The 2003 - 2005 measles outbreak: complacency, HIV infection and neglect of vitamin A treatment

This global collaborative study[1] involving the Centers for Disease Control (USA), World Health Organization (Geneva and Nigeria), University of Pretoria and Department of Health sought to investigate the measles outbreak of 2003 - 2005 after this childhood infection had virtually been eliminated in South Africa following the 1996/7 campaigns. The authors report that the measles virus was re-introduced to Mpumalanga and Gauteng from Mozambique in July 2003, leading to an epidemic that cost many lives and lasted more than 2 years. The outbreak probably rode on the back of immunisation complacency during the years when measles infections had been effectively eliminated, and mirrored the experience elsewhere in the world where routine and campaign coverage dropped significantly in the years without measles transmission, leading to large outbreaks once the virus was reintroduced.

In part due to reduced maternal transfer of placental measles IgG, HIV infection among children reduces vaccine effectiveness, so that HIV-infected children have a higher rate of primary measles vaccine failure and experience higher measles mortality rates. However, this does not seem measurably to diminish the overall regional or global measles mortality reduction goals. Even high HIV prevalence countries such as South Africa are therefore able to achieve and sustain the interruption of endemic measles virus transmission.

The authors highlight at least three contributors to measles mortality in SA: HIV infection, failure to administer two doses of vitamin A 24 hours apart to children with the infection as recommended by the World Health Organization to reduce mortality, and the uneven application of respiratory isolation.

Paediatric liver transplantation in Cape Town – constrained by funding and donor paucity

According to Miller, Spearman and Kahn's[2] review of their experience with paediatric liver transplantation at UCT's Red Cross War Memorial Children's Hospital (RXH), 94 transplants have been performed on 91 patients since 1991, 70% of whom are alive and well, including 4 female patients who have successfully gone through pregnancy and childbirth. Biliary atresia still constitutes the commonest indication for liver transplantation in South Africa, in contrast to the UK where transplantation has virtually been replaced by the Kasai porto-enterostomy procedure for this condition.

Until 2004, the Paediatric Liver Transplant Programme was arguably the only such facility in the country, drawing patients from all over SA and beyond. But when the Wits Donald Gordon Medical Centre, a private academic facility, initiated paediatric liver transplantation there was a gradual shift in the referral patterns with most medical aid-funded patients going to the Wits centre, and indigent patients going to RXH.

The authors discuss the challenges that often crop up in the work-up of these little patients, foremost among which are concurrent tuberculosis and socio-economic deprivation (no running water, local clinic or literate relatives). However, the most pressing obstacles to liver transplantation in SA are funding, and a paucity of donors. Living donor transplantation, which has become more common elsewhere in the world, is still quite rare in SA. Perhaps SA should adopt the legal provision in some countries whereby a deceased person is automatically a donor unless they have actively opted out or instructed otherwise in their lifetime. But, given SA's diverse and often conservative cultural heritage, such a law will not see the light of day any time soon. Neither is a campaign for organ donation particularly visible in our country, and that is something that can be changed. As for funding, it will be interesting to see whether the mandatory National Health Insurance currently being mooted in political circles – if and when it does indeed come about – will help overcome this constraint. Until then, it would seem in order that some form of publicly supported fund is established to pay for rare and expensive procedures such as liver transplantation for children.

How do you measure up? Metabolic syndrome among hospital workers

The nutritional status of southern Africans has been well studied and well documented in the literature. What makes the work of Argentine researchers Garrido *et al*.[3] of particular interest is the fact that it focused on metabolic syndrome (MS) and obesity specifically among hospital workers, including nurses, office workers, health orderlies and industrial workers (but no doctors, unfortunately) in Botswana. The study was conducted in a Seventh-day Adventist Hospital, which is intriguing given that Adventist communities in the US have a reputation for adhering to sensible nutritional habits and consequently demonstrating better than average health indices.

The MS is a set of disorders including obesity, high blood sugar, blood pressure, triglycerides and so forth, all of which predispose to diabetes and cardiovascular disease. The study found a high incidence of obesity and MS among Botswana hospital workers. Studies in Europe, the USA and South America have also found a high prevalence of components of MS among doctors and nurses, particularly with respect to body mass and blood pressure, conferring a greater risk than the average population for developing cardiovascular disease.

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2. Millar AW, Spearman W, Kahn D. Paediatric liver transplantation in South Africa in 2009. *S Afr Med J* 2009: 99: 308-309.
3. Garrido RA, Semeraro MB, Temesgen SM, Simi MR. Metabolic syndrome and obesity among workers at Kanye Seventh-day Adventist Hospital, Botswana. *S Afr Med J* 2009: 99: 331-334.