

Do GPs have the techniques for 'watchful waiting' in glue ear?

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SUMMARY

'Watchful waiting' for glue ear in children within primary care as a precursor or alternative to surgery is one of the increasing pressures on general practitioners (GPs) to limit outpatient referrals. An equipment survey questions whether primary care is properly equipped to 'watch', given the limited access to audiological equipment that might objectively underpin a decision on when 'waiting' should end.

Keywords: children; otitis media with effusion; hearing tests; glue ear.

Introduction

Otitis media with effusion (OME or 'glue ear') is the most common cause of hearing impairment in children and can influence the speech, language, behaviour, and development of affected children.¹ The natural course of OME fluctuates, with a tendency for spontaneous remission. In the general population of infants aged two to four years, the probability of effusion remaining in any ear after three months reduces to half, and after six months to one quarter.²

The degree of hearing loss can be measured objectively using an audiometer. Two further instruments valuable in OME assessment are the tympanometer³ and the pneumatic otoscope,⁴ both of which assess the mobility of the ear drum, although the validity of pneumatic otoscopy is somewhat skill-dependent. Sensitivities of tympanometry and pneumatic otoscopy for findings at myringotomy are 90% and 93% (specificities 86% and 58%) respectively.⁵

The lack of information on the availability and use of audiometric and tympanometric equipment in primary care in the United Kingdom (UK) has prompted us to carry out a survey of practices in the UK. Alongside trial results, this can inform the policy framework for future recommendations on management of OME. In particular, it is necessary to know whether 'watchful waiting' in primary care is merely a containment of demand or a rational basis for selective referral of the cases most able to benefit.

Methods

A postal survey of all 900 practice managers from the Medical Research Council's (MRC's) General Practice Research Framework (GPRF) was undertaken. Questions were asked on which members of the practice, if any, had used or had access to an audiometer, tympanometer, or pneumatic otoscope. Practices were also asked about arrangements for calibration and any training received.

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Results

Audiometers are used more widely than tympanometers or pneumatic otoscopes by all professional groups. Table 1 shows the percentage use of equipment by members of the practice. The proportion of GPs who use the equipment is comparable to that in the other professional groups, although a slightly higher proportion of nurses use audiometers compared with health visitors, and more GPs use tympanometers or pneumatic otoscopes.

For the 81 practices with other staff 'attached', the predominant instrument is the audiometer. This other 'attached' staff group consists mainly of audiological technicians visiting the surgery (24.0%), school nurses (19.7%), ENT consultants holding clinics in the surgery (9.1%), district nurses (9.1%), and occupational health workers (9.1%). In 328 practices, one or more members of the practice had access to or used one or more type of equipment; of these, only 53.3% had arrangements for calibration, a likely source of variability.

A summary of training for equipment users is given in Table 2. Of all GP users, 45.6% had some previous formal training; the corresponding figures were 52.2% for health visitors and 55.0% for practice nurses.

Discussion

Whilst the MRC GPRF practices are fairly representative at the demographic level, they are a favoured sample in respect of size, organization, and engagement in current issues in primary care; therefore, the results should be taken as an upper bound estimate of access to services.

The results from this study question whether primary care as a whole is yet properly equipped to undertake 'watchful waiting' in cases where children have OME, suspected or confirmed. The histories given by parents are unreliable, making equipment particularly important in cases with only a short or mild history so far.

Alternatives to equipping general practices

We have not sought to document precisely GPs' uses of community audiology services for monitoring hearing. In areas where such provision is accessible and well developed, it provides an opportunity for the GP to delegate responsibility for 'watchful waiting' at some cost saving, compared with the costs (and, typically, the delays) of referring to an ear, nose and throat department. However, such services are not available in all areas.

There needs to be an explicit specification of what 'watchful waiting' comprises and when it should end. The most obvious contribution is the proper use of audiometric, and particularly tympanometric, equipment in primary care. Valid 'watchful waiting' could be adopted in general practice where access, training calibration, and use of equipment are coupled with explicit referral protocols. It is questionable whether 'watchful waiting' can ethically be declared as policy for practices not so equipped.

While about half of the patient population surveyed in the national sample appears to be covered by equipment that would, in part, justify a claim to have a viable 'watchful waiting' policy, the other half is not. The results from our survey suggest that if 'watchful waiting' is to remain the major public health policy in OME, responsibility for its implementation in primary care needs to be addressed seriously.

Table 1. Use of equipment by member of practice (number of practices, percentage of all practices and confidence intervals for percentages).

Member of staff	Audiometer use ^a	Tympanometer use ^a	Pneumatic otoscope use ^a	Use of any equipment ^a	Total responding
GPs	127 (20.2%)	34 (5.4%)	31 (4.9%)	158 (25%)	630
95% CI for percentage	(17–23.3)	(3.6–7.2)	(5.4–11.3)	(19.8–44.2)	
Health visitors	116 (21.1%)	15 (2.7%)	1 (0.2%)	122 (22.2%)	550
95% CI for percentage	(18.0–24.2)	(1.4–4.1)	(0–0.6)	(18.7–25.7)	
Practice nurses	171 (26.8%)	16 (2.5%)	5 (0.8%)	178 (27.9%)	637
95% CI for percentage	(20.2–33.4)	(1.3–3.7)	(0–1.5)	(24.4–31.4)	
Other staff	58 (71.6%)	17 (21%)	6 (7.4%)	81	81
Any member of practice	308 (43.3%)	61 (8.6%)	36 (5.1%)	328 (43%)	711
95% CI for percentage	(39.7–46.9)	(6.5–10.6)	(3.5–6.7)	(42.4–49.8)	

^aPercentage out of total responding.

Table 2: Summary of training received by practice staff in use of equipment (national survey).

Training (numbers)	Total practices responding	GPs ^a	Health visitors ^a	Practice nurses ^a	Others
Audiology course by dept of higher education	50	13 (8.2%)	17 (13.9%)	10 (7.3%)	10
Experience in audiology dept	96	33 (20.9%)	24 (19.7%)	24 (13.5%)	15
Instruction by sales person	58	21 (13.3%)	11 (9.0%)	26 (14.6%)	0
None beyond reading manual	158	63 (39.9%)	24 (19.7%)	51 (28.7%)	20
Other training	107	21 (13.3%)	22 (18.0%)	56 (31.5%)	8
Not sure	72	15 (9.5%)	28 (22.6%)	10 (5.6%)	19

^aPercentage of the total number in each staff group using any type of equipment.

References

1. Friel-Patti S. Otitis media with effusion and the development of language: A review of the evidence. *Topics in Language Disorders* 1990; **11**: 11–22.
2. Zielhuis GA, Rach GH, van den Broek P. The natural course of otitis media with effusion in preschool children. *Eur Arch Otorhinolaryngol* 1990; **247**: 215–221.
3. De Melker RA. Diagnostic value of the microtympanometer in primary care *BMJ* 1992; **304**: 96–98.
4. De Melker RA. Evaluation of the diagnostic value of pneumatic otoscopy in primary care using the results of tympanometry as a reference standard. *Br J Gen Pract* 1993; **43**: 22–24.
5. Finitzo T, Friel-Patti S, Chonn K, Brown O. Tympanometry and otoscopy prior to myringotomy. Issues in diagnosis of otitis media. *Int J Pediatr Otorhinolaryngol* 1992; **24**: 101–110.

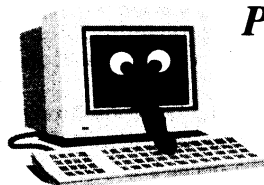
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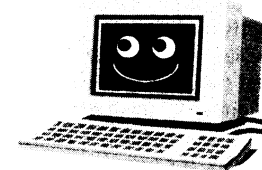


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