IMPLEMENTATION OF A BILIRUBIN MONITORING DOCUMENT IN THE NEONATAL ICU AND POSTNATAL WARD SETTING AT UNIVERSITY MATERNITY HOSPITAL LIMERICK

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Introduction Transcutaneous (TcB) and serum bilirubin (SBR) levels are often monitored during the neonatal period in order to decide if a newborn requires phototherapy. Other details, however, are required to assess the infant’s risk factors and threshold of treatment. Gestational age, ABO/Rh incompatibility and Direct Coombs test (DCT) are important amongst other risk factors to guide our management. Aim To improve clarity and safety when recording TcB and SBR results by creating a one-page document encompassing all necessary pieces of information. Method Our trial bilirubin monitoring document consisted of 3 sections. The first section is a standard Phototherapy nomogram followed by a section for details such as name, chart number, gestational age, date of birth, time of birth, DCT status and other risk factors. The third section consists of a table with columns for date, time of blood sample, age in hours, TcB, SBR, risk line, risk Zone and plan. Moreover, we included 8 rows for continual monitoring. Three months after implementation and education of this trial document, a survey was carried out amongst midwives and neonatal nurses in UMHL. Various questions were asked regarding the clarity and safety of the new document when compared with the old way of documenting. Feedback and comments were collected and analysed.

Results 24 individuals responded to the survey. Of these, 58% found the old way of documenting ‘unclear’ whereas 20% found it ‘very unclear’. 21% found the new document ‘clear’ and the remaining 79% found it ‘very clear’. 71% found the new document ‘easy to use’ and the remaining 29% found it ‘very easy to use’. 33% found the new document to be ‘safer’ and the remaining 67% found it ‘much safer’ to use when compared with the old way of documenting. Suggestions received included creating a column for the doctor’s signature next to the plan and also to indicate a line for the mother’s blood group in the second section.

Discussion Prior to implementation of this new document, all of these details were scattered throughout the chart making it difficult for another doctor to ascertain the information when it comes to interpreting a new bilirubin result for a particular newborn. Survey response was in favour of using our new document, due to its clarity, ease of use, enhanced safety and continuity of care. We plan to consider adding the suggested changes and finalising this document as a quality improvement initiative.
Conclusion Upon department discussion it was agreed to introduce a safety pause, read-back and an ISBAR system to optimise time, patient safety and communication. Punctual attendance was stressed, as was up to date information being assigned to the ward clerk in the morning.

**P154** IMPROVING THE HAEMOGLOBINOPATHY SCREENING PROGRAMME FOR HIGH-RISK PATIENTS IN A TERTIARY MATERNITY HOSPITAL IN DUBLIN, A PILOT QUALITY IMPROVEMENT INITIATIVE

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**Introduction**

A more coordinated haemoglobinopathy screening is desired across European countries. A non-funded pilot screening programme was implemented in six Irish maternity units in 2005. It aims to identify patients with haemoglobinopathies such as sickle cell disease and thalassemia, by screening patients from high-risk ethnic origins.

As screening involves identifying disease carriers, ensuring informed consent is vital. Since the introduction of an electronic healthcare record in the Rotunda hospital in November 2017, patients no longer sign consent forms before blood samples are taken. Attendance rates at haematology clinics are poor, it is proposed that this is due to lack of education about screening and lack of early contact with results.

**Aim**

To ensure appropriate information sharing between laboratories.

To ensure parents are fully informed of the benefits of screening and that their consent to testing is recorded.

To ensure correspondence is sent to all families informing them of positive test results and arranging a follow up appointment with haematology.

To establish a successful pilot programme that can be expanded to all other maternity units.

**Methods**

A cross-hospital working group was established. Following a literature review, the HSE Change Model was used as an organisational development model. An information leaflet, a consent form and a letter informing parents of abnormal results were developed. A standard Operating Procedure was agreed which outlines how screening will proceed uniformly across all hospitals.

**Further Steps**

These improvement initiatives are being implemented in the Rotunda.

An organisational development approach is used to ensure that consent is obtained and positive test results are acted upon. Rates of attendance at haematology OPD will be reviewed following implementation of changes.

Following successful implementation, the initiative will be replicated in the other pilot hospitals and ultimately in all maternity hospitals in Ireland.

**REFERENCES**
