INFECTION CONTROL

Precautions, Prevention and Preparedness

Minimizing Risk of Infection in the Hearing Healthcare Workplace

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StarkeyHearing
I am speaking now. Can you hear me?

If you are having technical difficulties, please stay logged on and contact Audiology Online at 1-800-753-2160.
Housekeeping

- This session is available for 1 hour / .1 CEU
- Remain logged on for the full session
- Successfully complete a short quiz
Objectives

As a result of this course, participants will be able to:

✓ Identify appropriate handwashing technique
✓ Identify Hearing Healthcare staff that must participate in Infection Control
✓ Identify steps hearing professionals can take to guard against the spread of disease
Hearing is Essential

How do we provide exceptional care in a safe, responsible, way?
Precautions

Why Infection Control is Critical in Hearing Healthcare
What is Infection Control?

‘...conscious management of the clinical environment for purposes of minimizing or eliminating the potential spread of disease’

Bankaitis & Kemp, 2003, 2004
The New "Normal"
Video #1
Hearing loss is connected to other health conditions


Hearing loss is connected to other health conditions.

- Tinnitus
- Hypertension
- Dementia
- Ototoxicity
- Smoking
- Obesity
- Diabetes
- Balance
- Cardiovascular Disease
- Isolation
Infection Control and The Elderly

**Contributing Factors**

- Impaired immune function
- Anatomic changes
- Functional changes
- Degree of exposure to infection
The Risk Around Us
The Tools of the Trade
How is Disease Transmitted?

Contact  Vehicle  Airborne  Vectorborne
Direct Contact
*without intervening persons, barriers or conditions*

Indirect Contact
*Infectious microbes transferred from a secondary surface*

Droplet Transmission
*Transmission through particles expelled via coughing, sneezing or talking that land on a surface*
Vehicle Transmission
Through contaminated food, water or bodily substances such as cerumen

Airborne Transmission
Through the air via dust particles

Vectorborne Transmission
Insects or animals transfer pathogenic agents
NIH Study on Loud Talkers

Published on May 13th, 2020

“Loud talking” in close proximity* could leave coronavirus droplets in the air for up to 14 minutes

Family members/colleagues of those with untreated hearing loss often speak at elevated levels to “be heard”

*(85 dB at 30 cm /12 inches)
Routes of Transmission

Eyes
Ears
Nose
Mouth
The External Auditory Canal

The External Ear Canal is more prone to infection than any other skin surface.

Jahn & Hawke (1992)

Treat Cerumen as an infectious substance
The Impact of Hearing Products
Dangerous Surfaces Lurk Everywhere
Prevention
Steps to Take to Protect Patients, Staff and the Work Environment
Written Infection Control Guidelines

Required by OSHA for patient care facilities. The plan must include the listed six sections.

- Categorization of Employees
- HBV Vaccination
- Training Plan and Training Records
- Work Practice Controls and Implementation Protocols
- Emergency Procedures
- Post-exposure Evaluation and Follow Up
Written Infection Control Requirements

Categorization of Employees
Each employee is classified on the basis of potential exposure to blood and other infectious substances.

HBV Vaccination
Employees who have the potential to encounter blood or other infectious substances are to be offered the opportunity to receive a HBV vaccination.

Training Plan and Training Records
Conduct and document completion of annual training in infection control.

Work Practice Controls and Implementation Protocols
Outlines how a procedure will be performed for the specific purposes of minimizing the spread of disease.

Emergency Procedures
All infection control programs should plan for accidents/incidents.

Post-exposure Evaluation and Follow Up
In the event of a medically treatable exposure occurs, the office must document the treatment that has taken place and the outcome.
**Category 1**
Clinical Audiologists

**Category 2**
Clinical Audiologists, Dispensing Audiologists, Hearing Instrument Specialists, Student Intern, Clinical Supervisor, Patient Care Coordinator

**Category 3**
Administrative Staff

**Category 1 & 2**
Required to practice infection control procedures
Adjusting Profession-specific Procedures

ENGINEERING CONTROLS

Procedures that isolate or remove bloodborne pathogen hazards from the workplace.

• Storage of re-usable instruments that will be sterilized at the end of the day
• Specific room for sterilization procedures
• Labeling area as hazardous

WORK PRACTICE CONTROLS

Profession specific procedures performed to reduce the risk of cross contamination

• Wearing appropriate barriers like gloves
• Altering the matter in which procedures are performed such as cerumen management to reduce risk
Universal Precautions
CDC Guidelines

- Personal Protective Equipment
- Hand Hygiene
- Clean/Disinfect Surfaces
- Sterilize Critical Instruments
- Appropriate Waste Disposal
PERSONAL PROTECTIVE EQUIPMENT

- Glasses
- Masks
- Gowns
- Gloves
“A mask won't totally block the coronavirus. But it’s an added layer of protection for you and the people around you when you use it along with regular hand washing and social distancing measures like staying 6 feet away from others.”

https://www.webmd.com/lung/coronavirus-face-masks#1
Cloth Face Coverings and COVID-19

CDC recommends wearing in public when other social distancing measures are difficult to maintain.

**Cloth face coverings should**

- Fit snugly but comfortably against the side of the face
- Be secured with ties or ear loops
- Include multiple layers of fabric
- Allow for breathing without restrictions
- Be able to be routinely laundered and machine dried

Consider **Clear** Face Covering Options

https://www.theclearmask.com/
https://www.thehearingspot.com/
Face Shields

An acceptable alternative to face masks when practicing social distancing

- Reusable (after cleaning/disinfecting) unless damaged

- Effective for communication with a large clear area for better visuals for lip reading and facial expressions

Can use a face shield with a mask for direct patient contact

Perencevich, E., Diekema, D., Edmond, M., Moving Personal Protective Equipment into the Community: JAMA, 2020. Published online 4/29/20
Gowns and Clothing

- **Short sleeve attire is preferred** to facilitate effective hand washing.
- Ties, Neck Scarves are **not recommended**.
- Jewelry such as rings, watches, and bracelets are **not recommended**.
- **Clothing worn in office should be removed before entering the home after work**.
- Shoes worn in office should be **left outside the home to air out or wash**.
- **Consider disposable gowns** for direct patient contact.
Gloves should be worn when

Open wounds or visible blood is present

Cleaning or disinfecting instruments contaminated with bodily substances

Submersion or removal of instruments into or from cold sterilant

Contamination with potentially infectious materials (including cerumen) is likely
Nitrile Over Latex

Nitrile gloves can be used safely with impression material but latex gloves can keep impression material from setting up.

To avoid latex allergies, non-latex vinyl or nitrile gloves are preferred.
Social distancing of at least 6 feet (2m) is recommended whenever possible. Recommendations are always changing. Be sure to understand current Covid-19 CDC recommendations and always monitor and adhere to local, state and federal recommendations or executive orders.

<table>
<thead>
<tr>
<th>PPE Use Plan Example</th>
<th>Hand Hygiene</th>
<th>Gloves</th>
<th>Apron/Gown/Lab Coat/Sleeves</th>
<th>Face Mask</th>
<th>Face Shield</th>
<th>Eye Protection</th>
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<tbody>
<tr>
<td><strong>Limited-contact Services</strong> (PPE needed for any staff having limited patient contact in any manner)</td>
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<td>Curbside/Drive-up Services</td>
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<td>X (either mask or shield)</td>
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<td>Walk-in Services</td>
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<td>Cleaning/Disinfecting Touch Surfaces</td>
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<td><strong>Contact Services</strong></td>
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Note: X indicates PPE is required.
PPE Use Plan Example

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<td>Implantable device care</td>
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Accepting/distributing product with patient
Cleaning/disinfecting surfaces and objects
Audiometry
Immittance
OAE
Probe tube verification

X (when potential direct contact with body fluid exists)

X

X (Special consideration should be made for speech understanding and mask use)

X (when potential for splash and spray of fluid exists)
Properly Wear PPE

**SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)**

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. **GOWN**
   - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
   - Fasten in back of neck and waist

2. **MASK OR RESPIRATOR**
   - Secure ties or elastic bands at middle of head and neck
   - Fit flexible band to nose bridge
   - Fit snug to face and below chin
   - Fit-check respirator

3. **GOGGLES OR FACE SHIELD**
   - Place over face and eyes and adjust to fit

4. **GLOVES**
   - Extend to cover wrist of isolation gown

**USE SAFETY PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION**

- Keep hands away from face
- Limit surface touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene

**HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**EXAMPLE 1**

1. **GLOVES**
   - Outside gloves are contaminated
   - If your hands got contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
   - Do not touch the outside of the glove
   - Hold removed glove with gloved hand
   - Slide fingers of ungloved hand under remaining glove at wrist and pull off second glove with first glove
   - Discard gloves in a waste container

2. **GOGGLES OR FACE SHIELD**
   - Outside goggle or face shield are contaminated
   - If your hands got contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
   - Remove goggles or face shield from the back by lifting head band or ear pieces
   - If the item is reusable, place it designated receptacle for reprocessing. Otherwise, discard it in a waste container

3. **GOWN**
   - Gown front and sleeves are contaminated
   - If your hands got contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
   - Use large gloves, taking care that sleeves don't contact your body when reaching for ties
   - Pull gown away from neck and shoulders, tucking inside of gown only
   - Ties inside noose outside
   - Fold or roll into a bundle and discard in a waste container

4. **MASK OR RESPIRATOR**
   - Front of mask/respirator is contaminated — DO NOT TOUCH
   - If your hands got contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
   - Snap ties together or elastics of mask/respirator, then the ones at the top, and remove without touching the front
   - Discard in a waste container

5. **WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE**

**PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE**
Clean and Disinfect PPE

Gloves should be **disposable for single use**

Eye protection should be **cleaned/dischinfected between uses**

Masks and face shields should be **replaced when damaged, soiled or usage period has expired**

Clothing worn in office should be changed/washed **daily** and kept separate from other clothes

Use EPA-registered disinfectants and CDC-recommended protocols
Starkey Cares Kit

Kit Includes:

50 face masks (in accordance with CDC guidelines)
5 face shields
50-count boxes of vinyl or nitrile gloves (M or L) (4)
8-ounce bottles of hand sanitizer (6)
One of the following surface disinfectants (based on availability):
  - Clorox wipes cannisters (4)
  - 16-ounce container of non-diluted disinfectant (non-hazardous) (1), mixing container and spray bottle

Cost:
$219.00 plus shipping

Information@Starkey.com (800) 328-8602
We’ve Got Skin in the Game

VS
Video #2
Watch what you touch!
Clean and Disinfect Surfaces
Always follow the manufacturers’ guidelines for effective use

https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
Disinfectants

**HOSPITAL GRADE**
- Liquid
- Spray
- Towelette

"NON-CRITICAL" ITEMS
- Headphones
- Earmolds
- Instruments and surfaces that are not contaminated with blood, ear drainage, cerumen or bodily fluids
Disinfecting Office Surfaces

Important to clean gross contamination with soap and water prior to disinfecting

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Hard (Non-porous) Surfaces

UV Light Sanitizers: effective for surfaces such as desktops, door handles, sinks, toilets or even phones. Follow manufacturer instructions for equipment.

*Most common EPA-registered disinfectants should be effective*

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Soft (Porous) Surfaces

Launder items as appropriate following manufacturer instructions (warm water if possible), dry completely.
STERILIZE CRITICAL INSTRUMENTS

Sterilization Options

- Autoclave
- Cold Sterilization
Cleaning/Disinfecting Hearing Products

Hearing aids and earmolds are made from specialized materials that require special care.

Wipe hearing aid, earmold, accessory surfaces with a tissue.

Disinfect the item with a non-alcohol based disinfectant towelette.

Accept/return products to patient in a receptacle that is lined with a disposable towel.
Waste Disposal

Regular Waste Receptacle
- Cerumen
- Used (disposable PPE)
- Cleaning/disinfecting materials that are not excessively contaminated with bodily fluids

Impermeable bag, puncture-resistant packaging
- Materials contaminated with excessive cerumen, discharge, or mucus
- Disposables that can cause injury (needles, electrodes etc.)

Dispose according with manufacturer’s specifications
- Cold disinfectants, sterilants
Preparedness

Prepare Your Clinical Environment and Patient Experience
Prepare and Plan

Understand the current Covid-19 CDC recommendations
https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html

Monitor and adhere to local, state and federal guidelines

Update your infection control plan to include Covid-19 protocols

Consider “certifying” your practice by participating in infection control training

Ensure you, your staff, and patients follow the plan
For Every Service Ask...

What is needed to make the entire service experience positive and safe?

What is needed to communicate and follow the identified safety precautions for the service?
Preparedness for Each Phase of Care

- Closed
- Remote and Limited Services
- Telehealth
- Curbside Support
- Mail-In or Drop Ship Services
- At Home Service
- In-Clinic Services
Telephone Triage

Prior to an in-person visit:

1. Determine if an **in-person clinic visit** is necessary

2. For those who need/request to be seen in person, screen using the latest CDC guidelines.
   
   NOTE: Mobile phone apps (pictured at right) can be a useful tool as guidelines are updated regularly.

3. Adjust scheduling to **allow time for telephone triage** and patient follow up.

   **It is just as important that you screen yourself and staff with these same guidelines.**

Curbside Support

- **Use a separate receptacle** to accept and/or drop off hearing aids, batteries and other items
  - Cover the receptacle with a **disposable sheet**
- Provider wears appropriate **PPE**
- **Maintain social distancing** when possible with patient contact
- **Wash hands** before/after contact with patient and product
- **Clean/disinfect** used receptacle and dispose of sheeting after each use
At Home Services

• Develop a “Go Kit”, including:
  – Necessary programming tools
  – Hearing aid supplies
  – Disinfecting and disposal materials
  – PPE, including masks, gloves, gowns

• Modify your stance when working in the patient’s ears

• When services are complete, remove PPE, dispose of onsite or bag and tie securely for transport

• Clean/disinfect equipment before placing in the car
View Your Practice Through a Covid-19 Lens
Screening and Signage

Screen staff, patients, and companions every time.

Telephone screen patients before they enter and add signage to entrances.

Consider a specific Covid-19 screening form and informed consent.

Follow local, state and federal guidelines for extra precautionary measures such as using “touchless” infrared thermometers.
Offer contactless pick up options that don’t require office entry.

Keep door locked and ask patient to call upon arrival.
The Waiting Area

Minimize sign-in materials, use of community objects such as pens, and use contactless payment methods. Change forms to online.

Reduce surfaces that need to be touched. Clean and disinfect often. Consider sneeze shields for reception area.
Remove clutter (magazines, brochures, beverage service).

Consider signage to provide infection control protocols to be observed.

Arrange reception area and all furniture with social distancing in mind.

Limit the number of patients in the office and only have them bring critical companions.
The Treatment Area

Evaluate traffic pattern areas such as hallways to ensure social distancing spacing when possible.

Maintain proper air flow, change air filters if needed or use advanced HEPA filters.

Consider a Room-to-Room or Remote combination of services on site.
The Treatment Area

Leave doors that CAN be opened, opened to reduce touched surfaces.

Modify your stance when working in the patient’s ears.

Refrain from having staff share phones, desks, offices, computers or other work tools and equipment.

Disinfect all touch surfaces, equipment and product after each use.
Communicate with your patients

- Add/update a COVID-19 message to your website and other platforms
- List the positive measures your practice is taking to ensure safety
- Be specific about the services being offered and expectations
- Consider a “soft opening” by invitation only to test the new protocols
Establish Trust

Visibly demonstrate your safety precautions to patients

Provide PPE supplies for patient use if needed
Cleaning and Disinfecting Your Practice

How to get started
Follow these instructions from the CDC to keep your hearing practice clean and sanitized.

Clean
- Wear disposable gloves to clean and disinfect.
  - Clean surfaces using soap and water, then use disinfectant
  - Cleaning with soap and water reduces number of germs, dirt and impurities on the surface: Disinfecting kills germs on surfaces
  - Practice routine cleaning of frequently touched surfaces, such as:
    - Tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, scissors, faucets, sinks, etc.

Disinfect
- Recommended use of EPA-registered disinfectant
  - Follow the instructions on the label to ensure safe and effective use of the product.
  - Diluted household bleach solutions may also be used if appropriate for the surface:
    - Check the label to see if your bleach is intended for disinfectants, and ensure the product is not past its expiration date.
    - Unscented household bleach will be effective against coronaviruses when properly diluted.
    - Follow manufacturer’s instructions for application and proper ventilation.
    - Never mix household bleach with ammonia or any other cleanser.
    - Leave solution on the surface for at least 1 minute.
    - Bleach solutions will be effective for disinfection up to 24 hours.
    - To make a bleach solution, mix:
      - 1 tablespoon (15mL or 1 liquid teaspoon) bleach per gallon of water
      - 6 teaspoons bleach per quart of water
    - Alcohol solutions with at least 70% alcohol may also be used.
“Never let the things you can’t do, stop you from doing what you can.”

Ronald Reagan