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1021

MANAGEMENT OF INFANTS OF MOTHERS WITH PERIPARTUM HYPONATRAEMIA

Claire Ridvan Parris, David Sweet. *Royal Jubilee Maternity Services (RJMS), Belfast, UK*

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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 ($\text{Na} < 132$) 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% $\text{Na} \geq 146$.

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

RCPCH Trainees Committee

1024

SIMULATION TRAINING FOR VIDEO LARYNGOSCOPY FOR NEONATAL INTUBATION

Simon Jackson, Margaret Sinnott, Jenna Johnston. *NIMDTA*

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Background Around 1 in 100 neonates are born requiring extensive resuscitation, including intubation.¹ 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.² Furthermore, VL can be effective for training purposes allowing real time feedback

from senior colleagues and quicker acquisition of intubation skills.³

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 colleagues.

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.

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British Paediatric Respiratory Society

1025

EXPLORING THE DECLINE IN PAEDIATRIC RESPIRATORY ADMISSIONS DURING THE COVID-19 PANDEMIC

¹Nai-Wei Wang, ²Christa Brew, ²Oluwadamilola Bamigbade, ²Haji Sheeraz Khan. ¹Hull York Medical School; ²Paediatrics, Hull Royal Infirmary, Hull

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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.

Objectives Describe the changes in the patterns of paediatric respiratory admission observed in Hull University Teaching Hospitals (HUTH) during the first lockdown in the United Kingdom during the COVID-19 pandemic and explore the possible explanations for the observation.

Methods The study included paediatric patients admitted to the HUTH with bronchiolitis, lower respiratory tract infections, asthma, viral-induced wheeze, or multi-trigger wheeze during the period of April 1st to May 31st in 2017, 2018, 2019, and 2020. Air pollution data was obtained as the Daily Air Quality Index. To study the well-being of patients who were under the care of the paediatric respiratory team, data on telephone respiratory clinics was also collected. General practitioner consultation data was sampled from six surgeries in Hull.

Results Significant decline in paediatric respiratory admissions was observed in April and May of 2020 compared to the same months in previous the three years (decrease of 89.3% from 2017, 85.5% from 2018, and 87% from 2019). Data from the general practitioner surgeries revealed a decline in respiratory presentations. Findings from the telephone clinics revealed that most (87.2%) of the children under the paediatric respiratory team were doing well respiratory health perspective and did not require any changes to their treatment.

Conclusions A significant decline in paediatric respiratory admissions was observed in HUTH during the first lockdown in the United Kingdom. Findings from telephone respiratory clinics and general practitioner consultations suggest that parental fear of contracting COVID-19 is unlikely to be the sole explanation for the observed decline.

British Association for Community Child Health

1027

ADVERSE CHILDHOOD EXPERIENCES (ACEs) AWARENESS: A TRUST-LEVEL EVALUATION

Vivien Wong-Spracklen, Susan Ozer, Inyang Takon, Vinod Tyagi, Sarah Corrigan. *East and North Hertfordshire NHS Trust*

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Background Adverse Childhood Experiences (ACEs) are events that can potentially cause lasting adverse impact in later life. By identifying ACEs early in the course of a child's clinical encounter, healthcare members are in positions to help direct appropriate support to the child and family.

Objectives To measure ACEs-awareness levels among healthcare staff dealing with children. To identify barriers preventing healthcare staff from identifying and proactively implementing interventions when encountering ACEs in clinical practice.

Methods A questionnaire survey, held over 7 weeks, was sent to medical staff in acute paediatrics, neonatology, community paediatrics, emergency medicine, and acute maternity services. Email invitations to a GDPR-compliant survey platform was distributed, upon approval from various departmental safeguarding leads. Results were consolidated and analysed using Excel software. Respondents from CAMHS were excluded due to CAMHS operating under a different trust.

Participants were asked about their current awareness of ACEs and their confidence levels using ACEs in their daily clinical practice; where they had received their ACEs-training;

and whether they were keen to attend ACEs-training. They were also asked to select from a list, what would be classified as ACEs.

Results 87 responders out of 283 invites (31% response rate) were received. 38 responders (44%) were Nursing staff, 7 (8.0%) were Midwifery staff, 16 (18.5%) Consultants, 2 (2.3%) associate specialists, 15 (17%) specialty registrars, 5 (5.7%) senior house officers, 1 (1.1%) foundation doctor, and 3 (3.4%) allied health professionals (dietician, health play specialist, and advanced nurse practitioner).

Most respondents, 34 (39%) had never heard of ACEs. Only 12 (14%) respondents were confident in applying ACEs in clinical practice.

When shown a list of social circumstances and asked to identify which were ACEs, 75 (86%) correctly identified all ACEs in the list. ACEs that were least recognised by responders were 'Migration' (78, 90% had correctly identified this ACE), 'Parental mental ill-health' and 'Bereavement' (82, 94%).

75 (86%) respondents were unaware of ACEs-training in the Trust. 71 (82%) had never attended ACEs-training before. Of those who did (16; 18%), cited ACEs-training were from Online modules, safeguarding training run by the Local Authority, Royal College of Paediatrics and Child Health Level 4 training, or regional paediatric study days, and trust induction.

79 (91%) respondents expressed eagerness to attend ACEs-training. Of the respondents who expressed 'No,' (8, 9%), reasons were: 'Different priorities,' 'Unsure of benefits,' 'Covered in safeguarding,' and 'A trauma-informed approach rather than the ACEs model, is better.'

Conclusions ACEs-awareness among healthcare staff working with children is suboptimal, but staff showed eagerness to learn about ACEs. This positive attitude should be further developed by incorporating effective, relatable training sessions either through in-house training, leaflets and posters to raise awareness of intervening and preventing ACEs, or via online Trust or external continuing professional development (CPD) providers' Learning Modules. As a result of our study, ACEs-training was introduced in Safeguarding induction and training. With more frontline awareness, it is hoped that protective, resilient factors that will help counteract the impact of ACEs can be implemented promptly, in the lives of affected children attending health services.

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1028

SIMULATION TRAINING FOR VIDEO LARYNGOSCOPY FOR NEONATAL INTUBATION

Simon Jackson, Margaret Sinnott, Jenna Johnston. *NIMDTA*

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Background Around 1 in 100 neonates are born requiring extensive resuscitation, including intubation.¹ 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