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Highlights from this Issue

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CHILDHOOD MENINGITIS IN THE CONJUGATE VACCINE ERA

The introduction of conjugate vaccines against *Haemophilus Influenzae* type b (1992), Group C *N meningitidis* (1999) and *Streptococcus Pneumoniae* (2006) in the UK has led to a significant reduction in the incidence of bacterial meningitis beyond the neonatal period. Sadarangani and colleagues report data from a prospective study across three hospitals (12 months, 2011–12). All patients who had a lumbar puncture for suspected meningitis or as part of a septic screen were included. 70/338 had meningitis – 13 bacterial, 26 viral and 29 with no pathogen identified. Bacterial pathogens were Group B *Streptococcus* (5), *Streptococcus Pneumoniae* (4), *E. Coli* (2), *Neisseria Meningitidis* (1), *Enterococcus* (1). Enterovirus (20) was the most common viral pathogen. Cerebrospinal fluid white cell count and plasma C-reactive protein at all ages and CSF protein in infants <3 months distinguished between bacterial and viral meningitis.

The data is important and highlights the need for up to date epidemiology of the clinical features, diagnostic testing and aetiology of childhood meningitis with the potential to impact on thresholds for testing and antibiotic usage long term. The authors highlight the need to improve diagnostic testing for non bacterial meningitis as part of the strategy to reduce antibiotic usage and hospital stay. *See page 292*

MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Severe acute malnutrition (SAM) accounts for at least 10% of all deaths among children under 5 years of age worldwide—virtually all of them in low and middle income countries. Trehan and Manary discuss the definition and different types—marasmus, kwashiorkor and marasmic kwashiorkor—epidemiology, assessment and practical management. Marasmus is diagnosed based on either a mid upper arm circumference (MUAC) <115 mm or a weight for height Z score of more than 3 standard deviations below the mean. Kwashiorkor is characterised by oedema. Marasmic kwashiorkor is the most severe type with the highest mortality. Treatment is dependant on severity and the presence of complications. The authors discuss the importance of an 'appetite test' prior to treatment then phased management

with careful monitoring potentially as an outpatient although as an inpatient in the most severe cases. The ten step inpatient management protocol for severe acute malnutrition is discussed (WHO, 2003) – stabilisation then rehabilitation correcting for hypoglycaemia, hypothermia, dehydration, electrolyte disturbance, micronutrient deficiencies, treating infection and then cautious refeeding with 75 kCal/100 ml then 100 kCal/100 ml feeds. It is an interesting and worthwhile article to read. Severe acute malnutrition can occur in any setting and these principles are applicable and relevant. *See page 283*

FEAR OF OXYGEN THERAPY FOR CHILDREN IN MALAWI

Hypoxaemia is a common finding in acutely unwell children and correlates strongly with mortality. Oxygen is a standard treatment and considered to be an essential medicine by the World Health Organisation which should be available in countries with limited resources in all areas where seriously ill patients are treated. Stevenson and colleagues explore attitudes and beliefs that influence the acceptance or refusal of oxygen therapy for children in Malawi (population 15 million, ranked 171/187 in the UN Human Development Index). This was by group interviews and then by interviews of health care staff. Key themes were identified. Past experiences of oxygen—direct or indirect, positive and negative had the strongest influence. A recurrent theme was the fear of oxygen often due to a perceived association between oxygen use and death. Worries were exacerbated by lack of familiarity with equipment and concern about cost. The authors conclude that health care staff need to be trained to assess and deal with these concerns and that through information, education and communication public understanding needs to improve to increase uptake of this essential and life saving therapy. In essence the challenges go beyond training in the assessment and management of sick children and the provision of therapy to education and reassurance leading to acceptance of the treatment given. *See page 288*

IMPORTANT DATA ON CHILDHOOD OBESITY

There is some evidence that overweight and obesity rates have started to plateau.

Jaarsveld and colleagues report data from 375 general practices (370 544 children, 570 483 BMI records, 1994–2013). The prevalence of overweight and obesity increased by 8.1% per year (95% CI 7.2% to 8.9%) for the first decade compared with 0.4% (–0.2% to 1.1%) from 2004 to 2013. Trends were similar for boys and girls, but differed by age groups, with prevalence stabilising in 2004 to 2013 in the younger (2–10 year) but not older (11–15 year) age group, where rates continued to increase albeit at a much slower rate. Despite this stabilisation of prevalence the concern remains that more than a third of UK children are overweight or obese and that there is an urgent need to intervene. This is discussed in Julian Hamilton-Shield's excellent editorial—Is the childhood obesity crisis over in England? *See pages 214 and 212*

HALLUCINATIONS AND ILLUSIONS IN MIGRAINE IN CHILDREN

Migraine is common in children and can be associated with a wide variety of symptoms including hallucinations (a sensory perception in the absence of an external stimulus that is experienced as real) and illusions (a mistaken or false interpretation of a real sensory experience). Smith and colleagues report a series of nine children referred to child psychiatry over a 12 month period with unexplained hallucinations or illusions in whom serious psychiatric disorders had been excluded. This included illusions of size, time, colour, body shape, movement and visual and auditory hallucinations. All also suffered headache and fulfilled diagnostic criteria for migraine. All had either a family history of migraine or a first degree relative with severe headache with two parents having experience perceptual distortions and illusions in association with episodes of headache. A number had the illusions/hallucinations before the onset of the headaches. In all the illusions/hallucinations were temporarily associated with headaches occurring before, during or after an episode. Symptom duration was variable and in many the illusions/hallucinations had not been mentioned at previous consultations. The authors highlight the association and that migraine is part of the differential of illusions/hallucinations in childhood. The authors discuss the wide differential of hallucinations in childhood including features that are more suggestive of psychosis. *See page 296*