

Best Practice Statement ~ *May 2006*

Ear Care

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Introduction

NHS Quality Improvement Scotland (NHS QIS) was set up by the Scottish Parliament in 2003 to take the lead in improving the quality of care and treatment delivered by NHSScotland.

The purpose of NHS QIS is to improve the quality of healthcare in Scotland by setting standards and monitoring performance, and by providing NHS Scotland with advice, guidance and support on effective clinical practice and service improvements.

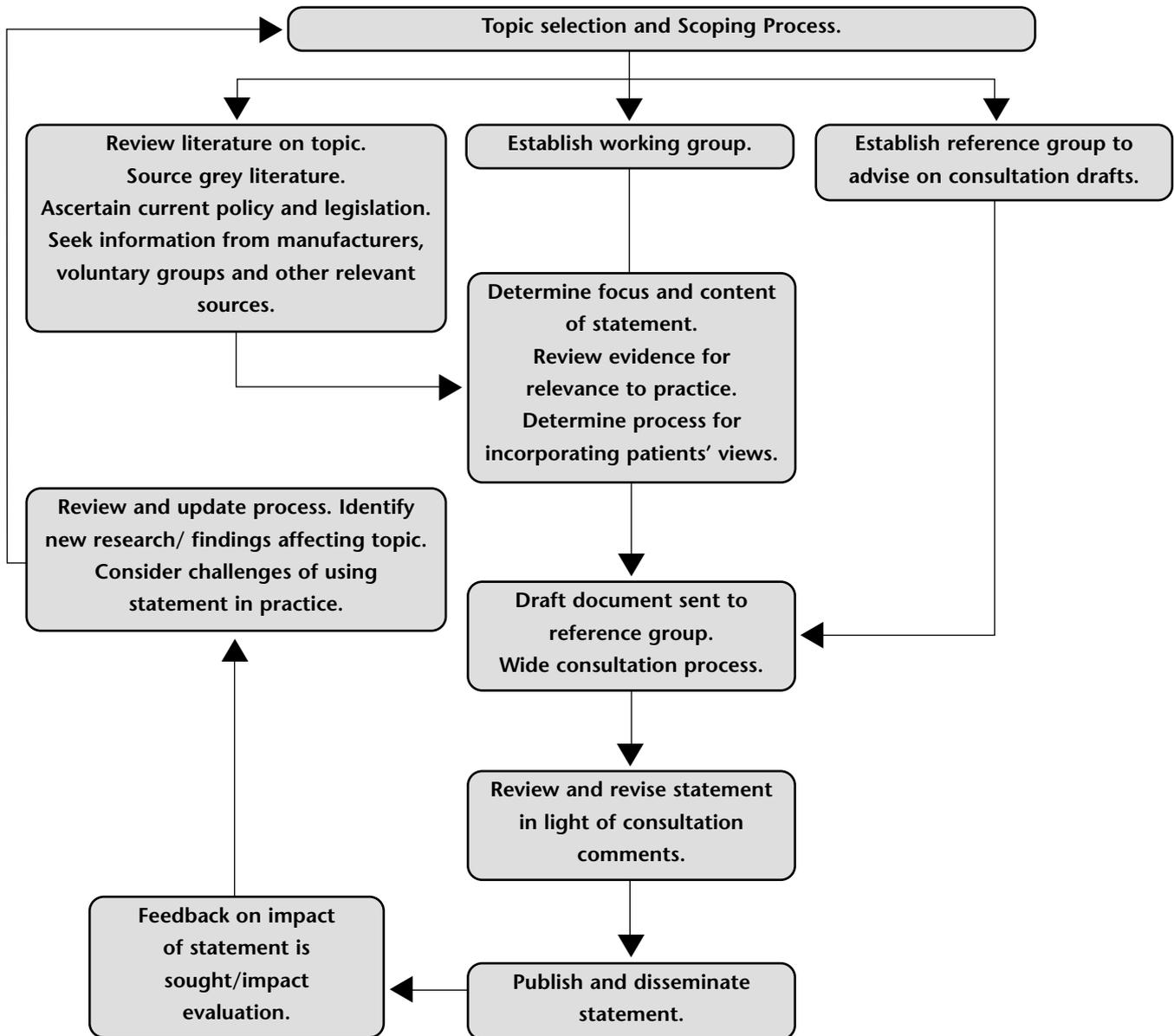
A series of best practice statements has been produced within the Practice Development Unit of NHS QIS, designed to offer guidance on best and achievable practice in a specific area of care. These statements reflect the current emphasis on delivering care that is patient-centred, cost-effective and fair. They reflect the commitment of NHS QIS to sharing local excellence at a national level.

Best practice statements are produced by a systematic process, outlined overleaf, and underpinned by a number of key principles:

- They are intended to guide practice and promote a consistent, cohesive and achievable approach to care. Their aims are realistic but challenging.
- They are primarily intended for use by registered nurses, midwives, allied health professionals, and the staff who support them.
- They are developed where variation in practice exists and seek to establish an agreed approach for practitioners.
- Responsibility for implementation of these statements rests at local level.

Best practice statements are reviewed, and, if necessary, updated after 3 years in order to ensure the statements continue to reflect current thinking with regard to best practice.

Key Stages in the development of best practice statements



Best practice statement on ear care – introduction

The management and delivery of ear care was identified by a network of nurses working in Ear, Nose and Throat (ENT) departments and in primary care as an area in which inconsistencies in practice exist. Uncertainties over best practice are compounded by the lack of research evidence and range of opinion relating to the delivery of care in this area. The aim of this statement is to offer guidance to nursing staff with responsibility for various aspects of ear care.

The ear is a sensitive and easily damaged sensory organ. The Royal National Institute for the Deaf (RNID) estimates that there are 758,000 deaf and hard of hearing people in Scotland. As the proportion of older people in Scotland is increasing (General Register Office for Scotland) and since hearing difficulty increases with age (Davis, 1995), ear care is likely to become of increasing concern to the NHS in Scotland. In addition to hearing problems, care of the ear may also be related to tinnitus, vertigo, the removal of cerumen, foreign bodies, and the experience of pain. Most people presenting for ear care, however, are likely to have some degree of hearing loss, which may be temporary or permanent.

Referrals to GPs and secondary care may be reduced if nurses undertake initial management of ear care. In most circumstances nurses trained in the care of ears are well placed to offer a service which is patient-focused and community-based; the model of service provision for the NHS for the future, outlined in the white paper, *Delivering for Health*. (Scottish Executive, 2005)

Some ear care procedures are highly specialist and it is particularly important that those undertaking any of these procedures are competent to do so, prepared by appropriate training and continuing professional development commensurate with the role. Individuals have a professional responsibility to recognise the limits of their own competence; knowledge of the referral process is a significant aspect of primary ear care. The working group identified that initial training and ongoing mentoring is considered best practice and should be something to which all practitioners aspire.

Given that ear care is often associated with hearing difficulty, those offering this care should be highly skilled communicators. It is important that the healthcare worker is aware, not only of hearing loss but of other potential barriers to communication. The patient's first language, which may not be English, the presence of a learning disability, dementia, or the presence of other communication problems may all require a response



and certain techniques to promote effective communication and ensure patient-centred care. The use of an interpreter, signing, maintaining a position which will allow effective lip-reading and the use of written materials are all examples of techniques which can assist with communication.

The environment in which care is delivered and in which individuals practice will influence ear care services. This statement recognises the fact that while many practitioners work in isolation from support, often in the community, practitioners working in specialist units have enhanced access to support and knowledgeable and skilled colleagues. The best practice statement should not limit experienced healthcare workers working in a specialist environment. Practitioners in the community may be unable to replicate the conditions which are routine in the clinic or hospital setting. Seating, lighting, and space constraints may all present community practitioners with specific challenges and any risks associated with this should be identified in the local risk register. (eg it may be impossible for a community nurse to sit at a level with the patient. The relevant register would record and address this.) In a similar acknowledgement of the isolated practitioner, the working group suggests the most conservative timescales recommended in the literature, for example in performing ear procedures after a perforation. The working group also recognised that there may be vulnerable individuals (for example a young person with a learning disability who becomes distressed at the noise of ear irrigation equipment) for whom best practice must be tailored to realistic and achievable practice.

The working group acknowledged that the evidence base for much of the practice of ear care is still evolving, in particular for ear care in children. The working group recognised that professional consensus will itself evolve as more knowledge becomes available. One of the purposes of a best practice statement is to identify variation in practice and stimulate research and it is hoped that a future review of this statement could draw on a larger body of evidence.

SECTION 1: Educational preparation of healthcare staff undertaking ear care

Key Points ~

- 1 Healthcare staff are appropriately trained if performing ear care interventions.

Statement	Reasons for statement	How to demonstrate statement is being achieved
All healthcare staff undertake a competency based ear care education programme appropriate* for the aspects of ear care and procedures they practice.	<p>To promote safe and effective practice</p> <p>To measure performance against standards</p> <p>To allow continuing assessment against competency statements for Continuing Professional Development (CPD) in the role.</p>	<p>There are local protocols which cover the provision of training and support.</p> <p>There are records of individual achievement in educational and CPD activities.**</p>

Key Challenges ~

- 1 The availability of suitable educational and training activities in local areas.
- 2 The availability of mentors, and the time and commitment required for ongoing assessment.
- 3 The requirement of healthcare staff to develop services within the parameters of safe practice as described by regulatory bodies (Health Professions Council, NMC, GMC).

* The level of education required and content of educational programmes is dependent on the remit of the individual practitioner. It is assumed that all healthcare staff working in ear care and/or undertaking specialist procedures will fulfil their responsibility to acquire and maintain professional knowledge and competence appropriate to the level at which they practice and that training will be offered within the appropriate frameworks of staff governance and role development (SEHD 2002b, SEHD 2005).

**The working group recognises the ideal provision of training would be by a taught course supported by an identified mentor who would then assess initial competence and provide updates at agreed intervals

SECTION 2: Ear care assessment

Key Points ~

- 1 *Awareness of the possibility of hearing impairment, and other potential barriers to communication is essential to promote effective communication with patients. (See best practice statement, Maximising communication with people who have hearing disability, NHS QIS Dec 2005)*
- 2 *It is crucial to undertake a physical examination of the ear and take a history of ear care and current symptoms in order to elicit information which may contraindicate certain treatment choices.*

Statement	Reasons for statement	How to demonstrate statement is being achieved
Initial assessment is carried out before a physical examination of the ear. This includes a history of symptoms and of ear care. (Appendix 1)	To identify any information which may contraindicate certain treatment choices.	Relevant medical history, current medication and history of ear disorders or treatment are documented in the health record.
Physical examination of the ear takes place in accordance with local protocols and good practice. (Appendix 2)	To identify any information which may contraindicate certain treatment choices.	Findings from the physical examination are documented in the health record.
The findings of the history-taking and examination are documented following guidelines on record keeping.	To form a record of assessment as evidence for the decision on any treatment recommendations, and to maintain a permanent record of findings.	Audit of patient records.
All decisions about initial and ongoing ear care involve the patient (and carer where appropriate).	All patients should have the opportunity to ask questions about their care.	This will be reflected in local protocols.
Patients have access to information about their care and treatment which is: <ul style="list-style-type: none"> • presented in a variety of formats • supplemented with verbal explanations, and • sent to patients prior to appointments where possible. 	To ensure that patients who depend on alternative means of communication, eg those with reduced hearing or those who speak community languages other than English, can understand information. This conforms to the Clinical Governance & Risk Management Standard 2a6 (NHS QIS 2005) To promote a consistent approach to advice given.	Communication strategies recognise and address individual patient's needs. Health records document the specific communication needs of individual patients. A range of information is available in a variety of accessible formats. Local protocols determine how and when information is issued.

Statement	Reasons for statement	How to demonstrate statement is being achieved
Informed consent is obtained prior to any ear care procedure. (Appendix 2)	Patients should be aware of risks and have the opportunity to ask questions relating to ear care procedures.	There is documented evidence in health records that appropriate information was given to the patient and informed consent sought.
Advice is sought from an ENT specialist or medical practitioner if there are concerns about abnormality or appropriate management.	To ensure access for patients to appropriate assessment and management.	Criteria exist for referral to specialist services.
Hearing loss not previously investigated and unresolved following ear care is reported to a medical practitioner.	Hearing loss is abnormal and requires appropriate assessment and management. (See best practice statement, Maximising communication with older people who have hearing disability, NHS QJS Dec 2005)	Criteria exist for referring patients with newly diagnosed hearing loss to specialist audiology services.

Key Challenges ~

- 1 *Ensuring compliance with best practice when examining and caring for patients in their own homes eg sitting at the same level as the patient.*
- 2 *Developing local protocols.*
- 3 *Ensuring that healthcare staff consider hearing loss as an important part of the assessment process to improve patient-centred care.*
- 4 *Ensuring that training programmes include information on assessment and communication strategies for those with temporary or permanent hearing loss and those with special needs.*

SECTION 3: Cerumen management

Key Points ~

1 *Initial treatment should be the use of ear drops as this may reduce need for further management.*

Statement	Reasons for statement	How to demonstrate statement is being achieved
<p>Treatment with ear drops is the first line treatment if</p> <ul style="list-style-type: none"> the ear canal is occluded with wax and following assessment, ear irrigation is being considered. 	<p>This may reduce the need for ear irrigation and the risks associated with it.</p> <p>Drops have been shown to be effective in cerumen management (Kean et al 1995).</p>	<p>Health records document advice given to patient regarding use of ear drops.</p> <p>There are local protocols for this treatment. (See best practice statement, Maximising communication with older people who have hearing disability, NHS QIS Dec 2005)</p> <p>Guidance on which drops to use should be included in local protocols.</p>
<p>Treatment is patient-centred and in accordance with local protocols and best practice. (See Appendix 4)</p>	<p>The GP practice is usually the first point of contact for a patient and will determine how care and treatment is offered.</p>	
<p>If the use of drops has not been effective, the following removal methods are employed</p> <ul style="list-style-type: none"> instrumentation irrigation, or microsuction [see relevant individual sections on these procedures] 	<p>Excessive wax should be removed to prevent/reduce hearing loss, tinnitus, vertigo or pain and to get a full view of the tympanic membrane, for diagnostic purposes.</p>	<p>Guidance is included within local protocols/procedures.</p>

Key Challenges ~

1 *Educating the public and practitioners in cerumen management especially those who are accustomed to ear irrigation as a first line treatment.*

SECTION 4: Instrumentation

Key Points ~

- 1 *This procedure is used to clear the ear canal of debris, discharge and soft wax.*
- 2 *Removal of products should be undertaken only by healthcare staff who are trained and competent in this area of practice.*
- 3 *Training is required prior to instrumentation.*

Statement	Reasons for statement	How to demonstrate statement is being achieved
A full examination of the ear and a history is taken.	To ascertain patient's suitability for aural toilet/instrumentation.	Health records document the reason for the procedure, previous ear care management and any contraindications.
Debris, discharge or wax is removed with an ENT instrument selected using clinical judgement and in accordance with best practice. (See Appendix 5)	Excessive wax should be removed to get a full view of the tympanic membrane, for diagnostic purposes, and to prevent/reduce hearing loss, tinnitus, vertigo or pain. To minimise risk of perforation or trauma to ear.	Health records document the instrument used.
The findings of the history taking and the examination are documented in accordance with guidelines on record keeping.	To form a record of assessment as evidence for decision on any treatment recommendations and to maintain a permanent record of findings.	Health records document the outcome of procedure and information given to patient about findings.

Key Challenges ~

- 1 *Developing suitable training and courses*

SECTION 5: Ear irrigation

Key Points ~

- 1 Earwax should be removed only if it causes symptoms or to facilitate examination of the ear.
- 2 Ear irrigation should be undertaken only by those who are trained and competent in this procedure.
- 3 Irrigation of the ear may cause complications and must be used only following individual assessment (see Section 3) with consideration of the following indications and contraindications (Harkin, 2003)*

Indications:

- The removal of earwax when treatment with ear drops alone has been ineffective
- To clear debris to facilitate examination of the ear canal and tympanic membrane or further treatment
- Removal of non hygroscopic foreign bodies (hygroscopic matter, such as peas, absorb water and expand making removal more difficult).

Contraindications:

- history of previous problem with ear irrigation (eg pain, perforation)
- history of middle ear infection in the previous 6 weeks
- history of ear surgery except extruded grommets within the last 18 months and patient discharged from ENT
- history of perforation or mucous discharge in last 12 months
- cleft palate – whether repaired or not
- acute otitis externa with an oedematous ear canal and painful pinna
- if patient confused and agitated or unable to sit still.

* Harkin, H, (2003), "Ear Care Guidelines", NHS Modernisation Agency, London: page 6
<http://www.wise.nhs.uk/sites/clinicalimprovcollab/ENT/ENT%20Documents/1/Ear%20Care%20Guidance.pdf>

Statement	Reasons for statement	How to demonstrate statement is being achieved
<p>A full history is taken with particular attention to contraindications and indications for this procedure and following examination of the ear.</p>	<p>To ensure irrigation is not contraindicated and the use of ear drops has been attempted as a first line response.</p>	<p>The reason for the procedure, the previous ear drop regime and any contraindications are documented in the health record.</p>
<p>Syringes must not be used for the irrigation of the ear canal.</p>	<p>The use of syringes, specifically metal ear syringes, in ear irrigation is no longer considered good practice. The design of the metal syringe combined with the inability to control water pressure increases the risk of ear damage. There are also difficulties in disinfecting the syringe after each use.(Harkin 2003)</p>	<p>The equipment used is documented in the health record.</p>
<p>The use of an electronic ear irrigator is recommended. This will be supplied with</p> <ul style="list-style-type: none"> • a pressure variable control, • limiting maximum pressure, • specific manufacturer's disinfecting instructions, and • maintenance guidelines. 		<p>Local protocols/procedures include information on the use of the electronic irrigator.</p>
<p>Ear irrigation machines are disinfected and maintained in compliance with the manufacturer's instructions and in accordance with local protocols.</p>	<p>This prevents cross-infection and ensures patient and operator safety.</p>	<p>There are local health and safety policies, specifically those concerned with device management and control of infection.</p>
<p>Relevant clinical history, findings of the examination and the procedure undertaken are documented following guidelines on record keeping.</p>	<p>To form a record of assessment as evidence for decision on any treatment recommendations and to maintain a permanent record of the procedure.</p>	<p>Audit of individual patient records.</p>

Key Challenges ~

- 1 Educating the public and practitioners to consider ear irrigation only as a second line treatment for removal of earwax.
- 2 Ensuring access to a training and competence framework for ear irrigation for healthcare staff undertaking this procedure.

SECTION 6: Microscopic examination and microsuction

Key Points ~

- 1 Microscopic examination is considered an advanced practice and should be used only after appropriate training
- 2 This procedure is used to:
 - view in detail the ear canal/mastoid cavity and tympanic membrane
 - make a diagnosis, and
 - if required, clear the canal of foreign bodies, debris, discharge and cerumen.
- 3 The practitioner will choose the correct instrumentation to deal with the complaint.
- 4 The use of suction under the microscope (microsuction) is sometimes the instrument of choice. Microsuction is a noisy, sometimes uncomfortable procedure. An individual assessment of each patient should be made to ensure the suitability for microsuction with consideration of the following indications and contraindications:

Indications:

- removal of cerumen if ear drop treatment and other methods have failed
- removal of discharge, keratin or debris to enable correct treatment of otitis externa and allow examination of ear canal/mastoid cavity and tympanic membrane/drum remnant
- removal of foreign bodies which are hygroscopic or hydroscopic
- removal of canal debris or cerumen where there is occlusion and a known perforation.

Contraindications:

- if patient confused and agitated, eg a patient with a learning disability may find the noise distressing and not be able to sit still for this procedure.

Statement	Reasons for statement	How to demonstrate statement is being achieved
A full history is taken, particularly assessing for contraindications and indications as outlined above and following examination of the ear.	To ascertain that microsuction is an appropriate treatment for the patient.	Health records document the reason for the procedure, previous ear care management and any contraindications.
A physical examination of the ear is undertaken. The microscope and microsuction are used only following training and in accordance with local protocols and best practice. (Appendix 7)		
The findings of the history taking, examination and procedure undertaken are documented following guidelines on record keeping.	To form a record of assessment as evidence for decision on any treatment recommendations and to maintain a permanent record of the procedure.	The outcome of procedure and information given to patient about the findings are documented in the health record.

Key Challenges ~

- 1 *Maintaining microscopes in compliance with the manufacturer's instructions and local maintenance arrangements.*
- 2 *Ensuring practitioners are familiar with the microscope they are using as these can vary.*

SECTION 7: Infection control

Key Points ~

- 1 *All healthcare staff should be aware of the risk of healthcare associated infections (HAI).*
- 2 *Healthcare providers should have awareness of the Glennie Framework and Scottish Executive Health Department recommendations. They have responsibilities under the Health & Safety at Work Act (1974) and the Control of Substances Hazardous to Health Regulations (2002) (COSHH) to ensure the health and safety of their employees and others and to control and manage the risk of infection.*
- 3 *Risk assessments should be undertaken to identify hazards related to decontamination.*

Statement	Reasons for statement	How to demonstrate statement is being achieved
All practitioners consult and are guided by their NHS Board's team for advice, local arrangements, and protocols in infection control.	Infection control is the responsibility of specific teams in each NHS Board.	There are protocols to determine links with infection control information and advice.
Standard infection control precautions are used: <ul style="list-style-type: none"> • hand washing before and after procedures involving patients, and • use of gloves and protective clothing when handling instruments and equipment. 	This prevents cross-infection.	Instructions are given within local and national infection control procedures/protocols. There is documented evidence to show that all staff involved in decontamination procedures are trained properly in carrying out procedures correctly.
Consideration should be given on how equipment is to be decontaminated in compliance with the manufacturer's guidelines and local infection control measures, before it is procured.	It is good practice to anticipate decontamination procedures and processes, in conjunction with local factors, to inform the choice of equipment procured.	Local procurement protocols reflect this.
All reusable ear care equipment must be decontaminated after use, in compliance with the manufacturer's guidelines and local infection control measures.	This helps prevent healthcare associated/acquired infection.	Local procedures/protocols outline the requirements of infection control and decontamination, are validated and accessible to all staff. All procedures/protocols are audited by the infection control team.

Statement	Reasons for statement	How to demonstrate statement is being achieved
<p>Consideration is given to the use of single use instruments/equipment if a healthcare setting is unable to comply with appropriate decontamination measures.</p>	<p>This helps prevent health care associated/acquired infection. Decontamination often takes place in unsuitable environments. In some locations there is no access to appropriate decontamination facilities. There is a need to separate clean from dirty processes.</p>	<p>Local procedures/protocols outline the requirements of infection control and decontamination, are validated, and accessible to all staff. All procedures/protocols are audited by the infection control team.</p>

Key Challenges ~

- 1 *The need to consider how equipment and instruments are to be decontaminated prior to purchase, in both primary and secondary care.*
(See decontamination of surgical instruments & other medical devices - www.shou.scot.nhs.uk/sehd)
- 2 *Ensuring that decontamination procedures are included within existing training programmes.*
- 3 *The need to consider how contaminated and clean items are kept separate and transported.*
- 4 *Managing the change from employing reusable equipment to using disposable equipment.*

Appendix 1:

Suggested questions to include in initial ear care assessment

The questions suggested below should help the healthcare worker take a full ear history. Awareness of the patient's wider health needs eg if the patient is immuno-compromised, or has diabetes, should inform the ear history taking, and the patient should be referred to an appropriate specialist if necessary.

- Have you had ear surgery?
- Have you experienced previous ear problems?
- Have you ever had perforated ear drum(s)?
- Do you suffer from tinnitus?
- Do your ears itch?
- Do you use cotton buds in your ears?
- Do you avoid water getting into your ears? If so, how?
- Do you have any allergies?
- Have you any underlying skin complaints?
- Do you swim? If so, how frequently?

If there are clinical indications eg the pinna, surrounding skin or external meatus are red or excoriated;

- Have you made any changes in shampoo, hair products or detergents?

Appendix 2

Patient Consent

1. Informed patient consent must be obtained before a healthcare intervention is carried out.
2. Consent should be seen as a process, not a single event. Patients can change their minds and withdraw their consent at any time.
3. Part 5 of The Adults with Incapacity (Scotland) Act 2000 sets out the principles that should underpin the assessment of incapacity to consent to medical treatment or research, and how to proceed where an individual is incapable of giving informed consent.
4. An important principle of consent is that the patient understands and agrees to the healthcare intervention. The nature of this agreement will depend on the nature of the proposed intervention and on local policies. Agreement does not necessarily need to be in writing but health records must document the fact that the patient understands the process of the relevant ear care procedure and the need for it, and consents verbally to the procedure.
5. In Scottish Law, when someone reaches their 16th birthday, the person gains the legal capacity to make decisions for him/herself. However, even under the age of 16, a young person can have the legal capacity to make a decision on a healthcare intervention, provided that the young person is capable of understanding its nature and possible consequences.

At the time of going to press, a 'Good practice guide on consent for health professionals in NHS Scotland' was being prepared by the Scottish Executive for publication in 2006.

In addition, guidance on the amendments to Part 5 of the Adults with Incapacity (Scotland) Act 2000, contained within the Smoking, Health and Social Care (Scotland) Act 2005 will be issued from the Scottish Executive in 2006.

Appendix 3

Guidance for Ear Care Physical Examination

Standard infection control precautions are used:

- hand washing before and after procedures involving patients, and
- use of gloves and protective clothing when handling instruments and equipment.

Statement	Reasons for statement
Ensure that the patient is sitting comfortably. Ensure that you are sitting at the same level as patient. Ensure the light is good.	The patient needs to sit without moving to avoid damage to ear from instrument. This improves your vision of the ear and promotes good posture and reduces the risk of back injury.
Conduct the physical examination of the ear, including pinna, ear canal and adjacent scalp.	To help identify the existence of any scars, discharge, swelling, skin lesions or defects.
Undertake the auriscope examination using the largest speculum that fits comfortably in ear canal. Adjust your head and auriscope to view all of tympanic membrane. If your view hampered by cerumen, see Section 3 and Appendix 4 on cerumen management.	The ear cannot be judged to be normal until all areas of the membrane are viewed.
If the patient has had mastoid surgery, adjust your head and auriscope to view as much of the cavity as possible.	The mastoid cavity cannot be judged to be completely free of disease until the entire cavity and tympanic membrane or drum remnant has been viewed. It is not always possible, however, to view the whole cavity.

Appendix 4

Guidance for cerumen management

Standard infection control precautions are used:

- hand washing before and after procedures involving patients, and
- use of gloves and protective clothing when handling instruments and equipment.

Statement	Reasons for statement
Take a relevant clinical history and perform an ear examination.	Determine if cerumen management is indicated and appropriate.
Obtain informed consent from the patient.	This is a legal requirement and is intended to ensure that the patient is aware of what the procedure involves, the possible complications and has agreed to it.
If you advise an ear drop regime, it should be tailored to individual needs eg 2-5 drops of wax softening ear drops (olive oil or the patient's choice) twice a day for 3-5 days.	Drops have been shown to be effective in cerumen management (Kean et al 1995).
Supplement these instructions with written information advising the use of ear drops and the technique for instilling drops.	To reduce risk of increased ear damage.
<p>There is no research evidence to recommend one type of ear drop over another.</p> <p>The following should be remembered:</p> <ul style="list-style-type: none"> • some drops may cause irritation in some patients, and • some drops contain nut oil and should be avoided by those with nut allergy. 	

Statement	Reasons for statement
<p>If a perforation behind the wax is suspected, advise the patient to use the drops in very small amounts. (see contraindications to ear irrigation page 6)</p>	<p>To reduce risk of increased ear damage.</p>
<p>Advise the patient to stop using the ear drops if he/she experiences any pain.</p>	
<p>Document all aspects of the treatment episode in the patient's health records.</p>	<p>To ensure a full and accurate record of the patients condition and the treatment provided.</p>
<p>Provide any further instructions and advice on ear care to the patient.</p>	<p>To promote good ear care</p>

Appendix 5

Guidance for instrumentation

Only a suitably trained and qualified practitioner should undertake this procedure.

Standard infection control precautions are used:

- hand washing before and after procedures involving patients, and
- use of gloves and protective clothing when handling instruments and equipment.

Statement	Reasons for statement
Take a relevant clinical history and perform an ear examination.	Determine if instrumentation is indicated and appropriate.
Obtain informed consent from the patient.	This is a legal requirement and is intended to ensure that the patient is aware of what the procedure involves, the possible complications and has agreed to it.
Select ENT instrument in accordance with clinical judgement .	
Gently pull the pinna upwards and outwards (in infants downwards and backwards) to straighten out the meatus. Remember that the skin lining the deeper meatus is very delicate and sensitive.	This straightens the ear canal enabling better access and view.
Periodically inspect the ear canal with auriscope and examine products removed.	To ensure no damage to ear and assess progress.
Observe the entire canal/ tympanic membrane/drum remnant/mastoid cavity.	The ear cannot be judged to be completely free of ear disease without a complete view.
Document all aspects of the treatment episode in the patient's health records.	To ensure a full and accurate record of the patients condition and the treatment provided.
Provide any further instructions and advice on ear care to the patient.	To promote good ear care.

Appendix 6

Guidance for ear irrigation

Only a suitably trained and qualified practitioner should undertake this procedure.

Standard infection control precautions are used:

- hand washing before and after procedures involving patients, and
- use of gloves and protective clothing when handling instruments and equipment.

Statement	Reasons for statement
Take a relevant clinical history and perform an ear examination.	Determine ear irrigation is indicated and appropriate.
Obtain informed consent from the patient.	This is a legal requirement and is intended to ensure that the patient is aware of what the procedure involves, the possible complications and has agreed to it.
Prepare equipment as per local guidelines and manufacturer's instructions. This will include a fresh speculum and jet tip for each patient. Protect the patient's clothing with a towel or waterproof covering. Ask the patient to hold the water receiver under their affected ear.	To facilitate a safe and successful procedure. To promote patient comfort.
Ensure that the patient is sitting comfortably and that you are sitting at the same level as the patient. Use a good light source, from a head lamp or head mirror, throughout the procedure.	This improves visibility and promotes good posture of the nurse, reducing risk of back injury.
Ensure that the temperature of water is around body temperature throughout the procedure and does not exceed 40°C at the beginning of the procedure.	This promotes patient comfort and avoids extremes of temperature. Irrigation with cold water is very unpleasant and can cause dizziness (the caloric effect).
Pull the pinna upwards and outwards (downwards and backwards in children). The jet tip should be angled so that the flow of the water is along the posterior wall superiorly towards the superior occipital region.	This straightens the ear canal enabling better access and view. Directing the water this way reduces the stimulus of the vagal nerve.

Statement	Reasons for statement
Inspect the ear canal periodically with the auriscope and monitor the solution running into the receiver. The procedure can be uncomfortable but should not cause pain. If the patient reports ear pain the procedure should be stopped.	This ensures there is no obvious damage to the ear and monitors progress in clearing the ear. Prevent complications due to ear irrigation.
Unless this is overridden by clinical judgement, follow the recommendation that a maximum of 500ml water is used per ear in any one irrigating procedure.	There may be an increased risk of complications the longer the procedure continues.
Following irrigation examine the ear with an auriscope.*	It is important to check the condition of the ear.
Document all aspects of the treatment episode in the patient's health records.	To ensure a full and accurate record of the patients condition and the treatment provided.
Provide any further instructions and advice on ear care to the patient.	To promote good ear care.

*At this point in the procedure some practitioners recommend dry mopping. The research base on dry mopping the ear following ear irrigation is still evolving; it may pre-empt a predisposition to infection from the water left in the ear or it may encourage infection. The working group has therefore not included dry-mopping in the statement, since it is hoped that, until further research determines the evidence base for the safety and effectiveness of this procedure, professional clinical judgement and local protocols will guide healthcare staff.

Appendix 7

Guidance for microsuction

Only a suitably trained and qualified practitioner should undertake this procedure.

Standard infection control precautions are used:

- hand washing before and after procedures involving patients, and
- use of gloves and protective clothing when handling instruments and equipment.

Statement	Reasons for statement
Take a relevant clinical history and perform an ear examination.	This determines if microsuction is indicated and appropriate. (see section)
Obtain informed consent from the patient.	This is a legal requirement and is intended to ensure that the patient is aware of what the procedure involves, the possible complications and has agreed to it.
Ensure you are familiar with the equipment and manufacturer's instructions. <ul style="list-style-type: none">• Suction should be maintained between 80 and 120 Hg (18 to 20 cm H₂O) during procedure. Equipment used includes: <ul style="list-style-type: none">• Zollner tip suction catheter• fine Zollner tip suction extension 18-22 Fg• Jobson-Horne probe• crocodile forceps• gauze.	
Check if the patient has had microsuction previously, explain the nature of the noise and assure them that they can ask for a rest if they experience any vertigo. If vertigo occurs stop the procedure and ask the patient to focus their eyes on a fixed object until the feeling subsides.	This ensures that the patient is prepared for a potential side effect.

Statement	Reasons for statement
Request that the patient position themselves comfortably in the examination couch or chair. You may need to ask the patient to move their head eg lean head towards the opposite shoulder to be able to see more clearly into the cavity.	To facilitate a safe and successful procedure. To promote patient comfort.
Adjust the magnification eyepiece and angle of the microscope to the appropriate position.	To obtain maximum benefit from the use of the equipment.
First examine the pinna, outer meatus and adjacent scalp by direct light and check for incision scars and observe for skin defects.	To obtain any relevant information from observation.
Gently pull the pinna upwards and outwards (in infants downwards and backwards) to straighten out the meatus. Remember that the skin lining the deeper meatus is very delicate and sensitive.	This straightens the ear canal enabling better access and view.
Direct the microscope down the ear. Insert the speculum gently into the cavity - use the largest size speculum that will fit comfortably into the ear. Rotating the speculum gently will help flatten the hairs in the outer meatus.	This gives a clear view.
Carefully check the cavity, tympanic membrane or drum remnant. Decide the size of suction tip most appropriate for the procedure and attach it to the suction tubing.	The most appropriate equipment for the procedure enables the procedure to be done with maximum safety and effectiveness.
Inform the patient that you are about to turn the suction machine on. Apply the suction tip to the areas requiring debris removal. Use an appropriate solution to wash through the suction tubing if it becomes blocked.	
Avoid touching the wall of the meatus, cavity or drum/drum remnant.	Touching only the debris helps to minimise discomfort for the patient.
You may need to ask the patient once again to move their head to gain a full view of the external auditory meatus, drum or drum remnant.	

Statement	Reasons for statement
Vary the angle of the microscope to gain a full view of the cavity, tympanic membrane or drum remnant.	The ear cannot be judged to be completely free of debris until the entire cavity and tympanic membrane or drum remnant has been seen.
The normal appearance of the cavity varies. Seek specialist advice to confirm findings if required.	
Carefully check the condition of the external auditory meatus as you withdraw the speculum.	
Document all aspects of the treatment episode in the patient's health records in accordance with appropriate guidance.	To ensure a full and accurate record of the patients condition and the treatment provided.
Provide any further instructions and advice on ear care to the patient.	To promote good ear care.

Appendix 8

Children and ear care

The process of producing a best practice statement often identifies areas for potential research. The working group identified differences in the practice of ear care in children across Scotland and noted that the evidence base for procedures is still evolving. The group consequently sought professional consensus by identifying significant principles for healthcare practitioners in ear care for children and recommends adherence to professional judgement and local protocols, noting that this statement will be reviewed in three years time.

The working group acknowledged that it requires particular skill to elicit co-operation in children and that the majority of ear care procedures carried out on children will take place not in primary care but in specialist paediatric units. Referral to a more highly skilled practitioner may reduce the need for anaesthetic if the child becomes very agitated.

As with the care of adults, practitioners need to refer any concerns identified before, during or after a procedure to an appropriate consultant. The working group noted that children become unsettled quickly; if this is the case the group advises that the procedure should be stopped immediately.

The working group also identified the need for careful consideration prior to ear care procedures dependent on a risk-benefit analysis which would include the following factors:

- the need for the procedure,
- the risks of the procedure eg of anaesthesia,
- age and developmental stage of child,
- co-operation of child, and
- consent of child/person with parental rights and responsibilities.



In addition the following principles were identified:

- Education, training, competence and confidence are of paramount importance. There should be no attempt to undertake urgent ear care (eg the removal of a foreign body in the ear cavity) if there is any doubt of success at the first attempt.
- Local protocols may determine which interventions take place and in what circumstances eg there may be special arrangements for children with a learning disability.
- No healthcare practitioner should be required to undertake an intervention without appropriate support and training. Healthcare practitioners should consider that they are fully competent and supported before undertaking an intervention. (NMC Code of Professional Conduct, 2004)
- Professional consensus suggests that no intervention, including suction or instrumentation, is undertaken without a specialist role.
- Professional practice in Scotland suggests that a policy of no irrigation of the ear of anyone under the age of 16 is predominant.

Glossary

aural toilet	Cleaning of the ear usually done mechanically by hand by a skilled specialist. The procedure is usually performed in a secondary (specialist) setting and can include dry mopping of the ear canal or suction. This can be performed with the assistance of a head light or microscope which allows cleaning of the more medial areas of the ear canal.
auriscope	A medical instrument consisting of a magnifying lens and light and used for examining the ear. Also known as an otoscope.
cerumen	Commonly known as earwax, is a yellowish, waxy substance secreted in the ear canal. It plays a vital role in the human ear canal, assisting in cleaning and lubrication, and also provides a degree of protection from bacteria, fungus, and insects.
ear drum	See tympanic membrane.
drum remnant	What remains of a damaged ear drum, usually the edge running round the ear canal where the outer ear meets the middle ear.
ear canal	The tube running from the outer ear to the middle ear. It ends at the ear drum.
grommets	A flanged metal or plastic tube that is inserted in the eardrum in cases of glue ear. It allows air to enter the middle ear, bypassing the patient's own non-functioning Eustachian tube.
instrumentation	The use of a range of medical instruments appropriate to ear care procedures, such as wax scoops, microscopes, magnifiers and lights.
irrigation	The process of washing out a wound or hollow organ with a continuous flow of water or medicated solution.
keratin	A protein that is a primary constituent of hair, nails and skin.
malleus	The outermost of three tiny bones, connecting the eardrum to the vibration-sensitive structures of the inner ear and thereby amplifying and transmitting sound waves.

mastoid	Hard, boney structure behind the ear which is well developed in adults but not in children.
meatus	The auditory meatus is the passage or tube leading from the oval shaped external ear (pinna) to the eardrum. (See ear canal.)
membrane	Structure or material that separates two environments, for example the 'ear drum' placed between the inner and outer ear.
microsuction	The use of a microscope and suction to remove wax, debris or foreign bodies from the ear. 'Micro' refers to the gentle level of suction and small-scale specialist equipment used.
dry mopping	Drying the ear canal with ear probe and cotton wool.
oedematous	Swelling due to excessive fluid in the tissues.
otitis externa	An inflammation of the skin of the ear canal.
perforation	A hole in an organ, tissue or tube.
pinna (auricle)	The oval flap of skin and cartilage that projects from the head at the opening of the ear canal. The 'ear' as normally seen.
speculum	An instrument for inserting into and holding open a cavity of the body.
tinnitus	A ringing, roaring, buzzing, or other noise that is 'heard' but is not actual sound.
tympanic membrane	The membrane at the inner end of the external auditory canal (ear canal), which separates the outer and middle ear. Sound waves cause the membrane to vibrate and transmit sound to the malleus within the middle ear. (See malleus.)
vagus nerve	The tenth cranial nerve. The vagus nerve supplies fibres to, and helps control the function of, the pharynx, larynx, trachea, lungs, heart, oesophagus and most of the intestinal tract. The nerve also brings sensory information back from the ear, tongue, pharynx and larynx.
vertigo	Disabling sensation in which affected individuals feel that either they themselves or their surroundings are in a state of constant movement. Vertigo is usually due to a problem with the inner ear, but can also be caused by visual problems.

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Useful Websites

Royal National Institute for Deaf	www.rnid.org.uk
Deafblind UK	www.deafblind.org.uk
Deafblind Scotland	www.deafblindscotland.org.uk
Scottish Council on Deafness	www.scod.org.uk
British Deaf Association	http://www.signcommunity.org.uk/
National Deaf Children's Society	www.ndcs.org.uk
Sense	www.sense.org.uk
British Tinnitus Association	www.tinnitus.org.uk
Tinnitus Information	www.tinnitus.org
Primary Ear Care Centre	www.earcarecentre.com
ENT Nursing	www.entnursing.com
Patient UK (Leaflets)	www.patient.co.uk

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