 <p>Winnipeg Regional Health Authority Office régional de la santé de Winnipeg Caring for Health À l'écoute de notre santé</p> <p><b>PRIMARY CARE PRACTICE GUIDELINES</b></p>	<p><b>Practice Guideline:</b></p> <p><b>Cerumen Management</b></p>	<p><b>Guideline Number:</b></p> <p><i>PCPG 1</i></p>
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## 1. PRACTICE OUTCOME

**1.1 Background:** Cerumen is the most common ear, nose, and throat complaint, yet there is a lack of medical and nursing literature on the subject of its treatment. Cerumen management, including administration of ear drops and ear irrigation, is within the scope of practice of nursing.

**1.2 Intent:** To provide safe, effective, and evidence informed cerumen management for **adult clients**. **Important note: Cerumen accumulation serves a protective function to the ear and should not be removed unless the client reports otological complaints or if visualization of the ear canal and/or tympanic membrane is required and is otherwise occluded.**

## 2. DEFINITIONS

**2.1 Cerumen:** a mixture of secretions (sebum and secretions from modified apocrine sweat glands) and sloughed epithelial cells. It is a normal substance that is present to clean, protect, and lubricate the external auditory canal. Usually cerumen does not accumulate in the ear canal, but it may clog the external auditory canal in some persons and may become impacted. The main reasons that cerumen accumulates in the ear canal are ear canal disease, narrowing of ear canal, failure of skin migration, and overproduction. Cerumen is also referred to as earwax.


**2.2 Ear Irrigation:** The process for removing cerumen from the external auditory canal through the application of warm water via irrigation equipment. Ear irrigation is also referred to as ear syringing.

## 3. GUIDELINES

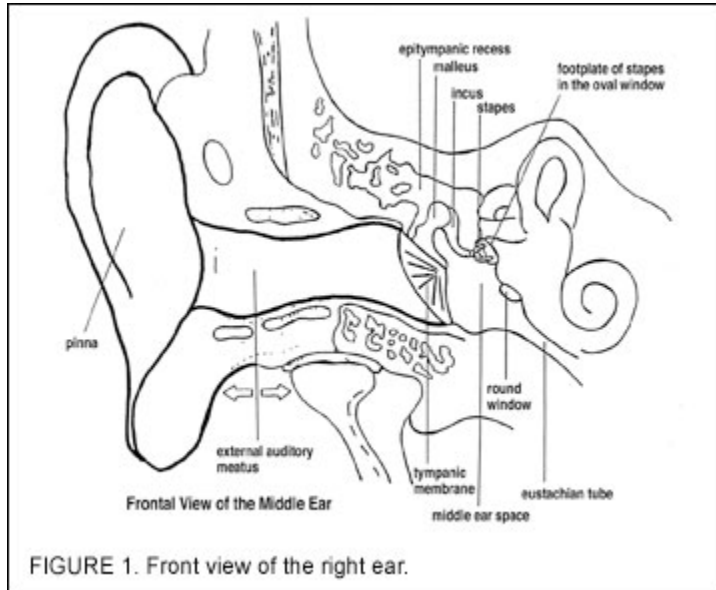
### 3.1 Physical Assessment

#### 3.1.1 Client History

- History of presenting complaint
- Precipitating factors
- Past ear nose and throat (ENT) problems
- Previous ear irrigation and its effects
- Past perforations of the tympanic membrane
- Client's use of cotton swabs or other self care methods

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### 3.1.2 Physical Assessment



- Examine the ear, begin behind the pinna, looking for lesions
- Examine the outer ear and the ear canal, paying attention to the meatal lining
- Use an otoscope with a light to view the external auditory canal and tympanic membrane, use largest speculum that will fit comfortably into the ear canal, to get the best view
- Observe how much wax is present, and the appearance of the wax (color, consistency)


### 3.2 Indications for Ear Irrigation

Partial or total occlusion of the ear canal and/or tympanic membrane along with symptoms that are presumed to be due to wax, which could include:

- Hearing loss
- Poorly functioning or fitting hearing aid
- Ear pain/ earache
- Ear fullness
- Vertigo
- Tinnitus

### 3.3 Contra-indications to Ear Irrigation

- Current, previous, or suspected perforation of the tympanic membrane
- Acute otitis externa
- Presence of tinnitus, vertigo, or other problem with previous ear irrigation
- Swelling or bleeding of the ear canal
- Previous ear or mastoid surgery

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- Client unable to cooperate, acute confusion, or agitation
- Presence of ear tubes
- Foreign body in ear
- Recurrent external or middle ear infections, ear infection within the past 6 weeks.
- A mucous discharge from the ear within the past 12 months (may indicate undiagnosed perforation).
- Cleft palate, whether repaired or not
- Deafness in one ear and impacted cerumen in the other (remote chance that irrigation could cause permanent deafness).
- Client anxiety about the procedure

### 3.4 Client Education

#### 3.4.1 Ear Care

- Seek examination of ears with changes in hearing or other otological complaints.
- Do not insert cotton swabs or any other instrument into the ear canal. This can damage the wall of the canal, cause wax to become impacted, and/or perforate the tympanic membrane.
- Ear drops (oil or water based) may assist in the removal of ear cerumen without the use of ear irrigation. 1-2 drops of mineral or olive oil at bedtime, for 1-2 weeks. There is no definitive evidence identifying a superior agent for ear drops. Mineral oil and olive oil are recommended due to cost effectiveness and availability.
- Ear drops can also be used as a preventative measure to avoid excess cerumen accumulation. 1-2 drops of mineral or olive oil at bedtime, once per week.
- Note: oil drops will cause the wax to expand while it loosens, which may cause a temporary worsening in symptoms until wax flushes.
- When showering, allow warm water to flow into the ear canals to assist in flushing out the cerumen. After showering, dry ears.


#### 3.4.2 Procedure for Instilling Ear Drops

1. Have client lie down on his/her side with affected ear upwards
2. Pull the pinna upwards and backwards
3. Instill drops into the ear canal
4. Gently massage just in front of the ear
5. Have client remain in this position for 5-10 minutes. Do not plug the ear with cotton, as this will absorb the oil.
6. Repeat in other ear if necessary.

### 3.5 Procedure for Ear Irrigation

#### 3.5.1 Explain Complications of Ear Irrigation to Client

- Trauma and/or bleeding to the ear canal
- Otitis externa
- Damage to the external auditory meatus
- Perforation of the tympanic membrane

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- Hearing loss
- Exacerbation of Tinnitus
- Otitis media due to water entering the middle ear when there is a previous perforation.
- Vertigo
- Pain
- It should also be explained to the client that removal of earwax may not necessarily relieve the symptoms being experienced and that irrigation may not be successful in cerumen removal.

### 3.5.2 Preparation for Procedure

- If client is able to lie for 15 minutes, have client lay with affected ear up. Instill body temperature- warm water (37 degrees Celsius) into ear canal.
- Have client lie for 15 minutes with water in the ear, and then irrigate ear per procedure.

### 3.5.3 Procedure

1. Explain procedure to client and gain verbal consent to proceed with irrigation.
2. Client should be in a sitting position for procedure.
3. Inspect the ear canal with an otoscope.
4. Prepare equipment per manufacturer's guidelines.
5. The temperature of the water should be around body temperature (37 degrees) and temperature should be maintained throughout irrigation.
6. Ensure new, disposable tip is used for each client.
7. Ensure the client is sitting comfortably. Use a good light source throughout the procedure.
8. Protect the client's clothing with a towel or waterproof cape.
9. Health provider to wear appropriate personal protective equipment (PPE): eyewear to guard against splash back.
10. Ask the person to hold the water receiver under their affected ear.
11. Pull the pinna upwards and outwards to straighten the ear canal.
12. Place the eartip into the external auditory meatus entrance.
13. Angle the tip so that the flow of water is along the top of the posterior wall. Compare the perimeter of the canal to a clock face: for the left ear direct the fluid towards 1 o'clock, and for the right ear, direct the fluid towards 11 o'clock.  
**Failure to correctly position the ear and the eartip may result in the pressure in the canal rising to a dangerous level, causing potential for perforation.**
14. Inspect the ear canal periodically with the otoscope and monitor the solution running into the receiver to determine whether wax is coming out. **If the person complains of dizziness or pain at anytime, stop the procedure.**
15. Following irrigation, examine the ear with an otoscope to check that the wax has been removed and the tympanic membrane is intact. **Advise the client to return to clinic for assessment if the following symptoms develop: earache, significant itching of the ear, discharge from the ear, or swelling of the external auditory meatus as any of these symptoms may indicate infection.**

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### 3.5.4 Documentation

- Signs and symptoms reported by client
- History and Assessment
- Treatment provided
- Client's tolerance of procedure
- Success of procedure
- Any recommended follow up

#### 3.5.5 If cerumen remains following irrigation:

- Advise the clients to use ear drops for a further 3-5 days and then return for further irrigation if required.
- Install water into the ear, wait 15 minutes, and irrigate the ear again.
- Refer to specialist if cerumen removal is unsuccessful.

#### 3.5.6 Equipment Cleaning

- Clean equipment according to manufacturer's instructions.
- Re-useable items to be cleaned according to WRHA Infection Prevention & Control Program's Operational Directive: *Cleaning and Disinfection of Non-Critical Reusable Equipment/Items for Clients in the Community* found on in [http://home.wrha.mb.ca/prog/ipc/manual\\_community.php](http://home.wrha.mb.ca/prog/ipc/manual_community.php)

## 4. EQUIPMENT/SUPPLIES REQUIRED

### 4.1 Two options for equipment systems:

#### 4.1.1 Welch Allyn Ear Wash System with Eartips

- This electronic ear irrigator has variable pressure control so that irrigation can begin at the minimum pressure.
- It provides positive and negative pressure.
- Product brochure available at [http://www.welchallyn.com/documents/EENT/Ear%20Wash%20System/productbrochure\\_20070321\\_earwash.pdf](http://www.welchallyn.com/documents/EENT/Ear%20Wash%20System/productbrochure_20070321_earwash.pdf)

#### 4.1.2 Elephant Ear Wash System and Disposable Eartips

- This system is cost effective, manual.
- Product information at <http://www.elephantearwash.com/>


### 4.3 Kidney Basin or water collection receptacle

### 4.4 Towel or waterproof cape

### 4.5 Otoscope


## 5. CLIENT EDUCATION SHEET

### 5.1 See appendix A

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## Ear Care Education Sheet

**Ear Wax (Cerumen)** is a normal substance that cleans, protects and lubricates the external ear canal. Sometimes the ear wax may clog the ear canal and may become impacted.

### **Do's:**

- Contact your primary care provider if you experience changes in hearing or other ear complaints
- Use ear drops to help removal of ear wax, mineral oil or olive oil can be used.
- When showering, allow warm water to flow in ears to help remove ear wax. Dry ears after showering.
- Note: Oil will cause wax to expand, resulting in temporary worsening of symptoms until wax loosens or comes out.

### **Don't**

- **Do not insert objects into your ears.** Eg. Cotton buds (Q tips), hairpins, matchsticks. They can cause damage to ear wall, cause wax to become impacted and /or perforate the tympanic membrane.

**TO PREVENT WAX BUILD UP:** use 1-2 drops at bedtime, once per week.

**TO TREAT WAX BUILD UP:** use 1-2 drops at bedtime, every day for 1 week. If wax is not removed, contact your primary care provider.

### **How to insert ear drops.**

1. Lie down with affected ear upwards.
2. Pull ear upward and backwards.
3. Drop 1-2 drops of oil into ear canal.
4. Gently massage just in front of ear
5. Remain in laying down position for 5 – 10 minutes.  
Do not plug ear with cotton, this will absorb the oil.
6. Repeat in the other ear if necessary

If symptoms persist follow up with health care provider for ear assessment.