

## Letters to the Editor

### Cost of Antibiotic/steroid ear drops

Dear Sir,

I would like to comment on the article 'Antibiotic/steroid ear drop preparations: a cost effective approach to their use' which appeared in the Journal in November 1990.

I am surprised that Betnesol N. is not considered suitable for the treatment of infection with *Pseudomonas aeruginosa*, and that Gentisone H. C. is considered 'the least expensive preparation to be most effective'.

A computer search in the bacteriology department of this hospital yielded 102 isolates of *Ps. aeruginosa* from ear swabs in the calendar year 1990. Of these eight were resistant to both Neomycin and Gentamicin, four to Neomycin but not Gentamicin and four to Gentamicin but not Neomycin. All were sensitive to Polymixin B/Colistin. These figures suggest that Neomycin and Gentamicin are equally effective against *Ps. aeruginosa*, so that on purely cost grounds Betnesol N would be the preparation of choice.

Secondly, resistance *in vitro* does not necessarily mean that the antibiotic will not be effective *in vivo*, as the concentration achieved in the ear is many times greater than that on the culture plate. For example, in the last two months I have successfully treated two patients with Betnesol N despite culture results showing resistance to Neomycin.

The first was a 68 year old woman with a longstanding central perforation of the right tympanic membrane, velvety middle ear mucosa and a profuse mucopurulent discharge from which a Neomycin-resistant *Pseudomonas* was cultured. Nevertheless the ear was dry when reviewed after two weeks of Betnesol N, three drops tid.

The second was a 50 year old man with otitis externa, again due to *Ps. aeruginosa* which was resistant to Neomycin on culture. This ear also was found to be inactive after three weeks treatment with Betnesol N.

There is a belief that topical Neomycin is prone to causing hypersensitivity reactions, but I have never found this to be a problem, at least when used as Betnesol N.

Yours faithfully,

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### Reply

Dear Sir,

I very much welcome Mr Flint's comments in support of the least expensive preparation providing optimal treatment for patients with otorrhoea. In reply to the first point concerning the effectiveness of neomycin against

*Pseudomonas aeruginosa*. The data source used to acquire this information, as stated in the article, was from a standard textbook—Kucers, A., Bennet, N McK. (1987) *The Use of Antibiotics*, 4th Edition, London: Heinemann, p. 619–1044. It is for this reason that we considered Gentisone HC to be more effective than Betnesol-N and it is thus difficult for me to comment further. This study did not include an analysis of microbial antibiotic sensitivities in the Nottingham area. However, the study was specifically designed to heighten the awareness of the clinician to the variation in cost of very similar preparations and I believe Mr Flint's interest and the evidence provided by his Medical Microbiology Department, show that the least expensive preparations for this condition are adequate for optimal treatment of otorrhoea, given the right conditions.

Mr Flint's second point, concerning the successful treatment of otorrhoea in two patients with *in vitro* resistant organisms with a 'supposedly' unsuitable antibiotic preparation, lends weight to the argument set out by Browning *et al.*, (1988) where the question as to whether the steroid component of the ear drop preparation is of more importance than the antibiotic component is posed. No studies that I have found adequately answer this question. This point was mentioned in the discussion section concerning the clinical efficacy.

Yours faithfully,

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### Reference

Browning, G. G., Picozzi, G. L., Calder, I. T. and Sweeney, G. (1988) Controlled Trial Of Medical Treatment Of Active Chronic Otitis Media. *British Medical Journal [Clin Res]*, **264**: 1024.

### Routine fluid replacement in children undergoing tonsillectomy

Dear Sir,

The Short Communication 'Role of Routine Fluid Replacement in Children Undergoing Tonsillectomy' by Wilson *et al.* (*JLO* 1990; **104**: 801–802) analyses a small series of 50 children and concludes 'There would seem to be no role for intravenous fluid replacement in children undergoing uncomplicated tonsillectomy'. We do not agree.

The results of the measured parameters (some of which do not relate to whether intravenous fluids are given or not) were analysed statistically and the authors clearly state 'no parameters measured reached statistical