of this study, of which 53% (n=17/32) were term and 47% (n=15/32) were preterm babies. One third (67%, n=79/118) of these samples were preterm. Only 0.3% (n=4/118) samples were taken from babies not currently admitted to NICU.

3% (n=4) of cases both HHGMD/blood gas results were same while in 6% (n=7) of cases HHGMD result was lower than the blood gas result. However in 107 cases HHGMD result was higher than blood gas result with a mean difference of 1.07 mmol (95% CI 0.94–1.15, $p<0.05$) glucose per sample tested

Conclusions A mean difference of approximately 1 mmol/L glucose between both measurement devices on the same blood sample has potential clinical and economic significance particularly in our population where hypoglycaemia and subsequent neonatal unit admission is common. A more robust way of standardising glucose measurement is required in this cohort of babies.

G382(P) RADIATION EXPOSURE IN NICU

V Venkatesh, AVAlladu Venkata. *Women and Children, Neonatal Care and Research Institute, Bengaluru, India*

10.1136/archdischild-2018-rcpch.371

Aims To reduce the radiation exposure in babies admitted to a single tertiary centre by reducing the number of duplicate X-rays taken from 30% to 0 within a period of 6 weeks and by increasing the use of point of care ultrasound to detect the tip of the UVC from 0% to 80%.

Methods We used the USAID quality improvement process for the study. This involved the use of process map and fish bone analysis, retaining of staff and testing of changes (use of 2 personnel method to take X-rays) was implemented.

Results The number of duplicate X-rays decreased from 30% to 8% over a period of 3 months. Similarly the use of point of care ultrasound also increased for the detection of UVC tip from 0% to 70%.

Conclusion Retraining of the nursing staff to take X-rays, implementation of systemic changes in the procedure of taking X-rays resulted in the reduction in the number of duplicate X-rays from 30% to 8% thereby leading to improvement in the care that we provide to sick newborns in a resource limited setting.

G383(P) AN INNOVATIVE METHOD OF GATHERING FEEDBACK AS PART OF THE 'WHAT MATTERS TO YOU?' MOVEMENT

S Gabbie, V Dublon, R Levi, J Runnades. *Paediatrics, Royal Free NHS Trust, London, UK*

10.1136/archdischild-2018-rcpch.372

Aims Increasing user feedback and co-production are a priority of the National and Trust agendas. Our aim was to gather feedback, opinions and constructive suggestions from parents and young people in an interactive, fun and informal environment. This was part of a National Initiative in which departments devised their best method of establishing 'What Matters To You?'

Methods We designed a feedback morning with a variety of activities. The full multidisciplinary team were involved including doctors, nurses, education, play, ward clerks and

housekeeping teams. This enabled children of all ages and their carers to provide feedback in real time, both verbally and in writing. Tools used included 'pants and tops' feedback clothes lines, knitting lessons from the Royal Free volunteers, raffles, games and home made cakes.

We asked people specific questions using a mini structured interview. These included, 'what matters to you in your life? What matters when you come to hospital? What has and hasn't gone well? What would you change and how?'

Results There were 50 attendees including patients, carers and staff. All contributed to feedback in different formats which was largely positive. Parents and young people valued the opportunity for face to face conversation and suggestions for service development.

Qualitative results were grouped under headings, General, Attitudes, Listening, Staff, Systems.

Examples of comments and actions taken include:

'The nurses and doctors are all so kind and caring. They make you feel at ease and do an amazing job'

'Able to come to school/be in education while getting support for eating disorder'

'Try and support patients with a language barrier' – we have increased use of and access to language line.

'To be listened to and for my views to be taken into consideration in any decision' – we have highlighted and embedded use of parental concern into PEWS scores and safety huddles.

'First contact when arriving at the hospital is very important' – in our ward refurbishment we have moved the reception desk to the front door so as to welcome patients in.

Conclusion This event improved dialogue and openness between staff and families. We recommend other departments undertake a similar approach in order to identify what matters most to patients.

G384(P) INTRODUCTION OF A NOVEL JUNIOR DOCTOR -LED PROLONGED JAUNDICE CLINIC IN ORDER TO REDUCE THE WAIT TIME FOR RAPID ACCESS CLINIC APPOINTMENTS WITHIN THE PAEDIATRIC DEPARTMENT

¹B Basso, ¹W Zaw, ²S Beech, ²C Warlow. ¹Paediatric Department, Northampton General Hospital, Northampton, UK; ²Quality Improvement, Northampton General Hospital, Northampton, UK

10.1136/archdischild-2018-rcpch.373

There has been an increasing demand for rapid access clinic appointments in the Paediatric department in Northampton General Hospital over the past 2 years, which has led to an increase in wait time for an appointment. (21 patients per month on average in 2015 and 34 per month in 2016). This rapid access clinic is led by a consultant, and runs up to two times per day.

A large proportion of the patients seen in this clinic have prolonged jaundice, and can be managed by a junior doctor. Therefore, our proposal is to introduce a junior doctor led clinic to see patients with prolonged jaundice, to free up more space in the consultant-led rapid access clinic. The overall aim of the project was to reduce the average wait time for the paediatric hot-clinic to below 2 days by December 2017.

Training on running the clinic, using a new proforma, was delivered to support the junior doctors with the new clinic. A process was established to ensure all investigations undertaken after the appointment were discussed with the Consultant of the Week. A

patient information document was produced for prolonged jaundice as no current one existed. Furthermore, parent experience was recorded during the introduction of the clinics to ensure they remained satisfied with the service delivered.

The new junior doctor-led clinics started in June 2017. Preliminary data has shown the wait time for the paediatric rapid access clinic has already reduced to below 2 days on average for June – August 2017. This compares to 3.5 days on average for the same period in 2016.

The introduction of this new junior doctor-led clinic for prolonged jaundice babies continues to provide a high-level service for patients and their parents, whilst reducing the wait time for the consultant-led rapid access clinic to the internal standard of less than 2 days on average.

G385(P) A SAFETY REVOLUTION: CROSS-SPECIALITY ENGAGEMENT OF JUNIOR DOCTORS IN PATIENT SAFETY

BP Marlow, N Nathwani. *Paediatrics, Luton and Dunstable University Hospital, Luton, UK*

10.1136/archdischild-2018-rcpch.374

Problem The current obstacles to paediatric junior doctors engaging in patient safety include poor compliance with the safety reporting process (Datix – only 2% completed by doctors locally) and lack of understanding in what the process is trying to achieve. There is also a ‘fear of failure culture’ so doctors are more likely not to admit to mistakes. High turnover of staff leads to problems with team dynamics and lack of ‘buy in’ into the departmental safety culture.

Aims The aim is to foster an open safety culture, remove this fear of blame mentality and promote collective learning from error. I want to double the number of Datix reported by junior doctors within 6 months.

Methods The interventions are going to be: departmental induction, monthly clinical governance meetings, and interprofessional simulation. Outcomes are going to be measured through a pre and post placement questionnaire and the numbers of Datix logged by paediatric junior doctors six months pre and six months post-intervention.

Results 100% of doctors stated patient safety was ‘important’ or ‘very important’ to clinical care. 100% knew what a Datix was, but only 16% had filled one in during the previous six months. This was reflected in only 5 out of 139 Datix (3.6%) being filled in by junior doctors. After the planned interventions Datix completion by paediatric junior doctors improved to 10/126 (8.1%) – over a 2 fold increase from the previous six months.

The aim for the next 12 months is to expand this safety engagement across the whole hospital establishing a ‘safety board’ to which an elected trainee from each speciality will be a part and establish a monthly grand round looking at a clinical incident or datix to promote an open ‘no blame’ approach that will become part of the hospital culture.

G386(P) COMBINING QUALITY IMPROVEMENT AND HUMAN FACTOR TRAINING TO EFFECT SUSTAINABLE CHANGE

^{1,2}K Pryde, ¹A Robson, ¹K Sykes. ¹Child Health, Southampton Children's Hospital, Southampton, UK; ²School for Quality Improvement, Health Education England, Wessex, UK

10.1136/archdischild-2018-rcpch.375

Background There is evidence to suggest that safety interventions combining quality improvement and team work (systems) training are more effective than those adopting either approach alone.¹ This has important implications for safety and quality improvement (QI) strategies in hospitals. We piloted an initiative combining these factors as a potential model for cascading QI training. We chose the PICU team who already have an annual programme of team training days.

Methods A one day programme was designed consisting of an overview of basic QI methods, an introduction to human factors, and followed by an interactive team treasure hunt with a final session discussing ideas for improvement on PICU. All staff members from domestic to clinical lead, including visiting teams such as psychology and pharmacy were invited to attend. All the improvement ideas were displayed in the staff coffee room and through ‘dot-voting’ the staff agreed which projects to pursue. Each project identified a nursing and clinical lead from the unit. A combination of facilitated learning sessions on QI tools and techniques appropriate to the projects needs and mentoring was used to support the improvement projects in practice.

Results Approximately 100 staff attended the training days which generated over 20 ideas for improvement.

Two projects have been pursued more actively over a year – improving discharge prior to 3 pm and debriefing after significant events. Each has engaged a range of professionals from a spectrum of seniority from the unit. The considerable success of these individual projects is shared separately.

Conclusions This pilot has shown that it is possible to deliver generic training in QI methods and human factors as well as specific improvements through a dedicated project. This has been achieved with no additional time other than the first team training day which was already part of the education programme. The quality improvement methodology and human factor skills are transferrable and have increased the capability of the units’ staff to approach future improvement work.

We propose this is a cost effective method of effecting real change as well as training in both quality improvement methods and human factors which others should explore adopting.

REFERENCE

1. McCulloch P, Morgan L, New S, et al. Combining systems and teamwork approaches to enhance the effectiveness of safety improvement interventions in surgery: The safer delivery of surgical services (S3) program. *Ann Surg. Ann Surg* 2017;**265**:90–96.

G387(P) COMPARISON BETWEEN POINT OF CARE (POC) CRP ESTIMATION AND LABORATORY CRP VALUES IN PAEDIATRIC ASSESSMENT UNIT (PAU)

B Saikia, J Srinivas. *Paediatrics, Milton Keynes University Hospital NHS Trust, Milton Keynes, UK*

10.1136/archdischild-2018-rcpch.376

Background Point of care tests (PoCT), recent trend in health-care helps provide rapid 'on site' results. These are considered to have potential to improve outcomes by optimising prescribing decisions, reducing referrals, improving efficiency of care and reducing length of stay in hospitals. CRP estimation is one of the PoCT done in children. There is however no published data for PoCT CRP performed in-hospital setting especially for children presenting acutely to paediatrics. A bedside CRP machine installed at our Paediatric Assessment Unit (PAU) provides result in 4 mins with one drop of blood. The machine has a range of CRP values between 5–200 mg/L.

Aim To compare CRP values (PoCT vs Lab) in children presenting to PAU.

Method PoCT test was performed along with routine lab blood tests in children presenting to our PAU. This data was collected prospectively over 5 months between January and May 2017.

Results A total of 100 paired CRP samples collected during that time. The children were aged between 1 month and 16 years. Of the 100 children, 35 had PoCT CRP <5 mg/L and 14 children had value >100 mg/L. On analysis of the PoCT and lab CRP results, most of the values were within ± 2 SD on a Bland Altman Plot.

Summary The above findings were presented at a joint paediatrics and pathology meeting in our Trust. Decision was made to continue PoCT CRP in our PAU as an alternative to lab testing. Medical and nursing staff found that the PoCT machine was reliable, easy to use and gave results within 4 min. The other advantages are that this requires a small amount of blood (1.5 μ L) and quicker results compared to lab result. We found that those children who had CRP <5 mg/L and clinically well were discharged promptly helping in improved flow in PAU. As staff are increasingly confident of the results of this PoCT machine, this is now being used for serial CRP monitoring and as a reliable alternative to laboratory testing.

G388(P) STAMP: A LONG TERM, ONGOING PRESCRIBING QI PROJECT TO IMPROVE PRESCRIBING AND MEDICATION SAFETY

A Trivedi, K Styles, T Bate, R Ajitsaria. *Paediatrics, The Hillingdon Hospitals NHS Foundation Trust, Uxbridge, UK*

10.1136/archdischild-2018-rcpch.377

Aim We describe an ongoing quality improvement project focusing on paediatric prescribing for medical, surgical and oncology patients in a district general hospital. The project is called STAMP – 'Safe Treatment and Administration of Medicine in Paediatrics'. The aim of the project was to identify why local errors were happening, improve feedback to prescribers when errors were made and to decrease the rate of these errors through multiple interventions.

Method Divisional lead pharmacist collected weekly error data for nine months. Individual feedback given to prescribers.

Error data shared with the paediatric team via departmental instant text message group.

Results On average 185 prescriptions reviewed per week. Mean error rate 5.2% and worst error rate 12.6%. The most common errors were incorrect or missing frequency and incorrect dose. There was an initial see-saw error rate and a period of improved prescribing in July and August 2017 which we felt was secondary to the teaching highlighting common errors.

However this improvement was not sustained. We noticed a decrease in errors when the ward was less busy which is consistent with prescribers reporting frequent interruptions and increased errors when there were new medical staff. As a result of feedback from prescribers we have made multiple interventions including

- sharing anonymous 'error of the week' examples on group text message service as a quiz with answer,
- new medication guideline for surgical and orthopaedic for their most frequently prescribed medications,
- departmental teaching, and
- prescribing station with prescribing resources to encourage prescribers to move to an interruption-free zone.

Conclusion Although we have not yet been able to demonstrate sustained improvements in prescribing error rates, we believe multiple small changes and a strong STAMP team are most likely to bring about a culture of safer prescribing within our department. We feel that our most significant steps so far are the teaching sessions and improved personal feedback to prescribers. We hope the new prescribing station will decrease interruptions during prescribing. We need to reach out to our junior surgical and orthopaedic colleagues who do not attend our teaching and may benefit from additional prescribing support.

G389(P) TACKLING ENTRENCHED CULTURE AND PATIENT SAFETY ERROR THROUGH IMPROVEMENT AND EMPOWERMENT OF TRAINEES DURING MEDICAL HANDOVERS IN A PAEDIATRIC TEACHING HOSPITAL

F Osborne, M Lister, S Joseph. *Acute Receiving Unit, NHS Lothian, Royal Hospital for Sick Children, Edinburgh, UK*

10.1136/archdischild-2018-rcpch.378

Aims

- To improve the quality of information communicated at medical handovers to reduce the risk of patient safety errors.
- To empower junior trainees to lead medical handovers with the intention of improving patient ownership.
- To reduce inefficiencies during medical handovers and maximise efficiencies whilst delivering clinical care.

Methods Problems and ideas were brainstormed with the Acute Receiving Unit (ARU) team, identifying key themes and targets for intervention. A series of changes were implemented utilising 12 Plan Do Study Act (PDSA) cycles with collaborative team reviews of data to determine the next cycle intervention. Key interventions were: facilitating a junior-led handover supervised by consultants; providing guidance regarding model patient handovers; improved task allocating utilising 'mini teams' and the introduction of an active pause following the post-take handover to ask questions or discuss staff or services issues (named 'Robin's Pause'). Outcome