P190 IPAD4 – IMPROVING PAEDIATRIC AIRWAY DOCUMENTATION

Peter Donnelly*, Joanne Perkins. *Evelina London Children's Hospital, London, UK*

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Introduction and aims Intubation outwith the theatre environment is associated with higher risks than in-theatre intubation.¹⁻² Patients admitted to the paediatric intensive care unit (PICU) may also have airway abnormalities making intubation unpredictable. Staff should be aware of any previous procedural difficulties. This audit set out to improve documentation about the paediatric airway in PICU.

Methods A quality improvement project was performed in PICU over 24 months with progress being recorded using a predesigned proforma. This aimed to ascertain details regarding the patients airway and airway proceduralist. It was also recorded if the bedside nurse was aware of the documented grade of laryngoscopy. The following interventions were performed and subsequently re-audited 1: a new airway details box was added to the paper observation balance chart, 2: a new electronic system was implemented in the PICU to replace all paper charts, 3: a laminated 'cheat sheet' was placed at every bedside displaying key airway details. A 20 chart snapshot audit was performed after each intervention.

Results Some areas of documentation have shown marked improvement over the audit cycles. Bedside nurse awareness of airway details showed marked improvement with 90–100% (previously 24–75%) being aware of the grade of laryngoscopy. 100% of nurses knew where to find details about previous intubations and the size and length of the endotracheal tube was documented in 100% of cases. Documentation of the ease of bag mask ventilation (BMV) remains largely unchanged with an initial documentation rate of 50%. This fell with the initial two interventions before improving back to 50% in the most recent re-audit. Another area of improvement was documentation of laryngoscopy grade improving across the audit cycles from 79% to 95%. Documentation of the grade of airway proceduralist and ease of intubation showed marked deterioration with the implementation of the electronic monitoring system (falling from 79–100% to 5–10%, and from 28–50% to 15% respectively).

Discussion and conclusion The interventions performed to date have had mixed results with many areas showing improvement in documentation. Implementation of a new electronic system has provided some challenges and will provide an opportunity for further quality improvement interventions. Bedside nurse awareness of essential airway details have shown marked improvement over the duration of this project.

REFERENCES

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P191 AUDIT ON ROLE OF CHEST X-RAY IN CHILDHOOD COMMUNITY ACQUIRED PNEUMONIA (CAP)

^{1,2}Pankaj Agrawal*, ²Muhammad Shoaib Iqbal, ²Asim Khan. ¹Cork University Hospital, Cork, Ireland; ²Letterkenny University Hospital, Letterkenny, Ireland

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Background Community Acquired Pneumonia (CAP) is defined as a clinical diagnosis of pneumonia in a previously healthy child due to an infection which has been acquired outside hospital. It is a major cause of morbidity and mortality in children worldwide and responsible for large number of hospital admissions. British Thoracic society (BTS) has classified CAP into mild to moderate and severe CAP. Chest X-ray should not be considered a routine investigation in children thought to have mild to moderate CAP. It was observed that large number of children admitted with CAP undergo chest radiography. We therefore decided to conduct an audit and implement the changes to prevent unnecessary exposure of X-rays in children and to reduce the workload on Radiology department.

Objectives To establish if we are following the BTS guidelines for mild to moderate community acquired pneumonia in children (update 2011), regarding chest X-Ray in children admitted as in-patients to the Paediatric Ward in Letterkenny University Hospital. **Methods:** Data was collected from the Medical Records of children who have been admitted to the Paediatric Ward during the period 1st Dec 2016 to 28th Feb. 2017. Children more than one year of age who were diagnosed as mild to moderate community acquired pneumonia as per BTS guidelines were included in the study. Data was collected using a short questionnaire using the audit tool provided by the BTS guideline.

Results A total of 49 patients chart were obtained. Out of these, 18 patients were excluded from the study, and 31 patients met the diagnostic criteria for inclusion. Among these 31 patients, 27 patients (87.09%) had chest x-ray done during admission. Most of these patients had unnecessary chest x-ray done for them, also there was no clear documentation on the reason the chest x-rays were carried out.

Conclusion There was very poor adherence to BTS guidelines regarding Chest X-Ray in children with mild to moderate community acquired pneumonia.

Recommendations 1). British Thoracic society guidelines should be followed appropriately in managing children with CAP. 2). Un-necessary Chest X-Rays on admission should not be done routinely in mild to moderate CAP. 3). There should be regular teaching sessions on recent BTS guidelines to keep updated all doctors working in Paediatric unit in Letterkenny University Hospital.

P192 THYROID SCREENING PRACTICES IN THE FIRST YEAR OF LIFE IN CHILDREN WITH DOWN SYNDROME

Lubna Mahmood*, Alfonso Herrera. *St. Luke's Hospital, Kilkenny, Ireland*

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Introduction Down syndrome, trisomy 21, is the most common cause of developmental disability in Ireland with a birth prevalence of 1 in 546 which is highest in Europe. It is associated with several congenital anomalies, including cardiovascular, gastrointestinal, metabolic, endocrine systems and intellectual disability. Among endocrine disorder, those affecting thyroid function are most frequent.

Congenital hypothyroidism is about 27 times more common among infants with DS than in general population. It has an incidence of 1% as detected by newborn screening. Beyond newborn period, it is reported to be as high as 85% in infants under the age of 12 months.