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Clinical Commissioning Group

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Primary Care – Ear Care Guidance

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Contents

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NICE Clinical Knowledge Summaries (CKS), available from
http://cks.nice.org.uk/earwax

Rotherham Primary Ear Care & Audiology Services
www.earcarecentre.com

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Introduction

In order to reduce litigation in ear irrigation and provide the patient with effective and safer ear care this document was originally produced by the 'Action On ENT' NICE Steering Board (2002) and endorsed by the Royal College of General Practitioners, The Royal College of Nursing, The Rotherham Primary Ear Care Centre and the Medical Devices Agency. It has subsequently been revised by the Rotherham Primary Ear Care Trainers (2014). It provides the practitioner with guidance in otoscopy, ear irrigation, and aural toilet for care in Primary Care.

This document has been compiled using the NICE Clinical Knowledge Summaries (CKS), available from http://cks.nice.org.uk/earwax and from BMJ best clinical evidence http://clinicalevidence.bmj.com/x/systematic-review/0504/overview.html applied locally from work with local GP's, local acute ENT provision and support from Rotherham Primary Ear Care Centre

NHS East Riding of Yorkshire CCG and NHS Hull CCG have worked with NHS England relating to the management of ear wax and therefore it is expected that all GPs will provide advice, treatment and ear irrigation where appropriate for their own patients.

Management of ear wax and ear canal problems form the greatest proportion of referrals to our acute hospitals Ear Nose and Throat (ENT) departments, amounting locally to 45% of minor referrals. By reaching best standards of ear care across all Hull and East Riding Primary Care the number of ear care referrals will be reduced and patient care improved.

Remember that education of patients about the fact that ear wax is a normal part of human physiology and self-care of their ears is paramount in avoiding/dealing with these problems.

The following guidelines and advice leaflets for patients are available on the Pathway Information Portal (PIP) under ENT for assistance. Other ENT pathways are available in the same section and the development and management of these is supported by national expert bodies, our local ENT department and local GPs with special interest.

Examination

- Examine both ear canals with an otoscope.
  - Sit at the same level as the person.
  - Examine the pinna, outer meatus and scalp for signs of previous surgery, discharge, swelling, signs of infection, or skin lesions.
  - Palpate the tragus to assess for pain. If pain is present proceed gently.
  - Pull the pinna upwards and outwards (downwards and backwards in children) to straighten the external auditory meatus.
  - Check for foreign bodies, localised infection or inflammation.
  - Ask the patient to sit steady if needed hold the person's head steady and insert the speculum into the meatus.
  - Note whether wax is present, and whether it appears to be impacted. Whilst wax occluding the whole meatus may cause hearing loss it is more likely to cause a loss when adherent to the tympanic membrane.
  - It may not be possible to view the tympanic membrane if wax is present.

Basis for recommendation
This recommendation is based on guidance from the Primary Care Ear Trainers [Primary Care Ear Trainers, 2015].

Diagnosis of impacted ear wax

- Many people will have made the diagnosis themselves, particularly if they have had a history of recurrent ear wax problems.
- Although some people are asymptomatic, the most common symptom from impacted ear wax is hearing loss. People may also complain of:
    - Blocked ears
    - Ear discomfort
    - Feeling of fullness in the ear
    - Earache
    - Tinnitus (noises in the ear)
    - Itchiness
    - Vertigo (not all experts believe that wax is a cause of vertigo)
    - Cough (rare and due to stimulation of the auricular branch of the vagus nerve by pressure from impacted earwax)
- There may be a history of exposure to water as this may cause complete blockage of the ear canal. The water gets trapped behind the wax and can lead to otitis externa.
- Children may present with yellow, waxy discharge.
- Ask about previous removal of impacted ear wax, previous tympanic membrane perforation, recurrent or chronic ear problems, hearing aid use and other conditions.

Differential diagnosis

- **Otitis externa** (inflammation of the auricle or external ear canal due to allergy, infection, or eczematous conditions).
- **Foreign bodies** (particularly suspect in children).
- **Keratosis obturans** is rare and of unknown aetiology, and is characterized by increased keratin production. A pearly white plug made up of densely compressed keratin squames fills the external ear canal, causing erosion of the bony canal. It presents with otalgia, hearing loss, and otorrhoea, usually with bilateral involvement in younger people. The external meatus may become markedly enlarged leading to severe wax accumulation.
- **Polyp of the ear canal.**
- **Osteoma of the ear canal.**

Management of Ear Wax

1. When should ear wax be removed?

- If ear wax is totally occluding the ear canal and any of the following are present:
    - Hearing loss
    - Earache (contraindication unless very mild)
    - Tinnitus
    - Vertigo
    - Cough suspected to be due to earwax
- If the tympanic membrane is obscured by wax but needs to be viewed to establish a diagnosis.
- The ear can be irrigated if the canal is only partially occluded. If the person wears a hearing aid, wax is present and an impression needs to be taken of the ear canal for a mould, or if wax is causing the hearing aid to whistle.

2. How to remove ear wax - How should ear wax be removed?

Explain that removal of ear wax may not necessarily relieve the symptoms (for example hearing loss may be a sensorineural loss and not due to impacted wax/debris.

Advise olive oil ear drops for 3–5 days initially, to soften wax and aid removal.

Inform the patient not to put cotton wool in the ear after inserting oil as this can result in the cotton wool soaking up the oil and it does not have the desired effect on the wax. Alternatively the patient can instil olive oil for 3 weeks to see if the wax will extrude spontaneously.

- Do not prescribe drops if you suspect the person has a perforated tympanic membrane. Olive oil is not harmful but if you suspect a perforation you would refer for micro suction and not suggest oil

- Warn the person that instilling ear drops may cause increased hearing loss and mild discomfort.

- If keratin debris is in the ear and olive oil is ineffective, sodium bicarbonate 5% can be used, however the alkaline nature of the sodium bicarbonate can affect the pH balance of the epithelium of the ear canal making the ear more susceptible to infection.

- If symptoms persist, consider ear irrigation, providing that there are no contraindications.

- If irrigation is unsuccessful, there are three options:
    - Advise the person to use ear drops for a minimum further 5 - 7 days and then return for further irrigation.
    - Instil water at body temperature, into the ear. After 15 minutes irrigate the ear again.
    - Refer to an Ear Nose and Throat specialist for removal of wax If the patients fulfils the criteria of the ear wax removal policy

- Advise anyone who has had ear wax removed to return if they develop otalgia or significant itching of the ear, discharge from the ear (otorrhoea), or swelling of the external auditory meatus, as this may indicate infection.

Basis for recommendation

These recommendations are based on published expert opinion.

- Evidence is very limited regarding the choice of ear drops to treat ear wax.

- Older people with a sensorineural hearing loss may request removal of ear wax in the mistaken belief that it will restore their hearing.

- The side effects of instilling ear drops are based on expert opinion in a clinical practice guideline: Cerumen impaction [Roland et al, 2008].

- There is limited evidence that ear irrigation improves hearing and symptoms.
    - There is evidence from a randomized study that the instillation of tap water (at body temperature) for 15 minutes into an ear in which irrigation did not remove all of the wax may disperse the wax sufficiently for a further attempt at irrigation to be successful (Clegg, et. Al. 2010; Pavlidis, et.al. 2005).
    - It is not recommended irrigation without prior use of a softening agent because expert opinion stated that extra force may be needed which is more likely to cause trauma

- Cerumen, or wax as it is commonly known, is a normal secretion of the ceruminous glands in the outer meatus and should only be removed if it is excessive or is obstructing the view of the tympanic membrane, or causing feedback in hearing aid wearers.

3. Removal methods not recommended

What methods of ear wax removal are not recommended?

- Advise people against inserting anything in the ear. Cotton buds, matchsticks, and hair pins as these can:
    - Damage the wall of the canal and increase the likelihood of otitis externa.
    - Cause the wax to become impacted by pushing it further into the canal.
    - Perforate the tympanic membrane.
- Advise that the use of ear candles has no benefit in the management of ear wax removal and may result in serious injury.
- Advise that devices purported to remove wax (such as those advertised in newspapers or pharmacists) can cause damage to the ear canal and are not effective

4. How do I manage someone with recurrent wax?

- Ask the person how they clean their ears and if they immerse their head in bath water, this will establish whether bad ear habits are contributing to the build up of wax and preventing self cleaning by epithelial migration
- Decide on the most appropriate treatment taking into account the person's wishes, previous successful treatment, and any contraindications.
- Any patient under the age of 12 years old with recurrent or impacted ear wax should be referred to paediatric audiology. It is more important that the patient is able to sit still whatever age they are. People without capacity to consent also need special consideration
- Treatment options include: ear drops, irrigation, or aural toilet.
- To prevent wax becoming impacted, advise that regular use of ear drops may be helpful.
    - Explain that there is no evidence to suggest the best type of ear drops or how frequently they should be used. The safest ear drops are olive oil
    - Experts suggest using either sodium chloride, olive oil ear drops. The suggested frequency of use varied from daily to once a fortnight.

Ear Irrigation

1. What are the contraindications, cautions and warnings for ear irrigation?

- Do not use ear irrigation to remove wax for people with:
  - A history of any previous problem with irrigation (pain, perforation, severe vertigo severe tinnitus, vaso-vagal attack).
  - Current perforation of the tympanic membrane.
  - Grommets in place and for 18 months after extrusion
  - A history of any ear surgery (except extruded grommets within the last 18 months, with subsequent discharge from an Ear Nose and Throat department).
  - A mucus discharge from the ear (which may indicate an undiagnosed perforation) within the past 12 months.
  - A history of a middle ear infection in the previous 6 weeks.
  - Painful or acute otitis externa with an oedematous ear canal and painful pinna.
  - Presence of a hydrophilic foreign body in the ear. It is appropriate to irrigate insects out of ears
  - Confusion or agitation, as they may be unable to sit still.
  - Inability to cooperate, for example young children and some people with learning difficulties.

- Use ear irrigation with caution in people with:
  - Vertigo, as this may exacerbate their condition temporarily
  - Tinnitus
  - Known healed perforation
  - Cleft palate, whether repaired or not, provided that the tympanic membrane has been seen to be normal.
  - Patients on anticoagulants ensuring that the INR is in range due to the small risk of trauma.

Warn people with any of the above that ear irrigation may aggravate or exacerbate their symptoms.

2. How should I irrigate an ear?

It is paramount that the person carrying out ear irrigation has attended recognised training and has updated these skills on a regular basis (preferably 3 yearly)

- Use an electronic ear irrigator. This should have a variable pressure control so that irrigation can begin at the minimum pressure.
- Protective personal equipment should be worn

- Prepare equipment as per local guidelines and manufacturer's instructions. This will include a fresh speculum and jet tip for each person. Protect the person's clothing with a towel or waterproof covering. Ask the person to hold the water receiver under their affected ear.

- Ensure that the person is sitting comfortably and that you are sitting at the same level. Use a good light source, preferably with a head lamp or head mirror, throughout the procedure.

- Ensure that the temperature of water used for irrigation is around body temperature.

Follow local guidance and training when performing the irrigation, ensuring you are up to date and have the skills to conduct the irrigation. Do not irrigate if you have not received training and accreditation to do so.

- Inspect the ear canal periodically with the auriscope and monitor the solution running into the receiver to determine whether wax is coming out.

- If the person complains of dizziness or pain, stop the procedure. (this maybe due to the water being too cold)

- In general, use no more than 500 ml of water per ear in any one irrigating procedure.

- Following irrigation, examine the ear with an auriscope to check that the wax has been removed and the tympanic membrane is intact. Look for old healed perforations. Inspect the canal for otitis externa.. Dry mop the canal following irrigation using a wool carrier to reduce the risk of infection

- Seek immediate advice from an Ear Nose and Throat specialist if severe pain, deafness, or vertigo occur during or after irrigation, or if a perforation is seen following the procedure. (Patient will need antibiotic cover if perforation discovered)

Considerations

- The use of a metal syringe for the irrigation of the ear canal is no longer acceptable as there is a risk of causing damage to the ear, including the tympanic membrane and the oval and round windows. The design of the syringe, combined with the inability to control water pressure, increases the risk of ear damage. It is also difficult to disinfect after use. This product is obsolete and was withdrawn as per MHRA (2015)

  It is considered good practice to carry out dry mopping to remove excess water as pseudomonas infection is commonly found in tap water.. Dry mopping is usually done using cotton wool on a Jobson–Horne probe and is often called aural toilet.

- Urgent assessment by an Ear Nose and Throat specialist is recommended as a perforated tympanic membrane, a perilymph fistula, or disarticulation of the ossicles caused by excessive irrigation pressure may need to be corrected surgically ??? Never heard of this with electronic ear irrigator perhaps related to old syringe

3. What are the complications of ear irrigation?

- The following have been reported:
  - Dizziness
  - Tinnitus
  - Trauma
  - Infection

4. What follow up is recommended?

- If normal hearing not restored consider referral to audiology/ENT
- Advise anyone who has had earwax removed to return if they develop earache, or significant itching of the ear, discharge from the ear (otorrhoea), or swelling of the external auditory meatus, as this may indicate infection

Aural Toilet

Aural toilet or dry mopping is used to clear the aural meatus of debris, discharge, soft wax or excess fluid following irrigation. An individual holistic assessment should be made of each patient to ensure that it is appropriate for aural toilet to be carried out and staff training to ensure safety should be undertaken regularly if carrying out aural toilet as a treatment option. Do not perform aural toilet on patients with mastoid cavities, unless you have received specific appropriate training.

- Examine the ear using an otoscope.
- Under direct vision, dry mop - using an ear mop or Jobson Horne probe with a small piece of cotton wool applied to the serrated edge. Clean the external auditory meatus with a gentle rotary action. Do not touch the tympanic membrane.
- Replace the cotton wool directly after each single insertion .
- Intermittently re-examine the meatus, using the otoscope, during cleaning to check for any debris/discharge/crusts which remain in the meatus at awkward angles. Pay particular attention to the anterior-inferior recess, which can harbour debris.
- Give advice regarding ear care and any relevant information. Ensure procedure and observations (condition of the tympanic membrane and external auditory meatus) of both ears are recorded.

When should I refer for microsuction?

- Refer if:
    - The person has (or is suspected to have) a chronic perforation of the tympanic membrane.
    - There is a past history of ear surgery.
    - There is a foreign body in the ear canal (other than an insect)
    - Ear irrigation is contraindicated (page 7).
    - Patient with mastoid cavities

- Seek immediate advice from an Ear Nose and Throat specialist if severe pain, deafness, or vertigo occur during or after irrigation, or if a perforation is seen following the procedure.

- Refer or seek urgent advice if infection is present and the external canal needs to be cleared of wax, debris, and discharge

- Urgent assessment by an Ear Nose and Throat specialist is recommended as a perforated tympanic membrane, perilymph fistula, or disarticulation of the ossicles caused by excessive irrigation pressure may need to be corrected surgically. I have never seen this????? Is this data from the old metal syringe?

In all of the above cases referral to the local ENT service or ENT department at the acute care provider should be made. This referral needs to be made via the Individual Funding Request Policy, to ensure that those being referred are appropriate. Local information is available on the Pathway Information Portal (PIP).

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