

The Australasian Society of Infectious Diseases conference

The Australasian Society of Infectious Diseases (ASID) annual scientific meeting was held in Auckland from 18 – 21 March, 2015. A wide range of topics were discussed, many of which have relevance for primary care in New Zealand.

Invasive pneumococcal disease rates have dropped following introduction of routine pneumococcal vaccination

Dr Helen Petousis-Harris from the Immunisation Advisory Centre at the University of Auckland presented data linking falling hospitalisations from pneumococcal disease targeted by pneumococcal vaccines across all age groups with the introduction of routine vaccinations for infants.

The study is yet to be published in full, but preliminary figures indicate that:

- The rate of hospitalisation from invasive pneumococcal disease (meningitis or bacteraemia) in children aged six years and under has halved
- The greatest reductions in hospitalisations from invasive pneumococcal disease were among Māori and Pacific children, and children from low socioeconomic backgrounds, where a reduction of 70% has occurred
- There has been a decrease in hospitalisations for pneumonia in children aged six years and under, particularly Māori and Pacific children where reductions of 41% and 37% were observed
- Herd immunity effects have been observed, with rates

of hospitalisation from pneumococcal disease caused by serotypes covered by the vaccine halved in people aged five to 64 years, and decreased by 76% in people aged 65 years and over

- In 2013, in children aged five years and under there was just one case of invasive pneumococcal disease caused by a serotype covered by the PCV-7 vaccine

Otitis media rates have fallen following introduction of the PCV-10 pneumococcal vaccine

Data presented at the ASID conference indicate that:

- A decline in hospitalisations for otitis media occurred during 2011–2014, the period of use of the PCV-10 vaccine. This was observed particularly in Māori children: hospitalisations and procedures for otitis media in Māori children aged six years or under were 40% lower in 2013 compared to 2006, the year prior to routine vaccination.
- During the time that both PCV-7 and PCV-10 vaccines were in use, children who received at least one dose of the PCV-10 vaccine were less likely to be admitted to hospital with otitis media than children receiving only the PCV-7 vaccine.

Fusidic acid resistance and MRSA

Dr Deborah Williamson, from the University of Otago, Wellington, presented research showing a rise in fusidic acid resistance in *Staphylococcus aureus* in New Zealand and explained how this is linked to an increase in methicillin-resistant *S. aureus* (MRSA).

New Zealand now has one of the highest prevalence of *S. aureus* resistance to fusidic acid in the world. Genetic analyses of MRSA samples has shown that a “home grown” strain of MRSA has risen to become the dominant strain of MRSA, making up 34.7% of all MRSA clones isolated from clinical specimens in New Zealand in 2011. This strain is almost always fusidic acid resistant, and the gene which gives this strain resistance to fusidic acid is located near to the gene which confers methicillin resistance. Therefore, selection pressure for fusidic acid resistance in this strain is also selecting for methicillin resistance as these genes tend to be inherited together.

The most recent data from ESR, using *S. aureus* samples collected in March 2014, show that 8.9% were methicillin resistant (MRSA). Resistance to fusidic acid was found in 57.6% of methicillin resistant *S. aureus* isolates, as well as 21.8% of methicillin-susceptible *S. aureus* isolates. Among MRSA isolates, resistance rates to erythromycin were 25.3% and ciprofloxacin 16.1%.

Current restrictions are in place for a maximum of 15 g of fusidic acid cream or ointment per prescription. For many patients this is likely to be more than necessary to complete their course of topical treatment. In order to reduce inappropriate use, patients should be advised to see their doctor for any future skin infections and not to reinstate fusidic acid treatment of their own accord.




To read the full article, visit:
www.bpac.org.nz/bpj/2015/june/asid.aspx

Discontinuation of topical erythromycin

Topical erythromycin gel (Eryacne) was discontinued in New Zealand on 1 April, 2015. This product was previously indicated for the treatment of patients with mild to moderate acne vulgaris, however, there have been concerns for some time about the emergence of resistant forms of *Propionibacterium acnes* on a worldwide level. The decision to permanently discontinue the supply of topical erythromycin was taken on a voluntary basis by the manufacturer of erythromycin gel in an effort to help reduce rates of bacterial resistance.

It is widely accepted in international guidelines that topical antibacterial agents should not be used as monotherapy for patients with acne and that if they are used, this should only be alongside benzoyl peroxide or a topical retinoid. This approach is favoured because topical antibiotics have been shown to be more effective when used in combination and also because of the high risk of inducing resistance.

Topical clindamycin 1% remains available in New Zealand; indications include the treatment of acne vulgaris.

 For further information, see: “Managing acne in primary care”, BPJ 51 (Mar, 2013). Available from: www.bpac.org.nz/BPJ/2013/March/managing-acne.aspx