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)

¹CL Granger, ²A Okpapi, ¹C Peters, ¹M Campbell. ¹Neonatal Intensive Care Unit, Royal Hospital for Sick Children, Glasgow, UK; ²Neonatal Intensive Care Unit, Wishaw General Hospital, Glasgow, UK

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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 ≥ 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 ≥ 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

VR Kistareddy, C Hauptfleisch, J McGowan. Neonatal Unit, NHS Grampian, Aberdeen, UK

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