, Fatima Syeda, Biju Simon

Leicester Royal infirmary, UK

Correspondence to: fsyeda1994@gmail.com

Background and Aim: The healthcare workers (HCW) were overstressed and under protected in times of pandemic. There was very little attention given to wellbeing of HCW.

This survey is trying to understand the support mechanisms in Telangana better.

Method: An online survey of 50 HCW from both urban and rural hospitals in Telangana was conducted. The survey collects information on different types of support provided to the health care workers and aims to estimate at what level these were met. The responses to these questionnaires were recorded by asking participants to rate on the service satisfactory scale. The survey can elaborate the availability of support and the HCW perception. Physical health support and economic incentives and support are also explored. Other crucial services related to wellbeing like psychological and social support for HCW included in the survey.

Conclusion: It is assumed that there are differences in the level of support provided in rural when compared to urban areas, particularly incentives and hygiene control, whereas there was insignificant difference in rest all means of support. It is assumed that there were adequate supplies of equipment, vaccinations and protective gears, however, lacked in terms of mental and social support.

PP-40: Improving neonatal vascular access in surgical patients

Roshan Singh Rupra, Ben O'Sullivan, Giampiero Soccorso, Suren Arul

Birmingham Children's Hospital, United Kingdom

Correspondence to: r.rupra1@nhs.net

Aim: Many neonatal surgical patients require intravenous (IV) access for >1 week. Technical, organisational and cultural factors reduced placement of peripherally inserted central

catheters (PICCs). Most babies requiring parenteral nutrition/central medications undergo central venous line placement under general anaesthetic (GA). Repeated bedside cannulation causes distress to patients and parents, with workload burden resulting in extravasation injuries. We aim to reduce these factors by increasing PICC usage in a ward setting.

Method: Stopping procurement of several types of PICCs. Establishing one size/type of PICC. Procuring introducer kits for more successful IV access. Organising departmental training. Packaging equipment into 'Grab Bags', reducing time burden. Supporting institutional memory, by training non-rotating staff. We followed a Plan, Do, Study, Act (PDSA) cycle over 4 months.

Results: Final results pending. The intervention has occurred, in 1 month we will re-measure:

1. SHO-grade workload burden via questionnaires.
2. Requirements for cannula insertion.
3. Number of infants undergoing GA for IV access only.
4. Extravasation injuries.

We will measure risks of increasing PICC placement (through an iterative process), including:

1. Line infection rates.
2. Line dislodgement rates and consequences (e.g. GA for line insertion).
3. Associated changes in cost.

Conclusion: The initial message yielded perceptions that 'the department is doing things wrong'. The message of PICCs adding an 'extra string to our bow' was clearer, non-judgemental and with strong rationale for change.

Training non-rotating staff promotes sustainability but required senior clinician agreement to procure equipment, delaying our timeline - target completion is in 1 month.

PP-41: Morphology of the Ileocaecal Valve by Endoscopy

Caroline Shirley Manoj, Patrick Paul

Government Medical College,

Thiruvananthapuram, India

Correspondence to: drkarolshirley@gmail.com

Background: The ileocaecal valve guards the opening of the terminal ileum, along the medial wall of the caecum. Morphological types of the ileocaecal valve may be bilabial, papillary, or volcanic. According to literature, in colonoscopy, morphology of the ileocaecal valve determines ileal intubation success, which is an upcoming diagnostic tool for inflammatory bowel disease.

Aim: A study was undertaken to describe the morphology of the ileocaecal valve by endoscopy.

Methods: Descriptive study was done on 85 patients from the Department of Medical Gastroenterology, Government Medical College, Thiruvananthapuram. During colonoscopy, pictures of normal ileocaecal valve were obtained to assess morphology.

Results: 33% of subjects had bilabial type of ileocaecal valve, 21% had single bulge papillary type, 34% had double bulge papillary type and 12% had volcanic type. There was no association found between the morphological type of ileocaecal valve and the success of ileoscopy.

Discussion: The prevalence of each morphological type of Ileocaecal Valve in this study is in keeping with review of literature. The current study does not agree with the findings of Iacopini et al. which states that morphology of the Ileocaecal Valve affects the success rate of ileoscopy.

Conclusion: The current work, as a pilot study is a new venture to describe the morphology of the ileocaecal valve which will be extremely useful for the clinician during the procedure of colonoscopy and ileoscopy.

PP-42: Clinical Audit- Adherence to surviving sepsis campaign (SSC) guidelines for the management of Sepsis and Septic Shock.

Shahnawaz Sabir

Kingsway Hospitals, Nagpur, INDIA

Correspondence to:

shahnawaz101sabir@gmail.com

Background and Aim: Sepsis is a life threatening organ dysfunction caused by a dysregulated host response to infection. Sepsis and septic shock are major healthcare problems. Around 49 million people develop sepsis every year, out of which 11 million people dies every year. So a clinical audit is being conducted to see if the SSC guidelines are being regularly followed or not, so as to achieve the goal of reducing morbidity and mortality due to sepsis and septic shock.

Methods: Study design- Prospective+ retrospective study. Period of study- 30 days. Area of work and data collection- ICU+MRD, patients consent was taken before data collection. Sample size- 30 patients. Resources- patient case files, SSC guidelines.

Data collection form- includes all parameters of guidelines in tabular form along with SOFA and APACHE score. Each parameter is given 1 score. Total score is 6.

Results: Data of 30 patients is collected and analyzed.

Average score is 2.7 out of 6, which states around 45% guidelines are being followed.

Average SOFA score- 1.5

Highest APACHE score-37

Lowest APACHE score-3

Parameter most followed- initiation of empirical antibiotics within 1 hour of sepsis. **Parameter least followed-** routine C/S being sent before initiation of antibiotics.

Conclusions: The Surviving sepsis campaign (SSC) guidelines could have been followed in more percentage compared to 45%. So implementation of necessary changes in the form of posters, educational drives is being done and aiming towards closing the loop.

PP-43: Completion of VTE assessment in General Surgical Wards on admission in a district general hospital, 2021

Sein Son, A. Rangaraj, N Kulkarni

Lincoln County hospital, UK

Correspondence to: hughsein@gmail.com

Background and aims: Hospital-acquired venous thromboembolism (VTE) is a common occurrence which could be prevented. This has led to a

significant number of deaths in the United Kingdom as well as unnecessary burden to the NHS through complications. Our aims and objectives were to assess completion rate of VTE and bleeding risk assessment on admission, VTE prophylaxis administration on general surgical wards, and raise awareness of adherence of VTE prophylaxis in Lincoln County Hospital. Methods: 100 patients admitted under general surgery who had at least 24 hours for reassessment of VTE prophylaxis were selected for each cycle between September 2020 to July 2021. Data on eight standards were collected: Completion rate of thrombotic and bleeding risk assessment; assessor details in the admission booklet; writing VTE plan; pharmacological and mechanical VTE prophylaxis prescription on admission and re-assessment for VTE risk within 24 hours of admission. Interventions after the result of the first audit cycle was attaching posters in general surgical wards, informing surgical doctors (juniors and seniors) via trust and local meetings of the audit results. The target was 100% in all standards.

Results: There was improvement in completion rate across all standards. The most significant increase was in the re-assessment of VTE prophylaxis in 24 hours (65% to 87%). Completion rate was >90% in five out of eight standards. However, completion rate of a VTE plan written in the admission booklet remained low in both cycles (45% to 48%).

Conclusions: There was an improvement in the completion rate across all eight standards which were assessed over two cycles; however we have not yet met our target of 100%. There is a need for improvement in documentation associated with VTE prophylaxis.

PP-44: Adult Morgagni Hernia in a 74 year old patient

Arisha Ahmed, Sushil Lohiya, Varsha Ayyanar
Kingsway Hospitals, India
Correspondence to: ahmed.arisha@gmail.com

Background: A 74 year old male patient presented to the ER with complains of uncontrolled bilious vomiting and constipation for 5 days.

Aims: To report a rare case of a Congenital Diaphragmatic Hernia in a 74 year old, previously asymptomatic male patient.

Design: Symptoms included uncontrolled vomiting and constipation with no complaint of abdominal pain and obstipation. General examination showed tachycardia and tachypnea. Abdominal examination revealed tenderness in epigastrium and right hypochondrium on deep palpation, with bowel sounds absent in right upper quadrant and heard well in other regions. Breath sounds were absent below 5th intercostal space on the right side with rest of right lung and left lung having vesicular breath sounds. Chest X Ray showed herniation of abdominal contents into the chest and CT further confirmed findings with details of the sac content. Patient was operated for the condition laparoscopically with defect being closed using primary repair without using mesh. He was stable post operatively, and got discharged on post op day 3.

Discussion: Morgagni CDH is a rare finding, constituting 2-3% of all diagnosed cases. Incidental findings of this condition in adults are less common with only 81 asymptomatic cases reported in a recent review. Symptomatic adult cases of Morgagni hernias are even rarer with only 12 cases described.

Conclusion: CDH is a rare diagnosis that needs early diagnosis and prompt treatment to prevent fatal outcomes.

PP-45: Evaluation of the Community Patient Ambassador Programme; Supporting culturally tailored communication and advocacy for COVID19 in-patients

Priyavanshi Desai, Indranil Chakravorty, Subarna Chakravorty, Asanga Fernando, Catherine Mcgowan, Veena Daga, Kirit Mistry
St. George's, University of London
Correspondence to:
patientambassador@bapio.co.uk

Background: The COVID-19 pandemic created significant challenges where the need for prevention of person-to-person transmission led to national lockdown. The necessary restriction to

movement of people included severe restrictions to hospital visiting, posing many communication challenges to healthcare staff and next-of-kin in undertaking vital clinical updates and resuscitation decisions. In patients or families with limited proficiency in English including the lack of translation facilities or digital equipment posed often insurmountable hurdles.

The patient ambassador project was conceived during the pandemic and designed to offer not only the ability of digital communication using a secure three-way video call but also the safety and enhanced cultural competency and awareness for healthcare professionals while using this voluntary service.

Methods: The project was aimed to recruit in the community around England who were over 18 and can speak the following languages - Gujarati, Bengali, Sinhalese, Urdu and Tamil. A poster was made to promote, vet and recruit ambassadors. Once chosen, the patient ambassadors were given a tablet and training. This included communication with patients and next of kin, confidentiality, GDPR, treatment escalation plans. A website was made for booking the ambassadors with working hours 7 days a week.

Results: 17 ambassadors gave their availability over a course of 4 months from March to June 2021. 0 ambassadors were contacted to translate during the 4 months. Each ambassador was contacted regularly and website traffic was monitored although no bookings were initially made.

Conclusion: This pilot project serves as an example that will be of much social and economic benefit for cash-strapped health services and address some of the inherent inequalities that patients from minority ethnic backgrounds face in accessing the health service. The project will be analysed before extending to incorporate additional languages.

PP-46: Clinical audit: Use of dexamethasone in COVID-19 patients according to NIH protocol.

Nishank KP

Kingsway hospitals, Nagpur

Correspondence: nishankkp@yahoo.com

Background and aim: As we know we have faced some very challenging times due to the COVID-19 pandemic, the treatment protocols and strategies have been variable and changing from time to time. This clinical audit describes the importance of administration of dexamethasone in COVID-19 patients according to the NIH protocol.

Methods: Study design- Prospective study.

Period of study- February-March 2021

Place of study and data collection- COVID Ward, patients consent was taken before collection of the data.

Sample size- 60 consecutive patients were studied.

Forms- Made few tables and entered the details for a better understanding and analysis

Results: Patient who did not require O₂ and Dexamethasone was not given-23%

Patient who required O₂ and Dexamethasone was given-35%

Patient who did not require O₂ and Dexamethasone was given-43%

Conclusions: The protocol could have been followed in an acceptable manner. But the challenge was frequent changing of treatment protocols. Considering the situation in India and patient anxiety, the protocol was followed in an acceptable manner. The team of doctors became more confident communicating the protocol to anxious patients during the audit process.

PP-47: Improving compliance to fluid balance monitoring in care of elderly- A Quality Improvement Project

Kishore Sundara Rajan, Samra Khan, Rajesh Govindarajan

University Hospitals Birmingham

Correspondence to: drkishoresr@gmail.com

Background/Aims: Fluid balance monitoring is a crucial aspect of hospital care and assessment especially in the management of geriatric patients.

We aimed to assess the compliance of accurate documentation and monitoring of fluid balance within the Elderly Care ward in our hospital.

Methods: Prospective data collection on the geriatric wards through patient notes on the online system (PICS) was completed.

Initial data collection was completed between April and May 2021 from 30 patients. We assessed the following with regards to fluid balance charts, as indicators of adequate fluid balance monitoring: daily maintenance, recording clinical indication, completing input/output charts, accurate documentation and mention in handover and medical plan.

A survey among the team members, to understand the difficulties encountered in documentation of the fluid balance chart was completed. Educational intervention and clinical system training on fluid balance monitoring was completed.

We re-audited to assess for any improvement by collecting data between August and September 2021.

Results: Indicators of compliance pre- and post-intervention were analysed and compared. Our survey indicated a limited knowledge in the appropriate use of the clinical system for this purpose, limited understanding of importance of strict input/ output monitoring and inadequate handover.

Following intervention, we demonstrated a 70% improvement in accuracy of documentation and compliance to daily documentation. There was a 40% improvement in completion of the chart and 60% increase in documenting the clinical indication.

Conclusion: Education on importance of fluid balance monitoring in elderly patients and training in appropriate use of clinical systems has shown a significant improvement in compliance to monitoring fluid balance.

However, we identified areas of improvement such as handover effectiveness, which shall be our focus for future improvement. We will continue to audit to ensure sustained improvement.

PP-48: Use of Lymphocyte Count as a tool for diagnosis and clinical decision-making surrounding COVID-19 amongst Emergency department Patients.

Dalip Kumar, Michael Acidri, Claire Willis, Matthew Osborne, Joel Akwenuke, Shabaz Khalander

Southend University Hospital, Emergency Department, U.K.

Correspondence to: dalip.kumar1@nhs.net

Background: To evaluate the diagnostic accuracy and use of Lymphocyte count as a decision making tool for coronavirus disease-2019 (COVID-19) in the Emergency Department (ED). We present a retrospective study done on patients with a positive diagnosis of COVID-19 as determined by a positive RT-PCR assay. The patients should have presented with key triage symptoms suggestive of COVID-19. Information collected included demographic data, symptoms and signs, lymphocyte count from peripheral venous blood count and RT-PCR results.

Methods: ED patient records at a district general hospital in England were reviewed over a one month period during the first wave of the recent worldwide COVID-19 pandemic. We assessed sensitivity and specificity of lymphocyte count against RT-PCR assay.

Results: An initial 1279 patient triaged and admitted through the hospital's ED with suspected COVID. However 495 patient records were excluded due to incomplete data. Of the 784 patients with complete data on PCR tests and lymphocyte threshold, it was determined that the sensitivity of lymphocyte threshold was 63.64% (CI 58.37-68.67) and the specificity only 46.30% (CI 41.52-51.13). There was an overall mortality of 18.4%. The average age of mortality was 78 years with the oldest patient being 99 and the youngest 38.

Conclusions: The lack of a clear-cut worldwide standard guideline for evaluating COVID-19 disease remains a challenge. Certainly, with the low range of sensitivity and specificity of Lymphocyte count in diagnosis of COVID-19 demonstrated in this study, the authors are unable to recommend it alone as a diagnostic tool in the Emergency Department. It would perhaps be more advisable to use local departmental pathways based on a combination of parameters like history of COVID-19 symptoms, repeat RT-PCR swabs, appropriate imaging modalities (chest

X-ray or CT scan) in conjunction with Lymphocyte counts to get a clearer diagnostic picture.

PP-49: Wilted and Withered! - Garden city Experience

Lakshmish Devang, Halepalya Somashekar, Anand Preetu, Grancy Vijayraj Monteiro
University Hospitals of Leicester NHS trust, Leicester, United Kingdom
Correspondence to: lakshdoc@gmail.com

Aim: To Study the challenges faced by the health care workers (HCW) in Bengaluru during pandemic.

Background: 'Sometimes it takes a natural disaster to reveal a social disaster' the quote of Jim Wallis encompasses the current situation when it comes to how the world has been dealing pandemic. The world is still reeling from the crippling effects laid by the COVID 19. The experiences can be variable, but real impact still to be uncovered. The situation in Bengaluru has been dire but one with hope. While on one side we had HCW being saluted for their sacrifices, the other instances HCW were subjected to physical and verbal abuse, HCW were forced to abandon their houses. While some HCW were accused of money making, there were emotional instances of patients dancing with HCW which boosted their morale. In this study we focus on the experiences of HCW during the pandemic, particularly psychosocial impact.

Conclusion: HCW felt that they were overworked, understaffed, physically and emotionally drained. Some are even sceptical if they made a wrong decision about their profession. They felt the amount of effort, hard work, dedication put in far outweighs the support they got from different sectors of the society.

PP-50: Safety Measures To Reduce The Risks Of Laser-Generated Biologic Air Contaminants

Zambia Kader, Shafiah Muna Abdul Gafoor
Correspondence to: 27zadams@gmail.com

Aim: To educate medical practitioners of potential hazards associated with the emissions of laser-generated air contaminants (LGACs) when treating patients.

Discussion: LGACs are non-beam-related hazards which are far more dangerous than the laser beam itself. These nanoparticles are often less than 0.1 micrometres and can travel with ease to the deepest parts of the lung. Studies state that the ablation of one gram of tissue produces a smoke plume with an equivalent mutagenicity to six unfiltered cigarettes.

The U.S. Occupational Safety and Health Administration estimate that half a million health-care workers are exposed to laser surgical smoke each year, which contain 149 identified chemicals. When biological tissue is subjected to laser radiation, the target cells undergo laser pyrolysis, resulting in the aerosolization of their contents and the subsequent exposure to LGACs. These can lead to pulmonary malignancy and repeated infections such as the human papilloma virus and staphylococcus.

Personal protective equipment and the N95 mask is a face mask constructed to filter nanoparticles. The N95 and N99 masks filter at least 95% and 99% of airborne particles, respectively; have a high filtration rate of particles less than 1 µm.

Conclusion: LGACs have serious adverse effects such as potential future infections and mutagenic capacities. Unfortunately, these plumes can spread rapidly in the air of the operating room. Hence, a well-designed point aspiration device is required to prevent this, including a filter to be changed regularly. In addition, adequate respiratory masks should be utilized by both clinicians and patients. Importantly, Laser operators should be highly educated by qualified laser safety specialists such as laser protection advisors, and the operational procedure protocols should be guided by expert laser healthcare professionals to provide safe, quality patient care.

PP-51: Congenital Goitre requiring Isthmusectomy: Case report and literature review.

Sneha Bisht, Samuel Dewhurst, Nicolaas Jonas
Addenbrookes Hospital, Cambridge University Hospitals NHS Foundation Trust, United Kingdom

Correspondence to:

sneha.bisht@addenbrookes.nhs.uk

Background: Congenital Hypothyroidism is a rare condition affecting approximately 1:4000 neonates. Approximately 85% of cases are sporadic and 15% due to dyshormonogenesis which is hereditary, with autosomal recessive inheritance. Most cases respond well to medical therapy resulting in a reduction in size of the goitre. We report a case of a massive congenital goitre in a term neonate, causing airway obstruction, necessitating airway intervention and subsequent thyroid isthmusectomy in addition to conventional medical therapy. We have also reviewed the literature.

Method: This baby was born at 41 weeks gestation via Emergency Caesarean section for foetal distress. There was no history of maternal thyroid disease. At birth, Apgar scores were 5 and 8. The baby had poor respiratory effort requiring resuscitation, CPAP and eventually endotracheal intubation. Microlaryngoscopy and bronchoscopy showed narrowing of the subglottis and upper trachea due to extrinsic compression. MRI scan revealed a large goitre with retropharyngeal extension compressing the airway. Blood tests showed abnormal Guthrie results and initial thyroid function tests (TFTS) revealed low FT4 (6 pmol/L) and raised TSH (28.79 mU/L). Initial treatment with high dose levothyroxine did not reduce the goitre sufficiently to facilitate extubation and a thyroid isthmusectomy was performed to relieve tracheal compression. He was extubated a few days later and remains asymptomatic.

Discussion: Early recognition and treatment of neonatal goitre can prevent complications. There have been major advances in screening for congenital hypothyroidism in neonates and also Ex utero Intrapartum treatment (EXIT) strategies to manage anticipated airway obstruction at birth. Multidisciplinary team involvement is essential. Thyroid surgery in children is associated with a higher rate of complications and total thyroidectomy should be avoided where possible in favour of medical management.

Conclusion: Airway compression caused by a congenital goitre will usually improve on medical

treatment only. Isthmusectomy should be considered if airway compression persists despite medical management.

PP-52: The effect of Pandemic on Andhra Pradesh Health Care Workers.

SaiKundan Vemuganti, Ramyasri Yannam L. Vemuganti, B. C. Simon, V. Jadhav
Andhra Pradesh, India

Correspondence to: drbijusimon@yahoo.com

Aim: To learn the effect of pandemic on psychosocial and physical health of healthcare workers (HCW) of Andhra Pradesh (AP).

Background: There were total of 5, 37,687 cases and 4,702 deaths reported from Andhra with about 38 deaths among doctors. We are investigating the effect of pandemic on HCW of state of Andhra Pradesh.

Summary: The population in AP reorganised and adapted their work containing the infection and protecting most vulnerable population. HCW have faced with number of challenges such as increased workloads, insufficient time for rest and living away from families during this pandemic adding toll on their psycho-social life. The outbreak of the virus has created social stigma and discriminatory behaviour towards the frontline workers and they have been forced to vacate from their places of residence as they were perceived to have contracted the virus from their workplaces. In many cases, health care workers especially at junior levels were underpaid.

This pandemic has created lasting psychological consequences on everyone which persists longer than the infection itself.

The Health care workers were accused of the reason for the lack of sufficient hospital beds and equipment adding further trauma to their emotions.

PP-53: Isoniazid Induced Cerebellar Syndrome In Patient With Chronic Renal Insufficiency.

Mustafa Mirza Moazam Baig, Prakash Khetan, Vishal Ramteke

Kingsway hospitals, Nagpur, India

Correspondence to: mustafa.baig88@gmail.com

Background: A young male who presented with tuberculous pericarditis for which antitubercular drugs including Isoniazid was started. Later, he developed imbalance and ataxia which was attributed to an extremely rare side effect of Isoniazid, Cerebellar Syndrome. Upon stopping Isoniazid there was a complete resolution.

Aim: We report because of the rarity of this finding.

Method: A 21 year male, with chronic kidney disease stage V on maintenance hemodialysis since last year, presented with tuberculous pericarditis for which anti tubercular therapy was initiated with first line drugs including Isoniazid. A week later, he presented with complaints of imbalance, altered sensorium, drowsiness and diminished vision. On examination, he had dysarthria, truncal ataxia, swaying gait and tremors. Past pointing, finger-nose and knee heel test were positive. There was no limb weakness, the tone, power, reflexes and cranial nerve exam were normal with no history of substance abuse. All hematological and radiological investigations were normal. With the investigations not pointing towards any structural or metabolic cause for cerebellar syndrome, the diagnosis of Isoniazid induced Cerebellar syndrome was arrived at. INH was withheld; over the next one week there was full resolution of symptoms.

Discussion: Although, Isoniazid is known to cause neurotoxicity in forms of peripheral neuropathy, but inducing cerebellar syndrome is a rare presentation. INH induces state of functional pyridoxine deficiency which causes reduction in GABA production causing cerebellar syndrome. Side effects are generally seen in patients who are not supplemented with pyridoxine, but adverse effects may be seen in 5% patients (including this case) taking adequate pyridoxine supplementation.

Conclusion: Uncommon presentations of common diseases are MUCH MORE COMMON than common presentation of Uncommon diseases. Infections, including TB, are common in ESRD patients, with the primary treatment involving INH. This warrants prompt management as it's easily reversible by stopping INH.

PP54: Phantom Pain- A ghost in the machine or a biological basis? A literature review

Aditya Anand

Nottingham, UK

Correspondence to: aditya_anand@hotmail.com

Aim: I plan to investigate the medical condition phantom limb pain, its causative factors and explore the potential treatment options. The aim of this project is to develop a better understanding of this highly complex condition

Methods/Design: Literature review-There is a vast number of medical literature articles regarding phantom pain. The newer studies focus on central mechanisms as the preliminary cause of phantom limb pain.

Results/ Discussion: Phantom limb pain is a chronic and debilitating neuropathic pain syndrome which considerably restricts an individual's overall wellbeing. It significantly curbs physical ability, causes severe mental health problems and also leads to social isolation. Although its existence has been acknowledged over past centuries, it is only since the 1990s that there is a much more significant understanding and awareness of this condition due to varied experimental studies. Today, the basis of phantom limb pain can be analysed from a much wider perspective due to the plethora of scientific evidence that has emerged and evolved over time. Varied treatment and therapeutic methods have been tried with mixed responses. Currently there are no definitive guidelines available to manage Phantom limb pain. Although there has been extensive scientific research done to comprehend this highly complex clinical condition, it is very much evident that there is still need for further high-quality evidence based and large-scale clinical studies and trials so that better

treatment solutions can be made available in the future.

Conclusions: Phantom limb pain is a chronic and debilitating neuropathic pain syndrome which considerably restricts an individual's overall wellbeing.

Overall, it appears that phantom pain originates from complex and varied inputs primarily originating from spinal cord and central processes.

PP-55: Enchondroma causing pathological fracture picked up in an urgent care setting.

Tom Jose, Awais Iqbal

GTD Royal Preston Hospital United Kingdom

Correspondence to: tommjoe35@yahoo.com

Introduction: Enchondroma lesions usually appear within the bony medulla, creating an expansile mass. The majority of enchondromas remains asymptomatic and requires no treatment. Symptomatic presentations include a palpable mass, pain, or a pathologic fracture¹. There is no predilection for either males or females. The peak incidence is between 10-30 years. The most common site is the hand, usually in the phalanges or metacarpal bones, followed by the ribs and the long bones of the arm⁴.

Case report: In this article we report a 25-year-old Caucasian lady who attended the urgent care centre with sudden onset severe pain to her right hand after turning a door handle to check whether the door was locked. The hand examination elicited tenderness to the head of 4th metacarpal bone. X ray of the hand showed a well-defined lucent lesion located at the head of the 4th metacarpal with some cortical irregularity to the neck of 4th metacarpal indicating a minimally displaced pathological fracture. The patient was referred to orthopaedic team for further management.

Discussion: Physical examination is nonspecific for diagnosis of Enchondroma and imaging plays a key role in diagnosis. Radiographs usually show a well-defined lucent lesion within the medulla of the bone⁷. Complications are pathological fracture and malignant transformation into chondrosarcoma which occurs in less than 5% of

cases. Pathologic fractures are commonly treated by curettage and bone grafting, with follow-up x-rays to monitor for healing and recurrence⁹. An incisional biopsy is obtained intraoperatively. Recurrence is reported in 2-15%.

Conclusion: The diagnosis of pathological fracture due to enchondroma should be suspected when patients present with limb pain disproportionate to the mechanism of injury. Early detection of enchondroma is possible as an incidental finding if we closely examine routine X rays so that appropriate treatment can be instituted and complications like pathological fractures can be avoided.

PP-56: Atypical Teratoid Rhabdoid Tumour

Meenakshi Phanse, Rajan Shah

Nanavati Max Super-speciality hospital, India

Correspondence to:

meenakshiphanse27@gmail.com

The patient presented is a 38-year-old, female, who came in with chief complaints of headache for the past 1.5 months and blurring of vision accompanied by pain in the left eye since past 15 days, which was insidious in onset and progressive in nature.

The patient had no other comorbidities or abnormalities in other systems. On objective examination, vitals were within normal limits. Left eye showed ptosis while right eye was normal. An MRI of brain and pituitary gland with contrast was done which showed: mildly enhancing abnormal soft tissue lesion within the sella, minimally bulging superiorly into suprasellar cistern on the left side along with mild deviation of infundibulum to the right side. The pituitary gland was not seen separate from the lesion. The lesion bulged into left prechiasmatic optic nerve and optic chiasm without any significant mass effect.

The findings were suggestive of pituitary macroadenoma. Immuno assay report for LH, FSH and prolactin showed mildly elevated prolactin levels.

According to above findings a provisional diagnosis of pituitary macroadenoma was made and patient was posted for Endoscopic transphenoidal pituitary tumour excision. Post-

surgery the specimen was sent for histopathological examination which showed Atypical Teratoid/Rhabdoid tumour. The patient was later posted for follow up with neurologist and endocrinologist for adjuvant therapy.

Conclusion: ATRT are most often found in Pediatric population and are extremely rare tumours in adults especially when located in pituitary gland. Hence are not considered during the initial diagnosis of pituitary tumours.

The prognosis for this malignancy is rather grave, 5year survival rate being 32.2%. This also depends on early diagnosis and how well the patients respond to treatment.

In conclusion, this case demonstrates the need to include ATRT as a differential diagnosis for pituitary lesions which lead to early diagnosis, management and optimal outcomes.

PP-57: SARS patients - Use of Convalescent Plasma Therapy in Rural Area of India.

Anjali Mathur, Mayank Mathur

Kanti Devi Medical College & Hospital Research Centre, Mathura, UP, INDIA

Correspondence to: dranjali610@gmail.com

Background: Even being vaccinated doesn't mean that you are immune to Covid. Anti-SARS CoV-2 antibody-containing plasmas, obtained from the recovered individuals who had confirmed COVID-19, have been started to be collected using apheresis devices and stored in blood banks in some countries in order to administer to the patients with COVID-19 for reducing the need of intensive care and the mortality rates. Convalescent Plasma may be an adjunctive treatment option to the anti-viral therapy. The protective effect of CP may continue for weeks and months. The donation interval may vary between countries.

Aim: In order to evaluate the efficacy of convalescent plasma therapy in the treatment of patients with severe acute respiratory syndrome (SARS),

Methods: Total number of patients who were transfused with plasma was 40. After the assessment of the donor, 200-600 mL plasma can

be collected with apheresis devices. Donor eligibility, Pre-donation evaluation of donors, Donor recruitment, Collection of convalescent plasma at apheresis centres.

Results: 40 SARS patients were given convalescent plasma at K.D MEDICAL COLLEGE MATHURA UP, between 09 SEPTEMBER and 13 OCTOBER 2020. Good outcome was defined as patient responded to plasma therapy in 24 to 48 hours after infusion. Poor outcome was defined as no response or death after 48 hours of infusion.

Conclusion: CP seems to be a safe and probably effective treatment for critically ill patients with COVID-19. It could also be used for prophylactic purposes but the safety and effectiveness of this approach should be tested in randomized prospective clinical trials.

PP-58: A Rare case of WERMER syndrome presenting as a Pheochromocytoma; along with Hyperparathyroidism and Prolactinoma

Danesh Gandhi, Krishnaeli Mehta

HBT Medical College and Dr RN Cooper hospital Mumbai, Maharashtra, India.

Correspondence to:

daneshgandhi8.dg@gmail.com

Introduction: Incidence of Pheochromocytoma in MEN1 (WERMER) syndrome is <1% and ~50% in MEN-2. MEN-I leads to hyperplastic/ neoplastic changes particularly in Parathyroid, Pituitary and endocrine Pancreas, among others.

Clinical Findings And Investigations: A 32yr/Male presented with panic attacks, occasional headaches and sweating. On starting propranolol, the panic attacks reduced, however, blood pressure increased to 160/110 mmHg. Suspicion of Pheochromocytoma prompted urinary metanephrine evaluation which was elevated.

Normal Calcitonin levels and USG ruled out Medullary Thyroid Carcinoma. Localisation by MRI confirmed a tumour in the right adrenal medulla; 0.5cm in size. BP was stabilised using Phenoxybenzamine and laparoscopic removal of the tumour was planned.

Preoperative assessment revealed mildly elevated Calcium levels (12.2gm %) which prompted

suspicion of Parathyroid pathology. Increased levels of PTH and a Tc⁹⁹ Sestamibi scan confirmed presence of hyperplasia in all 4 parathyroid glands.

Head to toe examination demonstrated gynaecomastia and retrospective history revealed loss of libido since one year. MRI brain showed Pituitary microadenoma of 0.8 cm which confirmed the diagnosis of Prolactinoma.

Final Diagnosis: Combination of Pheochromocytoma and Parathyroid hyperplasia suggested MEN2 syndrome. However, absence of RET-*proto* oncogene mutation ruled out the diagnosis.

Concomitant Parathyroid and Pituitary pathology pointed towards MEN1. Genetic analysis for INTRON 4_{ss} (best genetic marker for MEN1) mutation was positive confirming the diagnosis of WERMER syndrome.

Management: Laparoscopic removal of Pheochromocytoma. Total parathyroidectomy. Cabergoline for Prolactinoma.

Screening: Of 1st degree relatives revealed Parathyroid hyperplasia in the patient's father and Pancreatic incidentaloma in the sister.

Conclusions: Pheochromocytoma is rare; but important to be considered in a patient experiencing panic attacks. Beta blockers used alone can worsen BP in Pheochromocytoma. Although Pheochromocytoma occurs more commonly in MEN2, MEN1 should not be overlooked. Screening of the patient and its family members for asymptomatic neoplasms is essential.

PP-59: Pneumosinus Dilatans Frontalis: A rare cause of changed facial contour

Mandeep Kaur, Harvinder Kaur
Government Medical College, Patiala, Punjab,
India

Correspondence: mndeep92@yahoo.com

Background: Pneumosinus dilatans frontalis is a very rare entity that has no clear cause and causes significant facial deformity. There is expansion of the aerated frontal sinus, with normal sinus wall thickness and in absence of any bony destruction or mass lesion.

Case Description: 28 year old male presented with 10 year history of prominence on his supraorbital regions on both sides and over forehead, he described it as a mass which has slowly grown to its present size over last 8 years and then stopped growing. Apart from this cosmetic deformity, he had no other complaints. There was no history of trauma, allergies, rhinitis or sinus syndrome. The medical and family history was unremarkable. On local examination, there was a fixed, hard, non-tender swelling measuring approximately 3.2 × 2.2 cm on right and left suprorbital region. The overlying skin was normal. Laboratory investigations including complete blood count and peripheral blood smear were within normal limits. X-ray of paranasal sinuses revealed pneumatization of bilateral frontal sinuses with normal maxillary and ethmoid sinuses. There was no evidence of cysts, mucocele or sinusitis.

Discussion: The definitive etiology of pneumosinus dilatans is unclear, there are many different theories proposed to explain this phenomenon, Benedikt et al [1] concluded it to be due to spontaneous drainage of frontal mucocele, while Smith et al [3] described raised intrasinus pressure as cause of this pathology and Gardel et al [2] found evidence of changes in growth and sex hormones.

Conclusion: Apart from causing cosmetic disturbances, pneumosinus dilatans frontalis may cause local pain. Radiological investigations are important to find the cause and surgical interventions can be done if cosmetic correction is required.

PP-60: Amidst Drudgery and Depression: Mumbai Saga of Healthcare Workers

Shubhangi Subodh Barnwal, Ashish Mishra
Leicester Royal Infirmary, UK.

Correspondence to: shubz2708@gmail.com

Introduction: The spread of COVID-19 across the globe and the widespread morbidity and mortality challenged India in ways innumerable. An important aspect which remained continually unaddressed and under recognized during this critical time was the psycho-social health of

healthcare workers that had been adversely affected during the pandemic.

We are trying to understand, review and provide an overview of psychosocial issues faced by healthcare workers due to the COVID-19 outbreak in Mumbai.

Aim: To identify the relationship between socio-demographic, psychological and COVID-19 related variables leading to the deterioration of the psycho-social health of healthcare professionals.

Methods: A questionnaire comprising of a concise set of relevant questions pertaining to the aim of the study will be circulated among fifty healthcare professionals in Mumbai. Participants will include healthcare workers who have worked throughout the pandemic. Key areas that the study would be focusing on will be the difficulties faced by these professionals at work, the psychological stress caused as a consequence, dysregulation of their work-life balance, and the overall effect of the pandemic on their mental health and general well-being in the long run.

This comparative study will be able to recognize and improve our understanding of psycho-social disturbances faced by healthcare professionals in Mumbai.

PP-61: God's own Country, perception of support and anxiety among health care workers during pandemic a survey

Jomith Kunjappan Jose, Kollaramban Femida
Leicester Royal Infirmary, University Hospitals of Leicester NHS Trust

Correspondence to: josejomith@gmail.com

Background: Pandemic impacted health care workforce physically, socially and psychologically. Various health care sectors faced different level of stress and strain. Supports available were sporadic and inconsistent. The need for mental wellbeing support might have been high but without many avenues of support.

Methods: A questionnaire is prepared using Google form. A randomly selected group of 50+ participants from state of Kerala will be invited to complete the survey and will be assessed to understand the perception of support, challenges and anxieties of healthcare workers from the

state. The questionnaire included the questions pertaining to how professionals managed themselves and building insight to the gravity of the situations they went through. We expected to get relatively high rates of symptoms of anxiety, depression, post-traumatic stress disorder and stress among healthcare professionals. This study focuses on specific regions and aims to find out the levels of stress from the beginning of pandemic and to understand the impact on their mental and physical health.

This survey may help to improve our understanding of perception of support of health care professionals in the target population during the COVID- 19 pandemic.

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