

# Abstracts from the Quality Improvement South West virtual conference, 26 September 2020

## Improving physical health education for mental health staff

Sarah Briggs, Akansha Rajan\* and Hannah Sawford

\* [akansha.rajan@nhs.net](mailto:akansha.rajan@nhs.net)

**BACKGROUND:** People with mental health problems are at an increased risk of poor physical health outcomes and on average die 15–20 years earlier than the general population.

**OBJECTIVE:** To achieve an increase in self-reported knowledge on physical health topics among mental health inpatient staff over a 12-week period.

**METHOD:** We used Health Education England's Bitesized Teaching model, which involves regularly delivering physical health tutorials to ward staff, thereby utilising interprofessional training and skills transfer. Three junior doctors working on different mental health inpatient wards delivered 10-minute tutorials on physical health topics using Bitesized Teaching resources. Healthcare staff attending the tutorial completed a questionnaire rating their self-reported knowledge on the topic using a scale of 1 to 5 (1 = poor, 5 = good) before and after the teaching.

**RESULTS:** Across the three wards, 24 tutorials were conducted, and 193 questionnaires were completed. Post-teaching knowledge improved in every tutorial topic. The average improvement between the pre-teaching and post-teaching self-reported knowledge was 62%. The highest improvement in self-reported knowledge was seen for the topic Serotonin Syndrome (139%). The lowest improvement was seen for the topic Alcohol Withdrawal (20%).

**CONCLUSION:** Topics that were less familiar to mental health staff and less frequently seen in a mental health ward setting showed the highest improvement in knowledge. Topics that were more familiar to staff showed the lowest improvement in knowledge. Anecdotally, it was also noted that the tutorials improved working relationships and team cohesion.

## Interdisciplinary teaching in diabetic foot care: Does it help primary healthcare providers identify and refer to specialist services?

Amy Haeffner\*

\* [alh228@exeter.ac.uk](mailto:alh228@exeter.ac.uk)

**BACKGROUND:** Poor diabetic control accounts for 15-times greater risk of lower limb amputation<sup>1</sup>. Only 14.3% of patients with lower limb complications from diabetes get seen in secondary care within

2 days of presentation, and in Devon this figure is 5% lower<sup>2</sup>. Prompt management is a protective factor against amputation. By sharing highly skilled podiatric knowledge with community teams through interdisciplinary education, diabetic foot management may be significantly improved.

**OBJECTIVE:** Aims were to evaluate the use of interdisciplinary teaching from podiatrists to improve clinicians' confidence in identification of at-risk patients and timely, appropriate referrals.

**METHOD:** All community primary care providers in Exeter and Mid-Devon were offered a 1-hour, small group teaching session with a selected experienced podiatrist. A questionnaire was provided to rate knowledge before and after the teaching session.

**RESULTS:** 309 primary care professionals chose to participate, with 90.2% questionnaire completion. Mean averages were calculated for all questions by participant cluster and overall. Data was not normally distributed, so a Wilcoxon signed rank test was performed across all data. In all groups, across all questions, the mean increase in score post-teaching was by 1.6. Every question's mean score increased by at least 1.5, consistent across every cluster ( $p < 0.05$  throughout).

**CONCLUSION:** There is strong indication that interdisciplinary teaching was very effective in improving risk identification and referral pathway understanding. Further investigation is needed into the most time and cost-effective way of implementing interdisciplinary education during the pandemic.

### **An audit of the delivery of paediatric orthopaedic services at the Bristol Royal Children's Hospital in response to the British Orthopaedic Association Standards for Trauma (BOAST) COVID-19 guidance**

M. Singh Benning\*, J. Berwin, C. Carpenter, S. Crosswell, T. Knapper, S. Thomas, J. Kendall and F. Monsell

\* [ms16269@bristol.ac.uk](mailto:ms16269@bristol.ac.uk)

**BACKGROUND:** The COVID-19 pandemic raised concerns regarding the spread of infection by asymptomatic children. Guidance from the British Orthopaedic Association Standards for Trauma (BOAST) for the 'Management of patients with urgent orthopaedic conditions and trauma during the coronavirus pandemic', helped to structure our service in response to the pandemic.

**OBJECTIVE:** We assessed our compliance with 'BOAST COVID-19 standards' pertaining to children to determine whether it is possible to run a safe and effective paediatric orthopaedic service.

**METHOD:** Between the 16th March and 30th April 2020, we performed a prospective audit of clinic and theatre data from the paediatric orthopaedic department at the Bristol Royal Children's Hospital against the 'BOAST COVID-19 standards'. We also performed a retrospective audit between the 16th March and 30th April 2019 for comparison.

**RESULTS:** Patients booked into acute fracture clinic (AFC) and fracture clinic follow-up (FFO) reduced by 40% and 48% respectively from 2019 to 2020. A virtual fracture clinic (VFC) was implemented with an increasing trend in VFC consultations. From 2019 to 2020, the number of patient initiated follow-up appointments increased in AFC and FFO from 16% to 75% and 12% to 35% respectively. Radiography was reduced; only 17% and 39% of AFC and FFO patients required radiographs respectively. On-call referrals and trauma cases reduced by 50%. All elective operating was cancelled in 2020.

**CONCLUSION:** By reducing admissions and theatre throughput, we ran an effective paediatric orthopaedic service in a busy tertiary referral centre. Our aim now is to determine the long-term efficacy, cost and sustainability of our COVID-19 service.

**Optimising the conservative management of acute renal and ureteric colic using a stone proforma**

Thomas Fonseka\*, Ricky Ellis, Alysha Careless, Lucy Tuckwood, Arjun Gowda, Hywel Satherley, Richard Stanford and Giacomo Caddeo

\* [t.fonseka@nhs.net](mailto:t.fonseka@nhs.net)

**BACKGROUND:** The conservative management of acute stone disease can be variable despite there being national and international guidelines. This can be optimised by improving the efficiency of performing stone bloods (Calcium and Urate). Radiation over-exposure can also be reduced by avoiding X-ray intravenous urogram (IVU) as follow-up imaging.

**OBJECTIVE:** The aims of this two-cycle quality improvement project (QuIP) were: (1) to improve the rate of performing stone bloods and (2) to reduce the use of X-ray IVU as follow-up imaging.

**METHOD:** All patients presenting between August 2018–July 2019 and in the month of February 2020 with acute ureteric colic were identified ( $n = 119$ ). Electronic patient records were used to assess management and follow-up imaging. A stone proforma was designed and implemented to improve the rate of stone bloods measured and to reduce the use of X-ray IVU.

**RESULTS:** After introducing the stone proforma there was a 40% increase in the number of patients having stone bloods tested. The number of inappropriate X-ray IVU's as a proportion of all follow-up imaging reduced by 11%. There was a proportional increase in urinary tract ultrasound scans and low-dose non-contrast CT scans performed, in line with the latest European Association of Urology guidance.

**CONCLUSION:** This QuIP demonstrates that utilising a stone proforma improves the efficiency of performing stone bloods and reduces over-exposure of radiation to patients. At our institution, the stone proforma is now more accessible with it being available online, and staff members are being educated on its application and importance.

**Improving completion of ReSPECT forms on a plastic surgery ward during the COVID-19 outbreak**

O. Allon\*, A. Davies, K. Igbagiri and I. Mackie

\* [oliver.allon@nhs.net](mailto:oliver.allon@nhs.net)

**BACKGROUND:** A clear treatment escalation plan is particularly important during the COVID-19 pandemic. Following the outbreak, Local Trust guidance was updated to state that all patients should have a completed treatment escalation plan (ReSPECT form) in their medical notes. An audit performed in the plastic surgery department demonstrated that only 22% of patients met this standard.

**OBJECTIVE:** This study aimed to assess adherence following implementation of simple measures to (1) raise awareness among staff and (2) recruit ward clerks to identify those patients without ReSPECT forms.

**METHOD:** The ward was sampled regularly over a period of 4 weeks following the intervention. Data were collected retrospectively using electronic records.

**RESULTS:** The proportion of patients with completed ReSPECT forms increased from 22% to 44% following the intervention. Patients were on average younger than the first cycle (mean age 54.4 vs 84.3 years). Whereas previously 89% of forms documented a DNACPR decision, this was down to 68% in the current study.

**CONCLUSION:** Completion of ReSPECT forms doubled following the intervention but remained significantly below local Trust guidance. This project highlights a number of challenges associated with implementing of treatment escalation plans and suggests that a multidisciplinary involving both junior doctors and ward staff is a promising way to improve compliance.

### **Feeling the pain: An interprofessional quality improvement collaboration to enhance post-operative analgesia prescribing**

Alexander Mehta\*, Madeleine Ansell, Neena Suchdev, Alexander Grundmann, Angela Telford, Claire Lovett, Stewart Keenan, Jennifer Houston, Rohan Thakkar and Lorna Clark

\* [medicalexjay@gmail.com](mailto:medicalexjay@gmail.com)

**BACKGROUND:** Insufficient post-operative pain relief increases the risk of complications, chronic pain and delayed recovery. In the absence of established guidelines, it was observed that general surgical inpatients in our hospital were prescribed inconsistent doses and frequencies of oral analgesia post-operatively.

**OBJECTIVE:** (1) To establish a consistent standard of post-operative oral analgesia prescribed via a new Trust Protocol. (2) To increase the proportion of inpatients prescribed 'adequate' oral analgesia to over 50%.

**METHOD:** The newly developed official protocol states: 'Adequate' post-operative oral analgesia following step-down from epidural/patient-controlled-analgesia is equivalent to: (regular weak opioid + PRN weak opioid + hourly PRN strong opioid) or (regular strong opioid + hourly PRN strong opioid). Plan-Do-Study-Act model with 2-week audit of inpatient analgesia following intervention: Cycle 0 = Baseline – no intervention; Cycle 1 = Protocol distributed by email; Cycle 2 = Protocol delivered in teaching session part way through rotation; Cycle 3 = Protocol delivered in teaching session in departmental induction with Acute Pain Services follow-up.

**RESULTS:** Patients with 'adequate' post-operative oral analgesia were prescribed: Cycle 0:  $n = 14$ ; Correct prescription = 14%; Cycle 1:  $n = 23$ ; Correct prescription = 9%; Cycle 2:  $n = 16$ ; Correct prescription = 38%; Cycle 3:  $n = 18$ ; Correct prescription = 50%.

**CONCLUSION:** The new protocol was welcomed by junior doctors who universally felt that a guideline was necessary to enable consistency for such a fundamental aspect of care for surgical patients. Face to face communication is much more effective than transferring information over email. Introduction of a targeted protocol with associated teaching significantly improved the type, dose and frequency of analgesia made available.

### **Peri-operative care of fracture neck of femur patients at North Bristol NHS Trust (NBT) and 'The NOF care bundle sticker'**

L. Bowen\* and S. Howell

\* [lowriabowen@gmail.com](mailto:lowriabowen@gmail.com)

**BACKGROUND:** Hip fracture is a common hospital presentation; in 2018 the NHFD recorded over 66,000 cases in the UK. The NHFD, AAGBI and NICE provide guidance on the provision of care for this high-risk group of patients.

**OBJECTIVE:** (1) To provide an overview of the peri-operative anaesthetic care of patients requiring surgery for fractured neck of femur at NBT. (2) To identify standards of care that require improvement and develop a tool to facilitate this.

**METHOD:** Eight standards of care were identified. All patients presenting to NBT during September 2019 with a fracture neck of femur were included.

**RESULTS:** The results showed a variety of compliance rates, ranging from 27% to 100%. 89% of patients had surgery within 36 hours of diagnosis. Anaesthesia was provided by a Consultant Anaesthetist or a specialist with similar clinical experience in 98% of cases. Regional block or high-volume surgical infiltration was used for 90% of patients undergoing surgery. 100% of cases avoided combining neuraxial and general anaesthesia. Marked hypotension, measured both relatively (defined as <20 mmHg systolic BP from baseline) and absolute (defined as systolic BP <90 mmHg) was avoided in 33% and 88% of cases respectively. A metaraminol infusion was set up for 36% of patients. Routine assessment of haemoglobin at the end of the case was observed in 56% of cases. 27% of cases were administered the appropriate dose of tranexamic acid.

**CONCLUSION:** In response to these results we designed a NOF care bundle sticker. The aim of the sticker is to serve as an aide-memoire for key management points, an area of documentation for postoperative targets, and as a checklist prior to discharge from the recovery area. We are currently in the process of collecting data to assess for any improvements following the implementation of the sticker. Preliminary results show variability in the use of sticker, with intraoperative management and post-operative targets showing higher compliance compared with the post-operative discharge checklist.

***‘Meet your team behind the masks’: A COVID-19 pandemic quality improvement (QI) project to improve the in-patient experience of being cared for by clinicians wearing masks***

E. Rosario E\*, N. Smallcombe, A. Gradeci, B. Onen, R. Dharmagunawardena and L. Restricks

\* [eleanor.rosario@nhs.net](mailto:eleanor.rosario@nhs.net)

**BACKGROUND:** The COVID-19 pandemic has demonstrated the detrimental impact of personal protective equipment (PPE) on communication patients. Difficulties in recognising clinicians negatively impacts communication and patient experience. Feedback from one sick patient on PPE contributing to fear was the driver in developing our handout.

**OBJECTIVE:** Pilot a ‘photos with names’ handout for medical team-inpatient conversations, to improve recall of the patient’s clinicians. Assess whether handout ‘valued’ by patients and medical team.

**METHOD:** In April 2020, we implemented our ‘Meet your team’ hand-out. The handout included photographs and the names/roles of each medical team member. It was left with each patient, and referred to by doctors throughout admission.

**RESULTS:** Feedback was universally positive. Comments included “Would have helped me feel less scared in hospital”, “Makes the doctors less intimidating with masks” and “Easy to read”. Iterations included: increasing font-size, photos in ‘own’ clothes and storage in wipeable plastic wallets replacing laminates. This change was needed as so many patients took the handouts home with them – one measure of being valued! We continue use, updated for rotating staff, as part of standard care.

**CONCLUSION:** Mask-wearing will remain part of working in healthcare for years ahead. We should develop approaches to reduce harmful effects of mask-wearing on communication with patients. This simple intervention of a ‘Meet your team’ handout was highly valued by inpatients and use has continued.

It has potential for widespread use, although the biggest challenge in implementation is sustained team motivation and demands on time to update and produce.

### **Improving quality of care on Chine Ward**

Sarah Briggs\*, Rosalind Brown, Tessa Jones and Prinnie Oommen

\* [sarah.briggs12@nhs.net](mailto:sarah.briggs12@nhs.net)

**BACKGROUND:** Good quality of care is safe, effective and provides a positive patient experience.

**OBJECTIVE:** To improve documentation, communication and education on an inpatient mental health ward using five Plan-Do-Study-Act (PDSA) cycles.

**METHOD:** In PDSA cycle 1, documentation before and after implementation of a new ward round template was compared. In cycle 2, a new handover document for doctors was sent with a qualitative survey to previous ward doctors. In cycle 3, the completion of a new physical health multidisciplinary team document was assessed. In cycle 4, a new ward information booklet was sent with a qualitative survey to previous ward doctors. In cycle 5, six physical health tutorials were delivered to staff who rated their knowledge of the tutorial topic pre-teaching and post-teaching.

**RESULTS:** In cycle 1, the template led to a 42% improvement in ward round documentation. In cycle 2, six out of eight doctors felt the handover document would facilitate communication. In cycle 3, antipsychotic depot medication monitoring was documented most frequently (54%). In cycle 4, all respondents felt the information booklet would have increased their knowledge about the ward prior to joining the team. In cycle 5, there was an 83% improvement in self-reported knowledge.

**CONCLUSION:** Across all PDSA cycles we enhanced quality of care through improved documentation, communication and education.

### **Early onset neonatal infection: Starting empirical antibiotics within 1 hour of decision to treat**

H. James\*, E. Myttraki, T.L. Perumal, R. D'Arcy and T. Bate

\* [harryjames@doctors.org.uk](mailto:harryjames@doctors.org.uk)

**BACKGROUND:** NICE guidelines state that “if a baby needs antibiotic treatment it should be given within one hour of decision to treat”.

**OBJECTIVE:** (1) To assess if antibiotics are administered within one hour of the decision to treat. (2) To quantify delay in treatment, and establish reasons behind delays. (3) To learn how we can improve patient safety by changing local practice.

**METHOD:** A retrospective review (July 2017) to identify babies commenced on antibiotics for suspected infection. Using this information, a data collection tool in the form of a ‘Sepsis Sticker’ was designed and all members of the MDT educated in the importance of prompt antibiotic administration. A further review (October 2019) identified the change in administration times, and reasons behind delays. After identifying areas for improvement we carried out a further re-audit (February 2020).

**RESULTS:** Our initial cycle identified that 26% of babies received antibiotics within one hour. Improving to 42% in the second cycle. In our final cycle, we found a further improvement to 50%.

**CONCLUSION:** Developing a simple data collection tool identified reasons for delays and simple interventions such as education, made it possible for the target to be achieved in almost twice as many babies.

### **Climbing back down the pain ladder: A quality improvement project to reduce post-operative discharge analgesia**

Alexander Mehta\*, Alexander Grundmann, Neena Suchdev, Madeleine Ansell, Angela Telford, Claire Lovett, Stewart Keenan, Jennifer Houston, Rohan Thakkar, Lorna Clark and Jennifer Logue

\* [medicalexjay@gmail.com](mailto:medicalexjay@gmail.com)

**BACKGROUND:** Surgery is a known risk factor for chronic opioid use. In the absence of established guidelines, hospital pharmacists noted frequent inappropriate prescriptions of strong oral opioids (SOO) on To-take-out (TTO) orders for general surgical patients, resulting in delays and additional work.

**OBJECTIVE:** Our aim was to establish a consistent standard for when to prescribe SOO on discharge via a new Trust Protocol. Our target for not prescribing SOO on discharge to patients that did not require them was 75%.

**METHOD:** The newly developed official protocol states: If <3 doses SOO taken in last 24 hours = Do not prescribe SOO on discharge, but go lower down pain ladder if required. Plan-Do-Study-Act model with 2-week audit of discharge analgesia prescribing following intervention: Cycle 0 = Baseline – no intervention; Cycle 1 = Protocol distributed by email; Cycle 2 = Protocol delivered in teaching session part way through rotation; Cycle 3 = Protocol delivered in teaching session as part of departmental induction with pharmacy follow-up.

**RESULTS:** Type1 prescriptions: Aim = 0 mg SOO. Cycle 0:  $n = 13$ ; Correct prescription = 43%; Average SOO prescribed = 387 mg; Cycle 1:  $n = 18$ ; Correct prescription = 55%; Average SOO prescribed = 339 mg; Cycle 2:  $n = 14$ ; Correct prescription = 64%; Average SOO prescribed = 157 mg; Cycle 3:  $n = 10$ ; Correct prescription = 90%; Average SOO prescribed = 21 mg.

**CONCLUSION:** Lack of knowledge around pain management is cited as a major contributory factor to the opioid epidemic. With sustainable awareness creation, this new protocol and associated teaching provides a clear standard for clinicians discharging surgical patients, with significant progress also made in sharing understanding of when not to prescribe.

### **Improving inpatients' sleep quality with non-pharmacological measures: A quality improvement project**

Sajeed Ali\* and Amédine Duret

\* [sajeed.ali@nhs.net](mailto:sajeed.ali@nhs.net)

**BACKGROUND:** Poor sleep quality in hospital inpatients increases the risk of delirium, falls and poorer long-term health outcomes. Many simple, low-cost, non-pharmacological interventions have been shown to improve sleep length and quality. Improved sleep improves the inpatient experience, reduces pharmacological adjuncts, with both medical and cost benefits, as well as reducing the overnight burden for staff.

**OBJECTIVE:** Assess and improve the quality of and barriers to sleep as an inpatient.

**METHODS:** Sequentially introduce two non-pharmacological interventions (education campaign to healthcare staff; provision of eye-masks and earplugs) and measure their impact on inpatient sleep by using a questionnaire including a modified Pittsburgh Sleep Quality Index.

**RESULTS:** Overall, 100 patients had their sleep quality assessed. Patients predominantly had poor quality sleep pre-intervention, with average self-reported scores of 4.83/10 for sleep depth, 5.43/10 for sleep quantity and 5.78/10 for quality. The main barriers to good sleep were noise (14/36 patients, 39%) and pain/physical discomfort (4/36 patients, 11%). There was no significant change in the perceived sleep quality after the education campaign. However, after introducing eye-masks and ear-plugs, scores showed significant improvement for all sleep quality parameters.

**CONCLUSIONS:** Our results align with the literature, showing that inpatients' sleep is poor both in quality and in quantity with multifactorial cause. Eye-mask/ear-plugs provision, while being a simple and low-cost intervention, had a measurable impact on sleep quality. However, inadequate analgesia must be addressed concomitantly. Sleep adjuncts should be made widely available to patients and healthcare staff should engage with behavioural changes to improve patient sleep.

### **Clinic letter quality improvement project – Are patients getting them on time and what can we improve on?**

J.X. Lee\* and I. Ahmed

\* [j.lee17@nhs.net](mailto:j.lee17@nhs.net)

**BACKGROUND:** Clinic letters are essential communications tools that exchange patient clinical information between hospital services and primary care to ensure continuity of care. The NHS Standard Contract 2019/20 Technical Guidance has recommendations on completing this information in an accurate and timely manner.

**OBJECTIVE:** As per the NHS Standards, clinic letters should be completed for every attended clinic appointment and authorised within seven calendar days from clinic date.

**METHOD:** Retrospective audit of patients seen in the North Tees Trust Upper GI surgery outpatient clinics in August 2018. Data were collected electronically including dates of clinics, letter dictation and authorisation. Following implementation of changes, a re-audit was done in December 2019.

**RESULTS:** 261 patients attended the Upper GI surgery clinics in August 2018 of which 257 letters (98.5%) were completed. 56% of the letters were filed under the wrong department on the Trust's Electronic Records (i.e. Endoscopy instead of Upper GI surgery). In the re-audit period, 151 clinic appointments took place of which only one letter (0.7%) was filed incorrectly. Missing letter remained a small issue (2%). Mean time from clinic attendance to letter dictation and dictation to authorisation was 26 days and 20 days respectively.

**CONCLUSION:** There was an improvement in accuracy in the generation of the Upper GI clinic letters although missing letters remained a small issue. Findings of this study have been forwarded to the management to seek viable solutions to improve these processes. This will become increasingly important as more and more clinic consultations are done virtually.



### **Implementation of a bowel monitoring in the Acute Stroke Unit and its benefits**

Swee Yan Yip\*

\* [sweeyan.yip@nhs.net](mailto:sweeyan.yip@nhs.net)

**BACKGROUND:** Constipation is a commonly overlooked problem that can cause significant complications such as pain, urinary retention, delirium, acute kidney injury and prolong hospital admission. Guidelines for managing constipation lack quality evidence, however early recognition of constipation can prevent unnecessary complications, radiation from abdominal X-ray and invasive per-rectal examination.

**OBJECTIVE:** This study aims to improve bowel monitoring in the acute stroke unit.

**METHOD:** A new stool chart was designed and placed at the end of the bed in bright yellow paper to prompt and facilitate comprehensive bowel monitoring. A one-week snap-shot of compliance were recorded 2-months after introduction of the charts to the nursing and junior medical team. A presentation to raise awareness of these charts were carried out and another cycle of audit was recorded following this.

**RESULTS:** There were in total 25 patients in the ward during the one-week snap-shot. 32% were independently mobile and not given charts. Otherwise, 100% were given charts with a 33% needing prompts. The charts were filled in adequately in all the 5 sections. However, they were not recorded when patients did not move their bowels. Cycle-two of the audit post-implementation of change with further education showed that there was an increase in compliance of the new bowel charts.

**CONCLUSION:** The project was successful and stool charts are now being embedded within normal practise for patients in the acute stroke unit in ARI. These stool charts have shown promising benefits and should be implemented in other medical wards as well.

### **Supracondylar fractures: Improving documentation of neurovascular status**

L. Hoade and M. Divekar\*

\* [Manish.divekar@nhs.net](mailto:Manish.divekar@nhs.net)

**BACKGROUND:** Supracondylar fractures of the humerus represent a significant burden of childhood injuries and are associated with a high incidence of neurovascular complications. 5–12% of patients present with vascular compromise and 12–17% sustain traumatic nerve injury. It is therefore crucial that neurovascular assessment is adequately documented to identify the need for urgent surgical intervention and monitoring.

**OBJECTIVE:** The British Orthopaedic Association Standards for Trauma (BOAST) recommends documented assessment to include radial pulse, capillary refill time and individual nerve functions. This study aims to compare this standard against the documentation of paediatric supracondylar fractures assessed and treated at a large teaching hospital.

**METHOD:** A retrospective audit reviewed documentation of paediatric supracondylar fractures presenting January-November 2016. Following this evaluation, a proforma was introduced to facilitate the documentation of neurovascular assessment according to BOAST standards. A re-audit was then undertaken over a further 8 month period to assess the impact of this intervention.

**RESULTS:** The first audit revealed 13/35 patients (37%) had neurovascular assessment documented according to BOAST recommendations. Following the introduction of the proforma, adequate documentation was evident in 13/29 patients (45%). There was evidence of use of the proforma in only 1 case.

**CONCLUSION:** Pre-operative documentation of neurovascular status for supracondylar fractures was poor, despite introduction of a proforma. These results were shared at an orthopaedic department meeting in February 2018, prior to the holiday seasons which coincide with the bimodal incidence of supracondylar fractures. Data on documentation continued to be collected prospectively to assess the impact of this educational intervention and encourage proforma use.

### Assessing for cognitive impairment in older people: A quality improvement project

K. Wong\*, Y. Hor and D. Arundel

\* [kityeng.wong@nhs.net](mailto:kityeng.wong@nhs.net)

**BACKGROUND:** Cognitive assessment is often missed or carried out unreliably in Emergency Department (ED). Delirium is among the commonest medical emergencies in geriatric emergency care and associated with poorer outcomes. National Institute for Health and Care Excellence (NICE) and national document 'Quality Care for Older People with Urgent and Emergency Care Needs' (Silver Book) recommend delirium screening at the earliest opportunity in emergency care.

**OBJECTIVE:** This project aims to identify and improve the cognitive assessment in older people attending ED.

**METHOD:** Patients aged  $\geq 65$  with NEWS2 score of  $\leq 4$  attending ED from August 2019 until January 2020 were included in the study. 20 cases were reviewed monthly for cognitive assessment using validated tool, delirium screening and documentation of cognitive impairment in ED discharge letter. Interventions were carried out using PDSA cycles. Interventions include implementation of 4AT tool made available at key areas (triage bay, nurses'/doctors' station), delirium education to multidisciplinary team members and raising awareness on delirium during weekly team hurdle.

**RESULTS:** Following interventions, cognitive assessment using validated tool in ED increased from 12% to 57%. Prior to intervention, only 16% of patients with cognitive impairment had delirium screening which increased to 77% following intervention. Only 25% and 46% of cognitive impairment were documented in ED discharge letter pre- and post- intervention respectively. Time constraint is one of the limiting factors to documentation of cognitive impairment and communication with primary care.

**CONCLUSION:** THINK DELIRIUM. Cognitive assessment should be carried out to improve the detection of delirium in older people, allowing for early management and timely access to appropriate services.

### Tackling a handemic: Optimising staff skin health during COVID-19

Alexandra Phillips\*, Sanvitti Bengeri, Lucie Olivova, Ana Catarina Lopes Vieira and Ines Ponte Bettencourt Dos Reis

\* [alexandra.phillips@doctors.org.uk](mailto:alexandra.phillips@doctors.org.uk)

**BACKGROUND:** Contact dermatitis (CD) is a common cause of occupational skin disease amongst healthcare workers. Frequent hand-washing is a known risk factor for the development of CD, whereas emollients are effective in its prevention and treatment. CD can negatively impact quality of life but also has implications for infection control, as damaged skin harbours more micro-organisms and is difficult

to clean effectively. With the arrival of COVID-19, increased hand-washing could increase the risk of developing CD.

**OBJECTIVE:** Using PDSA methodology, this project aimed to assess and reduce the prevalence of hand dermatitis symptoms amongst clinical staff at the Great Western Hospital.

**METHOD:** A paper questionnaire was distributed to clinical staff at random. Change ideas implemented included distribution of moisturiser bottles, fitting of wall-mounted moisturiser dispensers and provision of informative posters. Data were collected at 6-week intervals from April to September 2020.

**RESULTS:** A total of 300 surveys were completed over 4 cycles (response rate = 98%). 90% of staff reported symptoms of CD in April 2020, with only 29% retrospectively reporting symptoms pre-pandemic. Self-reported symptom prevalence had fallen to 42% by September. The percentage of staff using Trust-provided moisturiser increased from 17% in April to 20% in September. The most commonly cited barrier to moisturisation was limited availability of emollients, however reports of this declined from 66% in April to 58% in September.

**CONCLUSION:** This work highlights the significant issue posed by CD amongst clinical staff in the context of a pandemic and identifies the provision of moisturizer as a potential way of addressing this.

### Improving the accuracy of diagnosis documentation in electronic patient records

B. Slaich\*, H. Roscoe and A. Kushairi

\* [bhavan.slaich@gmail.com](mailto:bhavan.slaich@gmail.com)

**BACKGROUND:** Nervecentre is software used by UK hospitals and provides information on patient diagnoses, investigations and management. Nervecentre is used to facilitate handovers, ward-rounds and for task allocation/prioritisation. It is vital diagnoses recorded are accurate. Inaccurate diagnoses on Nervecentre pose a risk to patient care and safety.

**OBJECTIVE:** We aimed to improve the accuracy of diagnosis documentation on Nervecentre by ensuring each patient has a documented diagnosis, that the documented diagnosis is the same as that in the medical notes and that only information relevant to the diagnosis is documented.

**METHOD:** This retrospective audit was performed on respiratory wards at Kings Mill Hospital in July 2020. For each patient, we compared their diagnosis on Nervecentre to their diagnosis in the medical notes. Staff were subsequently reminded about the importance of Nervecentre accuracy at meetings and handovers. The audit was repeated, and data compared using chi-square tests.

**RESULTS:** 50 patients were initially audited and 52 were audited post-intervention. 46 (92%) patients had a diagnosis entered, which improved to 52 (100%) post-intervention ( $p = 0.155$ ). 11 (22%) patients had an accurate diagnosis entered, which improved to 40 (73%) following intervention ( $p < 0.001$ ). Initially 24 (48%) patients had irrelevant information entered which improved following intervention to 19 (37%) patients ( $p = 0.116$ ).

**CONCLUSION:** Prior to intervention, there was excellent engagement with documenting diagnoses onto Nervecentre, however, information entered was frequently inaccurate or irrelevant to the patient's diagnosis. Following intervention, the diagnosis documentation accuracy improved significantly.

### **Better handover time management for improved patient care in district nursing**

Melvina Stober\*

\* [m.stober@nhs.net](mailto:m.stober@nhs.net)

**BACKGROUND:** NHS nurses are known to work under considerable pressure, which demands that they manage their use of time effectively. The Woolwich DN Team of 17 staff had faced challenges with its conduct of daily handover meetings: (1) Take long between 1–2 hours daily, putting too much stress on nurses and write up of patient records, and (2) with a high number of housebound patients with complex needs, nurses constantly worked overtime at the expense of their work-life balance.

**OBJECTIVE:** To reduce daily handover time by 50% within six months period and changed behaviour maintained over time.

**METHOD:** Three main tools were adopted: (1) Design and adoption of a template for the conduct of daily handover, (2) training of staff in the use of the template, and (3) daily data collection, monitoring and review of progress. A separate time was created for one 2 one discussion for staff to destress.

**RESULTS:** The PDSA cycles revealed dramatic changes and the significant difference that seemingly small quality improvement changes could make: (1) Handover time fell from average of 75 mins to 38.5 mins and then further to 35.6 mins with virtual handovers, (2) freed up an average of 206 hrs of staff time monthly (about 1.5 fulltime staff or average of £9,500 agency spend), (3) enhanced patient record keeping and consistent positive feedback from pressure ulcer panel, and (4) better work-life balance as staff no longer work over their hours constantly.

**CONCLUSION:** Overall, staff have more time available to ensure high standards in patient care and a new sustainable culture established for handover decision making.

### **The impact of introducing a patient information leaflet on patient experience of safety netting for Cauda Equina Syndrome at Lister Hospital**

S. Sravanam\*, M. Vella-Baldacchino and J. Kitson

\* [sanskriithi.sravanam@outlook.com](mailto:sanskriithi.sravanam@outlook.com)

**BACKGROUND:** Cauda Equina Syndrome (CES) is a medical emergency. To identify the condition, patients must be able to identify the red-flag symptoms and seek medical attention to prevent long-term neurological deficits. At Lister hospital, at-risk patients are commonly discharged with verbal advice about CES. Evidence suggests verbal advice combined with a patient information leaflet (PILs) allows for better safety-netting.

**OBJECTIVE:** (1) To design a new PIL adherent to the latest British Association of Spinal Surgeons guidance. (2) To examine the impact of the newly designed PIL on patient understanding and experience of safety-netting against CES.

**METHOD:** Fifty patients attending our back-pain service between 01/09/19–31/08/20 were randomly selected and sent a copy of our new CES PIL. They were asked to complete a questionnaire before and after reading the leaflet – to comment on their prior discharge and the new leaflet.

**RESULTS:** Of 39 respondents, 15 received verbal advice, 7 received a PIL, 14 reported they did not get any safety-netting at prior discharge. Over 77.8% of patients believe the new PIL helped them understand

the red flag signs and symptoms of CES better and 83.4% felt better informed about CES than at the point of discharge. Over 97% agreed or strongly agreed that the PIL was easy to read and understand.

**CONCLUSION:** Our new CES PIL is an easy to use and effective safety-netting and education resource for patients. The PIL improved patient experience of safety netting for CES at Lister Hospital.

### **Improving compliance with the mental capacity act on the acute stroke unit**

J. Stanton\*, P. Sidapra and M. Jaime

\* [joel.stanton@nhs.net](mailto:joel.stanton@nhs.net)

**BACKGROUND:** Patients on the acute stroke unit frequently lack capacity. Patients' capacity must be regularly assessed, and Deprivation of Liberties Safeguard (DOLS) authorisations requested appropriately. A quality improvement project to enhance care of those who lack capacity was undertaken on the acute stroke unit, as part of the UCLH Exemplar Ward Accreditation scheme.

**OBJECTIVE:** The project aimed to improve identification of patients who lacked capacity, improve nursing knowledge of the Mental Capacity Act, improve compliance with requesting DOLS authorisations, and collect previously unknown data.

**METHOD:** Pre-intervention data was collected for two weeks, and several interventions were introduced simultaneously using Plan-Do-Study-Act methodology. We introduced an electronic database for monitoring DOLS requests, introduced weekly nurse-led reviews of patients' capacity and introduced a revised DOLS flowchart. Nurse education was also provided.

**RESULTS:** Over a 12-week period, an average of 45% of patients lacked capacity to consent to their inpatient admission. Post intervention, weekly pending DOLS authorisations decreased (2.1 vs 5). 100% of patients received a documented weekly capacity assessment. Nurses reported improved knowledge in all education domains; understanding what a DOLS authorisation is (100% vs 65%), understanding what actions to take if a patient lacked capacity (100% vs 67%) and understanding the DOLS process (97% vs 37%).

**CONCLUSION:** Acute stroke units care for a high number of patients who lack capacity. Simple interventions can improve acute stroke unit's compliance with the Mental Capacity Act. Education can improve nurses' self-assessed knowledge of the Mental Capacity Act.

### **Transforming to total online triage across a primary care network during the COVID-19 pandemic**

J. Choudhury\*, S. Perrio, T. Bertram and A. Gray

\* [jillchoudhury@nhs.net](mailto:jillchoudhury@nhs.net)

**BACKGROUND:** In response to the COVID-19 pandemic, total online triage reduces avoidable footfall in GP practices, protecting patients and staff from the risk of infection. A collaborative approach between practices is needed as pressure on health systems escalate. Sovereign Health Network (SHN) is comprised of three practices, with a combined population of 38,000. Before COVID-19, approximately 200 eConsults (online consultations) were submitted per week across SHN, with a remote closure rate of 71.9%.

**OBJECTIVE:** We will advise SHN patients with medical queries to submit an eConsult so that we can transform to a total online triage model for urgent and routine care.

**METHOD:** Multiple Plan-Do-Study-Act (PDSA) cycles were used to test administrative processes. All eConsults were triaged by an administrator at our single eConsult administration hub; then assigned to the

urgent care team, practice based team, prescribing team, musculoskeletal practitioner, social prescribing team or complex care team.

**RESULTS:** SHN now receives on average 1,110 eConsults per week, with an average additional 340 eConsults submitted per week by telephone staff on behalf of patients who are unable to complete an eConsult themselves. At the peak of the pandemic, 96.7% of eConsults were remotely closed. SHN patient feedback suggested 82% would recommend the eConsult service to family and friends.

**CONCLUSION:** The COVID-19 pandemic has propelled Primary Care forwards with regards to digital transformation. We encourage other Primary Care Networks to consider pooling resources like this to improve patient access, efficiently meeting patient care needs and achieve economies of scale.

### **Clinical and patient experience quality indicators of anaesthesia in post-operative recovery**

B.H. Yap\* and S. Hilton-Christie

\* [binhui.yap@nhs.net](mailto:binhui.yap@nhs.net)

**BACKGROUND:** Quality assurance in anaesthesia is necessary to improve the quality of anaesthetic care. There are 108 existing clinical indicators used to measure the quality and safety of anaesthesia and peri-operative care. Due to resource limitations, these tools were not suitable for our hospital as the follow-up duration was more than 24-hours post-anaesthetic and required multiple follow-up visits. At our hospital, there is no routinely recorded and analysed set of quality indicators of anaesthesia.

**OBJECTIVE:** We aim to produce a set of indicators feasible for immediate use in post-operative recovery.

**METHOD:** Cycle 1: Using the Delphi method, consultant anaesthetists ranked a list of quality indicators based on importance. Three rounds were conducted. Indicators ranking poorly were removed every round. Cycle 2: Indicators were evaluated for their relevance and feasibility in measuring the quality of anaesthesia by theatre nurses.

Cycle 3: 9 quality indicators were made into a scoring sheet and tested out by the recovery nursing staff.

**RESULTS:** Cycle 1: Number of participants in round 1 = 39, round 2 = 38, round 3 = 35. Total of 9 quality indicators were shortlisted.

Cycle 2: Number of participants = 27. More than 70% of participants agree that all indicators are relevant and feasible.

Cycle 3: 36 responses collected across a 1-week trial.

**CONCLUSION:** Despite the potential challenge in engaging all recovery nurses in data collection, this study provides a starting point to routinely recording post-operative quality indicators of anaesthesia in our hospital, and for future quality improvement projects in this area.

### **The power of staff peer support in healthcare: Integrating learning, wellbeing and systems improvement**

Paul D. Eldridge\* and B.C. Timmis

\* [daniel.paul@nhs.net](mailto:daniel.paul@nhs.net)

**BACKGROUND:** The Royal College of Anaesthetists wellbeing report stated doctors required “*confidential space for peer support, discussion of clinical issues and lifelong learning*”. The ‘*boots on the*

*ground' perspective'* is a critical part of a highly functioning organisation. An opportunity was identified to synthesize these elements.

**OBJECTIVE:** To establish a regular peer led forum of case discussion, wellbeing support and identification of safety and quality improvement themes by August 2020.

**METHOD:** The project was managed using local '*7 Steps to Quality Improvement*' methodology along with a system engineering approach integrating multiple QI methods and early consideration to sustainability. There was involvement of wellbeing and clinical psychology teams in the design of a biweekly 1-hour informal session comprising cases volunteered by presenters. This enabled reduced risk of psychological traumatisation when compared to traditional formats. Attendance could be either in person or via a virtual platform to improve accessibility. A formalised summary of each session was generated and submitted to local governance and quality improvement systems.

**RESULTS:** Thematic analysis of surveys showed staff felt there was high-quality support, inclusivity, safety, and it was reported as an essential intervention by attendees and senior staff. Attendees agreed that the intervention provided a space to access peer support, discuss clinical issues and provide lifelong learning. There was also identification of future QI projects and wider system changes.

**CONCLUSION:** A rigorous QI approach allows sustainable implementation of wellbeing and safety culture improvements. This allows proactive generation of perspectives of systems issues, whilst maintaining psychological safety.

### **Familial hypercholesterolaemia: A baseline investigation and patient education**

L. Thom\* and C. Carradus

\* [lydia.thom@doctors.org.uk](mailto:lydia.thom@doctors.org.uk)

**BACKGROUND:** Familial hypercholesterolaemia (FH) is an autosomal dominant condition resulting in high levels of cholesterol. FH increases the risk of myocardial infarctions, peripheral vascular disease and ischaemic strokes. Morbidity, mortality and cost can be reduced if FH is diagnosed and treated early. UK prevalence is ~300,000 of which 8–17% are diagnosed.

**OBJECTIVE:** Case-note review to identify undiagnosed patients in line with NICE CG71 recommendations.

**METHOD:** Retrospective record review using search: >30 years with cholesterol >9. Patient parameters recorded in line with NICE recommendations. Author calculated diagnostic criteria (Simon Broome/DLCN) where not recorded. Patient leaflet created after review of literature and diagnostic testing services available.

**RESULTS:** 45 out of 10,497 patients identified as high risk. 11(26.2%) had repeat bloods within 6 weeks; 5(45.5%) of these were >9. 27(64.3%) had family history recorded. 0% had Simon Broome/DLCN recorded. 21(46.7%) had annual blood reviews. Specialist diagnosed FH in 3 of 8 patients referred. 3 diagnosed by GP.

**CONCLUSION:** Per current predicted prevalence, this GP has a suggested 17–33% diagnosis rate. DLCN was found an easier criteria to calculate, therefore authors recommend its use for future patients. Education provided to staff in order to improve awareness/compliance with NICE CG71. Patients reported in this QI sent recall invitation letter and information leaflet.

## Is the daily calorie intake of patients enough? A quality improvement audit at the Hip Fracture Unit

Keng Siang Lee\*, Katrina Hicks and Veronica Lyell

\* [k117746@bristol.ac.uk](mailto:k117746@bristol.ac.uk)

**BACKGROUND:** Nutrition in Hip Fracture Unit (HFU) patients plays an important role in recovery. Older patients are often undernourished on admission and the majority lose further weight, contributed by periods of imposed fasting preoperatively and by delirium. Recovering post-op HFU patients are recommended to consume 2000kCal/day during their stay.

**OBJECTIVE:** Obtain a snapshot of calorie intake of HFU patients, assess the accuracy of nursing charts regarding actual consumption, and to survey staff awareness of supplementary dietary options.

**METHOD:** Photographs of lunch plates were taken at presentation and after patients had finished eating. Menus were analysed on Nutrimen. We tabulated the proportions of lunch eaten, and estimated the actual calories consumed. We compared actual consumption to that stated in the nursing food chart.

**RESULTS:** Lunch meals of 17 patients were analysed (F:M 14:3, mean age 85.2, preoperative to post-operatively day 8). Total lunch calories consumed/patient ranged 0-636.5kCal. Aggregate mean lunch time calorific intake was 356kCal. 65% of 34 potential entries in the food charts were documented. 59% of those recorded entries matched the photographic estimation. Inaccurate entries (41%) were always an overestimation of consumption. 20 staff members (45% nurses and 55% HCAs) completed the nutrition survey. 70% and 50% felt eating socially and having volunteers would help patients to eat more, respectively.

**CONCLUSION:** A high proportion of patient intake fell below guidance levels. Ordered meals, even if fully consumed, failed to meet calorific targets. Alternative supplementation with adequate staff education and support are suggested in order to address this deficiency.

## Quality improvement project to achieve safe prescribing competency during foundation training

Alok Bahl\*, Trudi Geach and Sarah Rawlinson Peninsula

\* [alokbahl77@gmail.com](mailto:alokbahl77@gmail.com)

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

**OBJECTIVE:** Improve success rates of passing the PSA in international medical graduates.

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

**RESULTS:** Trainees that passed prior to receiving the workshop was 57% (4/7) and 64% (11/17) in September 2018 and 2019 respectively. Trainees that passed after receiving the workshop was 80% (4/5) in March 2019. Questionnaire results showed 7/8 preferred a teaching workshop.



**CONCLUSION:** Early awareness combined through a guide and teaching workshop prior to attempting the PSA will help trainees achieve safe prescribing competency with their first attempt.

### **“QI masterclass”: An analysis of student-organised quality improvement webinars**

Vamsi Thammandra\* and Akiko Fukui

\* [m1606730@sgul.ac.uk](mailto:m1606730@sgul.ac.uk)

**BACKGROUND:** Quality improvement (QI) is increasingly becoming an important priority for the National Health Service’s commitment to patient safety. Yet junior healthcare professionals and students have limited exposures to develop competencies in QI.

**OBJECTIVE:** Our ‘QI masterclass’ webinar series aimed to address this gap by providing a foundation to QI in healthcare and identifying the issues students face when engaging in QI.

**METHOD:** The “IHI St George’s Chapter” hosted a two-part webinar series covering the fundamentals of QI from expert speakers and assessed students’ satisfaction and understanding on the topic using pre- and post-series questionnaires.

**RESULTS:** Over 150 healthcare students attended with 89 completing the feedback forms. 95.2% indicated their interest in QI/leadership but 82.3% reported to have never participated in any QI projects before, with only 19.4% reported to receive formal teaching/training on QI. The main barriers to carrying out a QI project that the students identified were the lack of knowledge, support and ideas (in that order). There was an 82% increase in the student’s confidence in approaching QI projects and applying what they have learnt during this series.

**CONCLUSION:** There is a clear disparity between the students’ interest and their engagement in QI projects, and based on our findings, this is largely due to their minimal confidence, knowledge and experience in this field. However, this series has also shown that QI teaching in a webinar format delivered by experienced doctors are an effective and accessible way of engaging with students about QI methodologies and to train the next-generation for health-service leaders.

### **The impact a quality improvement project using a retrospective death audit had on palliative care outcomes in primary care**

Eve Barnes\* and William Klinkenberg

\* [eb15644@bristol.ac.uk](mailto:eb15644@bristol.ac.uk)

**BACKGROUND:** A primary care quality improvement (QI) project, through the End of Life care Quality improvement module for 2019/20, in order to improve palliative care processes.

**OBJECTIVE:** Decrease the number of patients who have expected deaths and are not on the palliative care register from 50% to 25%. Secondary aims included: improving documentation of next of kin, treatment escalation planning, preferred place of care and death.

**METHOD:** A Plan Do Study Act approach was taken, using a retrospective death audit to collect the data (from six months before and after audit date, with sub analysis of time between intervention and end point). The intervention: findings and aims were discussed in a GP meeting and with the GP lead for the nursing home.

**RESULTS:** Audit 1: 51.6% of patients were not on the register and had expected deaths. 75% of these people were nursing home residents. Percentage of patients who had no next of kin coded = 55%, no preferred place of care = 30%, no preferred place of death = 50%. Audit 2: there was a 9.9% reduction in expected deaths not on the palliative care register. Sub analysis of the final 3 months (i.e. after the intervention) found 25% of patients who had an expected death were not on the palliative register. The number of nursing home residents reduced to zero. Improvements were seen in all secondary aims in the final 3-month period.

**CONCLUSION:** Large improvements can be made in palliative care outcomes following small scale, low cost interventions.

### **Patient experiences of the Virtual Trauma Clinic: A closed loop audit**

M. Walker\*, H. Tsoi, S. Azhar and M. Al-Ashqar

\* [mwalker2710@gmail.com](mailto:mwalker2710@gmail.com)

**BACKGROUND:** In the wake of the COVID-19 pandemic, healthcare departments have increasingly resorted to virtual management of patients. Our district general hospital started a Virtual Trauma Clinic (VTC) service in 2017, which has processed over 10,000 patients. Benefits of VTCs such as reducing clinic waiting times and costs are evident, however literature on the patient's experience is lacking.

**OBJECTIVE:** (1) Survey patients to identify advantages of VTCs, and areas for improvement. (2) Design and pilot improvements to the VTC based on these surveys, and re-audit for feedback.

**METHOD:** Initial feedback was obtained from retrospective surveys conducted on 30 patients. We then designed new information cards, a prototype website and a text-messaging service as patient information resources. For the re-audit, we prospectively surveyed 10 staff members and 10 patients, gaining feedback on these resources.

**RESULTS:** Cycle 1: 83.3% of patients were satisfied with the information received, and 63.3% understood the purpose of VTC. 80% agreed that VTC saved time and unnecessary travel. Suggestions for improvement included a text-messaging service and easier access to further information. Cycle 2: 100% of staff and patients found the website easier to navigate and contained appropriate information, compared to the original leaflet. 60% recommended the website (sent via text-message) to be used together with the VTC leaflet to benefit patients without internet access.

**CONCLUSION:** VTCs are well-received by patients. We created a prototype website with a text-messaging service which received excellent feedback. Results of this pilot suggest electronic messaging enhances patient experiences with VTCs and may increase patient satisfaction with virtual care.

### **An audit of the current practice in information provision to patient with a fragility fracture of the neck of femur in a District General Hospital**

K. Yan\*, A. Pathan and J. Barwell

\* [matthew.yan1@doctors.org.uk](mailto:matthew.yan1@doctors.org.uk)

**BACKGROUND:** Incidence of proximal femoral fractures was approximately 70,000–75,000 in the UK in 2009 and projected to increase to 101,000 by 2020. Hip fracture alone accounts for 1% of the NHS's

overall budget. British Orthopaedic Association Standards for Trauma (BOAST): recommends provision of written information with advice on the nature of fragility fractures, bone health, lifestyle, nutrition and bone protection treatment.

**OBJECTIVE:** To improve information provision in written format to patients and their carers to educate them, aid recovery and reduce risk of future injury.

To overcome additional challenges in communication during the coronavirus pandemic.

**METHOD:** Review of electronic notes of neck of femur fracture admissions in 2-month intervals to collect anonymised data. Information pack produced using the booklet from Royal College of Physician along with a trust leaflet providing contact details.

**RESULTS:** Compliance in our initial audit of 63 patients (Dec 2019–Jan 2020) was 0%. There was no standardised information pack. Re-audit (April–June 2020) showed a 100% compliance in 47 patients.

**CONCLUSION:** Many of our patients have some degree of cognitive impairment. Pandemic restrictions emphasised the importance of effective communication with our patients, their family and their carers. Electronic versions of information packs were sent to relatives and care homes in the Norfolk and Suffolk area, in addition to physical copies. Challenges imposed by the pandemic have led to innovative ways to improve patient care.

### Improving testing for dyslipidaemia and diabetes in ACS admissions

Chetanya Sharma\*, John Gale and Charles Abrines

\* [chetanya.sharma@nbt.nhs.uk](mailto:chetanya.sharma@nbt.nhs.uk)

**BACKGROUND:** NICE guidelines recommend a full lipid profile on admission for all patients presenting with acute coronary syndrome (ACS), both as a baseline for monitoring and as screening for familial hyperlipidaemia. Additionally, up to 40% of ACS patients have unrecognised diabetes or glucose intolerance, with growing evidence to support the use of the HbA1c test as screening for Type 2 Diabetes Mellitus.

**OBJECTIVE:** Our aim was to improve rates of screening with full lipid profile and HbA1c in patients presenting with ACS.

**METHOD:** We screened ACS admissions in January 2020 to ascertain if a full lipid profile and HbA1c had been sent during admission. We introduced several cycles of change, including education at AMU clinical governance meeting, a lecture for F1 doctors and introduction of a new ACS ‘order set’ which grouped necessary blood tests on the requesting system.

**RESULTS:** We screened a total of 2235 AMU admissions in January 2020, with 57 patients diagnosed with ACS. Only 4% had a full lipid profile during the admission, and 4% had an HbA1c. After our cycles of change, we screened a further 1325 patient in January 2021, with rates improving to 45% for lipid profiles and 45% for HbA1c.

**CONCLUSION:** Before this project a very low proportion of patients admitted for ACS had investigations necessary for effective secondary prevention. Our changes increased awareness and ordering of these tests significantly. However, with half of patients still not receiving these tests, there is still further work needed to embed this within regular practice.

### Changing the culture of death certification

Christos Iosifidis\*, Alix Jodrell-Banks and Clifford Garratt

\* [christos.iosifidis1@nhs.net](mailto:christos.iosifidis1@nhs.net)

**BACKGROUND:** The Medical Examiner System launched at MFT in July 2020 and incorporates scrutiny of all adult non-coronial deaths. MCCD completion within 5 days following death is a national legal requirement. These processes should not cause undue delays for bereaved families.

**OBJECTIVE:** This audit's aims are to determine and improve level of compliance against MCCD and MERF completion at Wythenshawe Hospital.

**METHOD:** (1) Qualitative: Survey asking doctors about their confidence with MCCD and MERF completion. (2) Quantitative: MCCD and MERF completion times August–February and August–October 2021.

**RESULTS:** 38 doctors completed survey. Data collection: 1200 patients. First cycle: 15% of MCCDs completed >5 days; MERFs worse turn-around time, 25% >24 hours to complete. Second cycle – post implementation of changes: 4% of MCCDs completed >5 days; MERFs worse turn-around time, 25% >24 hours to complete.

**CONCLUSION:** Increased awareness of where to find guidelines for appropriate MERF completion was needed. There was lack of knowledge of MCCD and MERF process. (1) Posters placed in all wards to guide doctors for completing MERFs. (2) Organised and delivered monthly teaching sessions to doctors of all grades.

### Completed audit of haematological investigations ordered on psychiatric admission to an approved Mental Health Unit

Orlagh Deighan\*, Gary Timmons and Paul Scully

\* [deighao@tcd.ie](mailto:deighao@tcd.ie)

**BACKGROUND:** Evidence shows that patients with severe mental illness die younger than their counterparts and have significant medical comorbidity. Lack of consistency in physical health investigations (particularly haematological investigations) on psychiatric admission can lead to missed opportunities for physical health interventions.

**OBJECTIVE:** To evaluate haematological investigations ordered on admission for adult patients admitted to Fownes Ward, St James Hospital Dublin, against standards of practice as per Hospital Guidelines and improve upon this baseline in a six-month period.

**METHOD:** Retrospective quantitative clinical data was collected via Electronic Patient Record (EPR) for patients admitted. Intervention after data collection in cycle one included an educational session and introduction of “one-click” blood profile ordering on EPR system. Re-audit completed after three months.

**RESULTS:** Initial audit data revealed considerable variation in the compliance with investigations ordered by day three of admission between 79% (FBC, Liver profile, Renal profile) to 19% (Prolactin). During second audit cycle improvements were noted in all parameters. Ordering of full blood profile as per policy improved from 9% in cycle 1 to 67%. Compliance for individual investigations in cycle 2 ranged from 70% (Prolactin, Fasting Glucose) to 91% (FBC, Liver profile, Renal profile).

**CONCLUSION:** This audit demonstrated the need for education on local Hospital policy, optimizing usage of EPR and secondary to this audit an education session has been included in the biannual induction programme for medical practitioners.

### **Reducing the inappropriate use of ‘nil by mouth’ status in acute surgical admissions**

Richard Galloway\*, Hoda Amar, Ollie Hald and Luke Bennett

\* [rfgalloway@btinternet.com](mailto:rfgalloway@btinternet.com)

**BACKGROUND:** Patients are often asked to fast unnecessarily due to widespread ‘nil by mouth’ (NBM) culture amongst staff, resulting in reduced patient satisfaction levels, dehydration and diminished physical reserve for theatre. The European Society of Anaesthesiology (ESA) states that patients are permitted food up to 6 hours, and clear fluids up to 2 hours, prior to emergency surgery.

**OBJECTIVE:** To reduce unnecessary patient fasting times and discomfort. To optimise patient hydration and nutrition for theatre.

**METHOD:** The NBM status of 50 admissions to the Surgical Assessment Unit (SAU) were evaluated over a one-week period. ESA criteria and peer review helped identify inappropriate NBM decisions. A flowchart to aid decision-making was displayed in SAU. A further 50 admissions were evaluated 2 weeks after this intervention.

**RESULTS:** 13 out of 50 patients (26%) were made inappropriately NBM on admission. Of the 29 patients awaiting a scan, 38% were considered inappropriately NBM. This was higher than those not awaiting scans (10%). The percentage of patients made NBM was lower for those admitted out of hours than during normal working hours (50% compared to 72%). Following the intervention, 2 patients (4%) were made inappropriately NBM.

**CONCLUSION:** Guidelines surrounding pre-operative fasting exist but are not always adhered to. Simple and ongoing measures to educate staff have helped reduce prolonged starvation and have provided sustainable change on a local level. It is important that all healthcare professionals have the confidence to challenge everyday cultures and practice, in the interest of patient safety and welfare.

### **Haemorrhaging mistakes – Reducing the prevalence of expired blood bottles**

Waseem Hasan, Mehreen Khan, Anisa Ab Razak, Rachel Kwok\* and Talha Siddiq

\* [rachelwykwok@gmail.com](mailto:rachelwykwok@gmail.com)

**BACKGROUND:** Blood tests are common investigations. The expiration of blood collection tubes could lead to rejection by the lab, inadequate filling and distortion of blood cells, resulting in incorrect and repeated investigations which delay or misguide treatment.

**OBJECTIVE:** The purpose of this study was to determine the prevalence of expired blood bottles in a single centre, recommend policy changes and evaluate the impact of these recommendations.

**METHOD:** 3,501 blood bottles in a district general hospital were inspected for expiration. Policy changes were recommended at a trust board meeting: 1) visual reminders to check expiration, 2) regular re-audits and 3) arrangement of bottles by expiration date. A re-audit took place one year later.

**RESULTS:** The hospital removed all expired bottles, and implemented the third recommendation. The re-audit found no significant decrease in proportion of expired blood bottles (Pre-intervention: 23.9% vs Post-intervention: 20.8%;  $p = 0.722$ ). The mean number of days since expiration also had a non-significant change (Pre-intervention: 420 days vs Post-intervention: 212 days;  $p = 0.623$ ). Wards with an initially high prevalence (>30%) of expired bottles improved after interventions although the remaining wards did not, resulting in an overall non-significant change ( $p = 0.792$ ).

**CONCLUSION:** Our audit revealed a high prevalence of expired blood bottles, with no long-term improvement following interventions. The lack of significant change highlights limitations to single point interventions and difficulties in introducing all recommended changes. Further consultations with policy-making groups are needed, possibly for multiple long-term interventions to mitigate this risk to patient safety.

### **To assess the compliance of confirmed COVID-19 patients in accordance with NICE guidelines: A quality improvement project**

P. Suresh\* and D. Ward

\* [preethi.suresh3@nhs.net](mailto:preethi.suresh3@nhs.net)

**BACKGROUND:** Coronavirus 2019 (COVID-19) is the first pandemic faced by the NHS. As of August 2020, there had been cases of the disease in around 200 countries. ReSPECT form is a legal document in which the ceiling of care is clearly documented.

**OBJECTIVE:** This project was undertaken to assess if the NICE guidelines are being followed locally and what changes can be made to improve the management of these patients.

**METHOD:** We used a prospective methodology and included all the patients admitted with confirmed/suspected COVID-19.

**RESULTS:** We assessed over 2 PDSA cycles which showed 82.6% of the patients admitted with suspected/confirmed COVID-19 had Clinical Frailty Score (CFS) documented which increased from 44.3% and 93.4% of the patients with suspected/confirmed COVID-19 had a completed ReSPECT form on the day of admission which substantially increased from 50.9% in March. This was after regular education on the importance of CFS and ReSPECT form.

**CONCLUSION:** With the help of regular education and poster presentation, we showed an improvement in quality of care in patients with suspected/confirmed COVID-19.

### **COVID-19 documentation in ENT referrals**

Matthew Zammit\*, Clare Williams and Christopher Webb

\* [matthewzammit17@gmail.com](mailto:matthewzammit17@gmail.com)

**BACKGROUND:** Otolaryngologists are at high risk of exposure to respiratory pathogens, creating a dilemma of balancing patient review continuity with COVID-19 exposure risks. Identifying high-risk patients is one of the first steps to mitigate unnecessary risks of nosocomial transmission.

**OBJECTIVE:** The aim of this complete-cycle quality improvement project was to review internal referrals received by the department during the COVID-19 period. Relevant information relating to symptomatology, past respiratory diseases and COVID-19 related investigations in the referrals were reviewed.

**METHOD:** In the first phase of the project, electronic ENT referrals received during April 2020 were reviewed, with referral documentation compared to the patient notes. Once the results were reviewed, COVID-19 screening questions were implemented in the trust's IT referral system. A second survey ensued in May 2020.

**RESULTS:** 47 referrals were reviewed in the first survey, whilst 60 referrals were seen in in the second. 76 of the referrals requiring an outpatient appointment, whilst the remaining 36 requested an inpatient review. Aerosol generating procedures were requested in 52 cases (48.5%). Documentation regarding COVID-19 suspicion based on symptoms ( $P < 0.01$ ), relevant previous chest history ( $P < 0.01$ ) and SARS-COV-2 testing ( $P < 0.01$ ) showed statistically significant increase in the second survey. Furthermore, in the sub-group requiring aerosol generating examinations, a substantial increase in documentation was also achieved ( $P < 0.01$ ).

**CONCLUSION:** A marked improvement was noted over the two surveys, allowing the department to gauge which patients are in the higher risk-groups and allow for a better setup of outpatient lists and appointment times.

### TIPSQI – Trainees Improving Patient Safety through Quality Improvement

Hannah Baird\*, C. Whytock, Healy R. Jevons, E. Abbott, K. Newell, S. Green, J. Dover and J. Daziel

\* [hannahbaird@doctors.org.uk](mailto:hannahbaird@doctors.org.uk)

**BACKGROUND:** Quality Improvement (QI) is now a part of many postgraduate training curricula to help enable positive changes. However, there is no formal QI teaching in Curriculum and many junior doctors feel unprepared to undertake workbased change. In order to tackle this TIPSQI was created with the aim to ensure all foundation doctors in the North West had access to Quality improvement teaching.

**OBJECTIVE:** Trainees Improving Patient Safety through Quality Improvement (TIPSQI) is comprised of interactive workshops where trainees are taught core QI concepts, based on the Model for Improvement.

**METHOD:** Currently, NHS Trusts are offered bespoke sessions encompassing an introductory session for Foundation Year 1 doctors, plus a recap and coaching session for Foundation Year 2 doctors. The project began in 2013 at a single NHS Trust and is now delivered to 22 Trust across the North West of England.

**RESULTS:** The programme has been evaluated against Kirkpatrick's Model of evaluation training. The training has been delivered to over 3500 trainees, plus equipped approximately 200 Educational Supervisors with the tools to assist their trainees. To ensure sustainability, we annually recruit a cohort of leads. These are FY2 doctors mentored by a member of the core faculty and trained further in QI methodology and coaching to deliver the sessions to their peers.

**CONCLUSION:** The project has demonstrated consistently good feedback from participants, who have all demonstrated an increase in knowledge across all different elements of QI methodology. There has been a significant increase in the number of QI project submitted to the trainees E-portfolio.

### **Educating GPs on prescribing pathways as a tool to improve adherence**

C. Dominic\* and G. Bhalla

\* [ha17206@qmul.ac.uk](mailto:ha17206@qmul.ac.uk)

**BACKGROUND:** Use of prescribing pathways created by clinical commissioning groups is a key issue in General Practice (GP) as they curb unnecessary drug costs and ensure patient safety by eliminating drugs no longer recommended by NICE; but is under-researched.

**OBJECTIVE:** Following the results of an audit in a London GP practice on whether the correct prescribing pathways for Overactive Bladder (OAB) were followed, we carried out a study aiming to quantify use of prescribing pathways, understand opinions on the subject and propose solutions to the issue of under-use.

**METHOD:** Data was collected retrospectively from 30 patient records on whether current overactive bladder prescribing pathways were being adhered to in clinical practice by comparing the drugs prescribed to the WEL OAB pathway.

**RESULTS:** We found that in only 10% of cases was the pathway followed correctly. We undertook a simple educational intervention – a presentation to all GPs in the practice to educate on the important of prescribing pathways, remind them of the particular OAB drugs and show the statistics gathered. We re-audited the data 6 months after this intervention and found that the correct pathway was now being used in 50% of all cases which was a statistically significant increase.

**CONCLUSION:** As a follow-up to our QIP we surveyed GPs to see what they felt the key issues were with prescribing pathways and what they felt might be potential solutions – these included incorporating prescribing pathways into computer systems, simplifying them or delivery of lecture sessions by pharmacists.

### **Junior-led improvement project: Improving morning handovers' quality and length in a District General Hospital with the introduction of a handover checklist**

S. Tran\* and A. Davies

\* [steventran@nhs.net](mailto:steventran@nhs.net)

**BACKGROUND:** RCPC worked on a Situation Awareness for Everyone (S.A.F.E) toolkit that promoted safer handovers for patient safety. Due to the number of clinical areas covered and personal preferences, departmental handovers always varied in duration, structure and consistency. Key questions regarding staffing levels or unwell children would only be mentioned when issues arose.

**OBJECTIVE:** This project aimed to improve overall day-to-day patient safety through structuring handovers to be more efficient within a year of commencing.

**METHOD:** The major invention was introducing a pre-handover checklist covering many important aspects: staffing issues, potential risks to clinical resources – i.e., high-risk deliveries, HDU-level patients, a busy emergency department and bed numbers. Many iterations utilising improvement science occurred, including varying what was covered on the checklist and who fills it out.

**RESULTS:** Over the first 39-week period, the checklist was filled in 88% of the time. Only 50% of handovers started at 8.30 am. Monday handovers took on average 65 minutes compared to 30-45 minutes



on other days. Staffing issues were highlighted in 56% of handovers – including rota gaps, sickness and cancelled locums. Staff have said that it provides a good snapshot of all the clinical areas.

**CONCLUSION:** The introduction of a handover checklist can provide a structure and give staff an overview of the department's clinical risk, therefore it does improve patient safety. Whilst it is easy to obtain numerical data on the length of handovers and whether key issues were discussed, further work is required to delineate secondary outcomes – staff's situational awareness/bandwidth and the secondary impact on departmental teaching.

### **Suture school: A socially distanced surgical education**

Richard Galloway\*, Hoda Amar and Vivekandan Panchalingham

\* [rfgalloway@btinternet.com](mailto:rfgalloway@btinternet.com)

**BACKGROUND:** Limited theatre exposure, cancelled practical teaching and placements abandoned due to COVID-19, has potential to damage the learning opportunities and experiences of medical students within surgery.

**OBJECTIVE:** To create and deliver an emergency small group teaching programme throughout the pandemic, targeted at increasing medical student confidence in basic surgical skills and inspiring interest in surgery.

**METHOD:** Multiple small-group teaching sessions were delivered to a cohort of 14 medical students recruited for work during the pandemic, whilst adhering to social distancing and sanitary measures. On completion of the programme and informal assessment of 11 surgical competencies, participants completed a follow up questionnaire to assess their improvement.

**RESULTS:** 70% reported improvement in 10 competencies and 30% across all 11 competencies. The greatest improvements were in abscess drainage and knot tying. 30% relayed increased interest in pursuing a surgical career. 80% were 'more likely' to attend theatres in future.

**CONCLUSION:** The teaching series facilitated increase in self-perceived confidence of students in basic surgical skills, whilst inspiring surgical interests. During challenging times, we must support learners to undertake activity that drives improvement in training for the wider benefit of health services. Innovative teaching programmes may reduce the impact of similar adversity in the future.