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Highlights from this issue

Nick Brown, *Editor-in-Chief*

RHEUMATIC FEVER

Is there any disease group more 'deserving' of a place at the neglected tropical disease table than the post streptococcal illnesses, glomerulonephritis and rheumatic fever? These dropped off the radar of most high income countries in the second half of the 20th century but have continued to smoulder, largely unchecked, in low and middle income countries (LMICs). The burden is frightening: 300 000 incident cases per year and 30 million prevalent cases, the damage from chronic carditis resulting, in so many, in heart failure and stroke.

There are a number of approaches. Primary prevention (vaccination) remains a work in progress. Secondary prevention (prompt treatment) is largely dependent on diagnosis which depends on a positive throat swab or serological evidence in the form of the ASOT and ADB titres and this is where the complexities begin. Tertiary prevention, early diagnosis of heart disease by echo screening and prophylaxis has promise but is gestational. The range of population norms depends on exposure and threshold levels in one country might not be applicable elsewhere inevitably resulting in false positive and false negative results. Okello *et al* establishes a range of ASOT levels in urban Uganda and shows much higher mean titres than other comparable populations. Joshua Osowicki and Andrew Steer discuss the implications of these findings in the context of a multipronged approach to rheumatic fever during the wait for the long yearned-for group A streptococcal vaccine. *See pages 825 and 813*

FEBRILE NEUTROPAENIA

Oncological treatment is prolonged and draining for both a child and their family. A major contributor to the fatigue is the need for recurrent admissions for chemotherapy induced febrile neutropenia (FN). Though evidence of benefit is scanty to non-existent, it is traditional to keep children in hospital on IV antibiotic treatment for several days irrespective of culture results and clinical appearance. Sereveratne and colleagues assess the safety of a more flexible approach in a tertiary oncology centre, allowing discharge at 48 hours, even if culture positive as long as 'wellness' and social criteria were met

In total, 179 episodes of FN were reviewed from 47 patients. In 70% (125/179) of episodes, patients were discharged safely once 48 hours microbiology results were available, with only 5.6% (7/125) resulting in readmission in the 48 hours following discharge. There were no deaths from sepsis. This approach won't work for all episodes of febrile neutropenia, but, probably applies to the majority and the differences to quality of life if adopted widely are hard to overstate. *See page 881*

INFECTIOUS DISEASE MORTALITY

Trends in infectious disease mirror changes in vaccination programmes, society and the environment, diagnostics and microbiological epidemiology. Ferreras-Antolin examines Public Health England data over two eras, 2003 to 2005 and 2013 to 2015. In the latter period, there were 5088 death registrations recorded in children aged 28 days to <15 years in England and Wales (17.6 deaths/100 000 children annually) and, in the first 6897 (23.9/100 000). The incidence rate ratio (IRR) of 0.74 (95% CI 0.71 to 0.77) fell significantly and the stories behind these data are revealing. There is little doubt that PCV vaccination has played a role though, in this series, it is too early to assess the contribution of the (2015 launched) meningococcal B programme. The raw data also mask the rise of (the still non-vaccine preventable) invasive group A streptococcal disease (one of the arguments for varicella vaccination) and the future role for Group B streptococcal immunisation. Influenza deaths were rare and, despite a reduction between the eras was not a major explanator. *See page 857*

FIBRE AND CONSTIPATION

One of the more entrenched tenets of child nutrition folklore is that of the association between fibre and constipation. In a re-analysis of data from the latest NICE review, information from the ALSPAC cohort (in which stool consistency pre-weaning was established) and monozygotic twin studies, Tappin persuasively argues (through triangulation analysis) that fibre is the result of and confounded by parental response to hard stool and is neither a cause of constipation or a treatment. Laxation (as advocated) should be the first line and used early to prevent the all too familiar chronic issues with undertreatment: soiling; loss of self esteem; poor mood and loss of appetite. *See page 864*

DROWNING AND AUTISM

Drowning is a major cause of global child mortality, particularly in low and middle income country settings. Interventions such as fencing off access and swimming lessons have partially ameliorated the risk, but progress has been slow and awareness probably still the single best form of prophylaxis. Autistic children represent a high risk group due to their inherent communication and behavioural issues. Peden assesses the association between autism and drowning in Australia from coronial certificates between 2002 and 2018. Of the 667 cases of drowning among 0–19 year olds (with known history), 27 (4%) had an ASD diagnosis, relative risk 2.85 (95% CI 0.61 to 13.24). Children and adolescents with ASD were significantly more likely to drown when compared with those without ASD: if aged 5–9 years (44.4% of ASD cases; 13.3% of non ASD cases); in a lake or dam (25.9% vs 10.0%) and during winter (37.0% vs 13.1%). These sobering figures are likely to be an underestimate as the diagnosis of ASD is often not made until the age of 5 years, past the highest drowning risk preschool group. *See page 869*

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