

---

# Care of Ear Cleaning Equipment

## Best Practice Recommendations

For more information contact [ipcsurvstdadmin@ahs.ca](mailto:ipcsurvstdadmin@ahs.ca)  
© 2020 Alberta Health Services

Original date: August 25, 2015  
Revised date: May 2020

# 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 patients, 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.

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)

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

Source: Burco A., Washington University School of Medicine. Independent studies and capstones. Program in Audiology and Communication Sciences. Current infection control trends in audiology. Page 2, 3, 6 and 7.

[http://digitalcommons.wustl.edu/cgi/viewcontent.cgi?article=1277&context=pacs\\_capstones.](http://digitalcommons.wustl.edu/cgi/viewcontent.cgi?article=1277&context=pacs_capstones)

## 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

Bruins MJ, Wijshake D, de Vries-van Rossum SV, et al. Otitis externa following aural irrigation linked to instruments contaminated with *Pseudomonas aeruginosa*. Abstract available at: <http://www.ncbi.nlm.nih.gov/pubmed/23764317>

# BPR on care of ear cleaning equipment

---

## Purpose:

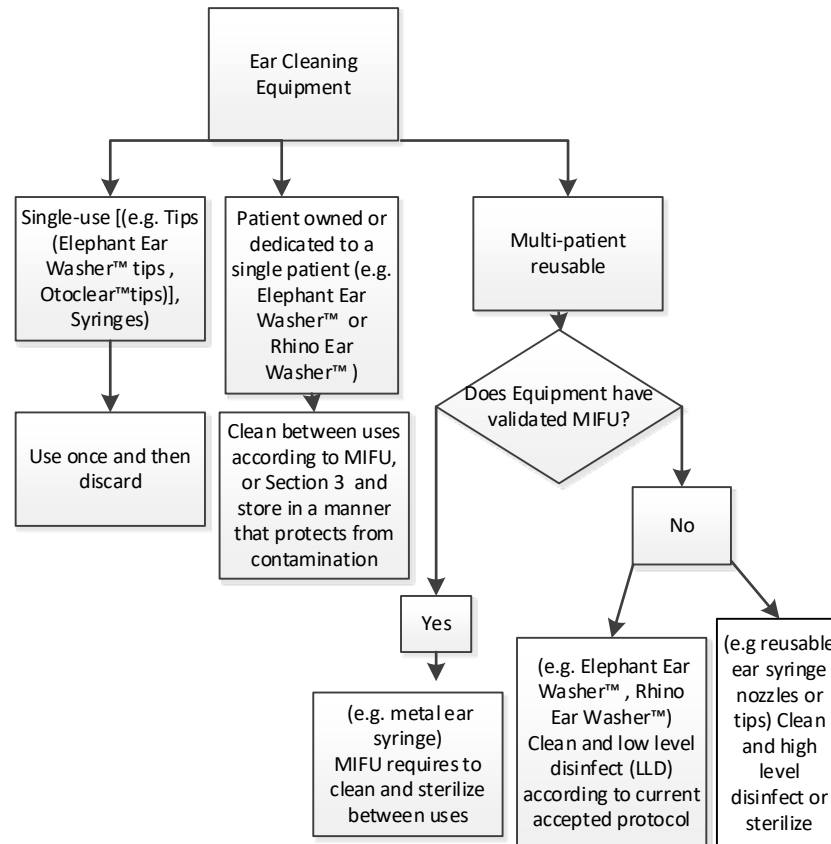
- Describe Alberta's approach for the care of ear cleaning equipment
- Minimize the risk of exposure or injury, and to prevent transmission of micro-organisms to patients and personnel

## Key messages

---

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

# Ear cleaning equipment algorithm



# Routine practices

---

- Routine practices are infection prevention and control measures healthcare providers perform for all patients at all times to reduce the risk of infection. Routine practices include:
  - Hand hygiene
  - Point-of-Care-Risk Assessment (PCRA)
  - Personal Protective Equipment (PPE)
  - Handling patient care items and equipment



# AHS 4 Moments of Hand Hygiene

---

- The [AHS Hand Hygiene Policy](#) and [Hand Hygiene Procedure](#) describe 4 Moments during patient/patient care when HH must be performed:
  - before contact with patient or patient environment
  - before clean or aseptic procedures
  - after exposure to blood or body fluids
  - after contact with patient and patient environment

# Point-of-Care Risk Assessment (PCRA)

---

- Before providing care to any patient, 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)

---

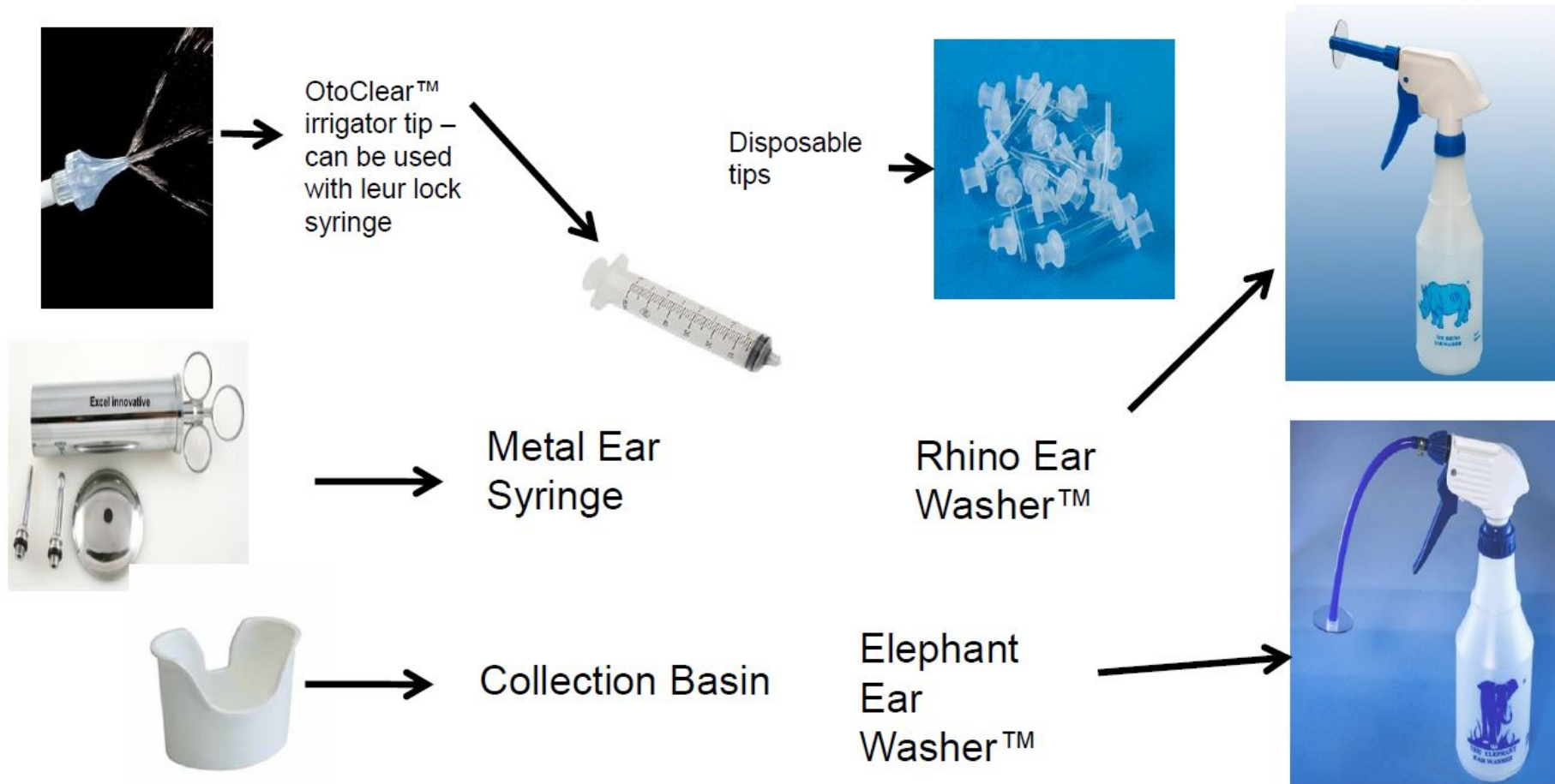
Select and use [Personal Protective Equipment](#) (PPE) to minimize the risk of exposure to infectious agents and appropriate PPE for the task. For example, wear:

- 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 patient 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 patients
- Other reusable ear cleaning equipment components are non-critical and must be, at minimum, cleaned and low-level disinfected (LLD) between patients

# Commonly used ear cleaning equipment



# IPC issues – improper cleaning



# IPC issues – ear cleaning equipment left full of solutions between uses



# IPC issues – improper storage of ear cleaning equipment



For more information contact [ipcsurvstdadmin@ahs.ca](mailto:ipcsurvstdadmin@ahs.ca)  
© 2020 Alberta Health Services

Original date: August 25, 2015  
Revised date: May 2020



# 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.
- 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-patient 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 patient
- Use routine practices for all patients at all times
- Follow the [Best Practice Recommendations for Care of Ear Cleaning Equipment](#) to minimize the risk of exposure or injury, and prevent transmission of micro-organisms to patients and personnel

## Questions??

---

If you have any questions or comments regarding this information, please contact Infection Prevention and Control at [ipcsurvstdadmin@ahs.ca](mailto:ipcsurvstdadmin@ahs.ca).