Association of Paediatric Emergency Medicine

1342 EVALUATING THE IMPACT OF ANTIMICROBIAL STEWARDSHIP INTERVENTIONS IN A UK PAEDIATRIC EMERGENCY DEPARTMENT

Background Antimicrobial resistance (AMR) poses a major threat to human health. Although rates of AMR have risen significantly in adults over the past few years, increasing rates of AMR are now being seen in children. Antimicrobial stewardship (AMS) is a highly effective approach to tackling AMR; however, few paediatric AMS initiatives have focused on antibiotic prescribing in an Emergency Department (ED) setting. There are data to suggest that rates of antibiotic prescribing for respiratory tract infections (RTIs) is higher in children presenting to emergency departments than in those presenting with comparable disease severity to primary care.

Objectives The focus of this study was to evaluate the impact of two sequential antimicrobial stewardship interventions on antibiotic prescribing for children aged <16 years presenting with upper and lower respiratory tract infections to the Paediatric Emergency Department (PED) at Southampton Children’s Hospital.

Methods Antibiotic prescribing data were collected over a 16 week period (03/08/2020–22/11/20). All children with a discharge diagnosis of upper respiratory tract infection (URTI), otitis media, tonsillitis, pneumonia and lower respiratory tract infection (LRTI) were included. Baseline data were collected between weeks 1–7. The 1st AMS intervention was a 15-minute educational session delivered either face to face or virtually to all PED clinicians by a PED consultant (DJ). The educational intervention used informational slide sets to reinforce the principles of judicious antibiotic use and appropriate antibiotic guideline adherence for RTIs through case-based learning scenarios and quizzes that facilitated group discussion. This intervention was repeated weekly between weeks 8–10, to ensure that all PEM staff were exposed to the intervention. The 2nd intervention, implemented on week 14, involved feedback of personalised antibiotic prescribing data, along with average antibiotic prescribing rates for the department, to each member of PED staff.

Results 502 children with RTIs presented during the study period. Antibiotic prescribing rates significantly decreased from 28.6% during the pre-intervention period to 20.5% at the end of the study (p<0.05). Antibiotic prescribing for a discharge diagnosis of URTI decreased from 9.3% to 4.8% (p=0.11), for otitis media from 78.9% to 53.8% (p=0.13), for tonsillitis from 71.8% to 48.8% (p=0.03) and for LRTI and pneumonia from 66.7% to 51.7% (p=0.31).

Conclusions The combination of an educational intervention and individualised feedback of prescribing data was associated with a significant reduction in overall antibiotic prescribing for children with RTIs managed in an ED setting. However, although reductions were seen for individual pathologies, statistical significance was not always reached. This may be due to the relatively small sample size; far fewer children were recruited during the 16 week study period than predicted due to the impact of the COVID pandemic on rates of PED presentations. In general the interventions were easy to implement; however, manual interrogation of patient notes was required to collect individual clinician prescribing data, this was labour intensive and would ideally be automated through the use of electronic prescribing systems. Further work is required to show if the findings from this study can be replicated in other settings and if this impact is sustained or requires repeated AMS interventions.

Association of Paediatric Palliative Medicine

1343 DISCUSSING ORGAN AND TISSUE DONATION BY CHILDREN WITH CANCER; IS THERE A TRAINING NEED?

Background There is an ever-increasing demand for deceased organ donation in the UK with 198 paediatric patients awaiting a transplant as of February 2020. Conversely, in the year April 2019 - March 2020, just 3% (n=50) of all solid organ donors were children and young people under 18 years. Although the scope for donation by children with malignancy is small, organ and tissue donation (OTD) may be possible for some patients. Evidence shows that offering discussions around the topic might be beneficial to families, regardless of whether donation is achieved. However, there is little guidance or provision for training to support those professionals who may be involved in introducing these conversations outside of specialist teams.

Objectives This study sought to assess the understanding of organ donation after death in children and young people with malignancy amongst clinicians working in Paediatric Oncology and Haematology, Paediatric Intensive Care and Paediatric Palliative Care. The survey intentionally included those clinicians working with patients who would be ineligible for organ or tissue donation, as conversations regarding this topic may still arise and therefore demonstrate a training need.

Methods A 12-question online survey consisting of both quantitative and qualitative elements was constructed to identify common themes of understanding amongst clinicians in the specified departments. This was disseminated via a range of contacts, including national newsletters released by the Children’s Cancer and Leukaemia Group and the Association for Paediatric Palliative Care and Haematology. PICU clinicians were targeted via local contacts within London units. Additional responses were received from local requests to specialist paediatric palliative care teams and paediatric oncology centres within London.

Data was collated and analysed to reveal themes in clinician understanding, recognise barriers to discussion and identify a need for training in this area.

Results There were 22 responses collected, the majority from intensive care doctors (32%) and palliative care nurses (32%). Nearly half of respondents (45%) had been asked about OTD by patients or their families, mainly during palliation. While most were aware of the possibility of OTD