42% cycle 3. The rate of LocSSIP use is similar for each procedure surveyed (Intubation 38% [n=8], Central line insertion 35% [n=31], Lumbar puncture 55% [n=11]).

The survey of staff attitudes to the project showed that all staff who responded (6/6) preferred the electronic documentation, reporting it was easier to complete in the electronic format. They were less positive about the generic LocSSIPs form with only 2/6 liking it. Some staff preferred the separate paper forms for each procedure which contained lists of equipment and specific pre-procedural checks relevant to each procedure (e.g. checking suction, oxygen supply, head position etc for intubation).

Conclusion This project has embedded the importance of clear documentation of invasive procedures among medical staff, with a standardised pro forma allowing medical trainees to easily document the salient information and post procedural checks. Additional education is needed to encourage documentation of unsuccessful procedures and procedures undertaken away from NICU. Laminated procedural checklists (including equipment) have been made readily available following the move towards electronic documentation.

Further work is needed to increase use of the LocSSIP procedural time-out, and encourage a cultural change amongst medical and nursing staff to help them understand its importance in the prevention of errors.

Aims Delay in administering medications in an emergency setting because of unfamiliarity is often not considered as a medication error and hence may be underreported. Little is known of its incidence or impact during resuscitation. Incorrect intrasosseous needle selection and placement may lead to increased morbidity and/or mortality.

We performed a quality improvement initiative to improve the knowledge of healthcare professionals (doctors, nurses and healthcare assistants) in the Emergency and the Paediatric Department with paediatric emergency drugs and intrasosseous needle selection. We aimed to reduce avoidable time delays in emergency medications administration and to reduce unsuccessful intrasosseous placement which we believe will improve patient safety and clinical effectiveness.

Methods Paediatric and Children Emergency staff were surveyed on the baseline knowledge of paediatric emergency drugs and intrasosseous needle selection.

A retrospective analysis of medication error incident reports from January to November 2021 was conducted.

Results In the first survey, 34 (50% medical, 41% nursing, 9% others) staff completed the questionnaires. Of 34 people surveyed, 85% (n=29) of doctors and nurses (including senior practitioners) had no confidence in dealing with paediatric electrolyte emergencies. More than half were not familiar with antiseizure medications (53% n=18) or supraventricular tachycardia management (62% n=21).

In the second survey which involved only the senior staff of both the Paediatric and Emergency department, of the 23 staff questioned (35% consultants, 39% registrars and 26% sisters), 61% (n=14) chose the incorrect intrasosseous needle size for the corresponding age/weight group.

There were no reports of medication error for emergency drugs in the time frame analysed.

Conclusion Familiarity with emergency drugs and intrasosseous needle selection appeared to be far lower than the expected standard.

As a quality improvement project we are targeting interventions that will engage and educate staff in order to produce positive changes in clinical practice. This includes distribution of three pocket cards similar to the size of a standard identification card to the staff.

Interim data analyses at 1 to 2 months post intervention will influence the future design of projects including setting out a clear definition of delayed drug administration and reporting it as an incident when it happens.

Aims Antenatal hydronephrosis (ANH) is the most common congenital anomaly picked up by ultrasonography with an incidence of about 1%. Although majority resolves by birth or in infancy, it is important to investigate postnatally to identify those with urological abnormalities that will require intervention or long-term follow-up. Our current guideline outlines the pathway to follow and a quick guide for junior doctors.

The aim of this project was to identify if the pathway was being followed to determine where improvements could be made and implement interventions to reduce these.

Methods We did a prospective review of case notes from August to November 2021 analysing each step in the ‘Quick Guide for SHOs’. This included electronic documentation, clinic letters and telephone conversations with parents on occasion. The second part involved creating and sending an anonymous questionnaire to the trainees to check their understanding of the condition and pathways.

A driver diagram helped identify our primary and secondary drivers and create change ideas to prevent errors in the pathway. Repeated PDSA cycles identified and tested further interventions based on our findings.

Results We identified 12 babies reviewed in the paediatric nephrology telephone clinic. 2 were excluded as they did not have a diagnosis of ANH. Of the 10 babies, the correct pathway was chosen 100% of the time (10/10).

Antibiotics prophylaxis was started in 90% of the patients (9/10). 9/10 of the parents were told to continue antibiotics until the result of the scan was given to them. 1 parent only continued antibiotics for 5 days as that was what was written on the prescription.

The proforma was filled in only 20% of the time (2/10). 5 out of 10 patients did not have a discharge summary done. The consultant responsible for follow up was emailed 75% of the time.

The information leaflet was only provided to a parent on one occasion out of ten (10%).

Of the 6 trainees that responded to the survey, 3 (50%) of them were not confident in the management of ANH. 2 of 6
did not know where to locate the ANH guideline and did not consult these for management. Only 20% knew where to find the patient information leaflet, and none knew where to find the proforma. None of the trainees that responded had provided parents with information leaflets.

83% of trainees felt guidelines should be made more accessible and 83% would have liked a teaching session on ANH.

**Conclusion** Development of a guideline with clear pathways and a quick guide for SHOs to refer to has resulted in most babies with ANH receiving appropriate postnatal management. However, our review highlighted the need for improving trainee knowledge regarding the condition and the pathway to be followed, and thereby improving patient experience.

Changes implemented include making the guideline and patient information leaflets more easily accessible, and delivering a teaching session on ANH to new trainees. Following on from this, we are in the process of collating data to determine whether improvement has occurred.

### Abstracts

#### 464 PILOT STUDY OF THE IMPLEMENTATION OF CARE MAPS FOR FAMILIES WITH A CHILD WHO HAS COMPLEX HEALTH NEEDS

Angharad Rose. Medical Student

10.1136/archdischild-2022-rcpch.717

**Aims**

**Background** Complex health needs refers to the unique multidisciplinary health and social care needs of an individual. These needs impact on both the patient and their families; this is more apparent in paediatrics, where they must adjust their care duties.

Boston Children’s Hospital designed a tool called: The Paediatric Integrated Care Survey, and made use of care maps to help better coordinate care.

This pilot study was designed with the aim to assess whether:

- The questionnaire was appropriate for use in the Sheffield Children’s Hospital
- Care maps showed promise as a useful tool for both families and those involved in the child’s wellbeing.

**Methods**

**Method** The Paediatric Integrated Care Survey was used to interview a parent of a child with complex needs. A medical student undertook three on inpatient wards, and two were recorded and transcribed. They were also asked if the questionnaire felt appropriate.

Care maps were then discussed, using the self-produced example attached (see figure 1):

- The purpose of them
- How it feels to complete one
- If they would be helpful.

**Results**

Using the questionnaire appears to be appropriate in this setting. Transcripts from the interview provided the following themes:

- The difficulties for the child
- The difficulties for the parent
- The family unit
- Their service providers

They found care maps:

- Easy to produce alone
- Provide a better understanding of their child’s priorities

- Display who is involved in their care
- Were a digestible form to inform care providers of the complexity of their child.

Abstract 464 Figure 1

**Conclusion**

Implementing a way for this map to be accessible would allow better integration of care. It should also be possible to update it when priorities of needs change.

A larger study should be conducted in order to see the full impact care maps could have with the coordination of care and how this helps their family.

**REFERENCES**


#### 509 ROLE OF BLOOD GAS BILIRUBIN MEASUREMENTS AND TREATMENT FOR NEONATAL JAUNDICE IN NEONATES

Naveed Alam, Mona Sidahmed, Sonal Kapoor, Muhammad Nadeem, Mehul Kumar Joshi. Leicester Royal Infirmary

10.1136/archdischild-2022-rcpch.718

**Aims**

Hyperbilirubinemia is common in the first week of life with 60%–80% of babies developing jaundice. Though usually uncomplicated, untreated hyperbilirubinemia can lead to irreversible neurological injury. Prevention of bilirubin-induced neurological dysfunction includes universal risk factor and clinical assessment with Total serum bilirubin assessment. Point of care testing has the advantage of rapid bedside results, improving outcomes. Bilirubin measurement is available via blood gas analysers in most children hospital emergency departments and on the wards. Studies have shown good accuracy and precision of blood gas bilirubin compared with standard serum bilirubin assessment. Children’s Hospital at Leicester has been using Gas Bili as well as Serum Bilirubin.

**References**

1. [Internet] https://www.childrenshospital.org/integrated-care-program/patient-and-family-experience-outcome

