British Association of Perinatal Medicine and Neonatal society

810 AUDIT OF THE USE OF FIBRINOGEN IN A TERTIARY NICU 2018–2020

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10.1136/archdischild-2021-rcpch.213

Background Fibrinogen is an integral part of the coagulation cascade. Fibrinogen disorders in the neonatal period may be congenital (rare) or acquired. Neonatal hypofibrinogenemia is typically associated with no or mild bleeding, although severe haemorrhage may occur. In this unit (Level 3 NICU, 8,500 deliveries/year), fibrinogen concentrate is the recommended treatment for hypofibrinogenemia. There is a paucity of evidence available regarding the optimal management of neonatal hypofibrinogenemia and the administration of fibrinogen concentrate is a high-risk activity that carries the risk of thrombosis.

Objectives To compare the use of fibrinogen concentrate in our unit, to the 2016 BCSH and local guidelines and the product literature.

Methods Neonates who received fibrinogen concentrate between 1/1/2018 and 15/10/2020 were included. Audit approval was obtained, and data collected retrospectively from the electronic health records. The guidelines used as the audit

standard were 'Guidelines on transfusion for fetuses, neonates and older children' 2016 BCSH guidelines, a local neonatal transfusion policy and the Summary of Product Characteristics for Riastap. Data collected included the indication for treatment and fibrinogen level.

Results Thirty-five neonates received fibrinogen during this period (table 1). Only one case was due to congenital hypofibrinogenemia, the remainder were acquired. In the 31 episodes with active bleeding, the most common type was mild skin/mucosal bleeding (28%), followed by pulmonary (26%) and intracranial (13%).

Conclusions The administration of fibrinogen in this audit, often occurred with fibrinogen levels >1 g/L and in the absence of active haemorrhage. This may suggest the excessive use of fibrinogen concentrate. However, the evidence to guide the treatment of hypofibrinogenemia in neonates is limited. A recent study highlighted the role of thrombocytopenia and coagulopathy as associated risk factors for severe haemorrhage. These were not evaluated in this audit and may have prompted fibrinogen administration in some cases.

The results were presented to the department and an action plan was devised to reduce the use of fibrinogen. Re-auditing is warranted, and further studies are required to evaluate the optimal management of neonatal hypofibrinogenemia.

Quality Improvement and Patient Safety

812 USE OF SALBUTAMOL FOR BRONCHIOLITIS IN INFANTS UNDER THE AGE OF ONE: A QUALITY IMPROVEMENT PROJECT EVALUATING THE PRACTICES IN AN NHS EMERGENCY DEPARTMENT

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10.1136/archdischild-2021-rcpch.214

Background The National Institute for Health and Care Excellence (NICE) guidelines do not currently recommend the use of salbutamol in infants under the age of 2 years due to lack of evidence of effectiveness and concerns about harm. It has been estimated that only 17–27% of UK clinical practice may be compliant with these guidelines. In February 2020 the Joint Royal Colleges Ambulance Liaison Committee (JRCALC) changed their guidelines for managing respiratory distress in children, emphasizing that salbutamol is rarely effective in children under 1 year of age.

Objectives We conducted a quality improvement project assessing the use of pre-admission nebulised salbutamol in infants under 12 months brought in by ambulance to an English NHS Emergency Department (ED), before and after the change to the JRCALC guidelines.

Methods The audit compared two periods: November 2019; and November/December 2020. Two months were required in 2020 to increase the number of patients included. Electronic patient records for November 2019 were retrospectively audited. Inclusion criteria included: all children under 1 year old brought in by ambulance with an initial presentation documented as respiratory distress and/or a final ED discharge diagnosis of bronchiolitis, upper respiratory tract infection, lower respiratory tract infection or viral induced wheeze. We recorded whether these children were treated with nebulised salbutamol before arrival. We then developed

Abstract 810 Table 1 The use of fibrinogen in neonates

	2018	2019	2020 (10 months)	total
Number of patients	9	18	8	35
Number of fibrinogen doses	12	29	10	51
Number of patients receiving > 1 dose	2	3	1	6
Number of repeated doses	3	11	2	16
Pre-transfusion fibrinogen level (g/L)	N/A: 1 <0.5: 1 0.5–0.99: 3 1–1.49: 4 ≥1.5: 3	N/A: 6 <0.5: 1 0.5–0.99: 9 1–1.49: 9 ≥1.5: 4	N/A: 0 <0.5: 0 0.5–0.99: 6 1–1.49: 3 ≥1.5: 1	N/A: 7 <0.5: 2 0.5–0.99: 18 1–1.49: 16 ≥1.5: 8
Gestational age in weeks, range (median)	30–39 (34)	25–41 (38)	30–41 (34)	25–41 (37)
Neonatal death	22% (2/9)	28% (5/18)	13% (1/8)	23% (8/35)
Compliance to Criterion 1: hypofibrinogenemia (<1g/L)	33% (4/12)	41% (12/29)	60% (6/10)	43% (22/51)
Compliance to criterion 2: active bleeding	58% (7/12)	66% (19/29)	50% (5/10)	61% (31/51)
Compliance to criteria 1+2: hypofibrinogenemia and active bleeding	17% (2/12)	17% (5/29)	40% (4/10)	22% (11/51)
Compliance to dose of fibrinogen	75% (9/12)	83% (24/29)	80% (8/10)	82% (41/51)

an educational video in September 2020 highlighting the above mentioned JRCALC guideline changes and shared it on the Oxfordshire paramedics teaching website. We then conducted a repeat audit for November and December 2020.

Results In November 2019, 53 infants were brought in by ambulance to our ED fitting the inclusion criteria, of which 9 (17%) had been given nebulised salbutamol by the paramedics. In November and December 2020, 19 infants met inclusion criteria, of which 2 (15%) received salbutamol from the paramedics. The two patients who received salbutamol were less than 6 months old and were not diagnosed with viral induced wheeze or anaphylaxis.

Conclusions The JRCALC guidelines for salbutamol were adhered to in 83–85% of the pre-hospital cases that were audited. The change in salbutamol practice between audit cycles was small, however analysis is limited by the low number of patients. Unfortunately, only 4 paramedics watched our video; this may have been related to the pressures of the COVID-19 pandemic that were experienced during this time. We therefore need to assess the best way to disseminate guideline changes to our teams. There was a significant decline (75%) in the number of children brought into our hospital by ambulance with respiratory problems from 2019 to 2020, requiring us to expand data collection to two months, likely to be due to a reduction in circulating respiratory viruses due to the social response to the COVID-19 pandemic. The two infants who received salbutamol did not have a clinical indication for their use in this age group (i.e. anaphylaxis). We need to improve dissemination of guidelines pertaining to management of respiratory problems in infants to pre-hospital care providers by repeating the training when the pandemic is over.

British Association for Community Child Health

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EVALUATION OF CLINICIAN AND PARENT/CARER VIEWS OF REMOTE AUTISM ASSESSMENTS DURING COVID-19 PANDEMIC IN A LONDON AUTISM ASSESSMENT SERVICE

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10.1136/archdischild-2021-rcpch.215

Background Remote autism assessment has been shown to be valid and have a high level of parental satisfaction (Juarez et al., 2018).

Social distancing required during the Covid-19 pandemic meant that in order to continue providing a diagnostic autism service with minimal impact on waiting times, a redesign of our assessment pathway with some remote elements was required.

Objectives This study aimed to evaluate clinician and parent/carer views of remote autism assessments in order to inform design of our autism assessment pathway for future pandemic waves and beyond.

Methods An online survey about clinicians' experience of remote autism assessments was created with a separate online survey for parent/carers (including additional questions for a child or young person [CYP], if able to participate) about

their views. Some questions required a scaled response (for example, a five point scale ranging from 'very dissatisfied' to 'very satisfied'); other questions required a free-text response.

The online link to both surveys was sent by email to all clinicians in the assessment team. Clinicians were asked to complete a survey for every child for whom they were case coordinator, for any autism assessment started between 1.4.20 to 30.9.20. The clinician was asked to email the parent/carer survey online link to the parents/carers of each child.

Responses of both clinician and parent/carer surveys were analysed.

Results There were 37 clinician responses, ten parent/carer responses and two CYP responses.

The ethnic spread of parents/carers matched that of the local population. 76% of parents/carers had English as their first language.

Three out of 37 parents/carers (8%) did not agree to having a remote assessment. The part of the assessment most often carried out remotely was the parent interview (30 out of 37 cases) followed by the assessment feedback (28 out of 37 cases).

A diagnostic conclusion was reached in 94% assessments. There were technological issues in 16% assessments.

90% parents/carers were 'very satisfied' with assessment process. 90–100% parents/carers were comfortable with video technology and said it was easy to carry out assessments tasks remotely.

Parents/carers described being pleased that their child's assessment could proceed without delay due to social distancing. Parents/carers and CYP respondents described being more relaxed in their own home while being assessed. Others described avoiding the inconvenience of travelling to the clinic.

However, when asked, 'If you could choose again, would you choose remote or face-to-face?', families were split 50/50.

Conclusions This study provides evidence that remote autism assessments had a high level of diagnostic conclusiveness with little technological difficulty. There was a high level of parental satisfaction. However, parents are split as to whether they would choose remote assessments over face-to-face if given the choice again.

In future, parents/carers may be offered a choice over some remote aspects of autism assessments. Financial and time implications of remote autism assessments require further evaluation.

International Child Health Group

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RISK FACTORS FOR SHORT-TERM SIDE EFFECTS OF PHOTOTHERAPY IN NEONATAL JAUNDICE

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10.1136/archdischild-2021-rcpch.216

Background One of the most frequent conditions facing the neonatologists daily is the neonatal jaundice. About 60% of term and 80% of preterm infants develop jaundice early in the first seven days of their lives. Phototherapy is considered one of the cornerstones of the of hyperbilirubinemia management. It represents a significant role in the prevention and treatment of hyperbilirubinemia; however, it is not a harmless