ISHAA
Irish Society of
Hearing Aid Audiologists

DeafHear.ie
Services for Deaf & Hard of Hearing People

Best Practice Guidelines for The Provision of Hearing Aid Services for Adults in Ireland 2017

Foreword

This document, the Best Practice Guidelines for Provision of Hearing Aid Services for Adults in Ireland, has been devised by a committee comprised of representatives from Health Services Executive (HSE) Integrated Audiology Programme, Irish Society of Hearing Aid Audiologists (ISHAA), Irish Academy of Audiology (IAA) and Deaf Hear. The Chair and secretariat of the committee were provided by Health Services Executive.

The guidelines were distributed in draft format for comment to all representative bodies within the sector in the consultation period January to end October 2017, and following adoption by all these bodies on 01/11/2017, has now become the best practice guidance for the provision of hearing aid services in Ireland.

While adoption of the best practice guidelines is currently not mandatory, compliance with the guidelines by a service denotes that the service has met the minimum requirement for best practice.

The guidelines are due for review 18 months after publication and every three years subsequently.

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Contents

Glossary Of General Audiology Terms

1.1 **Acute Audiology Service:** A hospital based audiology service, which supports ENT by providing diagnostic Audiological assessments.

1.2 **Audiologist:** Provides age appropriate, hearing assessments, recommends management options and where appropriate initiates the (re)habilitative process.

1.3 **BAA:** British Academy of Audiology

1.4 **BAHA:** Bone Anchored Hearing Aid

1.5 **BSA:** British Society of Audiology

1.6 **Cochlear Implant:** **A** surgically implanted electronic device that provides a sense of sound to a person who is profoundly deaf or severely hard of hearing.

1.7 **Conductive Hearing Loss:** Occurs when sound is not conducted efficiently through the outer ear canal to the tympanic membrane and ossicles of the middle ear, it can be temporary (e.g. related to middle ear fluid) or permanent(e.g. due to atresia).

1.8 **Deaf Hear:** DeafHear is a registered not-for-profit charity established in 1964. DeafHear works to improve the lives of Deaf and Hard of hearing persons and their families, and to support professionals and other organisations working with them.

1.9 **DNA:** Did Not Attend

1.10 **ENT Consultant:** Provides specialist medical and surgical management of patients with Ear Nose and Throat conditions.

1.11 **GP** : General Practitioner

1.12 **HSE:** Health Services Executive

1.13 **IAA Irish Academy of Audiology:** The professional body for clinical audiologists

1.14 **IAP:** Integrated Audiology Programme, the HSE National Audiology programme.

1.15 **ICGP:** Irish College of General Practitioners

1.16 **ISHAA:** Irish Society of Hearing Aid Audiologists: Professional body for registered hearing aid audiologists

1.17 **NCIP:** National Cochlear Implant Program

1.18 **NICE:** National Institute of Clinical Excellence

1.19 **Otoacoustic Emissions (OAE):** An objective tool for assessing cochlear (outer hair cell) function.

1.20 **Otoscopy** : Visual examination of the external auditory canal and the eardrum with an otoscope.

1.21 **Pure Tone Audiometry (PTA):** the gold standard behavioural assessment used to measure ear and frequency specific hearing thresholds to define the patient's auditory sensitivity.

1.22 **REM**: Real Ear Measurement. A procedure used to verify that amplification has met prescribed frequency / gain targets.

1.23 **Risk Factors:** A characteristic (e.g.cleft palate), condition (e.g syndrome) or treatment (e.g. ototoxic medication) that predisposes an individual to have or acquire a hearing impairment.

1.24 **Sensory Neural Hearing Loss (SNHL):** A hearing loss arising within the cochlea and / or auditory nerve.

1.25 **Single Sided Deafness:** A condition where an individual has non-functional hearing in one ear and receives no clinical benefit from amplification in that ear; with the contralateral ear possessing normal audiometric function with a pure-tone average that is 20 dB or better across the pure-tone range.

1.26 **Six WK REV**: This is the six week review appointment offered after initial hearing aid fitting.

1.27 **SOR:** Source of Referral

1.28 **TOAE**: Transient oto acoustic emission

1.29 **Tympanometry**: An objective examination used to test the condition of the middle ear and mobility of the eardrum and the conduction bones by creating variations of air pressure in the ear canal.

1.30 **Uncomfortable Loudness Level:** This is the minimum level of sound that is judged to be uncomfortably loud by a patient.

Introduction

Welcome to the best practice guidelines for Provision of Hearing Aid Services for Adults in Ireland. The guidelines have been devised voluntarily and adopted by the representative bodies for Adult Hearing Aid Service providers in Ireland in both the statutory and the private sector.

Prior to the development of these guidelines, there have been no clear national guidelines to assist well run hearing aid service-providers to benchmark themselves against best practice and to demonstrate their high standards to their clients and stakeholders.

The TILDA report[1] indicated a high prevalence of self-reported hearing loss, however the use of hearing aids is low in the general population with only one in five adults with hearing loss using hearing aids. Issues impacting upon use included lack of comfort, lack of support or information in how to use and maintain the device appearance and cost.

Currently in operation is Statutory Instrument S.I. No. 252/1994 European Communities (Medical Devices) Regulations, 1994 and International Standard EN 15927:2010. Services offered by hearing aid professionals. The best practice guidelines (BPG's) is intended to blend both the Statutory and the NAIS Standard to achieve a set of guidelines which will ensure that the Hearing Aid Audiologist is at all times achieving the highest standard.

The representative bodies; HSE Audiology Services, Irish Academy of Audiology and the Irish Society of Hearing Aid Audiologists, along with Deafhear who are an advocacy group for the hard of hearing have worked collaboratively to put in place BPG's which has been created for the sector by the sector.

The guideline consists of ten main headings under which are set out the detailed sub-levels to be met and the criteria for evidencing compliance, which are a prerequisite for quality assurance. It attempts to distil the results of current evidence and consensus practice into a series of statements which can be used to frame service provision.

The accompanying appendices form an integral part of the BPGs, particularly in relation to the referral guidelines and care pathways outlined for accessing specialist services including the National Cochlear Implant Programme and National Bone Anchored Hearing Aid service.

The document attempts to establish good practice from a published evidence base and international consensus regarding good practice, making the assumption that good practice should not be constrained in the first instance by the availability of resources.

All individuals and agencies who provide professional hearing aid services to the public have a responsibility to adopt and comply with this BPG, regardless of whether they are operating in a public service environment or commercial provider situation.

BPG 1 – Accessing the Service

		Criterion: All clients with hearing problems and their significant other(s), who require referral (for first or subsequent appointments) to audiology services are able to access the correct audiology service to meet their needs.
1.1	The criteria which Adult clients need to meet to be referred are clear so that they are fully understood by referrers.	A clearly defined client care pathway is available to all potential sources of referral (SOR).
1.2	Information about referral criteria and care pathways for Adults, including any changes are widely disseminated by the service provider to all potential referrers on a regular basis.	Evidence is available that referral criteria have been circulated to referring bodies.
1.3	The service should be wheelchair accessible	The service is wheelchair accessible
1.4	The service should be able to communicate effectively with the service user / significant others.	The service supports communication using phone, text, email, and remote Irish Sign Language (ISL) interpreting.
1.5	Clients referred to/or attending adult audiology services are adults, above 18yrs of age.	The age of the client is recorded in the client record. Accepted referrals are 18 years+.
1.6	Adults with a valid medical card can access HSE Community Audiology services.	Service providers must inform medical card holders of their entitlement to access HSE community audiology services and document this on client record.
1.7	The national General Practitioner (GP) referral form is the recommended referral form.	The national GP referral form is used for the referral (Appendix A).
1.8	Acknowledgement of an accepted referral is made within 10 days of receipt of referral, to the client and to the source of referral (SOR).	A written acknowledgement is made to the SOR within ten days with a copy kept on client record.
1.9	A letter indicating non acceptance of a referral should be made to the SOR within 10 days of receipt, clarifying reason(s) for return.	A letter of non-acceptance is sent to the SOR within ten days outlining the reason for not accepting the referral with copy kept on client record.

BPG 2 – Audiological Assessment

		Criterion: The **assessment** stage is essential to determine the type, degree and configuration of hearing loss.
2.1	All clients receive a comprehensive audiological assessment which is performed to recognised national/international standards.	Written protocol for conducting the audiological assessment is available.
2.2	Informed consent is obtained from the client for assessment of their hearing and where appropriate for their significant other(s) being present during the evaluation process	The client's verbal and implied consent is recorded on the client's record.
2.3	All clients undergo a thorough ear examination of the external ear canal, eardrum, pinna and area behind the ear, this should include otoscopy or video otoscopy[2].	The client's record contains a report of otoscopy (or a copy of any video otoscopy).
2.4	All clients have their hearing threshold levels measured.	Air and bone conduction audiometry, masked where appropriate, is performed to BSA standard for diagnostic audiometry with results recorded on the client record[3].
2.5	Thresholds of uncomfortable loudness levels (ULLs) are measured where clinically required.	BSA protocols are followed for ULL measurement where clinically required[4].
2.6	Assessment of middle ear function is performed where clinically required.	The client record has the results of tympanometry (performed to BSA standard) recorded, where clinically appropriate[5].
2.7	Additional/further diagnostic procedures are performed or referred for, if clinically indicated.	Oto acoustic emissions (OAEs) are performed where clinically justified and the reasons for recording /outcomes are documented. Manufacturer guidelines should be followed for OAEs in the absence of national guidelines. Speech discrimination, particularly in noise, is performed where clinically required.
2.8	The timeline from client assessment to fitting of hearing aid should be no more than 6 weeks.	The dates of assessment and hearing aid fitting are recorded within the client's chart.
2.9	There is a minimum assessment duration of 45 minutes for direct referral clients.	The duration of assessment is 45 minutes minimum.

BPG 3 – Candidacy & Needs Assessment

		CRITERION: The client is evaluated to determine their specific amplification needs.
3.1	Clients are requested to provide a detailed history to include:- Audiovestibular and relevant medical history.	The client record contains a comprehensive audiovestibular and relevant medical history (Appendix B).
3.2	The client is referred for further medical investigations where clinical red flags are identified using the modified BAA[6] Guidelines for referral to Audiology of adults with a hearing difficulty (Appendix C).	The medical referral criteria are adhered to.
3.3	Clients receive an assessment of activity limitations related to their hearing impairment. Establish expectations, motivation, willingness to participate and engage in hearing management, assertiveness. Identify any decrease in manual dexterity (finger sensitivity). Identify any decrease in visual acuity. Establish prior experience with amplification Establish general health. Identify specific occupational, recreational or life style demands. Clarify whether the client has an adequate support system(s). Determine candidacy and motivation toward amplification. Counsel client, family, caregiver on results and discuss/align expectations.	The client record contains a description of : • The client's activity limitations. • Any indication of cognitive decline. • Client expectations • Any issue with manual dexterity. • Any issue with visual acuity. • Any history of amplification, including benefit / limitations • The client's general health status. • The client's occupational, recreational and lifestyle demands. • The client's available support systems. • The amplification requirements to address the clients needs are justified and documented. Where clinical concern is raised client should be referred back to their GP for medical discussion and the outcome recorded in medical record (Appendix D).
3.4	Clients should not be provided with hearing aids where hearing threshold levels are satisfactory, unless there are specific clinical	Clients should not be provided with hearing aid(s) where the hearing thresholds are ≤ 20 dBHL over 0.5Hz, 1kHz, 2kHz, and 4kHz) unless

	reasons	there is clinical justification which is documented
3.5	Clients with satisfactory hearing are offered the option of a review appointment within 24 months	Clients with hearing thresholds ≤ 20 dBHL over 0.5Hz, 1kHz, 2kHz, and 4kHz) are offered the option of a review assessment within 24 months.

BPG 4 – Treatment Planning & Management

		Criterion: An individual management plan is implemented and updated with outcomes of intervention assessed.
4.1	The Client Orientated Scale of Improvement (COSI) or Glasgow Hearing Aid Benefit Profile (GHABP) is used to establish clients' specific needs, goals and priorities.	The COSI/GHABP Part 1 is completed with the client at the assessment appointment.
4.2	Impression(s) are taken for closed fitting ear moulds, where required using the BSA procedures/protocols.	The BSA procedures/protocols for impression taking are complied with [7]
4.3	The style and type of ear mould is appropriate for the type and degree of hearing loss.	The reason(s) for the selection of the ear mould type is recorded within the client record.
4.4	Information is provided, by the service regarding services offered by other agencies (including voluntary sector organisations).	Discussion on support services is documented in client record.
4.5	The style of hearing aid provided for the client is appropriate for the degree, type of hearing loss and needs of client.	The client is informed of the range of suitable hearing aid styles that the service provides.

BPG 5 – Hearing Aid Provision

		Criterion : Where provision of hearing aid(s) is appropriate the service ensures that evidence based protocols are employed for the prescription, fitting and verification of amplification
5.1	Hearing aids are prescribed using a current evidence based protocol (e.g.NAL or DSL) [8].	The type of evidence based protocol (NAL or DSL) is kept on the client's record.
5.2	Real Ear Measurement (REM) of acoustical hearing aid performance is to be used to verify hearing aid fittings, unless clinically contraindicated for individual clients[9] .	REM is used to verify acoustical hearing aid fitting and evidence is kept on the client's file. If contraindicated, a note explaining this is kept on the client record.
5.3	If REMS are contraindicated due to wax, REMs should be performed within 6 weeks of initial hearing aid fitting.	The reason for REMs being postponed is recorded and another appointment date is given.
5.4	The REM acoustical target is verified at three different input levels representing low, mid	REM should be performed according to BSA standards and evidence recorded within the

	and high intensities.	client record[9]
5.5	Adjustment to acoustical output is made.	Adjustment to acoustical output is made to ensure that the individual's uncomfortable loudness level is not exceeded.
5.6	REM measurements do not deviate from the recommended target at more than one frequency unless clinically indicated or poor client satisfaction.	REMs are recorded within the client file and reason(s) for deviation from targets clearly documented
5.7	Hearing aid(s) settings are recorded within the client record.	Settings are clearly recorded in the client record
5.8	All clients who are clinically suitable for bilateral hearing aid fitting should be offered two hearing aids.	Documented evidence is kept that clients were offered two hearing aids.

BPG 6 – Follow-up Appointment

		Criterion: Clients are offered timely and appropriate follow up to ensure maximum benefit from amplification provision
6.1	Each client is offered a follow-up or face to face appointment following hearing aid fitting within a maximum time of six weeks.	Evidence is available in the client's record of follow-up appointments.
6.2	The COSI/GHABP questionnaire is completed (part II) to evaluate the outcome of intervention	A copy of the completed COSI/GHABP is in the client record.
6.3	Clients can access the service when required	Clients are advised that they can self refer for review or repairs at any time.
6.4	A re-assessment is offered to all hearing aid clients minimally every four years.	The service has a policy for recall and evidence is retained on the client record of all actual and planned review dates.
6.5	A summary report is provided to the SOR on completion of the clients fitting.	A report is provided to the clients SOR and stored in client record

BPG 7 – Onwards Referral/Signposting

		Criterion: Clients are referred on to appropriate medical / support services where clinically required
7.1	Clients who are identified with clinical/medical red flags (Appendix C) are referred for medical opinion, however hearing aid management should continue unless contra indicated.	The completed Direct Referral Checklist (BAA Guidelines for Referral to Audiology of Adults with Hearing Difficulty) is in the client record.
7.2	Services provide repair sessions for clients.	Evidence is available that client's have access to repair facilities.
7.3	Onwards referral information The reason(s) for the onwards referral / recommendation for onwards referral is clearly documented.	The referral in the client record contains :- • History; • Audiological diagnostic information; • Management, including detailed

		information on hearing aids prescribed/verification and outcomes obtained.
7.4	Clients with complex needs are referred to appropriate specialist services.	The service follows the Complex Needs Referral Pathway (Appendix F), Adult Cochlear Implant Referral Guidelines (Appendix G) and Bone Anchored Hearing Aid Referral guidelines (Appendix H)

BPG 8 – Facilities & Resources

		Criterion: Services should have appropriate facilities and resources to ensure safe delivery of services to the required BPGs
8.1	Services should have a designated reception area.	The service has a designated reception area.
8.2	Services should have designated waiting area associated with the reception area.	The service has a designated waiting area.
8.3	Services should have a secluded area for counselling of clients / hearing aid orientation. It should be separated from the reception/waiting area in such a way that waiting clients or other persons cannot overhear conversations between the hearing aid professional and the client.	The counselling area provides privacy for the client.
8.4	Access to an induction loop system with magnetic field in accordance with EN 60118-4[10] shall be available for demonstration of hearing aids with induction pick-up coil.	The counselling area has access to an induction loop .
8.5	Hearing tests should be performed in acoustical conditions with ambient noise levels < =30 dBA, the ambient noise levels should be monitored daily and recorded using a sound level meter at a representative time of day	There is documented evidence of ambient noise level meeting the standard for diagnostic assessments.
8.6	The room for hearing aid fitting requires a controlled acoustic environment although the specifications are less demanding in terms of ambient noise than for Audiological assessment and should be <= 40 dBA, measured at a representative time of day.	There is documented evidence of ambient noise level meeting the standard for hearing aid management.
8.7	The environment for domiciliary assessment is assessed to be as quiet as possible to improve the accuracy of the hearing assessment. The ambient noise level is measured during the visit and recorded.	The ambient noise level in the domiciliary test environment is recorded in the client record.
8.8	For sound field audiometry the ambient sound pressure levels in the test room shall not mask the test stimuli.	The room meets EN ISO 8253-2[11] for sound field audiometry.
8.9	Services use technology to support	Client support technology is available and in

	communication with clients attending services (e.g. message boards and loop systems in reception areas and waiting rooms).	use.
8.10	Clients are seen in appropriate, well lit clinic rooms designed to comfortably accommodate a minimum number of 4 people (Audiologist, client, accompanying person, interpreter)	Clinic rooms are well lit and can comfortably accommodate four or more adults.
8.11	Services should ensure and document that equipment is • CE marked; • Safety tested and; • Calibrated annually to international standards ISO 389[12,13,14,15,16].	Services should have an equipment file/inventory and evidence of calibration
8.12	Daily functional checks are carried out and documented to international standards.	Services have up to date calibration and equipment check logs/certificates on file.
8.13	The audiometer should be type 1 or type 2 fulfilling the requirements of EN 60645-1[17].	The Audiometer fulfils the requirement of EN 60645-1[17].
8.14	For examination of the ear-canal and tympanic membrane otoscopic equipment shall be available.	All required equipment should be available in clinic, particularly: • Otoscope with single use ear specula of different sizes; • Impression syringe/gun suitable compounds for taking ear-mould impressions; • Eardrum tamps/protectors; • Ear light for placing tamp; • Bite blocks (where required); • Hygiene products for hands and equipment.
8.15	Electro-acoustic equipment is available for measuring hearing aid characteristics (gain, output level, distortion, induction pick-up coil sensitivity, etc.) in accordance with IEC 60118[18].	Electroacoustic equipment complying with IEC 60118[18] is available.
8.16	Equipment is available for the measurement of real-ear acoustical characteristics of hearing aids fulfilling the requirements according to IEC 61669-1[19] .	REM equipment complying with IEC 61669-1[19] is available.
8.17	A class 1 or class 2 sound level meter according to EN 61672-1[20] .	A sound level meter complying with EN 61672-1[20] is available.
8.18	Appropriate equipment for maintenance of hearing systems shall be available.	The following equipment is available: • Tool for drilling and trimming of tube ends; • Tool for threading tubing; • Ultrasonic bath; • Set of screwdrivers and pliers; • Attenuated stethoscopic listening device; • Binocular magnifying glass or illuminated magnifying glass; • Vacuum pump, compressor or aerosol.

8.19	For demonstration of products a selection of hearing aids and accessories shall be available. Information on other hearing assistive devices should also be available.	A selection of hearing aids and accessories similar to those dispensed by the service is available for demonstration.

BPG 9 – Service Monitoring & Quality Assurance

		Criterion: Services should have a clearly defined mechanism to monitor, review and quality assure their services to ensure best practice is provided for clients.
9.1	The service has a named lead.	The service has a named lead with specific responsibility for measurement of qualitative and quantitative data to inform ongoing service improvement.
9.2	Each service has processes in place to measure service quality.	A standard client satisfaction survey is implemented annually (Appendix E).
9.3	There are written BAA/BSA recommended procedures/protocols available to all staff in the service, including: 1. Otoscopy; 2. Air and bone conduction testing (including masking); 3. Thresholds for ULL measurement; 4. Tympanometry/	Current protocols are available to all staff in the service. There is documented evidence that clinicians have read and understood relevant procedures and protocols.
9.4	Competency and knowledge for all clinical procedures is verified formally by the employer, at least every two years for all clinical staff undertaking such procedures.	Evidence is retained on file of formal audit, of competency knowledge, carried out by the employer.
9.5	All frontline staff with direct client contact receives deaf-awareness and communication training as part of their induction, which is then updated every three years.	Documented evidence of deaf awareness training undertaken by staff.
9.6	The treatment plan is included in in the clinical record.	The clinical record contains information on the client's: • Hearing status; • Expectations; • Social circumstance; • Options for rehabilitation (including hearing instrument management); • Referral to other agencies and; Specific goals associated with assessment information.
9.7	Where referral to an external agency/service is indicated, referral is made within seven days of the recommendation.	• A dated copy of any referral to an external agency or service is kept on file.
9.8	Each service performs an audit, minimally once	• The service conducts an annual audit to

	per, year to ensure that staff are compliant with current BSA/BAA procedures.	ensure compliance with BSA/BAA procedure and protocols.

BPG 10 – Professional Competence

		Criterion: Delivery of adult hearing aid services are provided by qualified, competent and registered professionals
10.1	The Hearing Aid Audiologist is registered as a professional with the relevant body.	The Hearing Aid Audiologist is registered with: Irish Society of Hearing Aid Audiologists (ISHAA) as a full member.
10.2	The Audiologist is registered as a professional with the relevant body.	The Audiologist is registered as a full member with: Irish Academy of Audiology (IAA).[3]
10.3	Hearing Aid Audiologists should be registered with the Department of Social Welfare in order to provide eligible clients with a PRSI grant.	The Hearing Aid Audiologist is registered with the DSP and has a panel number.
10.4	Each service has processes in place to regularly consult with clients and stakeholders.	The service has a written policy outlining its process for consulting with clients and stakeholders with results on file.
10.5	The service has a policy on continuing professional Development (CPD) complying with the minimum CPD requirement as set out by the professional bodies (ISHAA or IAA) .	A written policy on continuing professional development n (CPD) is available. A training record is maintained for each clinician.

[3] The grade of staff is subject to the consolidation and agreement of the Unified Career Structure for Audiology

Appendix A Irish College of General Practitioners Referral Form

National GP Referral Form	
Referral Details	
Hospital:	
Specialty / Service:	
Preferred consultant / Healthcare Provider:	
Has the Client previously attended the Hospital:	□ Yes □ No
Priority (GP):	□ Urgent □ Routine
Date of referral:	
Client Details	
Surname:	
First Name:	
Address	
Date of Birth:	
Gender:	
Next of Kin:	
Mobile Number:	
Telephone (day):	
Telephone (evening):	
Hospital Number:	
First Language:	
Interpreter required:	□ Yes □ No
Wheelchair Assistance:	□ Yes □ No
Referrer details	
Name:	
Address:	
Telephone:	
Fax:	
Mobile:	
Signature of Referrer:	
Medical Council Registration Number:	
Client's usual GP (if different from Referrer details above)	
Name:	

Address:	

Clinical information
Reason for referral / Anticipated outcome:
Symptoms (including history of presenting complaints and interventions to date):
Examination findings:
Relevant tests / investigations: □ Attached □ Not applicable
Past Medical history:
Current medication:
Allergies / Adverse medication events:
Relevant Family History:
Relevant Social History:
Additional Relevant information (including special needs, disabilities, clinical warnings):

For Hospital use (referral management and outcome)			
Date referral Received:		Triage outcome (priority)	□ urgent □ soon □ routine
Date sent for triage:		Date of new attendance:	
Date returned from triage:		Consultant clinic:	

Appendix B. Example Client History Content

Client Name: _____ Client Number _____

Date of Clinic _____ Clinician _____

Source of Referral _____

HISTORY

Onset of hearing loss **(sudden(<24hrs)/rapid(<90 days)**)_____

Ear ache/infections YES ☐ NO☐ _____

Persistent otalgia affecting either ear where there has been a continuous episode of pain for 7 days or more within the previous 90 days

Discharging ear/s YES ☐ NO☐ _____

Exposure to loud noise YES ☐ NO☐ _____

Tinnitus: Unilateral, pulsatile or distressing tinnitus YES ☐ NO☐ _____

Vertigo: Hallucination of movement' within the last 90 days YES ☐ NO☐ _____

Previously worn hearing aid YES ☐ NO☐ _____

Using assistive listening technology YES ☐ NO☐ _____

Family History of hearing loss YES ☐ NO☐ _____

Medication/Ototoxic drugs YES ☐ NO☐ _____

Dexterity Issues YES ☐ NO☐ _____

Other _____

ENT HISTORY

ENT YES ☐ NO☐

Surgery YES ☐ NO☐ LEFT ☐ RIGHT ☐

Please specify _____

OTOSCOPY

Normal Appearance LEFT ☐ _____ RIGHT ☐ _____

Wax LEFT ☐ _____ RIGHT ☐ _____

Perforation LEFT ☐ _____ RIGHT ☐ _____

Scarring LEFT ☐ _____ RIGHT ☐ _____

Other _____

IMPRESSIONS AND TYPE

LEFT ☐ _____ RIGHT ☐ _____
Vent ☐ _____ Vent ☐ _____
Open ☐ _____ Open ☐ _____

Audiologist Name Audiologist Signature

Appendix C. Guidelines for Medical Referrals of Adults Assessed with Hearing Difficulty

History	
Persistent pain affecting either ear (defined as earache lasting more than 7 days in the past 90 days before appointment)	☐
History of discharge other than wax from either ear within the last 90 days	☐
**Sudden loss or sudden deterioration of hearing* *(sudden = within 1 week, in which case send immediately to local ENT clinic)*	☐
+Rapid loss or rapid deterioration of hearing (rapid=90 days or less)	☐
Fluctuating hearing loss, other than associated with colds	☐
Unilateral or asymmetrical, or pulsatile or distressing tinnitus lasting more *than* 5 minutes at a time	☐
Troublesome, tinnitus which may lead to sleep disturbance or be associated with symptoms of anxiety or depression	☐
Abnormal auditory perceptions (dysacuses)	☐
Vertigo including dizziness, swaying or floating sensations	☐
Normal peripheral hearing but with abnormal difficulty hearing in noisy backgrounds; possibly having problems with sound localization, or difficulty following complex auditory directions.	☐
Ear examination	
Complete or partial obstruction of the external auditory canal preventing proper examination of the eardrum and/or proper taking of an aural impression or real ear measurements.	☐
Abnormal appearance of the outer ear and/or the eardrum (e.g., inflammation of the external auditory canal, perforated eardrum; active discharge).	☐
Audiometry	
+Conductive hearing loss, defined as 25 dB or greater air-bone gap present at two or more of the following frequencies: 500, 1000, 2000 or 4000 Hz and no previous ENT assessment / management with regards to current hearing loss	☐
+Unilateral or asymmetrical sensorineural hearing loss, defined as a difference between the left and right bone conduction thresholds of 20 dB or greater at two or more of the following frequencies: 500, 1000, 2000 or 4000 Hz and no previous ENT assessment / management with regards to current hearing loss	☐
+Evidence of deterioration of hearing by comparison with an audiogram taken in the last 24 months, defined as a deterioration of 15 dB or more in air conduction threshold readings at two or more of the following frequencies: 500, 1000, 2000 or 4000 Hz and no previous ENT assessment / management since the deterioration	☐
Other	
Any other unusual presenting features at the discretion of the audiologist.	☐
… please give details	

If any of the answers above is checked, seek medical opinion

*Warrants immediate referral to ENT clinic.

+Warrants definite ENT referral (where not previously referred and seen by ENT Consultant)

Other listed conditions may require medical consultation only prior to decision on ENT referral.

(HSE Community Audiology can refer directly to ENT services for clients presenting with red flags, ISHAA Hearing Aid Audiologists should refer to GP (unless sudden onset)

Appendix D. Example GP Referral Form From Medical Assessment

Client Name:	**Clinic date:**
Surname:	**Address:**
D.o.B.:	
Our Reference Number:	
Home Phone:	
Mobile Phone:	
Audiologist:	

Dear Dr. _____

The above named has been seen in the audiology clinic today. The client has been assessed as a *direct referral to audiology. Please see noted referable condition(s) on the reverse of this page that require a medical opinion to be sought.

I request that you arrange ENT // see this client for medical opinion + consider ENT referral in relation to this and we will / will not simultaneously continue with audiology care. I attach a copy of the Audiogram.

Tympanometry findings: Right: _____ Left: _____

Otoscopic inspection: Right: _____ Left: _____

Kind regards,

_____ (Audiologist).

CC: File

**Guidance based on BAA (2009) - Guidelines for Referral to Audiology of Adults with Hearing Difficulty, modified and agreed with National Clinical Lead for ENT / Audiology & IAA in Ireland.*

Appendix E. Example Adult Hearing Aid Service Satisfaction Questionnaire

Audiology/Hearing Aid Services (SAMPLE DRAFT)

Client Satisfaction Survey

Thank you for completing this survey. Your answers will help us to improve the Audiology Service and we are grateful to you for taking the time to fill in this form.

Please indicate your level of satisfaction for each item with a tick. Please base your responses on all contacts with the department over the past few months.

Overall, how satisfied are you with:

No.	Question	Very satisfied	Satisfied	Somewhat dissatisfied	Very dissatisfied
	Accessibility				
1.	Your experience communicating with the Audiology Service?				
2.	The location of your appointment (how accessible from your home)?				
3.	The time you waited for your appointment?				
4.	The time you waited at your appointment?				
5.	The postal hearing aid repair (if used)?				
	Surroundings & Reception				
6.	The signage directing you to the Audiology/ Hearing Aid Service?				
7.	Your welcome at Reception?				
8.	The access to the clinic room?				
9.	The lighting in the clinic room?				
	Information				
10	The information you received with your appointment letter?				
11.	The direction to the centre.				
12.	The written information you received at your appointment?				
13.	The information in the waiting room?				
	Audiologist				
14.	The professionalism of the Audiologist?				
	Care and Treatment				

15.	The explanation of any procedures carried out?				
16.	The opportunity to ask questions during the appointment?				
17.	The answers given to any questions you asked?				
18.	The assessment and management of your hearing needs?				
19.	The appropriate involvement of the person who came with you?				
20.	The time the Audiologist spent with you.				
	Overall				
21.	The audiology service you received?				

Please add any comments to further explain your answers
Please state one improvement that you would make to the Audiology/Hearing Aid Service

Age (Years)	18 - 29	30 -39	40 - 49	50 -59	60 -69	70 -79	>=80

Gender	Male	Female

Section below for completion by Audiology/Hearing Aid Service staff:

Clinic ……

Date ……

Appointment type…….....

Comments …….

Appendix F. Complex Needs Referral Information

Evaluation

There is no standard definition of what constitutes a non routine hearing loss. This is because hearing impairment can be measured in different ways e.g sensitivity, temporal and frequency domains.

Further, some hearing conditions can have normal hearing sensitivity but poor speech understanding due to processing disorders or neurological complications.

As hearing sensitivity is routinely measured, using pure tone audiometry, practically it makes sense to use this standard measurement to provide the basis of any audiological complex interim definition.

Generally the greater the degree of hearing loss (sensitivity) as measured on the audiogram, the greater the needs are of the individual. They will require higher powered hearing aids, access to adult auditory rehabilitation, lip reading, sign language , assistive listening devices and in many cases cochlear implants.

1) Referral categories for audiologically complex cases

1. Severe/Profound hearing loss with AC thresholds >= 80 dBHL over 2-4kHz in the better hearing ear.
2. Poor speech discrimination, not expected by the degree of hearing impairment
3. Long term Fluctuating inner ear hearing loss (e.g Menieres Syndrone/ Auto immune Syndrome)
4. Ski slope loss sensory neural loss (>50 dBHL octave difference between 0.5 and 4kHz)
5. Repeatedly inconsistent audiometric results (suspected Non Organic Hearing Los)
6. Frequent attendees for hearing aid fine tuning / counselling (> 3 visits in a 12 month period)
7. Suspected/confirmed neurological conditions (Acoustic Schwanomma, Neuro-fibromtosis Type 2, Auditory Neuropathy Spectrum Disorder)
8. Evidence of abnormally severe recruitment with a dynamic range of ≤ 30 dB
9. Hyper-acusis
10. Severe tinnitus

These clients should be referred to appropriate services / specialists.

Cases of unilateral sensory neural hearing loss – can be referred to the regional BAHA centre for assessment / CROS aid management[4]

[4] Consult with regional BAHA centre for referral advice

Appendix G. Criteria for onward referral to Cochlear Implant Centre

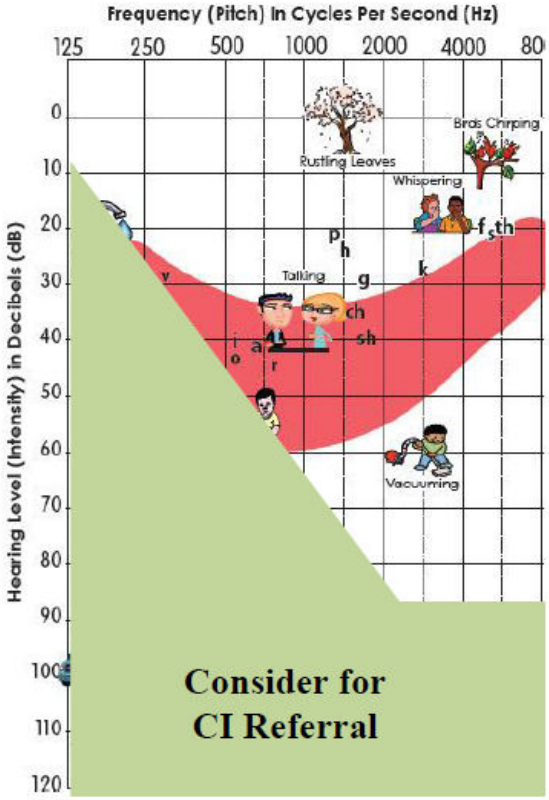
The National Cochlear Implant Programme
Adult Programme
Beaumont Hospital
Dublin 9, Ireland

Referral Guidelines Adult Cochlear Implant Programme

Unaided thresholds (adults)

Referral guidelines for adults/teenagers (≥18years old)

- Bilateral profound SNHL (≥90dBHL at 2 – 4 kHz)
- Post lingual hearing loss with oral/aural communication skills (guideline)
- No maximum age for referral
- Patients with additional needs not excluded
- Limited benefit from appropriately fit hearing aids



URGENT REFERRALS

- Hearing loss post meningitis
- Hearing loss post skull fracture, particularly temporal bone fractures
- Duel sensory disability (e.g. blindness)

Referral letters must be addressed to:
Prof. Laura Viani, Mr. Peter Walshe or Mr. Fergal Glynn
National Cochlear Implant Programme
Beaumont Hospital
Dublin 9
Ireland.

Appendix H. Referral Guidelines For Baha Assessment

General

A Bone Anchored Hearing Aid is a management option for clients having a chronic conductive or mixed hearing loss where cochlear function is at a level that can benefit from amplification. It is also an option for clients presenting with unilateral hearing loss.

Each client will be individually assessed and the management options discussed with the client/caregiver/significant others.

CONDUCTIVE DEAFNESS

- Congenital malformation of the middle/external ear or microtia
- Chronically draining ear that does not allow use of an air conduction hearing aid (e.g. external otitis, draining mastoid cavity)
- Ossicular disease (and not appropriate for surgical correction)
- Unable to be aided by conventional air conducting devices
- Other non specific chronic middle ear disease

SINGLE SIDED (PROFOUND UNILATERAL DEAFNESS)

Clients with permanent single sided deafness may benefit from a BAHA:[5]

- Post Acoustic Shwannoma surgery
- Genetic/Congenital abnormalities
- Trauma

GENERAL MEDICAL: Medically fit to undergo surgical procedure under Local or GA.

COGNITIVE ABILITY: Comprehension by the client/parent or significant other of the requirement for the:

1) Lifelong basic hygiene of implant abutment.
2) Importance of attendance at ENT/clinic and post operative appointments

Clients should be offered referral to the relevant BAHA specialist site for discussion and management regarding surgical and non surgical management options.

[5] Trial with a CROS hearing is recommended in first instance, contact the local BAHA service for advice

Bone Anchored Hearing Aid Services

Region	Consultant	Address	Category
DML	Mr H.Savage Jones	Midland Regional Hospital Arden Road Tullamore Co Offaly	Adults/Paeds
	Mr S.Hone	Our Lady's Children's Hospital, Crumlin Dublin 12	Complex / Paeds
HSE WEST	Mr J.Lang	Galway University Hospital ENT Department Newcastle Road Galway	Paeds / Adults
HSE DNE	Mr S.Kieran	Mater Misericordiae University Hospital Audiology Department Eccles Street, Dublin 7	Adult
	Mr S.Kieran	Temple Street Children's University Hospital ENT Department St. Frances Clinic Dublin 1	Complex / Paed
HSE SOUTH	Mr P.O'Sullivan	South Infirmary Victoria University Hospital Audiology Department Old Blackrock road Cork	Adult / Paed

References

1. McGarrigle C., Donoghue O., Scarlet, S and Kenny R.A. 2017. Health and Wellbeing: Active Ageing for Older Adults in Ireland Evidence from The Irish Longitudinal Study on Ageing

2. BSA Recommended Procedure for ear examination – 2016. http://www.thebsa.org.uk/wp-content/uploads/2010/04/Recommended-Procedure-Ear-Examiniation-Sept-2016.pdf

3. BSA Recommended Procedure for pure tone air and bone conduction audiometry with and without masking – 2011.http://www.thebsa.org.uk/wp-content/uploads/2011/04/Pure-Tone-Audiometry-1.pdf

4.BSA Recommended Procedure for determination of uncomfortable loudness levels – 2011. http://www.thebsa.org.uk/wp-content/uploads/2011/04/Uncomfortable-Loudness-Level-1.pdf

5.BSA Recommended Procedure for Tympanometry – 2013.http://www.thebsa.org.uk/wp-content/uploads/2013/04/Tympanometry-1.pdf

6. British Academy of Audiology (2009). Guidelines for Referral to Audiology of Adults with Hearing Difficulty

7. BSA Recommended Procedure for taking an aural impression – 2013. http://www.thebsa.org.uk/docs/RecPro/BSA_PPC_RP_Impressions_FINAL_12Feb2013.pdf

8. Jorgensen L.E. 2016. Verification and validation of hearing aids: opportunity not an obstacle. Journal of Otology. 1: 57-62.

9.BSA Guidance on the use of Real Ear Measurements to verify the fitting of digital signal processing hearing aids – 2008 .http://www.thebsa.org.uk/docs/RecPro/REM.pdf

10.EN 60118-4 :2015Electroacoustics. Hearing aids. Induction-loop systems for hearing aid purposes. System performance requirements

11. ISO 8253-2: 2009 : Acoustics -- Audiometric test methods -- Part 2: Sound field audiometry with pure-tone and narrow-band test signals.

12. ISO 389-1, Acoustics — Reference zero for the calibration of audiometric equipment — Part 1: Reference equivalent threshold sound pressure levels for pure tones and supra-aural earphones

13. ISO 389-2, Acoustics — Reference zero for the calibration of audiometric equipment — Part 2: Reference equivalent threshold sound pressure levels for pure tones and insert earphones

14. ISO 389-3:1994, Acoustics — Reference zero for the calibration of audiometric equipment — Part 3: Reference equivalent threshold force levels for pure tones and bone vibrators

15. ISO 389-5, Acoustics — Reference zero for the calibration of audiometric equipment — Part 5: Reference equivalent threshold sound pressure levels for pure tones in the frequency range 8 kHz to 16 kHz

16. ISO 389-8, Acoustics — Reference zero for the calibration of audiometric equipment — Part 8: Reference equivalent threshold sound pressure levels for pure tones and circum aural earphones

17 EN 60645-1:2015 Electroacoustics. Audiometric equipment. Equipment for pure-tone audiometry.

18. IEC 60118: 2015: Electroacoustics - Hearing aids - Part 0: Measurement of the performance characteristics of hearing aids

19. IEC 61669: 2015: Electroacoustics - Measurement of real-ear acoustical performance characteristics of hearing aids

20. BS EN 61672-1:2013. Electroacoustics. Sound level meters. Specifications