Imported malaria

Malaria remains a major cause of morbidity and mortality, with its greatest toll on populations in sub-Saharan Africa, where it impedes economic development. The World Health Organization estimated that there were over 800 000 malaria deaths in Africa in 2006, 85% of them in children <5 years of age. The increase in case-fatality rates in recent years is attributed largely to increasing resistance to antimalarial drugs in *Plasmodium* spp. Effective malarial control for over 50 years in South Africa has resulted in the risk of malaria being low, seasonal and limited to the low-lying north-eastern areas of the country. Because of the decline in cases nationally, patients and health care workers, particularly in malaria-free areas, may be less likely to suspect or recognise malaria. While artemisinin combination therapy (ACT) for uncomplicated malaria and quinine for severe or complicated malaria form part of the national policy in malaria-risk areas in South Africa, ACT is not available in the public sector outside these areas, and common practice is to administer a 7-day course of quinine treatment.

Weber and colleagues conducted a prospective survey of malaria cases diagnosed in hospitals in Gauteng from December 2005 to end November 2006 to describe the burden of malaria and identify potential risk factors for severe disease.[1]

Participants from 47 health care facilities submitted questionnaires on 1 701 malaria cases; 91% were seen at public sector hospitals and 9% at private sector hospitals, dispelling the notion that imported malaria is confined to affluent recreational travellers. Males accounted for 68% of patients, consistent with labour-related migration between malaria-endemic areas and Gauteng. Among males and females there were peaks in children aged under 10 years and adults aged 20 - 49 years. The majority of malaria cases occurred in the summer months, with a peak in January. The presumed geographical regions where the infection was acquired were Mozambique (84%), malaria-risk parts of South Africa (10%), and other African countries and south-east Asia (<1% each).

Apart from preventive measures and, when indicated, malaria chemoprophylaxis, the authors recommend that national and provincial health departments should consider changing treatment policy from quinine to ACT for treating patients with uncomplicated malaria at public sector facilities in non-malaria provinces.

Caesarean section – local anaesthetic pain relief

Delivery by caesarean section (CS) is becoming more frequent and is one of the most common major operative procedures performed worldwide. CS rates are 20 - 26% in the USA, Canada and the UK, while in the private sector in South Africa the rate is >50%. CS is performed under spinal anaesthesia, spinal epidural, epidural block or general anaesthesia. Because childbirth is an emotion-filled event and the mother needs to bond with her baby as soon as possible, any intervention that leads to pain relief is worthy of investigation. The review by Bamigboye and Hofmeyr[2] assessed the effects of local anaesthetic agent wound infiltration and/or abdominal nerve blocks on pain after CS and the mother's well-being and interaction with her baby.

Their review found that women undergoing CS under regional analgesia who had local anaesthetic infiltration or abdominal nerve block had a reduced need for postoperative opioids.

Dosage adjustment in patients with renal impairment

In patients with renal impairment, doses of renally excreted drugs should be adjusted. Failure to do so may lead to adverse effects, including nephrotoxicity. The incidence of in-hospital acute kidney injury attributed to drug nephrotoxicity is estimated at 19%.

The experience of dosage adjustment in medical patients with renal impairment at Groote Schuur Hospital was reviewed by Decloedt and colleagues.[3] They found renal impairment in 32% of medical admissions. Dosage adjustment was required in 19% of prescription entries, and only 32% of these were correctly adjusted. Their finding that drug dose adjustment was frequently neglected is consistent with international studies. Strategies to alert clinicians to the need for dose adjustment in renal impairment should be considered, including automated eGFR reporting and computerised aids to guide drug dosing, which account for renal impairment.

Acute viral bronchiolitis guideline

Bronchiolitis most commonly occurs as an acute illness in children younger than 2 years of age. The most frequent cause is rhinovirus or respiratory syncytial virus infection. In a guideline endorsed by the South African Thoracic Society, Green and colleagues[4] review the causative organisms, seasonality, clinical manifestations and diagnosis, features of severe disease, management, prevention and patient education. Principles regarding bronchiolitis that should be explained to parents or caregivers include that the condition is generally not serious, most cases do not require medication, antibiotics are of no value, respiratory symptoms should be monitored and concerns reported to their doctor, and symptoms may continue for weeks.

JPvN

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3. Decloedt E, Leisegang R, Blockman M, Cohen K. Dosage adjustment in medical patients with renal impairment at Groote Schuur Hospital. *S Afr Med J* 2010; 100: 304-306.
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