

Current management of otitis media in Australia — foreword

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Otitis media in Australia, particularly among Indigenous children, has not received the attention that other less common but more emotive diseases attract. However, this condition, with its significant impact on hearing, language development and learning in the vulnerable early childhood years, has been commented on since early European settlement in Australia.¹

The end result of recurrent acute otitis media — chronic suppurative otitis media — is uncommon in most developed countries, but Indigenous Australian children account for the highest prevalence of chronic suppurative otitis media in the world (70% in some remote communities). The World Health Organization regards a prevalence of chronic suppurative otitis media of over 4% in a defined population of children as a massive public health problem requiring urgent attention.²

John Ah Kit, Minister for Community Development from the Northern Territory, described the situation of Indigenous children as

A spiral of being ill before birth, of being poorly fed in childhood, of being deaf at school. Of a life without work that would be cut short by a litany of disease and violence.³

What has happened in the 13 intervening years since the last *Medical Journal of Australia* supplement on otitis media was published?⁴ In some areas (described further in this supplement), our understanding of pathogenesis, new concepts of biofilm and intracellular infection, and the importance of nasopharyngeal carriage, we have progressed significantly. Likewise, new research — into the genetics of recurrent acute otitis media, the immunological responses of children to these infections, and the impact of antibacterial vaccines — is contributing to our knowledge about this condition. New social and medical interventions, such as the swimming pool project,⁵ building new housing, and the controversial Northern Territory Intervention, with new guidelines on the use of antibiotics in otitis media and its sequelae in children, have been partially successful in ameliorating the burden of otitis media in Indigenous (and non-Indigenous) children.⁶

Yet, in this time of financial constraint, the necessary programs to implement change in the fundamental and underlying causes of otitis media and its complications are not being provided. Chronic suppurative otitis media is a disease of poverty, and without actions to lessen overcrowding and provide appropriate housing and water supply, education of parents and adequate access to medical care, progress to improvement will be slow.⁷

In addition, throughout urban, rural and remote Australia, we must increase awareness about otitis media, and the ramifications of neglect of this silent epidemic, among parents, teachers, community leaders, and health workers. We must train more Aboriginal health workers specialising in ear conditions (and possibly also eye conditions and dental health), perhaps with support from ear nurse specialists (this has been very successful in the government-funded Variety Club ear buses program in New Zealand), and ensure there is an adequate workforce of audiologists, speech pathologists and teachers of the deaf to provide the necessary ancillary support services for children with impaired hearing and speech delays.

The recent publication *The cost burden of otitis media in Australia* brings to light the pervasive nature and community costs of otitis

media and its sequelae. Admission for insertion of grommets is the second major cause of surgical admission to hospital in Australia for children. Over 650 000 Australians had otitis media in 2008; 9.9% of these were Indigenous. For 2008, the estimated health system costs of otitis media range from \$85.6 million to \$163.2 million, and the net cost of lost wellbeing due to otitis media is estimated at between \$1.05 billion and \$2.6 billion.⁸

So where to next? Governments must advocate for otitis media prevention programs, improve living standards for socially disadvantaged families, ensure adequate medical and paramedical resources, and continue to fund basic and outcomes-based research into otitis media. As otitis media is, in part, a vaccine-preventable disease, attention to considering the newer vaccines available for invasive and otitis media infections in children for the immunisation schedule should be a priority.

Competing interests

None identified.

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References

- 1 Stewart J. The history and epidemiology of ear disease in Australian Aboriginal children. *Aust J Otolaryng* 1995; 2: 6-10.
- 2 World Health Organization, Ciba Foundation. Prevention of hearing impairment from otitis media. WHO/Ciba Foundation Workshop; 1996 Nov 19-21; CIBA Foundation, London. http://www.who.int/pbd/deafness/en/chronic_otitis_media.pdf (accessed Sep 2009).
- 3 Almost impossible to find a functional Aboriginal community anywhere in the Northern Territory: Ah Kit. 2002; 7 Mar. <http://australianpolitics.com/news/2002/03/02-03-07.shtml> (accessed Sep 2009).
- 4 Guidelines on the prevention and control of otitis media and its sequelae in Aboriginal children. *Med J Aust* 1996; 164 (10 Suppl): S1-S17.
- 5 Lehmann D, Tennant MT, Silva DT, et al. Benefits of swimming pools in two remote Aboriginal communities in Western Australia: intervention study. *BMJ* 2003; 327: 415-419. Erratum in: *BMJ* 2003; 327: 663.
- 6 Efficacy and safety of topical antibiotics in the treatment of ear disease: consensus panel update 2004. *Otolaryngol Head Neck Surg* 2004; 130 (Suppl 1): S56-S94.
- 7 Coates H, Morris PS, Leach AJ, Couzos S. Otitis media in Aboriginal children: tackling a major health problem [editorial]. *Med J Aust* 2002; 177: 177-178.
- 8 Access Economics. The cost burden of otitis media in Australia. Perth: GlaxoSmithKline, 2009. <http://www.access-economics.com.au/publicationsreports/getreport.php?report=190&id=244> (accessed Sep 2009).

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