Health Technology Assessment 2000; Vol. 4: No. 4

Review

Executive summary

Community provision of hearing aids and related audiology services

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Health Technology Assessment
NHS R&D HTA Programme

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Objective

To undertake a systematic review of the evidence relating to community provision of NHS hearing aids and related audiology services for adults. 'Community provision' refers to clinics conducted by NHS audiology/hearing aid department staff at locations away from their main departmental base, such as at general practitioner (GP) practices, health centres and peripheral hospitals.

Methods

Literature review

As very few studies specific to community-based adult audiology services were identified, the literature review was extended to studies relating to community clinics in medical and surgical specialities. Because of the paucity of studies, the range of experimental designs admitted was wide, ranging from randomised controlled trials to surveys of professional opinion. This made meta-analysis methods inappropriate and, hence, all analysis was in the form of qualitative review. Of the 44 studies identified, only three were directly concerned with audiology services.

Primary research: national surveys

Two surveys were conducted. The first included all NHS hearing aid departments in the UK. Information was collected on patterns of community provision and the views of heads of hearing aid services were sought on a number of issues. In the second survey, which covered 25% of all departments, details were gathered of the provision made at individual community sites, together with the views of the audiology technicians.

Primary research: costing exercise

Ten departments, eight of which were randomly selected, participated in an exercise to cost the service at one of their community sites and to compare this cost with that of providing the same service at the departmental base.

Results

The findings of the literature review include the following.

- Community clinics have clear advantages in terms of convenience for patients and reduced patient costs.
- Non-attendance rates are generally lower and patient waiting times usually shorter.
- There are indications that community clinics can increase GP referrals and encourage patient compliance and use of after-care, thus increasing 'success' rates and reducing resource wastage.
- Large majorities of patients prefer local services, provided quality is not compromised too much.
- The risk of significant pathology going untreated appears to be potentially higher in the community.
- A degree of service inequity existed in clinics held in GP fundholding practices but this may change under the new primary care group arrangements.

Outcomes for hearing aid patients, such as the quality of hearing aid fitting and use, and the utilisation of after-care services, could differ in the community but there are no studies in which this issue is addressed. This is a serious deficiency in the literature which needs to be addressed as a priority.

The results of the primary evidence collected through the project surveys and costing exercise may be summarised as follows.

- In all, 81% of all hearing aid departments were found to provide a service at one or more locations away from their main departmental base. Community clinics accounted for about 30% of all adult hearing aid work, including hearing testing, hearing aid fitting and after-care: approximately 17% at peripheral hospitals, 9% in primary care locations and 4% at other forms of community site.
- Both heads of audiology services and audiology technicians consider most community clinics to be worthwhile, even though service quality is often perceived as lower than at the departmental base. The main reason given is the benefit the clinics offer in terms of improving patient access.
- The most common disadvantages cited are background noise, equipment, access to patient records and the display of information. These factors can potentially affect the standard of

hearing aid fitting and reduce patient awareness of available support. There may also be problems covering clinics when staff are absent.
- The only reliable information about costs comes from the project exercise. NHS staff costs per patient attendance (including time, administration, and transport costs) were found on the whole to be 18% higher for community sessions compared with equivalent sessions conducted by the same technician at the base site. Sensitivity analysis suggested lower and upper bounds on the true cost differential of 2% and 30%. Community provision is not therefore a cheaper alternative. Community clinics devoted to after-care (e.g. hearing aid repairs) appeared to be more economical than those concerned with the initial provision of hearing aids. Also, new hearing aid technologies may well result in changes in costs.
- Patients attending community clinics have reduced costs because of savings in time and distance travelled. The average saving was estimated to be between two and three times as large as the increase in staff costs to the NHS. The clinics are therefore economical from a societal perspective.
- A sizeable percentage of hearing aids are discarded, underused or poorly maintained – a considerable resource wastage. There are indications that community clinics reduce this wastage and, in terms of cost per 'successful fitting', they could possibly equal or be less costly than centralised clinics. However, the potential of community clinics to stimulate demand, in terms of either after-care or GP referrals, could result in an increase in the overall cost of providing a service.

Conclusions

There is insufficient evidence for recommendations to be made relating to any general policy of expansion or contraction of community-based hearing aid services. However, it is suggested that existing community service providers consider:

- maintaining standards of audiometric testing at community sites
- maintaining standards of patient safety
- providing information for patients
- establishing remote links to centralised records
- reducing costs at community sites
- maximising the patient base for community clinics and reducing inequity
- ensuring that an accessible after-care service is provided for patients fitted with hearing aids in the community.

Recommendations for research

Many of the conclusions are based principally on evidence from studies of clinics in the medical and surgical specialities. Primary research specific to hearing aid services in needed in all areas. However, the immediate need is for research into the effect of community provision on outcomes for hearing aid patients and levels of service use. Specifically, a controlled trial is recommended to address:

(i) the impact of community provision on outcomes for hearing aid patients, particularly relating to aid use and satisfaction, the amount of benefit obtained and the management of ear pathology
(ii) the impact of community provision on GP referral rates, the volume of use of after-care services and the associated costs.

High-quality information on both these issues is needed to inform the debate on the cost-effectiveness of community services.

Publication

Reeves DJ, Alborz A, Hickson FS, Bamford JM. Community provision of hearing aids and related audiology services. *Health Technol Assess* 2000;**4**(4).

NHS R&D HTA Programme

The overall aim of the NHS R&D Health Technology Assessment (HTA) programme is to ensure that high-quality research information on the costs, effectiveness and broader impact of health technologies is produced in the most efficient way for those who use, manage and work in the NHS. Research is undertaken in those areas where the evidence will lead to the greatest benefits to patients, either through improved patient outcomes or the most efficient use of NHS resources.

The Standing Group on Health Technology advises on national priorities for health technology assessment. Six advisory panels assist the Standing Group in identifying and prioritising projects. These priorities are then considered by the HTA Commissioning Board supported by the National Coordinating Centre for HTA (NCCHTA).

This report is one of a series covering acute care, diagnostics and imaging, methodology, pharmaceuticals, population screening, and primary and community care. It was identified as a priority by the Primary and Community Care Panel and funded as project number 93/35/02.

The views expressed in this publication are those of the authors and not necessarily those of the Standing Group, the Commissioning Board, the Panel members or the Department of Health. The editors wish to emphasise that funding and publication of this research by the NHS should not be taken as implicit support for the recommendations for policy contained herein. In particular, policy options in the area of screening will be considered by the National Screening Committee. This Committee, chaired by the Chief Medical Officer, will take into account the views expressed here, further available evidence and other relevant considerations.

Reviews in *Health Technology Assessment* are termed 'systematic' when the account of the search, appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

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Reports are published in the HTA monograph series if (1) they have resulted from work either prioritised by the Standing Group on Health Technology, or otherwise commissioned for the HTA Programme, and (2) they are of a sufficiently high scientific quality as assessed by the referees and editors.

The editors have tried to ensure the accuracy of this report but cannot accept responsibility for any errors or omissions. They would like to thank the referees for their constructive comments on the draft document.

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http://www.ncchta.org ISSN 1366-5278