

groups will feed back on their progress at the monthly meetings to encourage action and momentum.

**Measurement of improvement** We have now completed departmental audits that are up to date and shared with the team. Our monthly meeting has a full agenda promoting and sharing best practice.

**Effects of changes** These changes have allowed the department to move to a more cohesive and coherent view of their work around quality. We have helped to standardise care, share good practice and maintain a quality service for the future. The staff wellbeing group has started a free fruit and lunchtime walking initiative. While the patient voice group have raised the profile of recoding this in clinic letters and meetings.

**Lessons learnt** One of the greatest challenges was getting colleagues to prioritise “quality” work above their clinical case load. In a busy department it can be hard find time to implement change. The quality day provided a different environment away from clinical duties to allow people to think about what we could do better.

**Message for others** Identifying “quality” and the evidence required to show this is the first step. Forming a central easily accessed folder containing all the information along with an index or database to assess progress is the next. Using the CQC standards as a template for our files helped us to organise our thinking in line with national standards. Engaging colleagues and encouraging personal responsibility to support ongoing improvement is also essential.

#### G576(P) LOOKED AFTER CHILDREN AT RISK OF BLOOD-BORNE INFECTIONS: A QUALITY IMPROVEMENT AUDIT

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Looked After Children (LAC) is a term used to describe any children under the care of local authority. Currently, 83,000 children are Looked After in the UK and the number is steadily increasing. As part of a statutory health assessment, the British Association for Adoption & Fostering (BAAF) has published in 2008 a guidance to help with the identification, assessment, testing and referral of those children at risk of blood-borne infections (BBI).

In Community Paediatrics in our University teaching Hospital, specialist LAC clinics run 3 times per week. Our department trying to ensure that best care is delivered to this vulnerable population launched a quality improvement project, aiming to assess, how well and how effectively our service identifies and tests children at risk of BBI, interrogating simultaneously its cost-effectiveness. Taking into account the difficulties in organising and getting consent for investigations in the LAC population, the cost of those investigations to NHS, but, on the other hand, the implications of potentially missing a serious infectious disease, we wanted to ensure that only those children who met the criteria had a BBI screen.

We assessed our service provision through an audit, basing our standards on the 2008 BAAF guidance. This was a retrospective audit from June 2013 to June 2014. In total 212 children attended the specialist LAC clinic. A risk assessment was carried out, based on information about parental health and lifestyle and the results of antenatal screening for Hepatitis B, Syphilis and HIV. Hepatitis C results were only available in high risk population (IV drug users). 37 children (17%) were identified as

needing a BBI screen. Out of these, only 22 children (60%) were screened. 8 out of the 22 children (36%) had a complete screen (including Hepatitis B/C and HIV); with the remaining having a partial screen. 12 children had Hepatitis C positive mothers. Worryingly, only 8 of those 12 children (66%) had a BBI screen. There were no Hepatitis B or HIV positive mothers. Reasons for not having a BBI screen were difficulties in obtaining consent, failure to identify the children at risk or to get the extended information about parental lifestyle and screening results. BBI screen revealed 2 children positive for Hepatitis C antibodies and appropriate follow-up was arranged. No children had a BBI screen when that was not indicated.

We subsequently developed a protocol in the form of two flowcharts. These will be included in the LAC health assessment paperwork and aim to promote clarity and good clinical practice. As failure to obtain consent played an important hindering factor in getting our vulnerable population screened, we suggested, when possible, consent is taken at the time of consultation. Improved communication and information sharing between Health and Social Care is essential. Finally, team education is greatly important and will be reinforced by the integration of BBI risk assessment to the induction programme of the new community trainees.

The feedback has so far been very positive. We strongly believe it promotes good clinical practice. We plan to implement this in March 2015 and we aim to maintain and reinforce those changes by continuous monitoring and evaluation of our service.

Looked After Children are, sadly, a growing population in our society. Their health promotion and safeguarding is a responsibility of both Social Care and Health Authority. It is crucial that we, as health professionals, constantly strive to offer a high quality service, by enhancing clinical enquiries and audits, supporting changes to practice and implementing those for improved patient outcomes and experiences.

#### G577(P) IMPROVING RECORDING OF POSTNATAL WARD NEONATAL OBSERVATIONS

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**Context** This audit was carried out on two postnatal wards at different sites within the same trust.

**Problem** Whilst working on the postnatal wards we observed that the observations that babies required (e.g. after meconium delivery) weren't being carried out according to the frequency specified in the guidelines. Therefore causing a negative impact on patients due to the potential for missing a deterioration if observations were not carried out appropriately.

**Assessment of problem and analysis of its causes** We found on average 41% of the recommended frequency of observations were carried out on site 1 and 52% on site 2. More than 50% of the recommended observations were not done in the following categories; maternal GBS, phototherapy and hypoglycaemia in site 1 and in site 2; hypoglycaemia, and 33–35+6/40 gestation.

It was felt a possible reason why such a low percentage of observations were completed was due to lack of awareness of the frequency specified in the guidelines. Additionally at site 1 there is no set place to record observations whereas at site 2 separate charts are used. This may explain the higher percentage of recorded observations at site 2.

Following these hypotheses we developed a structured observation chart.

**Intervention** The chart we developed is contained on an A4 sheet. At the top there is a table with all the reasons for a baby requiring observations with the corresponding frequency of observation required. At the bottom there is a chart where the observations can be recorded. This incorporates a neonatal early warning system (NEWS) which can help to flag up early deterioration in patients (see inserted image).

**Study design** This audit was a prospective study. Over two weeks all babies on the two postnatal wards that required observations were analysed. The outcomes recorded were; the reason for the baby requiring observations and the frequency of observations carried out.

**Strategy for change** Currently the new observation chart is being approved by the care management group. After this has been done we will need to train the midwives to use the chart, calculate the NEWS score and how to act on it. This will take around 6 months.

**Measurement of improvement** Once the chart has been implemented we will re-audit using the initial audit design. We will then compare the results to ascertain if the new chart has resulted in improvement in the frequency of observations.

**Effects of changes** The new observation chart has not yet been implemented into practice, however once it is in use it will be clearer how often observations need to be done and deterioration of a patient will be flagged up earlier therefore improving patient safety. A potential problem will be training the staff across sites to use the chart effectively.

**Lessons learnt** Awareness of the guidelines is key in ensuring their implemented. When it is not clear how often observations need to be done the frequency is well below the expected standard. However by implementing a chart that makes the frequency of observations clear and by combining a recording chart with NEWS it is hoped that recording of observation will dramatically increase and therefore improve patient safety.

**Message for others** As junior doctors it is key that when we spot something on the wards that affects patient safety we investigate its extent and root cause. We can then implement changes to improve patient safety. By using an observation chart which specifies the frequency of observation the number then missed will reduce, therefore any deterioration in a baby's observations will be spotted earlier. Additionally by using a NEWS the midwives will have a guide on how to act when a baby has abnormal observations. This again will help to identify unwell babies earlier.

#### G578(P) POTENTIALLY PREVENTABLE UNEXPECTED TERM ADMISSIONS TO NEONATAL INTENSIVE CARE (NICU)

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**Context/Problem** Admission of babies to NICU for medical care involves the separation of mothers and babies. We questioned what proportion of term babies were admitted in our institution and what interventions they required. We hypothesised that a significant proportion of babies would have minimal intervention on admission and a number would have potentially avoidable and treatable causes that would lend themselves to quality

improvement interventions. We aimed to identify causes of potentially preventable admissions as a key performance area to target.

**Assessment of problem and analysis of cause** We retrospectively reviewed the NICU database to identify all babies  $\geq 37$  weeks gestation admitted to our tertiary level service over a 12-month period.

We classified term admissions as "expected" when NICU admission was anticipated following an antenatal diagnosis or "unexpected" where there were no concerns.

**Study design** Through Badgernet, demographic data were collected for all babies and the source of admission, diagnosis, interventions and length of stay (LoS) documented. For those infants in whom Badgernet data was incomplete or missing, retrospective case note analysis was undertaken.

**Results** There were 5843 babies delivered over the 12 month period of whom 4900 (83.9%) were  $\geq 37$  weeks. There were 453 (9.2%) term babies admitted to NICU; 65 (14%) of these admissions were expected and 389 (86%) unexpected.

We identified a number of babies who did not meet the recommended standard for achieving high-level neonatal care benchmarked against admission temperature and blood sugar level. Blood sugar level was documented in 174 babies (44.7%). Of these, 20 babies were identified as having a True Blood Glucose (TBG)  $< 2$  mmol. 25 babies had admission temperatures to the unit of  $< 36.5^{\circ}\text{C}$ , 10 with admission temperatures  $< 36^{\circ}\text{C}$ .

105 of 389 babies were discharged or transferred within 6 h of admission. 11/105 babies required medical intervention prior to transfer for cardiac or surgical management. The remaining 94 were discharged to the postnatal ward, 22 of 94 received IV antibiotics, no other interventions were required in the remaining 72.

72/389 (18.5%) of unexpected admissions at term required no medical interventions and were discharged to the postnatal ward within 6 h, representing 9.5% of all admissions to the unit.

**Measurement of improvement** Commonest reasons for admission in this group were mild respiratory distress, hypothermia and hypoglycaemia.

Following on from identifying these reversible causes we have implemented a quality improvement temperature bundle for use in labour ward, postnatal wards and NICU. This uses a visual cue to ensure both ambient temperature and infant temperatures are regularly checked. The introduction of this improvement bundle has enabled regular prospective audit of our temperature targets.

**Conclusion and lessons learnt** 9.2% of term infants were admitted to NICU. A significant proportion of "unexpected" admissions had a brief NICU stay and received minimal intervention. These infants who had minimal interventions represent a substantial share of the workload and admissions to NICU.

A concerning number of infants had hypothermia and hypoglycaemia on admission, a key area to target in implementation of quality improvement strategies.

Provision of simple supportive interventions in a Transitional Care Unit or observation area could potentially have reduced unexpected term admissions by 9.5%.

#### G579(P) PARENTAL PERCEPTION OF NEONATAL CARE

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