

Focus

Pegasus initiative to reduce antibiotic use

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The Pegasus Medical Group is a Christchurch-based IPA with 230 members, representing about 85 per cent of Christchurch GPs.

Concerned about rising levels of antibiotic resistance, Pegasus launched a campaign in March 1999 to reduce antibiotic prescribing by its members.

It is known that levels of antibiotic resistance are linked to the amount of antibiotic prescribed in that location. Until recently this has been perceived as being a hospital-based problem. However, the emergence and spread of multi-resistant *Streptococcus pneumoniae* and *Staphylococcus aureus* in the community has forced us to look more critically at our prescribing habits.

In Christchurch, community antibiotic resistance data are published every six months by Medlab South.

Analysis showed that penicillin-resistant strains of *S.pneumoniae* were first reported in Christchurch in 1993. By the end of 1998, 22 per cent of strains of *S. pneumoniae* were reported as penicillin resistant, many also being resistant to a wide range of other commonly used antibiotics.

Work done overseas, particularly in Iceland¹ has indicated antibiotic resistance levels in *S. pneumoniae* can be reduced by lowering antibiotic prescribing.

The Pegasus education committee decided it would run an education campaign not only for its members but also the general public, as patient expectations play an important part in prescribing decisions. Accordingly a multi-faceted programme was implemented.

Pegasus runs an education programme based on monthly, small group meetings. Each group has a stable membership of 12-15 GPs, is led by a peer GP and assisted by a clinical practice facilitator.

GP education

- pre-meeting reading – evidence summary on antibiotic resistance based on a literature review
- small group meetings in March 1999 involving case-based discussion and individual prescribing analysis
- a large meeting with local specialists on antibiotic use and resistance
- education bulletins summarising key points



- surgery supplies – posters, leaflets, near patient Strep A test kits.

Population education

- large advertisements in the local newspaper
- articles on antibiotic resistance in the local newspaper
- patient information leaflets distributed by surgeries
- article on antibiotic resistance in *The Family Doctor*, a glossy insert published quarterly by Pegasus and inserted in *The Press*.

Pharmacist education

A meeting was held in conjunction with the local Pharmacy Guild, attended by 70 local pharmacists. They were presented with similar information to the GPs.

Prescription analysis

Health Benefits Limited provided data on antibiotic dispensings for all Pegasus members for the period April-September in both 1998 and 1999, ie, before and after the campaign.

There was an overall 18 per cent drop in antibiotic dispensings for this period in 1999. Nationally the drop over the same period was 3 per cent.

There was a significant swing away from use of amoxycillin clavulanate to amoxycillin, and marked reductions in the use of cefaclor, cotrimoxazole, ery-thromycin, penicillin and roxithromycin, consistent with the messages GPs received.

Prescriptions costing less than \$15 for patients without community services cards were not included as no government subsidy was attracted, thus these data show trends but are not complete.

Local sensitivity patterns

The latest data from Medlab South (second six months of 1999) show a 2 per cent decrease in penicillin resistance in *Streptococcus pneumoniae*, reversing the previous trend. It is too early to attribute this to the changing patterns of prescribing. However, overseas studies have reported similar findings and we will be watching local prescribing trends and sensitivity data with interest.

Reference

1 Stephenson J. Icelandic researchers are showing the way to bring down rates of antibiotic-resistant bacteria. *JAMA* 1996;275:175.