PROCEDURE

Ear irrigation

<table>
<thead>
<tr>
<th>Scope (Staff):</th>
<th>Community health staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (Area):</td>
<td>CACH, WACHS</td>
</tr>
</tbody>
</table>

Aim
To guide community health staff on the removal of pus/debris, discharge foreign objects and softened wax from the ear canal.

Risk
Inappropriate ear irrigation may result in ineffective removal of debris from the ear canal and/or ear trauma.

Background
Otitis media and its complications including otitis media with effusion and chronic suppurative otitis media are a major cause of hearing loss, especially in Aboriginal and Torres Strait Islander children. Wax obstructions and foreign objects lodged within the ear canal can also cause some hearing loss.

Ear wax serves important functions of protection, lubrication and antibacterial action. It should only be removed as a last resort if impacted, affecting hearing or impeding an adequate view of the ear canal.

Key points
- To be performed only by staff with appropriate assessment skills training.
- Ensure the topical medication is suitable for use, relative to the condition of the child’s ears at the time of examination. Seek medical advice to provide clarity or for any concerns.
- Otoscopy should always be conducted prior to commencing the procedure. If the child reports pain during the procedure, stop, and perform otoscopy.¹
- Ear irrigation should not be performed under the following circumstances:
  - Acute otitis media (AOM), within the past 6 weeks¹
  - Recent ear trauma
  - Evidence of acute otitis externa with pain and tenderness of the pinna or middle ear
  - Cleft palate (repaired or not)
  - Hypersensitivity to iodine preparations

¹Note: This disclaimer should be read in conjunction with the procedures and guidelines provided.
Ear irrigation

- If the child is unwilling
- Dry perforation – water can enter the perforation and initiate infection in the middle ear. It should be noted that if the middle ear is already infected and discharging pus, then gentle syringing can be used to remove the pus, although tissue spearing, or suctioning is preferred.\textsuperscript{2,3}
- Any form of ear surgery, with the exception of grommets that have extruded at least 18 months previously.\textsuperscript{4}

- When foreign objects are lodged within the ear canal the following points must be observed:
  - Forceps should never be used to remove foreign objects from the ear canal.
  - Live insects should be drowned by instilling a few drops of oil into the ear canal. However, further consultation should be sought where perforation is suspected.\textsuperscript{3}
  - Foreign items such as cotton buds, seeds or other vegetable matter which may absorb water, should not be irrigated, as they may swell and become more difficult to remove.
  - If a foreign object is not easily removed using syringing, then the child should be referred for specialist follow-up.

- Community health staff are to follow infection prevention and control policies, including appropriate disposal of waste and perform hand hygiene in accordance with WA Health guidelines and the National Hand Hygiene Initiative at all appropriate stages of the procedure.

Equipment

- Otoscope
- Disposable otoscope tips - the largest size that will comfortably fit in the ear canal
- Irrigation solution as indicated/ recommended
- 20ml syringe, pipette or eye dropper
- Plastic tubing from a scalp vein needle, needle removed
- Kidney dish or other receptacle
- Small absorbent towel
- Tissues and tissue spears

Process

<table>
<thead>
<tr>
<th>1. Preparation:</th>
<th>Encourage parent/caregiver support and involvement with the procedure where possible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain the procedure to the child and parent/caregiver if present. Allow sufficient time for discussion of concerns.</td>
<td>Refer to local consent processes.</td>
</tr>
</tbody>
</table>
### 2. Position:
- Place the child comfortably in the lateral position or supine with head turned to one.
- Infants and toddlers must be held securely to prevent unexpected movement. This may include wrapping infants.
- Older and compliant children may prefer to sit up.

Ask the parent/caregiver to hold the child’s head securely against their chest and use their other arm to secure the child’s arms and body to stop any sudden movements.

### 3. Procedure
- Pull the back of the pinna gently away from the head to straighten the ear canal
  - For **older** children, pull pinna back and up.
  - For **infants**, pull pinna back and down.
- Inspect the ear canal using the otoscope.
- Place the towel over the child’s shoulder.
- Place the kidney dish under the pinna to collect solution as it drains out of the ear.

The least affected ear should be examined first. This will straighten the ear canal and promote good visibility.

It is important to brace the hand holding the instrument against the child’s head to prevent ear trauma in the event of a sudden movement.¹

Refer to Otoscopy Procedure for more information.

Parent or child may assist by holding the kidney dish.

### 4. Wax softening/ solutions:
- Wax should be softened prior to removal by irrigation.
- Recommended solutions for short acting wax softening action include: warmed water, warmed 0.9% normal saline or a 5% sodium bicarbonate solution.³
- All solution must be warmed to 37°C prior to the procedure.

Oil or water-based wax softening drops are also available, but may require instillation over several days for effect.

Refer to Ear drops instillation procedure

Solution use is dependent on local orders.

Hot or cold solutions may cause vertigo.

The process may need to be repeated if the wax is not sufficiently softened.
5. Irrigation:
- Fill the ear canal with solution.
- Press the tragus repeatedly to squeeze the water into the ear canal.
- **After 20 minutes** proceed to ear irrigation.
- Fill the syringe with pre-warmed solution, connect the cannula tubing, and gently position the tip of the tubing inside the ear canal.
- Povidine Iodine (10% diluted in 20 parts normal saline or water for irrigation) may be indicated if an antiseptic agent is required, particularly in cases of Chronic suppurative Otitis Media (CSOM).^2^
- Gently instill solution into the ear canal. Ensure the tubing is directed up and back towards the roof of the ear canal, not towards the tympanic membrane.\(^1\)
- Use smooth, firm pressure on the syringe plunger. It will spiral around the canal and gradually flush out any debris.
- Repeat above steps until the solution removed are clear, checking the canal at least after every 5 syringes of solution.
- Never aim towards the tympanic membrane.
- Carefully dry the ear canal using tissue spears.
- Repeat procedure in other ear if required.

6. Post irrigation:
- Re-inspect the ear using the otoscope with a clean tip.

Refer to **Ear tissue spearing procedure** for use of tissue spears.

Ensure air is removed from the syringe and tubing prior to placement into ear.

Use the child’s cheek bone as a support to stabilise hands and equipment.

Pipette or eye dropper may be used as an alternative for very young children.

Povidine iodine is a broad spectrum, resistance-free biocidal agent which can kill a range of micro-organisms including bacteria, viruses, yeasts, moulds, fungi, and protozoa. Its topical use has been evidenced to facilitate significant improvement in CSOM with no ototoxic or allergic effects.\(^5\),\(^6\)

If the angle used is ineffective, it may be changed so the tip aims towards the wall of the ear canal.

Cotton buds should never be used to clean ear canals.\(^3\)
7. Ear drops:
- Instill ear drops as indicated and/or prescribed.
- Repeat procedure for other ear as required.
- Wait for at least 2-5 minutes following instillation of drops prior to repositioning child to other side.

Refer to Ear drops instillation procedure

8. Education:
- Provide opportunistic ear health education for parents/caregiver and the child.

Documentation
Community health staff will document relevant findings according to local processes.

Referral pathway
Discuss any abnormal findings with the parent/caregiver and obtain consent for referral to a medical practitioner. Use local Health Services referral processes.

References

Related internal policies, procedures and guidelines

The following documents can be accessed in the Community Health Manual:
- [HealthPoint](#) link or the [Internet](#) link
- Ear tissue spearing procedure
- Hearing guideline
- Instillation of ear drops procedure
- Otoscopy procedure

Useful Resources

- Bestic J. CARPA Standard Treatment Manual. 5th ed. Alice Springs, NT, Australia: Centre for Remote Health; 2010
- National Hand Hygiene Initiative – Hand Hygiene Australia
- Clinical Practice Manual; Princess Margaret Hospital

This document can be made available in alternative formats on request for a person with a disability.

File Path: 
Document Owner: Senior Portfolio and Policy Officer, CACH
Reviewer / Team: Birth to School Entry Reference Group, School-aged Health Reference Group
Date First Issued: 2007
Last Reviewed: Aug-14, Apr-17
Review Date: April 2020
Approved by: Birth to School Entry Reference Group, School-aged Health Reference Group
Date: 
Endorsed by: Executive Director, CACH
Date: 27 April 2017
Standards Applicable: NSQHS Standards: 1.7, 1.8

Printed or personally saved electronic copies of this document are considered uncontrolled