sepsis, type of feeding and neonatal complications). Information concerning the development of atopy in children in both groups, as well as any family history of atopy, was obtained through a simple questionnaire.

Results There were 38 infants in the group treated with ranitidine (exposure group) and 37 in the control group. There was no significant difference in perinatal characteristics and neonatal morbidity between the two groups. The prevalence of atopy was 39% in the exposure group and 47% in the control group (p = 0.57). Subgroup analysis showed the prevalence of milk allergy was 17% in both groups and Non Significant (NS); the prevalence of atopic eczema was 18% (exposure) vs 45% (control) (p = <0.001); and the prevalence of recurrent wheeze or asthma was 13% (exposure) vs 11% (control) (NS). Prevalence of other food allergies was very low and comparable. No difference in the family history of atopy was observed.

Conclusions Ranitidine treatment in preterm infants did not increase the overall prevalence of atopy at two years of age but a significantly lower prevalence of atopic dermatitis was observed in the group treated with ranitidine.

G91 A RETROSPECTIVE STUDY OF CHILDREN WITH ACUTE ENCEPHALITIS

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Background and Aims Encephalitis is a relatively rare but potentially devastating condition[1]. Our study investigated the presentation and management of children with encephalitis presenting to a tertiary UK hospital.

Methods Cases of encephalitis presenting during 2001 – 2009 were identified using clinical coding records and a clinical database maintained by the paediatric infectious diseases team. Inclusion criteria were children between the ages of 3 months to 16 years who presented with an acute encephalopathy. A retrospective case notes review was performed and management compared to local infectious disease guidelines for children with an unexplained acute encephalopathy.

Results 71 cases were identified and notes were found in 58 cases. 29 cases met the study criteria.

The commonest presenting features were confusion (86%), fever (69%), seizures (62%) and headache (60% in those aged over 5 years).

Microbiological and metabolic workup was inconsistent in relation to the local hospital guidelines. In particular exclusion of metabolic causes of acute encephalopathy was fully undertaken in only 28% of children. Confirmed or probable infectious aetiologies were identified in 21 cases (72%) with HSV (17%), VZV (10%) and EBV (7%) being the most commonly identified pathogens. Other final diagnoses included Acute Disseminated Encephalomyelitis (14%).

With regards to treatment, 97% of children were started empirically on aciclovir although 43% were prescribed half or less of the recommended dose for encephalitis. Anti-microbial use was also inconsistent between cases: ceftriaxone was started in 76%, azithromycin in 34% and amoxicillin in 12%.

Conclusion The initial investigation and management of children with an acute encephalopathy who are subsequently diagnosed with encephalitis did not fully follow the guideline in 76% of cases. The most important finding was the high incidence of inadequate aciclovir dosing in the empirical treatment of children with suspected encephalitis. Recently published guidance highlights the importance of a full clinical, microbiological and metabolic work up and emphasises the correct aciclovir dose[1]. Although encephalitis is an uncommon condition, awareness of its management is vital to prevent the high morbidity associated with the disease.

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G92 PRESCRIPTIONS OF ORAL PENICILLINS FOR CHILDREN: EVIDENCE OF WIDESPREAD DOSING VARIATION IN PRIMARY CARE

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Aims The British National Formulary for Children (BNFC) provides recommendations for dosing oral penicillins in children according to age-bands, weight-bands, and weight-based calculations. However, as childhood obesity is increasingly prevalent, dosing by age-bands could lead to clinically significant under-dosing. This study aimed to determine how current UK GP prescribing practise follows the original age-band dosing recommendations, which could lead to sub-therapeutic dosing.

Methods Detailed prescriptions for the oral penicillins in 0–18 year-old children from 2010 were analysed from the IMS Disease-Analyzer database, which contains computerised medical records from 125 general practises, representing approximately 2% of the UK population. It includes data on formulation, strength, prescription quantity unit, package size, prescribed quantity and volume.

Results For 2010, 388,926 patients aged 0–18 years were registered on the database (51% male), accounting for 376,292 person-years in total. There were 65,737 prescriptions for oral penicillins identified: amoxicillin (63%), penicillin V (17%) and flucloxacillin (20%).

The amoxicillin prescription results by age-band (as an example) showed:

1. In the first age-band of less than 1 year, no child received an amoxicillin prescription for the recommended unit dose of 62.5 mg; the majority received double the unit dose (125 mg);
2. In the second age-band of 1 to 5 years, 96% received prescriptions for the recommended unit dose (125 mg);
3. 40% of 6–12 year-olds and 70% of 12–18 year-olds were prescribed unit doses below those recommended in the BNFC for their age-band.

Prescriptions for otitis media were analysed separately. As patient weight was not available, average weights were used for the analysis (based on the 2010 Health Survey of England), and the dose in mg/kg/day was calculated. From these data, only children less than 1 year received the recommended BNFC dose of 40–90 mg/kg/day. For children aged 4–15 years, the prescriptions equated to 10–20 mg/kg/day, approximately 33% of the recommended dose.

Conclusions These results demonstrate wide variation in the dosing of penicillins for children in primary care. There is an urgent need to review and simplify current dosing ecommendations according to age-bands and weight-bands, in relation to the average weights of children today.