Best Practice Questions:
Is ear syringing/irrigation a recommended practice to remove a build-up of cerumen (ear wax) in the ears of older adults? What is the optimal method for removal of cerumen?

Summary of Relevant Literature:
There have been very few studies done in this area and most of those that do exist are not of good quality. The following is a summary of current research.

Indications for removal of cerumen:
1. Asymptomatic cerumen accumulation serves a protective function to the ear and should not be removed.
2. Cerumen removal should only be considered when visualization/assessment of the ear canal and tympanic membrane is required and/or in the presence of otological complaints, for example:
   - Hearing loss,
   - Poorly functioning hearing aid,
   - Ear pain,
   - Ear fullness,
   - Vertigo,
   - Tinnitus

Ear irrigation for the removal of ear cerumen:
1. Ear irrigation may be effective for removing soft cerumen, but there is no research data to support this.
2. Ear irrigation has a number of documented complications:
   - Trauma and/or bleeding to the ear canal,
   - Perforation of the tympanic membrane,
   - Hearing loss,
   - Otitis externa,
   - Tinnitus,
   - Vertigo, and
   - Pain
3. Ear irrigation should not be performed if any of the following contraindications are present:
   - Current, previous or suspected perforation of the tympanic membrane,
   - Presence of tinnitus or vertigo with ear irrigation,
   - Swelling or bleeding of the ear canal,
   - Previous ear or mastoid surgery,
   - Unable to cooperate,
   - Presence of ear tubes,
   - Foreign body in ear,
   - Recurrent external or middle ear infections,
- Deafness in one ear and impacted cerumen in the other (risk of causing bilateral deafness), and
- Client anxiety about the procedure.

Referral to a consultant (e.g. audiologist or ENT specialist) may be considered in the above situations.

**Ear drops for the removal of ear wax:**

1. Ear drops (either oil- or water-based) assist in the removal of ear cerumen without the use of ear irrigation.
2. There is no evidence to suggest one type of ear drop is superior to another.
3. There is no definite evidence to support the use of ear drops prior to ear irrigation is helpful in removing ear cerumen.

**Prevention of excessive cerumen accumulation:**

1. Ears should be examined by a trained clinician on a yearly basis or with changes in hearing or other otological complaints.
2. In cases where ongoing excessive cerumen accumulation is a concern, a preventative approach should be undertaken (i.e., 1-2 drops of mineral or olive oil in an otherwise normal ear(s) prior to bedtime, once per week).

**Best Practice Recommendations:**

The following recommendations are based on the literature and expert opinion in this clinical area:

**Recommendation #1:**

Ear irrigation is associated with a number of risks and its use should be limited.

**Recommendation #2:**

Prior to cerumen removal, the ear should be examined by a trained clinician using an otoscope. Cerumen removal is not required if the majority of the tympanic membrane is visible. If in the clinical judgment of the provider, the amount of cerumen in the ear canal does not explain the presenting symptoms (see Indications 2.0 above), cerumen removal is not indicated.

**Recommendation #3:**

The following procedure for cerumen removal is recommended:

1. Instillation of ear drops:
   - Have client lie with the affected ear upwards.
   - Pull the pinna upwards and backwards.
   - Instill 2-3 drops of mineral or olive oil into the ear canal.
   - Gently massage just in front of the ear.
   - Have client remain in this position for 5-10 minutes. Do not plug the ear with cotton, as this will absorb the oil.
   - Repeat in other ear if necessary.
   - Repeat this once daily (preferably at hs) for 14 days.
- When bathing/showering client, allow warm water to flow into the ear canals to assist in flushing out the cerumen.
*Note:* The oil will cause the wax to swell while it loosens, which may cause a temporary worsening in hearing.

2. If the above procedures are not effective in removal of the cerumen and no contraindications are present, then ear irrigation may be indicated/considered.

3. If irrigation is undertaken and not effective in removal of the cerumen, referral to a consultant (e.g. audiologist or ENT specialist) may be required to provide advice or to remove the cerumen using other methods.

4. After the cerumen has been removed using any of the above methods, the client should be educated about the complications and signs and symptoms of infection and advised to contact their provider if these occur.

Recommendation#4:

Ear irrigation should be only performed by a trained/qualified clinician. A primary care provider (e.g. a registered nurse) can perform ear irrigation provided that she/he is competent in the skill. There must be a process in place to ensure clinician competency including, professional assessment of competency, training, and appropriate educational strategies and resources. Demonstration of competency in this skill is required. Ongoing opportunities to maintain competency is a shared responsibility between clinician and employer.

Equipment Requirements:

Recommended equipment by the Primary Care Program for ear irrigation is:

- Ear Wash System
  - #29350 Welch Allyn Ear Wash System ~ $440.00
  - #29360 Eartips for Ear Wash System (Case of four boxes or 100 Ear tips) ~ $140.00

Risk Management Considerations:

To reduce the risks associated with ear irrigation, the following steps are recommended:

- Clinicians must ensure that the procedure is indicated.
- Clinicians must ensure that the equipment is operated properly.
- Clinicians must ensure that all precautions to prevent injury have been taken.
- Primary care practice must ensure that the equipment is regularly maintained, including appropriate cleaning procedures.

Educational Resources:

Educational and reference materials regarding ear care procedures/policies are available via the WRHA. In the Primary Care Program, please contact Donalda Wotton at 940-3226 for further information or email at dwotton@wrha.mb.ca.
References:


CMPA. (2002). When equipment breaks down in the doctor’s office. *CMPA Information Letter, 17*(4) IL0240E.


Adapted with thanks from:
Best Practice Statement – Cerumen Management Personal Care Home Program
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