Estimated costs from birth to adulthood (18 years) in those with uncomplicated MCDK were calculated from the respondents' free-text answers. 53 (88%) respondents' answers were detailed enough and suitable for this analysis. Mean estimated costs were £1,962 (range: £258 - £3,854). Although the average costs were greater for general paediatricians compared to paediatric nephrologists, this was not statistically significant (£1,950 SD± £871 versus £1,485 SD± £829).

Conclusions Management of children and young people with unilateral MCDK varies nationally. Review of current evidence suggests this variation extends globally. There is increasing consensus for avoiding invasive testing and taking a more pragmatic approach, but the risks of hypertension and progression to chronic kidney disease remain a concern in some, highlighting the need for a clear pathway to ensure those at high-risk of renal sequelae are recognised early and followed-up appropriately.

Association of Paediatric Emergency Medicine

1568

THE USE OF CENTOR AND/OR FEVERPAIN SCORING CRITERIA TO DETERMINE ANTIBIOTIC PRESCRIBING IN ACUTE SORE THROAT ACCORDING TO NICE NG84 GUIDELINE

¹Harpreet Kaur Dodd, ²Adam Atkinson. ¹James Cook University Hospital; ²Gateshead NHS Trust

10.1136/archdischild-2021-rcpch.723

Background NICE guideline NG84 sets out an antimicrobial prescribing strategy for acute sore throat. The aim is to limit inappropriate prescribing, which can lead to antibiotic resistance as well as suppurative and non-suppurative complications such as Rheumatic fever. The highest incidence of acute sore throat is in children (Nice CKS, 2021) yet there are no studies or national audit data which look at use of NG84 in paediatric patients presenting to secondary care. Therefore, we studied the use of scoring systems within the Paediatric Acute admissions unit, and if antimicrobial use and choice was appropriate.

Objectives

1. In paediatric patients who presented with sore throat to secondary care, to identify if Fever Pain or Centor Criteria was formally used
2. Identify whether antibiotic prescribing was initiated as per defined scoring criteria and
3. Identify if antibiotic choice was appropriate in accordance with the NG84 recommendation

Methods Two researchers retrospectively reviewed ED notes and discharge summaries from Medway of paediatric patients presenting with 'sore throat' between 15/03/20–30/05/20. FeverPain and Centor scores were calculated from notes and outcomes compared to NG4 guidance.

Results 54 cases were identified, ranging 0–13 years of age. 4 cases were excluded due to alternate diagnoses. In all cases specific references to FeverPain or Centor criteria were not recorded. We could not calculate FeverPain in 10 cases (20%), and Centor scores in 16 cases (32%) due to lack of clinical detail. Most missed criteria included examination of throat

and assessment for cervical lymphadenopathy. Using FeverPain criteria, antibiotic prescription was indicated in 31 cases. 29 cases received antibiotics. Using Centor criteria, antibiotic prescription was indicated in 32 cases, with 29 cases receiving antibiotics. Appropriate antibiotic selection occurred in 89.7% of cases.

Conclusions We do not reference clinical scoring systems in notes, yet appropriate antibiotic choices are made in 89.7% of cases. Throat and neck examination was most frequently missed, however this study was carried out after RCPCH advised against examination of sore throats unless necessary. To improve practice, we have created a sticker with FeverPain scoring criteria, as well as a clinical education tool. We will re-audit results in 2021. Further research is needed to validate a which scoring system is best in children presenting acutely to secondary care with an acute sore throat.

British Association of Perinatal Medicine and Neonatal Society

1569

INCREASED OXIDATIVE STRESS POST-BLOOD TRANSFUSION IN PRETERM SMALL FOR GESTATION INFANTS COMPARED TO APPROPRIATE FOR GESTATION INFANTS

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10.1136/archdischild-2021-rcpch.724

Background Compared to appropriate for gestation (AGA) infants, small for gestation (SGA, defined as < 10 percentile birthweight for gestation and sex) infants are at higher risk of bronchopulmonary dysplasia and retinopathy of prematurity, diseases associated with oxidative stress. Although blood transfusions are associated with oxidative stress, it is unknown how SGA and AGA infants react to blood transfusion.

Objectives To determine oxidative stress in SGA and AGA infants after blood transfusion.

Methods A prospective observational study of infants <30 weeks gestation at birth who received blood transfusion. Exclusion criteria included any blood product administered within 3 weeks, sepsis, renal and liver disorders. Urine was collected pre-transfusion, and at 24–48 and 49–72-hours post-transfusion. ELISAs were used to measure thiobarbituric acid reactive substances (TBARS), 8-isoprostane and 8-hydroxy-2-deoxyguanosine (8-OHdG) as markers of lipid peroxidation and DNA oxidative injury. Levels were normalized to the urinary creatinine levels. Statistical analysis was performed using a two-way non-paired Student t test or Mann-Whitney test for continuous variables as appropriate and χ^2 or Fisher's exact test for categorical variables. Linear regression was performed to adjust for confounders.

Results 58 AGA & 14 SGA infants were enrolled in the study for analysis. The demographic characteristics of the study participants in each group were quite comparable except for difference in birth weight as expected, small but statistical difference in gestational age and rate of caesarean section. Higher rates of caesarean section among the SGA group could be explained probably by the factors that complicate the delivery; though all infants in the SGA group received antenatal

corticosteroids. Mean age at blood transfusion was around 3 weeks in both the groups.

Urinary TBARs were higher in the SGA infants at baseline, they increased at 24–48 hours post transfusion and then declined at 49–72 hours but still were higher than the AGA group, the difference being statistically insignificant. The pattern of results were similar to TBAR's with the difference being statistically insignificant. When we analyzed the results for urinary 8OHdG between the two groups, there were significantly higher levels of urinary 8-OHdG in SGA infants compared to AGA infants at the two post-transfusion time points. Oxidative stress was further increased in SGA infants at 49–72 hours whereas levels were declining in AGA infants ($p = 0.001$). When the data was adjusted for gestational age, birthweight, post-natal age in days, sex, antenatal steroids and mode of delivery using a general linear model, the differences in 8-OHdG remained significant with $p = 0.009$ at 24–48 and $p = 0.04$ at 49–72 hours.

Conclusions SGA infants have increased oxidative stress after blood transfusions which may contribute to the higher incidence of BPD and ROP in this population. Our data suggests that transfusing blood to SGA infants should be done judiciously.

Quality Improvement and Patient Safety

1571

THE USE OF CENTOR AND/OR FEVERPAIN SCORING CRITERIA TO DETERMINE ANTIBIOTIC PRESCRIBING IN ACUTE SORE THROAT ACCORDING TO NICE NG84 GUIDELINE

¹Harpreet Kaur Dodd, ²Adam Atkinson. ¹James Cook University Hospital; ²Gateshead NHS Trust

10.1136/archdischild-2021-rcpch.725

Background NICE guideline NG84 sets out an antimicrobial prescribing strategy for acute sore throat. The aim is to limit inappropriate prescribing, which can lead to antibiotic resistance as well as suppurative and non-suppurative complications such as Rheumatic fever. The highest incidence of acute sore throat is in children (Nice CKS, 2021) yet there are no studies or national audit data which look at use of NG84 in paediatric patients presenting to secondary care. Therefore, we studied the use of scoring systems within the Paediatric Acute admissions unit, and if antimicrobial use and choice was appropriate.

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1. In paediatric patients who presented with sore throat to secondary care, to identify if Fever Pain or Centor Criteria was formally used
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specific references to FeverPain or Centor criteria were not recorded. We could not calculate FeverPain in 10 cases (20%), and Centor scores in 16 cases (32%) due to lack of clinical detail. Most missed criteria included examination of throat and assessment for cervical lymphadenopathy. Using FeverPain criteria, antibiotic prescription was indicated in 31 cases. 29 cases received antibiotics. Using Centor criteria, antibiotic prescription was indicated in 32 cases, with 29 cases receiving antibiotics. Appropriate antibiotic selection occurred in 89.7% of cases.

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British Paediatric Allergy Immunity and Infection Group

1572

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