Abstracts

(IBM) for height prescribing in grossly oedematous or overweight children. Additionally, a stronger focus was placed on antibiotic stewardship. For instance, following two gentamicin doses the prescriber is prompted to review diagnosis, culture results and on-going antimicrobial indication. A further prompt for Paediatric Infectious Diseases discussion is highlighted in treatment courses exceeding five doses.

Methods A rapid-fire PDSA QI approach was employed, with contribution from Paediatric Infectious Diseases, Paediatric Nephrology and Pharmacy departments. The team pursued this project during the COVID-19 pandemic, despite some initial colleague hesitancies. Throughout implementation, the chart design, content and accessibility were regularly scrutinised. An initial three month pilot was conducted in RBHSC PICU & surgical ward (August- November 2020), prior to hospital-wide adoption. Pre- and post-implementation multi-disciplinary education sessions helped to embed its clinical use and facilitate user feedback. Following pilot, the chart was amended to include specific instructions to review both anaesthetic and emergency department records, to ensure gentamicin doses weren’t missed. An audit of toxic gentamicin levels (≥1), renal function monitoring and associated AKI was conducted, comparing serum gentamicin levels sent in the 6 months prior to and following chart introduction. Quantitative and qualitative staff feedback was also obtained.

Results Audit data showed improvement in renal function monitoring (84.6% to 100%) and associated reduction in AKI (33.4% to 22.2%), following chart introduction. However, similar levels of gentamicin toxicity were encountered before and after chart implementation (9.8% and 10.7% of all gentamicin results respectively). Staff feedback was overwhelmingly positive, with 100% of prescribers agreeing the chart enhanced their knowledge of therapeutic drug monitoring, and prescription and monitoring in renal impairment. Furthermore, regional implementation was supported by all survey respondents. New relationships with laboratory colleagues has facilitated the development of an auto-analysis function to process creatinine results when serum gentamicin levels are requested; this will help to limit clinician variability and may prompt enhanced AKI recognition.

Conclusions A collaborative, multi-professional approach to a standardised gentamicin prescription chart will help to harmonise paediatric clinical care throughout Northern Ireland and may contribute to improved antimicrobial prescribing, monitoring and stewardship.

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1267 REGIONAL VARIANCE IN THE INVESTIGATION OF PROLONGED JAUNDICE- THE NEED FOR A STANDARDISED APPROACH

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Background Paediatric trainees in Northern Ireland perceive variation in the investigation of infants with prolonged jaundice. With national guidance from NICE and BSHGAN we feel there should be a unified, regional Northern Ireland approach to ensure all infants achieve the appropriate standard of care. 1,2

Objectives To identify the first-line investigations performed in infants presenting with prolonged jaundice among paediatric training units in Northern Ireland and examine variation in practice.

Methods We conducted a retrospective, multi-centre cohort study in the five main paediatric training units in Northern Ireland. A trainee and consultant ambassador were identified in each unit to facilitate data collection. Cases were identified from hospital records and included infants referred with prolonged jaundice over a three-month period (October to December 2020). 20 patients were randomly selected from this cohort with case notes and electronic laboratory results reviewed. A bespoke electronic data collection proforma was created and included gestation, method of feeding, referral source, clinical presentation, investigations performed and overall diagnosis.

All hepatology patients in Northern Ireland are managed by the Birmingham liver unit. Their ‘Yellow Alert’ jaundice protocol recommends initial clinical assessment and investigations.

Results 106 patient records were reviewed, of which 16 were identified by the assessing clinician as not jaundiced. This left a study population of 90 infants.

Health visiting teams were the largest referrers (44%) followed by midwives (13%) and general practitioners (4%). The referral source was unknown in 36% of cases. The majority of cases were assessed between 0900–1700 (97%). Paediatric advanced nurse practitioners assessed 48% of cases with ST1–2 paediatric doctors assessing 24%. The mean age at referral was 15 days old. 88% of cases were term infants. The mean gestational age was 37+6 weeks. 58% of the infants assessed were breastfed, 25% formula fed. 14% were combination fed, method of feeding was unknown for 3%.

Only one infant was described as ‘unwell’ at the time of assessment, presenting with obstructive symptoms and subsequent diagnosis of biliary atresia. 42% of cases were attributed to breastfeeding associated jaundice, 32% physiological jaundice. No overall diagnosis was documented in 24% of cases.

All 90 infants had a split bilirubin performed. 13 different variations of blood tests were performed with 90% getting a full blood count, 67% receiving liver function tests, 61% had thyroid function test and 32% having electrolytes checked. 30% of these infants also had a urine culture.

7% of infants in Northern Ireland followed the Birmingham ‘Yellow Alert’ protocol for their initial prolonged jaundice investigation. 3

Conclusions There was demonstrable variance amongst the investigation of infants with prolonged jaundice in Northern Ireland.

Our findings suggest that following the ‘Yellow Alert’ initial protocol would have identified the one pathological jaundice whilst reducing investigations required in the vast majority of infants with breastfeeding/physiological jaundice.

A regional guideline is being developed. Implementation of a unified approach will benefit patients, by reducing additional investigations and paediatric medical staff by ensuring a consistent regional approach. This will help further minimise the time and medico-economic burden on the health service.