Care of Ear Cleaning Equipment

Infection Prevention and Control (IPC) Best Practice Guideline (BPG) for Care of Ear Cleaning Equipment
Why is Ear Cleaning Done?

- Removal of impacted cerumen can improve hearing and relieve symptoms
  - Cerumen impaction can cause symptoms such as itching and pain in the ear, discharge from the ear canal, ear fullness, cough, hearing loss, and tinnitus.
  - Elderly clients, young children, and the cognitively impaired are at high risk for cerumen impaction and may be unaware of it, or unable to express the symptoms associated with cerumen impaction.
  - Hearing loss, associated with cerumen impaction, may further impair cognitive function.

Source: Roland PS., Smith TL., Schwartz SR. et al. 2008. Clinical practice guideline: Cerumen impaction. *Otolaryngology -- Head and Neck Surgery* 2008 139: S1 [http://oto.sagepub.com/content/139/3_suppl_1/S1](http://oto.sagepub.com/content/139/3_suppl_1/S1)
What is cerumen?

• Cerumen is a mixture of secretions and sloughed epithelial cells, and is a normal substance present in the external auditory canal. Cerumen may mix with hair and other particulate matter.

• Cerumen impaction is an accumulation of cerumen that causes symptoms, prevents a needed assessment of the ear canal/tympanic membrane or audiovestibular system, or both.


• Cerumen is potentially contaminated with blood, blood by-products, mucous, and ear drainage.

Is there an infection risk?

• Bruins et. al, in the Netherlands, investigated cases of *Pseudomonas aeruginosa* causing otitis media to determine if the cases were related to ear cleaning equipment and found:
  – Contamination of ear syringe with *P. aeruginosa*
  – Transmission of *P. aeruginosa* from ear cleaning equipment resulting in otitis externa

• Further transmission was prevented when they worked with Infection Prevention and Control (IPC) to develop recommendations for the appropriate cleaning, disinfection and storage of re-usable ear cleaning instruments

BPG on the Care of Ear Cleaning Equipment

Purpose:

• Describe Alberta’s approach for the care of ear cleaning equipment

• Minimize the risk of exposure or injury, and to prevent transmission of micro-organisms to clients and personnel
Key Messages

• Use Routine Practices for all clients at all times
• Ear syringe nozzles/tips are classified as semi-critical
  – Disposable/single-use tips after discarded after use
  – Reusable ear syringe nozzles or tips are cleaned and high-level disinfected (HLD) or sterilized between clients
• Other reusable ear cleaning equipment components are non-critical and are, at minimum, cleaned and low-level disinfected (LLD) between clients
• Ear cleaning equipment is either single-use, dedicated to a single-client, client-owned or multi-client reusable
Ear Cleaning Equipment

Single-use [(e.g. Tips (Elephant Ear Washer™ tips, Otoclear™ tips), Syringes)]

- Use once and then discard

Client owned or dedicated to a single client (e.g. Elephant Ear Washer™ or Rhino Ear Washer™)

- Clean between uses according to MIFU, or Section 3 and store in a manner that protects from contamination

Multi-client reusable

- Does Equipment have validated MIFU?
  - Yes
    - (e.g. metal ear syringe) MIFU requires to clean and sterilize between uses
  - No
    - (e.g. Elephant Ear Washer™, Rhino Ear Washer™) Clean and low-level disinfect (LLD) according to current accepted protocol
    - (e.g. reusable ear syringe nozzles or tips) Clean and high-level disinfect or sterilize
Routine practices

- Routine practices are infection prevention and control measures health care workers perform for all clients at all times to reduce the risk of infection. Routine Practices include:
  - Hand Hygiene
  - Point of Care Risk Assessment
  - Personal Protective Equipment (PPE)
  - Handling client care items and equipment
AHS 4 Moments of Hand Hygiene

• The AHS Hand Hygiene Policy and Hand Hygiene Procedure describe 4 Moments during client/client care when HH must be performed:
  – Before contact with the client or client environment
  – Before clean or aseptic procedures
  – After exposure to blood or body fluids
  – After contact with the client and client environment
Point of Care Risk Assessment (PCRA)

• Before providing care to any client, assess the risk of spreading infection:
• Note any possible contact you may have with blood or body fluids (e.g. coughing, bleeding, runny nose, or soiled clothing, equipment or environment);
• Put on appropriate personal protective equipment (PPE) before providing care.
• See PCRA Flowchart for further information
Personal Protective Equipment (PPE)

Select and use **Personal Protective Equipment** (PPE) to minimize the risk of exposure to infectious agents and appropriate for the task. For example, wear:

- gloves, gown, mask and eye protection when needed to prevent contact with blood, body fluids, excretions, secretions, mucous membranes or non-intact skin
- chemical and puncture resistant gloves, eye protection, procedure mask, and protective gown for reprocessing equipment
Handling client care items and equipment

• Ear syringe nozzles/tips are semi-critical
  – Discard disposable/single-use tips after use
  – Clean and high-level disinfect (HLD) or sterilize reusable ear syringe nozzles or tips between clients

• Other reusable ear cleaning equipment components are non-critical and must be, at minimum, cleaned and low-level disinfected (LLD) between clients
Commonly Used Ear Cleaning Equipment

- OtoClear™ irrigator tip – can be used with leur lock syringe
- Disposable tips
- Metal Ear Syringe
- Collection Basin
- Rhino Ear Washer™
- Elephant Ear Washer™
IPC Issues: Improper Cleaning

Used tip??

Ear wax??
IPC Issues – ear cleaning equipment left full of solution between uses
IPC Issues – improper storage of ear cleaning equipment
Cleaning:

• Some components such as narrow tubing, and the trigger spray are difficult to clean and dry.
• Care must be taken to thoroughly clean, disinfect, rinse and dry ear cleaning equipment.
• Solution bottles must be completely emptied, cleaned and allowed to dry after use.
• Ensure solution bottle, trigger spray and tubing is dry before storing.
• Never refill or top up ear syringe solutions.
Storage

• Once dry, label ear cleaning equipment as clean/disinfected and store in a clean, dry, protected area until use (e.g. clean utility room).

• For example, store in a clean utility room enclosed in a clear plastic bag labelled Clean/Disinfected.
Training:

- AHS training materials for staff include:
- Annual Continuing Education Infection Prevention and Control module available on Insite

- Medical Device Training Videos
Summary

• Ear cleaning equipment is single-use, single-client use or reusable depending on MIFU for the component/device
• Discard single-use equipment (e.g. plastic leur lock syringe, tips) after use
• Clean and disinfect/sterilize reusable ear cleaning equipment before use on another client
• Use Routine Practices for all clients at all times
• Follow the Guidelines for Care of Ear Cleaning Equipment to minimize the risk of exposure or injury, and prevent transmission of micro-organisms to clients and personnel
Questions?

• If you have any questions or comments regarding this information, please contact Infection Prevention & Control at infectionpreventioncontrol@albertahealthservices.ca