Management of Infants of Mothers with Peripartum Hyponatraemia

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Background Neonatal sodium levels are reflective of maternal sodium levels. There is no clear consensus regarding the management of the infant in the setting of maternal peripartum hyponatraemia.

Objectives The aim of this project was to determine current management of neonates born to mothers with peripartum hyponatraemia in Royal Jubilee Maternity Services, Belfast.

Methods The details of mothers with sodium levels <132 mmol/L from RJMS Delivery suite were retrospectively obtained over a 6 month period (1st March-31st August 2019). The corresponding baby details were searched on the lab system to identify if a U&E had been sent within the first 72 hours life. Of the U&E samples sent, the infant sodium levels were correlated to the maternal sodium level. Management outcomes of the infants were recorded in the following categories: U&E sample obtained, Sodium level categorised (low, normal, or elevated), NICU admission, sepsis screening.

Results 95 mothers of a total of 2466 births (4%) were identified with hyponatraemia (Na <132) in the specified 6 month period. Of the infants of these mothers, 26% had a U&E measured within the first 72 hours of life, 35% had screening for early onset neonatal sepsis, 11% were admitted to NICU.

Of those infants that had a U&E sample sent: 75% sodium (Na) level of ≤134, 21% Na 135–145, 4% Na ≥146.

Conclusions The babies of mothers with hyponatraemia are often hyponatraemic. Suggest consideration of routine U&E testing in infants of mothers with Na ≤130 and paediatric review if neonatal hyponatraemia significant or not quickly resolving.

RCPCH Trainees Committee

Simulation Training for Video Laryngoscopy for Neonatal Intubation

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Background Around 1 in 100 neonates are born requiring extensive resuscitation, including intubation. Neonatal intubation is traditionally taught using direct laryngoscopy (DL), and the RCPCH paediatric curriculum emphasises that trainees should be capable of bag/mask ventilating and endotracheal intubation of a neonate. In anaesthetic practise it is encouraged to plan for failure and consider alternate laryngoscopy methods if initial intubation is unsuccessful. Video laryngoscopy (VL) may allow faster time to best view and better views compared to direct laryngoscopy (DL) during intubation of the anatomically normal neonate. Furthermore, VL can be effective for training purposes allowing real time feedback from senior colleagues and quicker acquisition of intubation skills.

Objectives The primary objective is to educate paediatricians to use VL. The secondary objective is to assess change in opinions and confidence in VL following simulation training.

Methods Within a district general hospital, 17 participants including 12 paediatric trainees and 5 non-trainee participants (consultants, physicians associates and medical students). Each participant completed a pre and post simulation questionnaire, which included assessment of prior VL education and experience, understanding of planning for failure and confidence in VL technique. Low fidelity simulation training of VL (MacGrath) and airway adjuncts was undertaken by paediatric and anaesthetic colleague.

Results Of the participants, 8/17 (47%), including only 3/12 (25%) of the trainee group, had received previous training in VL and 5/17 (29.4%) had previously used VL during real time intubation. In the pre-education group, 4/17 (23.5%) preferred initial intubation attempts using VL, which increased in post education group to 8/17 (47%). In the pre-education group, 6/17 (35.2%) stated they would choose VL for second intubation attempt, which increased in the post-education group to 15/17 (88.2%). In the pre-education group 4/18 (23.5%) stated they would be confident in using VL for second intubation attempt, which increased to 13/17 (76.4%) in the post-education group.

Conclusions VL is a beneficial tool for neonatal intubation and non-invasive surfactant administration, and is a useful for allowing real-time feedback on the procedural skills from a supervising senior. In our study, we demonstrated that VL training and experience wasn’t extensive, and following a short education programme, confidence and enthusiasm for VL increased.

References

British Paediatric Respiratory Society

Exploring the Decline in Paediatric Respiratory Admissions During the COVID-19 Pandemic

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Background The COVID-19 pandemic has led to the implementation of public health measures that aim to slow the transmission of the virus. The United Kingdom government implemented the first national lockdown on March 23rd, 2020, which lasted until June 1st, 2020. During the lockdown, non-essential businesses were suspended, schools were closed, and citizens were instructed to stay at home. These public health measures have resulted in unanticipated effects on children’s health and well-being.