THE 7 SECRETS OF CERUMEN MANAGEMENT

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Case History

• STOP
  – Hearing loss
  – Tinnitus
  – Dizziness
  – Pain
  – Discharge

Case History

• CAUTION
  – Surgery
  – TM perforation
  – Dry, itchy skin
  – Blood thinners
  – Diabetes

Visual Inspection of Outer Ear

• STOP
  – INFECTION
  – SWELLING
  – BLEEDING
  – IRRITATION
  – DISCHARGE
  – REDNESS
  – LESIONS

Palpation of EC & TM

STOP
  • Ear canal
    – Lumps, bumps, cysts/
    – Infection?
    – Foreign body?
  • Tympanic membrane
    – Visible? Intact?
    – Hx perforations?

Otoscopic Inspection

STOP
  • Infection
  • Swelling
  • Bleeding
  • Irritation
  • Discharge
  • Redness
  • Growths/Lesions
Exostosis
- Benign overgrowth of existing bone
- Medial portion of EAC
- Cold water exposure
- Usually seen bilaterally & in multiples

Osteoma
- Another benign form of bony growth of EAC
- Lateral portion of EAC
- Seen more in children & young adults
- Usually singular

Otomycosis
- Infection of the ear due to fungus residing in EAC
  - Aspergillus
    - Distinctive white filaments
    - Fruiting bodies
- Necrotizing external otitis
  - Pseudomonas aeruginosa
    - infects canal skin, rapidly spreads to involve underlying cartilage

Cholesteatoma
- Abnormal skin growth in ME
- Posterior and superior aspects of TM retract medial to lateral epitympanic wall
- TM invaginates, forming epithelial-lined cysts that accumulates keratin

SECRET
- Small
- Medium
- Large
- Occluded
- Impacted
Mechanical Removal

• Removal of cerumen using sterile or disposable hand-held instruments

Mechanical removal

• Minimal equipment investment
• Offers portability
• Most patient-friendly technique
**BIONIX LIGHTED INSTRUMENTS**

- Lighted curette
- 5 different styles
- Magnifier
- LED light source
- Disposable design
  - 50 tips, 1 light source, $80
- New lighted forceps
  - 10 tips, 1 light source, $100

**Mechanical Instrument Selection**

- Matter of preference
- Influenced by
  - Cerumen consistency
    - Moist: curette
    - Dry: forceps
  - Degree of cerumen impaction
    - > occlusion, < surface area of tip

**Mechanical Removal: Technique**

- **Partial/Ring Occlusion**
  - Place instrument behind cerumen accumulation
  - Approach cerumen over top or bottom

- **Complete Occlusion**
  - Start at top
  - Orient posteriorly
  - Day Hook
  - Move on once created your own partial occlusion
EAC APPRECIATION 101

- Thin skin (0.5 to 1.0mm thick)
- No subcutaneous layer of fat
- No flexibility
- Profuse blood supply
- Prone to infection

Three Key Instruments

- Angled Buck Curette
- Alligator Forceps
- Day Hook

Why is bracing important?

- AVOID INJURY
- OPTIONS

STEP 1: DOMINANT SQUARED

YOU

PATIENT

L

L
STEP 2: OPPOSITE SIDE

YOU  "PATIENT"
R  L

Operating Head

STEP 1: DOMINANT SQUARED

YOU  "PATIENT"
R  R

VDC Loupe System with LED Light

- Optics
  - Quality
  - Visual field depth
  - Focus
  - Embedded
- LED light
- Li-ION battery pack
- ~3x magnification
- 13” operating distance

$2445
JedMed FS 6000 LED

- Optics
  - Prime but lose some quality
  - Adjustable intraocular distance
- LED light
- Li-ION battery pack
- 3.5x magnification
- 13” operating distance

$1030

JedMed MegaSpot

Suction

- Removal of cerumen using suction pump & suction tube

Removal via Suction

- Moderate to high equipment investment
- Limited portability
- Ideal for very runny cerumen

SUCTION EQUIPMENT

<table>
<thead>
<tr>
<th>PUMP</th>
<th>TUBE</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Hg</td>
<td>$904</td>
</tr>
<tr>
<td>25 Hg</td>
<td>$514</td>
</tr>
<tr>
<td>32 Hg</td>
<td>$325</td>
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When to Use Suction Equipment

- **Influenced by**
  - Cerumen consistency

- **Landmines**
  - Suction tubes clog
    - reamer = cumbersome
  - < opening, ↑ clog
  - > opening, ↓force

Suction: Strategy

- **Partial Occlusion**
  - Brake adhesion to canal wall
  - Start at weakest link of perimeter
  - Apply tube to surface of cerumen, not EAC (make sure pressure relief hole closed)
  - Pull cerumen toward center of EAC
  - When dislodged, work out of EAC

- **Complete Occlusion**
  - Brake adhesion to canal wall
  - Start at weakest link of perimeter
  - (Use Day Hook to create initial hole)
  - Apply tube to surface of cerumen, not EAC (make sure pressure relief hole closed)
  - Pull cerumen toward center of EAC
  - When dislodged, work out of EAC

SUCTION

- Be prepared
- Explain procedure
- Brace head while holding suction tube
- For dry cerumen: break adhesion
- No leveraging
- May be loud for patient
- Observe patient response

When to use suction, what size tube to use

- Moist/runny cerumen consistency
- Suction tubes will clog!
  - < tip, greater chance of clogging
  - Keep bowl of water nearby
- Suction tube force
  - > tip, poorer suction force
  - > tip, greater chance of obscuring view
- Size 8 tube
Irrigation

• Removal of cerumen via introduction of water into ear canal

IRRIGATION

• Introduce water into ear, behind cerumen accumulation

• Build up necessary turbulence to push cerumen out

Removal via Irrigation

• Moderate equipment investment
• Specific contraindications
• Least pleasant procedure

Syringe

• Typical capacity will require multiple refills
• No means to control irrigation force
• No means to control water temperature
• Scary looking

Ear Irrigators

• Designed for dental hygiene
• Some flow control
• No means to control water temperature
• Diffuser tips needed

• Designed for cerumen removal
• Flow control
• Temperature control
• Disposable ear tips
When to Use Irrigation

- Cerumen
  - Not too dry
  - Not too runny
- Impaction status
  - Need to be able to see TM
- Patient status
  - Non-diabetic
  - HIV negative
  - No monomeric spots

Irrigation: GENERAL GUIDE

- Partial Occlusion
  - Direct irrigation superiorly
  - Direct irrigation behind plug
- Complete Occlusion
  - Use mechanical instrument or suction to create opening
  - Inspect TM and proceed

Irrigation Tips

- MUST document TM integrity
- Use body temperature irrigation
- Point irrigation superiorly
- Invest in additional accessories

What is infection control?

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

PERSONAL BARRIERS

- GLOVES
- PROTECTIVE EYEWEAR
- DISPOSABLE MASKS
- LAB COAT or APRON

Hand Hygiene

- PATIENT APPTS
- BETWEEN DIRTY VS CLEAN ACTIVITIES
- AFTER MEMBER CONTACT
**TOUCH SURFACE:**
area that comes in potential direct or indirect contact with hands

**SPLASH SURFACE:**
area that may be hit with blood or other body secretions from potentially contaminated source

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**TERMINOLOGY**

**CLEAN**
- Remove gross contamination
- Germs not necessarily killed
- Important precursor to disinfecting & sterilizing

**DISINFECT**
- Process whereby germs killed
- Spectrum of kill depends
- Performed on touch & splash surfaces or on patient’s items that are not transferable to others

**Clean & Disinfect**
- **HOSPITAL GRADE DISINFECTANTS** (FDA REGISTERED, KILL SHEETS)
- **OTHER DISINFECTANTS & CLEANERS**

**Critical Instruments**
- Instruments introduced directly into bloodstream
- Non-invasive instruments that come in contact with mucous membranes or bodily substances
- Instruments that can potentially penetrate skin from use or misuse

**TERMINOLOGY**

**STERILIZE**
- Process whereby ALL germs killed
- Specific product requirements
- Performed on all reusable critical instruments intended for reuse with other patients
COLD STERILANT SOLUTIONS

Wavicide
- Glutaraldehyde solution (2.5%)
- Gallon or quart size
- 10 hour soak time
- 28 day reuse

Sporox
- Hydrogen Peroxide solution (7.5%)
- Gallon
- 6 hour soak time
- 21 day reuse

Material Safety Data Sheet (MSDS)
- Document that outlines hazards associated with chemical products
  - Chemical composition
  - Physical & chemical characteristics
  - Acute & chronic health effects
  - Exposure limits
  - Precautionary measures, first aid consideration
- Not necessarily included in packaging
- OSHA requires MSDSs

TERMINOLOGY

Infectious wastes
- Sharp instruments
- Contaminated waste

MEDICARE COVERAGE
- Covers if billed by physician, physician’s assistant or nurse practitioner
- WILL NOT cover cerumen removal if billed by any other provider

CPT CODES
- 69209
  Removal impacted cerumen using irrigation/lavage, unilateral
- 69210
  Removal impacted cerumen using instrumentation, unilateral
- If bilateral, use -50 modifier
Definition of Impaction

Impaction defined as “cerumen impairs exam of clinically significant portions of the external auditory canal, tympanic membrane, or middle ear condition” and “obstructive, copious cerumen that cannot be removed without magnification and multiple instrumentations requiring physician skills.”

-AMA CPT Assistant, January 2016

WHEN USING CPT CODES 69209/69210......

• IMPACTED cerumen:
  —Impairs exam of clinically significant portion of EAC, TM, or middle ear condition
  —Extremely hard, dry, and/or irritative causing symptoms such as pain, itching, hearing loss
  —Associated with foul odor, infection, dermatitis
  —Obstructive, copious amounts that cannot be removed without magnification and multiple instruments requiring physician skills
  
  AAO-HNS definition

Appropriate billing procedure for impacted cerumen removal?

DEPENDS WHERE YOU WORK

• Physician Staff
  Physician can bill “incident to” for staff who performed this procedure

• Independent
  —Can provide ABN form to patient (sign +date)
  —Bill patient as out of pocket expense
  —Use CPT Code 69209 or 69210
  —If bilateral, use the -50 modifier

Advanced Beneficiary Notice (ABN)

• Advanced written notice provided to Medicare beneficiary that Medicare will not cover certain items/services
  —does not meet the definition of a Medicare benefit
  —specifically excluded by law
• ABNs have mandatory and voluntary use applications
• Cerumen management is never covered when performed by an audiologist
  —Voluntary use (not required to be issued)

DOCUMENTATION

• Firefly
  —Wired ($329)
  —Wireless ($385)
• CellScope
  —$299
  —Free app
  —iPhone 5, 5S or 6

Contact Information

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