

BACDA has 259 members, mainly doctors working in audiology but there are a few non-medical members. Strenuous efforts were made in 1999-2000 to update the details of the membership list so that addresses were as accurate as possible.

In September 2000 the BACDA membership was asked to complete a census form. Non responders were contacted again in March 2001 and once more in August 2001. 198 forms have been included in the analysis for this report. Retired members (18), those who do no paediatric audiology (12) and non-medical members (3) have been excluded. The census form was completed by 4 doctors who are not members of BACDA and while chasing the remaining census forms it became apparent that there a few more doctors working in paediatric audiology who are not BACDA members. Information about the working practices of these doctors has not been included but they are not thought to be many in number.

The census form requested information about working practices, teaching commitments, length of travel time within work, number of clinical sessions and administration sessions and involvement in neonatal screening. The analysis of the information received is listed below.

Grade

Consultant	44	The consultants are mainly consultants in community child health (audiology) but there are also 7 consultants in audiological medicine.
Associate specialist/SCMO	84	
Staff grade/CMO/clinical assistant	70	

CCST – Consultants

Audiological medicine	7
Paediatric audiology	3
Community paediatrics/community child health	15
Paediatrics	15
Not stated	4

Total **43**

CCST - Associate specialists/SCMOs

Paediatric audiology	2
Community paediatrics/community child health	7
Paediatrics	4
Public health	1
Not stated	1

Total **15**

CCST refused	27
Appealing against this decision	7
Application withdrawn	19

(I understand that some members have recently had their appeals heard and that they have been granted their CCST)

Total sessions contracted

	1-3	4-5	6-7	8-9	10-11	Not stated
Consultant			6	3	35	
Associate specialist/SCMO	2	1	16	13	49	3
Staff grade/CMO/clinical assistant	3	14	16	9	28	

Clinical sessions per week

	1-3	4-5	6-7	8-9	10-11	Not stated
Consultant	2	12	19	5	4	2
Associate specialist/SCMO	4	19	22	29	6	4
Staff grade/CMO/clinical assistant	5	17	22	17	8	1

It is interesting to note that there are 9 consultants who are working 8 or more clinical sessions per week which is more than the contractual requirement for this grade. Of those consultants who work 6 or 7 sessions per week, 2 have 3-4 clinical sessions, 3 have 5-6 clinical sessions and 1 has 7 clinical sessions, again showing a clinical commitment which is greater than contractually required.

Paediatric audiology sessions per week

	1-3	4-5	6-7	8-9	10-11	Not stated
Consultant	12	8	7	6	10	1
Associate specialist/SCMO	34	21	11	12	5	1
Staff grade/CMO/clinical assistant	50	8	10		2	

BACDA

There are a large number of people doing less than 4 sessions of paediatric audiology per week. The number of sessions that these doctors are contracted to work in total per week is as follows:

1 to 3	4 to 5	6 to 7	8 to 9	10 to 11
5	12	21	12	43

This suggests that for many doctors paediatric audiology is not their main specialty.

Percentage time spent in paediatric audiology

	1-10%	11-25%	26-50%	51-75%	76-100%	Not stated
Consultant	4	7	2	1	26	4
Associate specialist/SCMO	8	6	25	9	29	7
Staff grade/CMO/clinical assistant	10	8	22	3	12	15

Places worked

	Yes	%
Teaching hospital	27	14
DGH	86	44
Community	185	93

Some people will work in more than one setting but it does show that the great majority of doctors do some work at least in the community.

Anticipated year of retirement

	2001-04	2005-09	2010-14	2015-19	>2020	Not stated
Consultant	9	8	9	10	6	2
Associate specialist/SCMO	12	26	21	15	7	3
Staff grade/CMO/clinical assistant	13	17	7	10	16	7
All	34	51	37	35	29	12

43% of those working in paediatric audiology are expecting to retire within 8 years. This will have a major impact on the provision of services.

Achieve 50 CPD points per year

	Yes	%
Consultant	37	84
Associate specialist/SCMO	61	73

This confirms anecdotal evidence that staff grade / CMOs are still finding it difficult to achieve their CPD requirements. The situation improves for associate specialists and consultants but there are still a worrying number who do not achieve their CPD requirements.

Supervise SpRs

	Yes	%
Consultant	34	77
Associate specialist/SCMO	54	65
Staff grade/CMO/clinical assistant	19	27

Teaching during clinical sessions

	Yes	%
Undergraduates	106	54
SHOs	147	74
SpRs	112	57
GP trainees	97	49
Technicians	52	27
Aud scientists	17	8
SALTs	24	12
MSc students	31	16
Nurses	133	67

Teaching is also given to other paediatricians, health visitors, GPs, screeners and teachers of the deaf.

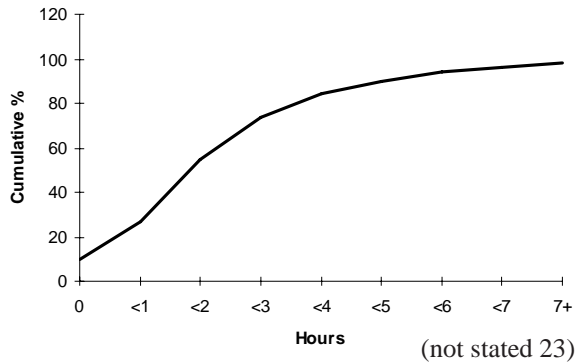
Lectures given

	Yes	%
MSc courses	17	8
GP courses	78	40
Informally at work	151	76
Others	86	44

Run Training Days for

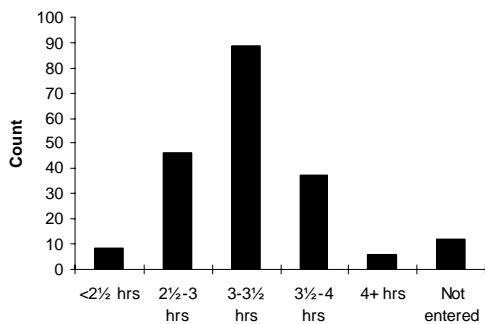
	Yes	%
Health visitors	118	60
Health care assistants	64	33
SHOs	51	26

Time spent travelling around work each week



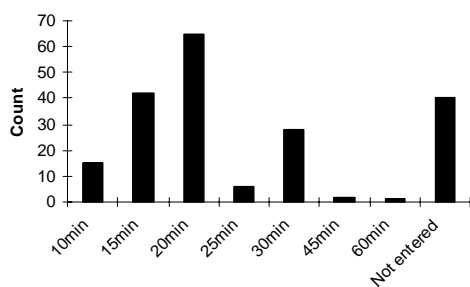
This suggests that 50% of doctors spend less than 2 hours per week travelling from clinic to clinic during their work each week but it must be remembered that this includes all doctors regardless of how many sessions they work.

Length of clinic session

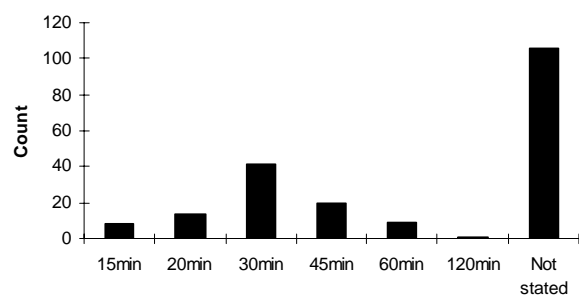


As would be expected the majority of clinic sessions last between 2½ and 4 hours.

Time spent with patient in 2nd tier clinic



Time spent with patient in 3rd tier clinic



Time allowed for new patient

10min	15min	20min	30min	45min	60+min	Not stated
10	25	56	74	11	9	13

Time allowed for follow up patient

10min	15min	20min	30min	45min	Not stated
19	58	65	46	4	12

There is a large variation in the appointment times allowed for the various categories of patient. There are standards laid down by BAAP on recommended times for appointments and community audiology services must work towards complying with these standards. Failure to do so will place services in a difficult position should they ever have to answer any complaints.

BACDA

Those involved in testing children

Yes 175 (88%)

Age groups seen routinely

<i>< 6mths</i>	120	(61%)
<i>6mths – 3yrs</i>	179	(90%)
<i>3 – 5yrs</i>	183	(92%)
<i>> 5yrs</i>	167	(84%)
<i>Adults with LD</i>	30	(15%)

Other professionals who test

Scientists / audiometricians	19	
TOD / Educational audiologists	5	
School nurses/ specialist HV	3	

Tasks undertaken

Hearing aid fitting	32	(16%)
Hearing aid follow up	69	(35%)

Who else is involved in hearing aid fitting?

Usually audiological physicians, audiological scientists, technicians and educational audiologists are the other professionals involved in fitting hearing aids.

Budgetary control

Hearing aids	17	(9%)
Staffing	27	(14%)

Sessions for admin etc per week

	0	1	2	3	4	5	6	Not stated
Consultant	2	11	8	10	8	4		1
Associate specialist/SCMO	8	44	22	4	3	1	1	1
Staff grade/CMO/clinical assistant	20	37	7	2	1			3

Sessions for admin for consultants contracted 9-11 sessions

	0	1	2	3	4	5	Not stated
	2	6	6	10	8	3	2

Involved in management/delivery of Neonatal Hearing Screening (NHS)

Yes 61 (31%)

Sessions spent per week on UNHS

0	7
1	32
2	6
3	1
5	1
Not entered	14

Involved if UNHS introduced

Yes 132 (67%)

Conclusions

This census has highlighted the fact that a significant number of consultants work a greater number of clinical sessions than they are contracted for and have fewer administration, management, etc session per week than required by the consultant job plan.

There is a large variation in the length of time allowed for appointments. Ten minutes to see a patient is dangerous unless someone else is doing the testing. All audiological paediatricians need to follow the standards laid down by BAAP.

The expected date of retirement shows that there is a large percentage of senior doctors due to retire within the next decade and this will have major implications for workforce planning. If these doctors are not replaced it will have a significant impact on the delivery of community paediatric audiology services.

The census also highlights the high level of involvement of these doctors in newborn screening both currently and in the future.

October 2001

The effectiveness of the school entry screen in detecting unilateral permanent hearing losses

Nedal Sattar,

Associate Specialist, East Lancashire Paediatric Audiology Service, Nelson, BB 9 9TG

Abstract:

The main objective of the sweep hearing test in year one in school is the identification of un-diagnosed permanent hearing losses, including unilateral losses.

There have been claims that since the introduction of the MMR vaccine in the UK in 1989, there has been a sharp decline in the number of cases of unilateral sensori-neural hearing losses (SNHL) identified by the sweep test in year one. Vartiainen & Karjalainenes (1998) also reported a decreased prevalence of unilateral SNHL in their Finnish population and attributed this to the disappearance of hearing losses caused by mumps and measles. This audit was carried out retrospectively for the academic year 1996 – 1997, in Burnley, Pendle and Rossendale area of East Lancashire. The sweep test results of 102 schools were included in this study. Out of 3,674 children screened, 481 (13%) failed their first sweep test in school. Excluding those who failed bilaterally (71) and those who failed only at 500 Hz. (106), 304 cases were studied further. The majority (263) of the latter passed a second test carried out in a community audiology clinic. Four children moved out of the area before having a second test. Conductive hearing loss was the cause for 29 children failing the second test and only 8 children had permanent hearing losses. Interestingly, on subsequent testing, 3 of these children were found to have bilateral rather than unilateral hearing losses. All the remaining 5 cases with unilateral permanent hearing losses were already diagnosed before the sweep test. A previous study (Sattar 1999) showed the ineffectiveness of the sweep test in detecting significant cases of otitis media with effusion and this audit shows a zero yield for unilateral permanent hearing losses.

Introduction:

Most school children in the UK continue to have a hearing screen using the sweep test at the age of 5-6 years.

The main objective of this screen is the identification of undiagnosed permanent hearing losses. These include: those missed by earlier screen(s), late onset or progressive, acquired, mild bilateral and unilateral permanent losses. However, the majority (98%) of hearing losses detected by the screen are transient conductive losses due to otitis media with effusion (Hlaing, 1993).

The commonest cause of acquired unilateral sensori-neural hearing loss (SNHL) is childhood infections. Vartiainen & Karjalainenes (1998) reported a decreased prevalence of unilateral SNHL in their Finnish population and attributed this to the disappearance of hearing losses caused by mumps and measles. In the UK, there have been claims that since the introduction of the MMR vaccine in 1989, there has been a sharp decline in the number of unilateral SNHL identified by the hearing screen in school.

As part of a series of research studies into the efficacy of the hearing screen in school, this audit focused on the effectiveness of the sweep test in detecting unilateral permanent hearing losses.

Method:

This study was carried out retrospectively for the academic year 1996-1997. It was conducted in two stages.

Stage I: All sweep test results for the 112 primary schools in Burnley, Pendle & Rossendale area of East Lancashire were examined. The overall number of children screened, total number failed and those who failed unilaterally were calculated. A list of children who failed unilaterally was drawn.

Stage II: A definitive outcome and diagnosis for the children listed with unilateral hearing loss was verified. This entailed checking community audiology records for follow-up tests in clinics. If these were not available, school medical records (10M) for the individual children in 11 different Health Centres were examined. Then, for those who had had no follow-up test and to ascertain the type of hearing loss in the positive cases, diagnostic testing was carried out by the author.

The hearing screen is carried out using sweep test by Audiometric Technical Officers (ATO). ATO tests children in year 1 in school and not in Reception class. The children's age is between 5 & 6 years. She tests 0.5 kHz. At 30 dB HL but 1, 2 & 4 kHz. at 25 dB HL. Only one test is carried out in school. Those who failed are tested by the ATO in a clinic and if they fail again, they are referred to a Community Audiologist.

In the academic year studied, sweep test in year 7 was still the practice and lists for results of both screens i.e. year 1 & 7 were filed together. Also, lists headed "screen results" included children seen in the same session but for other reasons. To verify the target population for this study, the school name (primary or secondary) was used to exclude screen at year 7 and date of birth was used to select children in year 1 to be included in the audit. Following this audit, the results for "screen" were recorded on separate sheets. In addition, year 7 screen was discontinued in the following academic year as a result of another audit.

Most of the results from special schools were unsatisfactory and were therefore excluded. Following this audit, children in special schools were not screened. Their records were first checked for a hearing test result. If this is not available or if there is a concern about a child's hearing, then arrangement is made for a test in a diagnostic clinic.

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Retrieving records for stage II of this study proved to be a challenge. In 1999/2000, when stage II was carried out, the community audiology records were not filed in any recognised system and school medical records were filed in different patterns in each of the 11 health centres. More recently, a filing system for community audiology records was established.

Results

The sweep test results of 102 schools only (see above) were included in this study.

Out of 3,674 children screened, 481 (13%) failed their first sweep test in school. Seventy one children (2%) failed bilaterally while the remaining 410 children (11%) had unilateral hearing loss.

Some of the latter failed only the 0.5 kHz. frequency (106 children, 3%). It is known that young children have difficulty recognising the low frequency tone at 0.5 kHz. and this is thought to be due to maturation delay. Therefore, they were excluded and only the remaining 304 children (8%) with unilateral loss were included in stage II of the study.

As expected, the majority (263) passed a second test carried out in a community clinic. They are children who probably had had a transient conductive hearing loss on the day of the first sweep test. The reduced ambient noise level in the clinic and the practice effect probably contributed too.

Four children moved out of the area and they were lost to follow-up.

Conductive hearing loss was the cause for 29 children failing the second test and only 8 children had permanent hearing losses.

Interestingly, on subsequent testing, 3 of these children were found to have bilateral rather than unilateral hearing losses. They have mild , probably progressive type of hearing loss. One was already known to the audiology service because of referral following meningitis.

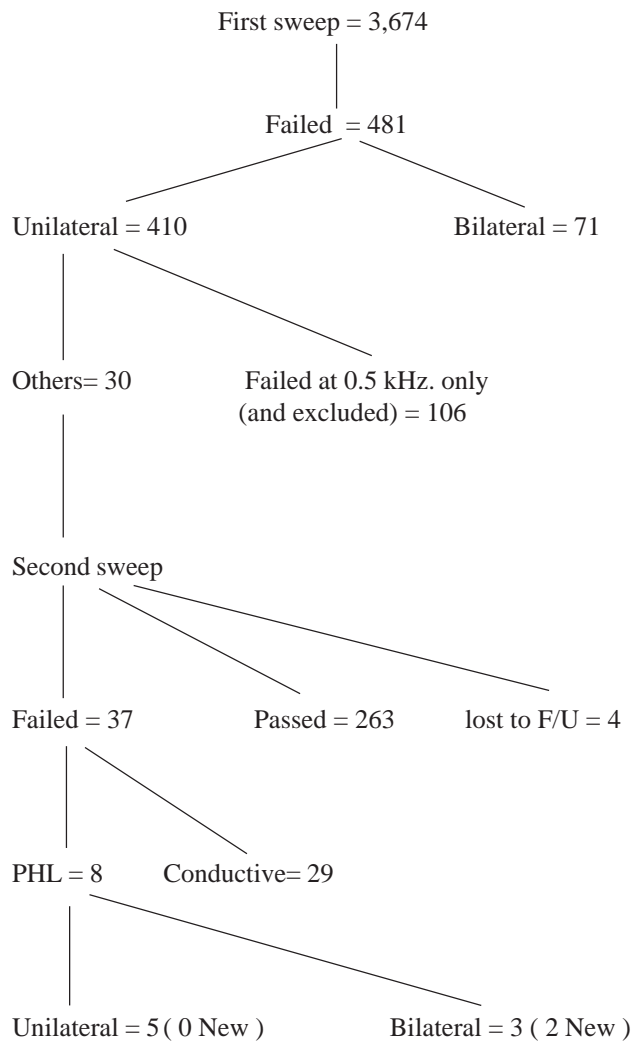
All the 5 cases with unilateral permanent hearing losses were already diagnosed before they had the sweep test in school. Three were under the care of the audiology service before starting school and the other 2 were referred while in Reception class because of parental concern.

None of these cases required aiding.

Discussion

The yield and effectiveness of the sweep test in year one has been questioned by Hall's report in its first edition in 1989. Haggard 1992 and Polnay 1995 endorsed the recommendation by Hall that the sweep test should continue but needs to be evaluated.

Several types of hearing losses are expected to be diagnosed by this screen. However, in practice, the majority of cases



Flow chart of the results of sweep test in East Lancashire Area (Burnley, Pendle & Rossendale) for the academic year 1996-1997.

PHL = Permanent Hearing Loss

F/U = Follow-up

detected by the sweep test are conductive losses, mainly due to otitis media with effusion (OME) (Augustsson et al 1990, Haggard et al 1992 & Hlaing 1993). Results of this study consolidated this finding, but an earlier study (Sattar 1999) showed that the sweep test was not as effective as it was thought to be in identifying the significant cases of OME that needed surgical intervention.

Despite the enormous variation in carrying out the sweep test (Stewart- Brown & Haslum 1987), the yield for permanent hearing loss (PHL) has always been small in different populations. Augustsson et al 1990 found only one case of SNHL among 2,330 Swedish children. Hlaing 1993 found that screening of 4,173 children in the Wirral district identified only one child with unilateral SNHL and 2 children with bilateral mild/ moderate SNHL.

The yield for unilateral PHL in this study (5 cases) was similar to the findings of Henderson & Newton (2000) in Edinburgh with 4 cases out of 4,501 children screened in 1995/1996. However, all the 4 cases were newly diagnosed in contrast to our 5 cases in which the diagnosis was already made before the sweep test was carried out in school. This could be due to the fact that in Edinburgh the sweep test is done in primary one, the first year the child is in school while in our area it is done in year one following the first year in Reception class. In fact, two of our cases were diagnosed in Reception class because of parental concern expressed in a response to a general questionnaire.

The use of a specific childhood middle ear disease and hearing questionnaire has been suggested as an alternative to the pure tone sweep test by Hind et al 1999. An earlier study (Sattar 1998) also found that parental concern was the main reason for referral to ENT. Therefore, it recommended the use of questionnaire in pre-school assessment and a similar one at school entry as part of the routine health surveillance by the school nurse.

The yield of the sweep test in year one for new cases of unilateral PHL in this study was nil. This result and the one from the previous study (Sattar 1999), add weight to the argument in favour of discontinuation of the sweep test in year one. However, the impact of the change in the earlier screen i.e. the replacement of HVDT by the universal neonatal hearing screen and the possible role for a second screen in school as a safety net, is a strong counterargument. Therefore, the outcome of the national survey of school hearing screen test by BACDA research group and its recommendation is awaited with interest.

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PEER REVIEW OF PAEDIATRIC AUDIOLOGY SERVICE PROVISION

DRAFT

Glossary.

ABR	Auditory brainstem response.	IT	Information technology.
AP	Audiological physician.	MTO	Medical technical officer.
AWG	Audiology working group.	NHS	National Health Service.
BAAP	British Association of Audiological Physicians.	OAE	Otoacoustic emissions.
BACDA	British Association of Community Doctors in Audiology.	NOAH	
BSA	British Association of Audiological Scientists.	PG	Post-graduate.
CAPD	Central auditory processing disorder.	P/TOD	Peripatetic / teacher of the deaf.
CCP	Consultant community paediatrician.	REAR	Real ear aided response.
CPD	Continuing professional development.	RECD	Real ear to coupler difference.
DiPOAE	Distortion product otoacoustic emissions.	RESR	Real ear saturation response.
DSL	Desired sensation level.	SHO	Senior house officer.
DSP	Digital signal processing.	SN	Sensorineural.
ENT	Ear, nose and throat.	TEOAE	Transient evoked otoacoustic emissions.
GP	General practitioner.	VRA	Visual reinforcement audiometry
HV	Health visitor.		
IG	Insertion gain.		

Compiled by Service Review Subcommittee:

C.M.Varghese, Consultant Community Paediatrician (Audiology)
J.Lyons, Consultant Community Paediatrician (Audiology)
H.Joshi, Consultant Community Paediatrician (Audiology)
D.Roberts, Consultant Audiology Physician
D Umapathy, Consultant Audiological Physician

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Introduction.

Personal development plans and/or annual appraisal are now routine in the NHS. However, while there is emphasis on the individual assessment of the clinician there has not been similar emphasis on the appraisal of service provision and organisation.

Paediatric audiology services are still in an early stage of development. Consequently service provision may vary, but the aim should be that all facilities are available in a district whether they are hospital or community based.

This document has been commissioned by the North West Regional Audiology Clinical Audit Group (NWRACAG). It is intended to provide a benchmark of service provision against which services can be evaluated. It is based on existing recommendations, e.g. the BAAP Policy Document (Audiological Medicine in the UK – a guide for users, commissioners and providers, British Association of Audiological Physicians, 2002); and NDCS Quality standards – Vol IV

Service review

Service review in the context of this document is an assessment of the quality of work and working conditions within a paediatric audiology service of a Trust, carried out by colleagues within the speciality from another area. It will help promote quality (clinical governance) and ensure delivery of family friendly paediatric audiology services. Therefore it is proposed that two senior clinicians from other services undertake the review.

The review of the service in the context of this document is not individually focused. It is meant to assess the whole service. Therefore all heads of paediatric audiology services should participate in the service review.

This document can be used for.

- Benchmarking of a service
- Providing a formal channel through which training needs and organisational problems and constraints can be drawn to the attention of the Trust's management.
- Preparing a business case for future developments.

Purpose of service review.

For the individuals working in paediatric audiology.

- To complement the NHS appraisal, or personal development plans, where applicable.
- To provide documentation of the strengths and weaknesses of service with a view to improving practice.

For the employing trust.

- To complement the mandatory NHS appraisal, and personal development plans, where applicable.
- To enable the Trust to be secure in the knowledge that the paediatric audiology service provision meets a minimum clinical standard as set out in this document.
- To provide a system whereby the Trust may be made aware of organisational constraints affecting the performance of the paediatric audiology services, and which may require assessment or audit.

For the hearing impaired child and family.

- The service should be provided in a seamless family friendly way, with appropriate provision of information between all agencies and parents.
- The paediatric audiology service should be of high quality.
- There should be a culture of service evaluation, including peer review.

Method of service review.

1 The appraisees must request the permission of appropriate manager of the Trust for the review to be carried out. The appraisees must advise this manager that a report will be produced, and ascertain to whom it should be sent for scrutiny and any necessary action.

2 From a pool of trained senior clinicians 2 will be selected by the NWRACAG to carry out the peer review (appraisal) of the service.

3 The review will be carried out every 5 years, with additional inspections if necessary based on the findings and final report of the review.

4 The review will take place at a mutually convenient date agreed between the appraisers and appraisees.

5 The questionnaire should be completed and return to the assessors at an agreed time prior to the agreed date of the review.

6 The review consists of:

- An interview based on the relevant documentation and evidence as mentioned in the questionnaire.
- Inspection of the test rooms, equipment and clinical facilities.

7 The final report should be in an agreed format, and signed by all parties:

- The review will not be used for disciplinary purposes or used for discussing disciplinary issues.
- The appraisers and appraisees should sign the report, which should be forwarded to the relevant manager as previously agreed with chief executive of the Trust.
- If the services are not satisfactory to the appraisers, they are free to write to the Trust with copy to the appraisee.

BACDA

Questionnaire for service review

The questionnaire has been designed for simplicity as a tick list. However it is anticipated that the appraiser will either inspect facilities and / or examine documentary evidence in order to satisfy him/herself that the questionnaire is an accurate record.

Name of Trust:

Population:

Resident birth rate:

Number of hearing aid users 0 – 16 years of age:

Name of clinical lead:

Position:

Address:

I (Appraiser's name) certify that the chief executive of the Trust has agreed in writing that this service review can be carried out,

Appraiser's signature Date

I (Appraiser's name) certify that the chief executive of the Trust has agreed in writing that this service review can be carried out,

Appraiser's signature Date

The service

The services offered will vary, with some services having no responsibility for screening services. In other areas there may be no diagnostic 3rd tier, but in this case there should be easy and speedy access as necessary, with close liaison. The general philosophy of the service should be multidisciplinary, and all staff should work within written policy guidelines.

Screening Tier:	Yes / No
Neonatal hearing screening:	Yes / No
Targeted.	Yes / No
Universal.	Yes / No
HVDT.	Yes / No
7/8m surveillance	Yes / No
Diagnostic Tier:	Yes / No
Pre-school assessments	Yes / No
Tiered clinics, e.g. 2 nd and 3 rd tiers depending on the needs of child	Yes / No
Special school visits, e.g. Learning difficulties	Yes / No
Hearing impaired units	Yes / No
Hearing aid clinics	Yes / No
ABR clinics	Yes / No
CAPD clinics	Yes / No
Vestibular clinics	Yes / No
All clinic appointments suitably spaced as described in the BAAP 2002 document	Yes / No
Investigations for aetiology	Yes / No
Routine ophthalmology referral	Yes / No
Paediatric assessment	Yes / No
Genetic counselling	Yes / No
Direct access for ear mould impressions	Yes / No
Referral for cochlear implantation for all appropriate children	Yes / No
Review of children with cochlear implants.	Yes / No
Specialist speech and language therapist support	Yes / No
Psychology support	Yes / No
Bilingual support workers: BSL	Yes / No
English second language	Yes / No
Direct access to ENT	Yes / No
Other	Yes / No

Comments

Recommendations

Staff

It is evident that sufficient staffing and resources need to be available to meet the paediatric audiology service commitments, and BAAP 2002 document has some recommendations. With the listing of the paediatric audiology staff, there should be a clear clinical and managerial structure on an attached document.

Named audiology clinical lead	Yes / No
Identified separate paediatric audiology budget	Yes / No
How much is this?	
How much is the training budget?	
The staffing levels meet the recommendations as described in the BAAP 2002 document*	Yes / No

*List the numbers, grades and titles of staff, e.g.:

- Consultant Audiological Paediatrician or Consultant Audiological Physician
- Audiologists / Medical Technical Officers
- Administration and clerical support
- Educational Audiologist
- Audiological Scientist
- Support staff (e.g. bilingual support worker)

Comments

Recommendations

Facilities - test rooms and accommodation

There are national recommendations as described before (Health Building note 12 supplement 3 - 1994, Acoustic audiology Health technical memorandum 2045). Size of departments vary, and for smaller services some of the facilities, although they should be available, may be shared (e.g. baby change)

Soundproof rooms with 5 X 5 m	Yes / No
Sound field calibration for distraction test	Yes / No
Sound field calibration for VRA	Yes / No
Sound field calibration for aided threshold	Yes / No
Observation window	Yes / No
Sound systems for observers	Yes / No
Family friendly room for ear moulds	Yes / No
Quiet room	Yes / No
Waiting room with fenced-in play area	Yes / No
Staff toilets	Yes / No
Patient toilets (including children)	Yes / No
Disabled toilets	Yes / No
Baby feeding and nappy change facilities	Yes / No
Child friendly reception	Yes / No
Office accommodation for audiologists and secretaries	Yes / No
Ear mould laboratory	Yes / No
Staff room	Yes / No

Comments

Recommendations

Equipment

Depending on the level of service not all this equipment may be necessary, but it should be available in the district for any child for whom it is required. Specialised centres may have additional equipment not listed here. The relevant staff should be trained and competent in the use of equipment, which they should use on a regular basis in order to maintain competence.

Furniture and equipment for distraction test	Yes / No
Materials for play audiometry	Yes / No
Materials for speech test	Yes / No
Parrot or Automated toy test	Yes / No
E2L toy test	Yes / No
Sound level meter	Yes / No
Hand held warblers.	Yes / No
Closed circuit speech test	Yes / No
VRA (including BC)	Yes / No
Insert earphones	Yes / No
Screening tympanometer	Yes / No
Diagnostic tympanometer	Yes / No
High frequency tympanometer	Yes / No
OAE:	Yes / No
TEOAE	Yes / No
DPOAE	Yes / No
ABR:	Yes / No
Screening	Yes / No
Click.	Yes / No
Bone conduction	Yes / No
Tone pip	Yes / No
Steady state potentials	Yes / No
Computerised DSL programme	Yes / No
Hearing aid test box	Yes / No
Probe tube measurement:	Yes / No
RECD	Yes / No
IG	Yes / No
RESR	Yes / No
Facilities for aided measurements	Yes / No
Sound field	Yes / No
Speech	Yes / No
Speech in noise	Yes / No
HiPro.	Yes / No
NOAH	Yes / No
Proprietary programming software	Yes / No
Tests of CAPD	Yes / No
Vestibular equipment	Yes / No
Drill and polisher for altering ear moulds	Yes / No
Annual calibration of all appropriate equipment	Yes / No

Comments

Recommendations

Training issues

All staff must be have received training to the appropriate level. External CPD must be available as necessary and to comply with requirements of professional bodies, e.g. RCPCH. Appropriate procedures should be in place for training of non-audiology staff.

PG qualification in audiology for clinical lead	Yes / No
Specialist registrar training	Yes / No
Regular SHO training (Paed and ENT)	Yes / No
Placement of medical students	Yes / No

Regular training of HVs and school nurses	Yes / No
Placement of nursing and HV students	Yes / No
Regular in-service training programme for all audiology staff, e.g. 1 session a month	Yes / No
Staff development	Yes / No
External CPD	Yes / No
Appropriate training for administration and clerical staff	Yes / No
IT training	Yes / No
Active teaching programme for all staff involved in child health surveillance	Yes / No
CPD requirement met for all staff	Yes / No
As applicable:	
Registered with professional organisation for CPD	Yes / No
Self-appraisal based on recommended clinical competencies of your professional body.	Yes / No

Comments

Recommendations

Audit, research and development

Time should be allocated for the proper implementation of audit, as it should play an integral part in the monitoring of a service and maintaining standards. All staff should be familiar with its principles. Suitable audit projects should be identified. Those interested in research should be encouraged. Because of the small numbers audit and research may be multicentre.

Patient satisfaction surveys	Yes / No
Audit of quality of patient notes	Yes / No
Regular audit programme of the service, e.g.:	Yes / No
Non-attenders	Yes / No
Waiting times	Yes / No
Number of appointment	Yes / No
Type of children seen	Yes / No
Time allocated for planning and participation in research, development and audit	Yes / No

Comments

Recommendations

Clinical competence and quality

As far as possible protocols should follow national guidelines, and all members of the service should be involved in CPD and clinical audit. Audiological assessment of children should be carried out by staff who maintain their competence by regular practise.

Protocols for:	
All screening	Yes / No
All diagnostic testing of babies and infants	Yes / No
Hearing aid fitting	Yes / No
Others	Yes / No
Policy on breaking news	Yes / No
Care pathway/protocol for the management of:	
Conductive loss	Yes / No
SN hearing loss	Yes / No
Functional hearing loss	Yes / No
CAPD	Yes / No
Downs's syndrome	Yes / No
Dysequilibrium	Yes / No
Hyperacusis	Yes / No
Tinnitus	Yes / No
Others	Yes / No

BACDA

Membership of relevant professional bodies	Yes / No
Availability of relevant journals	Yes / No
Accessibility to library	Yes / No
Accessibility to Internet	Yes / No
Complaints dealt with by recognised Trust procedures	Yes / No
Risk assessments as appropriate	Yes / No
Clinical incident reporting	Yes / No
Recording of compliments	Yes / No

Comments

Recommendations

Multidisciplinary issues – liaison and communication

There should be evidence good communication and liaison between different professional groups and parents. The NDCS in “Quality standards in the early years” describes family friendly communication and written information that should be available to parents.

Regular liaison with the following:

Within the department, e.g. monthly meetings	Yes / No
GP	Yes / No
HV	Yes / No
PTOD	Yes / No
Educational psychologist	Yes / No
Speech therapist	Yes / No
Social services	Yes / No
ENT surgeon	Yes / No
Paediatrician	Yes / No
Geneticist	Yes / No
Children’s Hearing Services Group (CHSG)	Yes / No
Multidisciplinary team meetings, in keeping with local policies	Yes / No
Audiology reports to patients / parents:	
Routine	Yes / No
On request	Yes / No
Arrangement for second opinions	Yes / No
Joint working:	
ENT	Yes / No
Genetics	Yes / No
PTOD	Yes / No
Provision of interpreters and signers	Yes / No
Patient information leaflets:	
Neonatal screening	Yes / No
Glue ear	Yes / No
SN hearing loss	Yes / No
Hyperacusis	Yes / No
Prior to visiting the clinic	Yes / No
Genetics	Yes / No
Balance disorders	Yes / No
Others	Yes / No

Comments

Recommendations

Record keeping

IT and computerised databases are essential for the efficient running of a paediatric audiology service, and as a tool for audit.

Policy for record keeping	Yes / No
Typed patient report	Yes / No
Use of Parent Held Child Record	Yes / No

Copies to multidisciplinary team	Yes / No
Availability of computers in department	Yes / No
Availability of internet in the department	Yes / No
IT skills	Yes / No
Computerised database of patients	Yes / No
Database for SN loss	Yes / No
Database for neonatal screening	Yes / No
Minutes of administrative meetings	Yes / No

Comments

Recommendations

We agree with the comments and recommendations.

Appraiser:

Name:

Position:

Address:

Signature:

Date:

Appraisee:

Name:

Position:

Address:

Signature:

Date:

Appraiser:

Name:

Position:

Address:

Signature:

Date:

Appraisee:

Name:

Position:

Address:

Signature:

Date:

References:

1. *Audiological Medicine in the UK – a guide for users, commissioners and providers, British Association of Audiological Physicians, 2002*
2. *NDCS Quality standards in paediatric audiology– Vol I, 1994*
3. *NDCS Quality standards in paediatric audiology– Vol II, 1996*
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7. *Paediatric Audiological Medicine; Policy document of the British Association of Audiological Physicians, 1990*
8. *Health Building note 12 supplement 3 - 1994, Acoustic audiology, Health technical memorandum 2045*
9. *Strengthening the care of children in the community, Feb 2002, p 9, Royal College of Paediatric and Child Health*
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11. *Competencies in paediatric audiology, British Association of Community Doctors in Audiology, 2003*
12. *Family friendly hearing services for children, Newborn hearing screening programme, draft recommendations 2002*