wards and medical & nursing staff was updated via regular teaching and educational sessions.

We completed one audit cycle by retrospectively reviewing 20 patient medical notes each time (May-June 2019 & August-September 2019).

Results Our first audit showed that only 20% (4/20) patient notes had a co-morbidity sheet whereas the re audit post educational sessions helped to improve it to 75% (15/20).

Since implementing the co-morbidity sheet and using it regularly from April 2019, our low bracket coding (between 0–1 co morbidity) reduced from 40% to 27%; mid bracket coding (2–5 comorbidities) improved from 47% to 54% and the highest bracket coding (6+ co morbidities) improved from 13% to 19%. Overall this resulted in a financial gain of £195,000 since the implementation of co-morbidity sheet.

Conclusion Comorbidities are conditions that are present in association with a current illness with which a patient is admitted. It is very important to document comorbidities in clinical notes and discharge summaries which can then be coded accurately. This in turn helps to secure appropriate funding to provide appropriate and effective patient care. Our experience shows that using a comorbidity sheet based on common health conditions helps clinical as well as coding staff to improve clinical coding. Regular updates via educational sessions about the benchmarking data and PDSA cycles are key to sustain this improvement.

G106(P) ABSTRACT WITHDRAWN

G107(P) REDUCING PARACETAMOL MEDICATION ERRORS IN CHILDREN

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Introduction Paracetamol is one of the most common medicines administered to children nationally. Accidental overdoses with intravenous (IV) paracetamol in children <10 kg have been reported, including fatalities. High numbers of medication incidents (MI) involving prescribing and administration of paracetamol on paediatric inpatient wards were reported. To reduce the level of harm the multidisciplinary team reviewed incident trends and implemented selected interventions.

Method MI were recorded and reviewed retrospectively every quarter (Q) from Q1 March-May 2018 to Q2 July-Sept 2019. Ethics approval was not required for this study. Selected measures were then used to track changes in incident numbers and trends on implementation of intervention.

Measures

- Number of paracetamol incidents
- Level of harm
- Incident type – categorised into trends.

Intervention 1 (Q3 October-December 2018) Paracetamol medication safety bulletin, highlighting risks associated prescribing paracetamol in children was circulated to staff. Standardised dosing approved in cross-site guideline. Targeted staff education around incident data, trends and top tips. Removal

of multi-route screens on the electronic prescribing system to reduce number of IV paracetamol prescriptions.

Intervention 2 (Q1 March-May 2019) Introduction of dose/volume checks for intravenous paracetamol included in the paediatric IV guide.

Results

Intervention 1

- 75% reduction in number of paracetamol errors. A 65% reduction in the total percentage MI involving paracetamol.
- 50% reduction in number of MI with a reported level of harm, the level of harm remained the same
- 100% reduction of oral dosing errors. 50% reduction in number of IV dosing errors for babies <10 kg and 40% reduction in duplication of doses.

Intervention 2

No reported IV paracetamol dosing errors for babies <10 kg in Q1-2 2019.

Conclusion A significant level of harm has been reported with paracetamol MI in children. Regular review of MI numbers and trends, with targeted education and standardisation of practice can reduce number of MI, including those causing harm. Increased risk of adverse effects of paracetamol overdose in children means the level of harm was not reduced. Future work is needed to reduce incident numbers involving dose duplication.

G108(P) IMPLEMENTATION OF A PROLONGED JAUNDICE PATHWAY: A QUALITY IMPROVEMENT INITIATIVE. TIME FOR NICE TO HAVE A RETHINK!

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Introduction Prolonged neonatal jaundice (PNJ) is mostly benign and self-limiting; however, it could represent a serious pathology such as biliary atresia; timely identification of which is vital. NICE guidance is available on PNJ, however, hospital referrals of all such infants can lead to over-investigation, unnecessary pressure on hospital resources and undue parental anxiety. Hence, there needs to be a fine balance between over-investigating well infants and timely detection of serious pathology.

Background Previously, all cases of community diagnosed PNJ were referred to consultant clinic in our tertiary neonatal unit. An audit in 2013 (Jan-Dec) revealed a high number (222) of such referrals. Of these, 38% were not even clinically jaundiced at the time of clinic attendance. The rest had unnecessary investigations-91% and 61% had liver and thyroid function tests respectively; not recommended by NICE.

Aim The above audit prompted a quality improvement initiative of implementing an alternative pathway to streamline PNJ referrals in Sep'15. As per the pathway, community midwives perform direct and indirect bilirubin on infants and refer only if any of the following criteria are met- not thriving, pale stools, total bilirubin >200 ummol/L, direct bilirubin >20 ummol/L or worsening jaundice despite blood test.

Method A re-audit was performed in May'19 to evaluate the efficacy of the pathway over 3 years (Mar'16-Feb'19) and to assess any delay in diagnosing serious pathology.

Results Table 1 compares results before and after implementation of PNJ pathway.

Abstract G108(P) Table 1

Number-	Jan'13-Dec'13 (1 year)	Mar'16-Feb'19 (After PNJ pathway) (3 years)
Of referrals	222	166(55/year)
Attending clinic	182	137(46/year)
Investigated	88	51(17/year)
With pathological cause	0	5 (1 biliary atresia, 2 G6PD deficiency, 1 congenital hypothyroidism, 1 still under investigation)

Conclusion PNJ referrals declined by 75% following implementation of the pathway. Number of infants investigated reduced by 80%; whilst still effectively and timely identifying serious pathology. It meant 167 less clinic appointments and 71 fewer infants investigated per annum.

Recommendation PNJ pathway improved service-efficiency whilst effectively identifying serious pathology. Most importantly, it is community-based, family-friendly and a safe approach to PNJ management. NICE should consider adopting this approach.

G109(P) TRANSFORMING EDUCATION AND TRAINEE EXPERIENCE USING QUALITY IMPROVEMENT

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Aims Problem statement: Paediatric trainees expressed dissatisfaction with local training on the GMC survey. This led to poor morale, trainees feeling disadvantaged and less equipped to provide excellent quality of care.

This project aimed to improve quality of paediatric training by promoting a supportive learning environment and proactively sharing learning experiences from July 2018 to August 2019.

Methods Our problem analysis involved the 2018 GMC survey and qualitative local questionnaires. We identified key areas for improvement; teaching attendance, rota design and use of feedback. Our process measures were evidence of shared learning and our outcome measures were trainee satisfaction in the 2019 GMC survey. Change ideas were implemented by a team of Education Champions comprising junior doctors and consultants. Education governance was improved by teamwork, transparency and shared consultant responses to all areas of trainee feedback. Protected teaching sessions and clinic opportunities were built into rotas, including monthly half-day education symposia for Registrars.

Results Learning points were discussed at Monday handovers, led by the night team and on-call consultant. PDSA cycles showed positive uptake on run charts, with a median of 3 learning points shared weekly on WhatsApp, sustained for 3 months through frequent reminders by champions. However, this dropped in number during holidays and increased locum cover.

Monthly education summaries sharing local learning were emailed, with excellent stakeholder feedback. These improved morale and engagement in teaching by celebrating the range

of local and national training provided. Education whiteboards were used to educate on monthly topics, update trainees of upcoming educational opportunities, display quality improvement projects and share learning points.

The GMC Training Survey showed improvement in all areas and overall trainee satisfaction increased from 70% to 82% from 2018–2019. Improvements in local teaching (increased from 53% to 68%) and handover (65% to 80%) were particularly encouraging.

Conclusion This project demonstrates how the model for improvement can be used to systematically improve education and trainee experience. Using multiple modes of communication for regular sharing of learning can embed education into a busy working day and improve trainee satisfaction. Ongoing PDSA cycles and champions are required to sustain further improvements in education and trainee experience.

G110(P) KEEP CALM AND INTUBATE (USING CHECKLISTS ON THE NEONATAL UNIT TO REDUCE ANXIETY AND INCREASE SAFETY OF NEONATAL INTUBATIONS)

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Aim Intubation on a DGH Neonatal Unit can be risky and stressful for a new registrar. We know that intubations in non-specialist centres have greater risk of adverse events, and evidence for use of safety checklists, is well established. We aimed to improve safety and staff confidence in delivery of care on our neonatal unit by launching a safety checklist for this and other invasive procedures. This would function as an aide memoire for the performing clinician, support good team-working, empower assistants to help and to raise concerns when appropriate.

Methods Taking a quality improvement approach, we set up a team of doctor and nurse champions to develop, pilot and embed our safety checklist. We started with a preliminary staff survey of doctors and nurses via survey monkey and paper questionnaires. We developed checklists for intubation, central line, long line, lumbar puncture and chest drain using NHS England's template. These were made widely available and launched via staff seminars, handover bulletins, and posters. At 3 months post-launch we carried out a Quality Peer Review to assess staff response to the checklists. Audit data for intubation, and central, and long lines were collected at 6 months to review quantitative take up of the checklists.

Results Preliminary survey responses: 19 respondents, most (n=15), thought intubations safe but some (n=4) thought they were only somewhat safe or not safe. All respondents (n=19) thought checklists would make intubation on the unit safer, and most, (n=18) thought they would make documentation easier. 24 hour Peer Quality review data: themes reflected staff perception's that checklists improved team working, reduced stress, and increased safety of invasive procedures. Our preliminary 6-month audit data showed: 15 intubations of which most (n=13) had checklists correctly used, 24 central and long lines of which most (n=22) had checklists. We will continue to collect and analyse data for the next year. Checklist use has been adopted into departmental induction this September.