Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS
	Community Health Nursing

TITLE:		SECTION:	POLICY NUMBER:
Cerumen Removal		Clinical Procedures	11-012-00
EFFECTIVE DATE:	**REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
February 10, 2018	February 2021		7
APPLIES TO:			
Community Health Nurses			

POLICY:

Registered nurses, working in the expanded role, may remove cerumen from a client's ear when cerumen impaction is visualized. The following methods are acceptable for the nurse to use in removing impacted cerumen:

1. **Instilling a ceruminolytic into the ear canal and/or**
2. **Irrigating and syringing the canal with warm water**

Mechanical removal of cerumen with ear curettes may be performed by the nurse upon a physician's order.

Cerumen removal will not be performed when:

1. **Multiple prior failed attempts and/or presence of complications from prior attempts including tympanic membrane (TM) perforation and infection;**
2. **Client unable to cooperate;**
3. **Otitis media (chronic or acute) or Otitis externa;**
4. **Past or present TM perforation;**
5. **History of ear or mastoid surgery; and/or**
6. **Contralateral deafness.**

DEFINITIONS:

Cerumen is composed mostly of exfoliated squamous epithelium and two types of glandular secretions: sebaceous and ceruminous. Cerumen is a natural lubricator, protectant, and antibacterial substance.

PRINCIPLES:

Cerumen impaction can cause significant discomfort and impair hearing.

RELATED POLICIES, GUIDELINES AND LEGISLATION:

Procedure 11-012-01 Cerumen Removal

REFERENCES:

Burton, MJ. & Doré, CJ (2003). Ear Drops for the Removal of Ear Wax. *Cochrane Database of Systematic Reviews*, 3.

Edmunds, MW & Mayhew, MS (2003). *Procedures for Primary Care Practitioners*, 2nd ed. Mosby: St. Louis.

Roberts, RR. (2004). Cerumen Impaction Removal. Emergency Medicine Procedures. pp 1267-1272. McGraw-Hill: New York.

Riviello, RJ (2004). Otolaryngolic Procedures. *Clinical Procedures in Emergency Medicine*, 4th ed., pp 1280-1316. Philadelphia, WB Saunders.

NURSING CONSIDERATIONS:

1. Cerumen removal is contraindicated when:

    a. Multiple prior failed attempts and/or presence of complications from prior attempts including tympanic membrane (TM) perforation and infection;
    b. Client unable to cooperate;
    c. Otitis media (chronic or acute) or Otitis externa;
    d. Past or present TM perforation;
    e. History of ear or mastoid surgery; and/or
    f. Contralateral deafness.

2. The inner one third of the canal is lined with skin that is only 0.1 mm thick, so special care should be taken to avoid iatrogenic traumatic injury to this area

3. Signs and symptoms of cerumen impaction:
    a. Hearing loss (conductive), especially unilateral
    b. Foreign body sensation; ear fullness
    c. Tinnitus (uncommon)
    d. Vertigo or “dizziness” (uncommon)
    e. Mild pain or discomfort (earache)
    f. Pruritus
    g. Reflex cough

4. Irrigation is the primary removal method. It is generally well tolerated and less painful than manual extraction.

5. The irrigation fluid (water or normal saline) must be warmed to body temperature to reduce the incidence of cold-caloric response with symptoms of nausea, vomiting, nystagmus, and vertigo.

6. Antibiotics are not routinely necessary. Some degree of erythema of the canal and tympanic membrane is expected after removal attempts.

7. Unsuccessful removal and minimal post-removal discomfort and/or erythema are the most common complications. Proper planning and appropriate, unrushed technique will minimize the risk of more significant complications. Although rare, **when significant complications do occur, they almost always warrant specialty consultation**.

8. Potential complications include:
    a. Unsuccessful removal
    b. Abrasions or other injury to the canal
    c. Bleeding (usually mild and self-limited)
    d. Tympanic membrane perforation with possible hearing loss, pain, tinnitus, infection
    e. Otitis externa
    f. Otitis media
    g. Ossicular dislocation, injury with possible hearing loss, tinnitus, pain
    h. Allergic reaction to ceruminolytic

EQUIPMENT
✓ Adequate light source (e.g. head/ENT lamp, head reflector, otoscope) ✓ Ear speculum (largest tolerated) with or without magnifying loops ✓ Eye protection and/or face shield (as per universal precautions) ✓ Ceruminolytic (water based vs. alcohol or oil based) ✓ Ear curette, right-angle hook ✓ 30-mL or 60-mL syringe ✓ Angiocatheter or butterfly tubing ✓ Irrigating fluid warmed to body temperature ✓ Basin ✓ Towels

PROCEDURE:

1. Explain the procedure to the client, parent and/or caregiver.

2. Position the client in a comfortable position, preferably lying down on the examining table

3. If appropriate, have the parent or caregiver seated facing the patient to provide reassurance.

Application of Ceruminolytics

1. In general, if ceruminolytics are used, they should be used several times before removal is attempted. It is possible to pre-treat with softeners as a one-time dose, leaving them in for at least 15 minutes before irrigation or curette removal; however, multi-day pretreatment is recommended.
    a. Water-based agents: dosing varies
        i. 4 drops twice daily for 5 days

        ii. For one-time dosing (prior to syringing or curette removal), 1 mL for 15 minutes

    b. Oil- and alcohol-based agents: dosing varies
        i. 4-10 drops twice daily for 5-7 days
        ii. 4-5 drops nightly for 3 days
        iii. For one-time dosing (before syringing or curette removal), 1 mL for 15 minutes

Irrigation and Syringing

1. Fill a 60-mL syringe with body-temperature tap water or normal saline for irrigation of the external auditory canal (EAC). Attach an 18- to 20-gauge plastic intravenous catheter or a butterfly catheter (with the needle removed) to the syringe.

2. Place a towel or basin under the client's ear to collect the effluent.

3. Straighten the EAC by pulling the pinna posteriorly and laterally.

4. Insert the catheter (or butterfly tubing) approximately 1 cm into the EAC and begin to irrigate. Aim the stream superiorly and slightly posteriorly to decrease likelihood of stream directly striking the tympanic membrane. Usually 30-60 mL of fluid is used.

5. Stop if there is any suspected trauma, sudden pain, hearing loss, or cold-caloric symptoms.

6. After irrigation, position the client's head with the affected ear down on a towel for a minute or two to allow the irrigation fluid and/or waxy debris to drain out.

7. Re-examine the affected canal. Remove superficial dislodged debris with a curette under direct visualization.

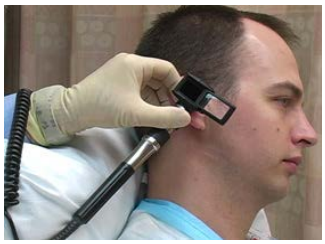
8. Repeat syringing if needed.

Manual Extraction

1. Directly visualize the impacted cerumen using an otoscope. All manual extraction methods must be done under direct visualization to prevent iatrogenic injury.

2. Slide the otoscope's magnification lens off to the side to allow the passage of the instrument through the scope.

3. Rest your hand (the one holding the otoscope) against the client's head during the procedure. This allows your hand to move as a unit with the client's head and prevents injury should the client suddenly move.

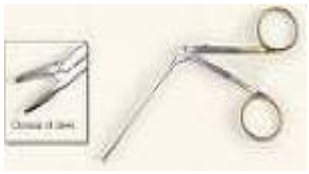


Proper use of otoscope for extraction

4. A variety of instruments and manoeuvres may be used for manual extraction.

    a. Use an ear curette (scoop) to gently separate the cerumen from the EAC wall, and then to drag and pull out the waxy debris.

    b. Use alligator forceps to directly grasp cerumen that has been freed from the EAC wall.



5. Re-examine the canal for confirmation of removal and to evaluate for iatrogenic injury.

6. Significant complications, repeated treatment failures, or complicating factors including the presence of relative contraindications to removal attempts should be referred to the physician and/or otolaryngologist for specialty care.

CLIENT EDUCATION:

Provide client and/or parent or caregiver with appropriate aftercare instructions.

1. Instruct clients not to insert cotton swabs or other objects into the ear canal.

2. Provide instructions on periodically using ceruminolytics to decrease likelihood of recurrent impaction, if appropriate.

3. Arrange a follow-up appointment with the client if:

    a. The treatment plan involves a multi-day wax-softening treatment;

    b. Initial removal attempts are unsuccessful; or

    c. Minor complications occured.

REFERENCES:

Burton MJ and Doré CJ (2003). Ear Drops for the Removal of Ear Wax. *Cochrane Database of Systematic Reviews,* 3.

Riviello RJ (2004). Otolaryngolic Procedures. *Clinical Procedures in Emergency Medicine, 4th ed.* Philadelphia, Saunders, pp 1280-1316.

Thomsen, TW and Setnik, GS (2009). *Cerumen Removal* in Emergency Medicine.

Approved by: 11 FEB 2011 **Chief Nursing Officer** **Date**	Effective Date: April 1, 2011
February 11, 2011 **Deputy Minister of Health and Social Services** **Date**	