

## Acute infective diarrhoea/ gastroenteritis in infants

Acute-onset vomiting and diarrhoea is one of the most common illnesses of infancy and second only to respiratory illnesses as a cause of childhood deaths worldwide. Acute diarrhoea may lead to life-threatening dehydration and electrolyte disturbances. Caused by acute infection with a variety of viruses, bacteria and parasites, the condition is easily recognised by caregivers and is usually managed at home. The intestinal infection is caused by contamination of food, water or hands. Existing guidelines for management of diarrhoea are often ignored in public and private practice, possibly because of a perception that the guidelines are too simple, or because the expectations of the need to give 'real' drug therapy to stop diarrhoea. The guidelines in this issue<sup>1</sup> are therefore a timely reminder of the management of a common and potentially dangerous condition.

The main principles in the prevention of diarrhoea are: full and exclusive breastfeeding; rotavirus vaccination of all babies; proper hand-washing hygiene; safe water; and safe disposal of waste.

Vomiting is largely attributed to local factors and poor gastric emptying and should not be treated with antiemetic drugs. Cyclizine and prochlorperazine have not proved useful and may carry an increased risk of toxic side-effects in young infants.

Abdominal pain is usually spasmodic due to disordered motility and metoclopramide should be considered if severe, although its extrapyramidal effects in young children warrant caution.

Diarrhoea is the manifestation of secretion/absorption disturbance and disordered motility; a symptom of damage already done in the infected gut. Anti-diarrhoeal medication is not advised.

Antibiotic therapy is not indicated in the majority of cases caused by viral infection.

Dehydration should be prevented by giving small frequent liquid feeds with added clear fluids such as salt-and-sugar solution, diluted juices or mildly sweetened tea, even when the child is vomiting. Severely dehydrated and shocked patients require intravenous resuscitation.

Diarrhoea that persists for longer than 2 weeks is no longer 'gastro'. Persisting diarrhoea is associated with deterioration of nutritional status, and must be managed actively to enable digestive and nutritional recovery.

## AIDS turnaround

Three papers<sup>2-4</sup> provide messages of hope for the massive task of managing South Africa's huge HIV/AIDS pandemic.

In their editorial<sup>2</sup> Pillay and colleagues reflect on the dark days of the South African government AIDS denialism and its negative international reception by medical scientists. Despite scepticism about South Africa being able to recover from the consequences of this major blunder, they paint a picture of a remarkable turnaround. South Africa now has the largest antiretroviral treatment (ART) programme in the world. On World AIDS Day 1 December 2009, President Zuma announced significant changes in the national AIDS prevention and treatment policies. Pregnant women would be eligible for ART at 14 weeks rather than 24 weeks, all HIV-positive children under 1 year of age would be eligible for ART irrespective of CD4

count, and TB/HIV co-infected patients and multidrug-resistant TB patients with CD4 counts of  $\leq 350$  cells/ $\mu$ l would be eligible for antiretrovirals. Progress has been made with provision of the much-expanded services required, and South Africa has moved from pariah status to a country acclaimed for its progressive HIV policies.

A strengthening of the health system in the prevention of mother-to-child transmission (PMTCT) of HIV at primary healthcare facilities and district hospitals is reported by Grimwood and colleagues.<sup>3</sup> Since the introduction of PMTCT strategies, vertical transmission of HIV has declined in low- and middle-income countries over 20 years from 20 - 40% to 2.8% in the best-case scenarios. Grimwood and colleagues analysed PMTCT outcomes at 58 primary- and secondary-level antenatal facilities across seven high HIV burden sub-districts in three provinces. PMTCT outcomes improved substantially during a period in which new PMTCT guidelines were implemented at sites receiving support from nurse quality mentors and community-based adherence supporters.

Despite the remarkable achievement of the scale-up of ART in South Africa, the estimated number of people requiring treatment in the next 2 years exceeds the capacity of the healthcare system if treatment continues to be initiated only by doctors. Cameron and colleagues<sup>4</sup> found that, despite challenges, many primary care nurses working in the seven provinces surveyed have taken on the responsibility of sharing the task of initiating and maintaining HIV-positive patients on ART. To meet the targets of further ART treatment, urgent requirements are: addressing the shortage of nurses at primary care facilities; providing additional consulting rooms; further training in clinical skills and pharmacology; and expansion of clinical mentoring.

## Text messages as a learning tool

A characteristic of people practising in professions is that they remain up to date in the theory and practice of their respective professions. However, in under-resourced settings access to continuing healthcare education may be difficult. Woods and colleagues<sup>5</sup> delivered essential healthcare lessons from the *Maternal Care* book of the Perinatal Education Programme (PEP) to more than 2 500 midwives via cell phone text messages each week for a period of 6 months. Their positive findings point the way for a much wider use of this technology to provide all health professionals in South Africa with a simple and cost-effective way of keeping up to date.

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