Disclaimers and employment background

- Beverly Metze
  - FNP Margaret Mary Health primary care, Batesville, Indiana.
  - 20 years FNP practice in primary, urgent and emergency care.
  - no business affiliations with any of the companies or products mentioned in the presentation. IMPACT Independent contractor.

- Brenda Young
  - Faculty, Wright State Family Nurse Practitioner Program
  - 22 years FNP in primary, urgent care, retail health settings.
  - no business affiliations with any of the companies or products mentioned. IMPACT Independent contractor.

Objectives

- Understand and apply screening criteria for the use of Dix-Hallpike and Epley maneuvers.
- Demonstrate Dix Hallpike and Epley maneuvers.
- Utilize expert technique to perform in performing digital blocks, understanding indications and contraindications.
- Apply staples to children and adults in select circumstances, using critical thinking for determining appropriate sites for application.
- Demonstrate basic interrupted suturing skills on a simulated surface, understanding indications for sutures, assessment of the injury, preparation of site, and consideration of important comorbidities.
- Effectively use critical thinking and problem solving skills to differentiate the need to perform basic office procedures with and without injectable anesthesia.
- Demonstrate rational use of local anesthesia and direct infiltration: painful procedures, abscesses, and suturing, able to differentiate pharmacologically between amines and esters.
- Perform expert management of skin abscesses, including anesthesia, incision, drainage, and aftercare.
Objectives
- Choose the appropriate procedure for fish hook removal: retrograde, needling, string method, and accompanying tetanus vaccine prophylaxis.
- Understand the concepts of complex splinter removal.
- Manage treatment for acute paronychia using evidence-based practice for release and antibiotic coverage.

Objectives
- Recognize and refer complicated chronic paronychia of toes for expert podiatry management.
- Understand indications for tissue adhesives and be able to initiate guidelines for tissue adhesive therapy with appropriate lesions.
- Apply eye exam assessment skills (including fluorescein staining, evaluation of stain patterns) to correctly assess common eye problems in primary care, and know correct therapeutic guidelines for comprehensive management.

Objectives
- Understand diagnostic assessment of nursemaid elbow and demonstrate one of two correct procedures to reduce this subluxation.
- Initiate cautery to treat fingernail trephination, after appropriate assessment completed.
- Understand expert management and removal of nasal foreign bodies.
- Discuss concepts related to management of epistaxis.
- Understand expert management and removal of otic cerumen.

Objectives - Pharmacology
- Describe the dosing and indications for lidocaine injectable local anesthesia for abscesses, fish hook removal, basic suturing, digital blocks and field blocks.
- Describe the use of lidocaine/epinephrine/tetracaine for topical anesthesia as a stand-alone or prior to injectable anesthesia.
- Describe the evidence-based guidelines for MRSA, and indications for specific antibiotics used for complicated abscesses.
- Describe the evidence-based CDC guidelines and indications for tetanus in the context of abscesses, fish hook removal, paronychia, splinter removal, and lacerations.
- Describe the dosing and indications for tetracaine topical ophthalmic anesthesia, ophthalmic antibiotics including fluoroquinolones and erythromycin ointment, injectable lidocaine local anesthesia, oxymetazoline.

Optional Reference Guides
Essential Procedures for Practitioners in Emergency, Urgent, and Primary Care Settings, Second Edition: A Clinical Companion
Theresa M. Campo, DNP RN NP-C, Keith Lafferty MD
2016

Procedures for the Primary Care Provider 3rd edition
Marilyn Winterton, PhD, ANP/GNP FAAN
2017

Let’s BEGIN!
I Hear – I Forget
I See – I Remember
I do - I understand
A Basic, Simplified Approach to the Dizzy Patient

Peter Johns MD FRPC
Department of Emergency Medicine
University of Ottawa

https://www.youtube.com/watch?v=9GFHDLVwCE

Clinical Practice Guideline: BPPV Update
American Academy of Otolaryngology—Head and Neck Surgery Foundation provides evidence-based recommendations for benign paroxysmal positional vertigo (BPPV)

- strong recommendations that clinicians should diagnose posterior semicircular canal BPPV when vertigo associated with torsional upbeating nystagmus is provoked by the Dix-Hallpike maneuver.
- recommendations against radiographic imaging for a patient who meets diagnostic criteria for and routinely treating BPPV with vestibular suppressant medications such as antihistamines and/or benzodiazepines

Full article: Volume: 156 issue: 3_suppl, page(s) S1-S47 Article first published online: March 1, 2017; Issue published: March 1, 2017
https://doi.org/10.1177/0194599816698697
Practice Dix-Hallpike/Epley mid-session

Wound care topics
- Local anesthesia
- I & D of abscess
- Digital blocks
- Hand procedures: acute paronychia, subungual hematomas
- Basic
  - Interrupted Suturing
  - Staples
  - Tissue adhesives

Local anesthetics/direct infiltration
- Reason: painful procedures, abscesses, suturing
- Amides: lidocaine, mepivacaine, bupivacaine, Most commonly used.
- Esters: Novocaine, tetracaine, cocaine, benzocaine. Limited indications due to toxicity and allergic reactions. Used in patients allergic to amides.
- Action: Reversible blockage of sodium channels within the nerve fibers preventing transmission of pain signals by disrupting depolarization of the nerve.

What to use: Local anesthesia
- Lidocaine without epinephrine:
  - 4mg/kg maximum total dose 300mg or 30cc. Usually 3-4cc.
- Lidocaine with epinephrine:
  - 7 mg/kg max dose 500mg or 60cc. Usually 2-3 cc.
  - Decreases bleeding. May use on face except nose - generally not on digit, penis
- Bupivacaine: duration 2-6 hrs.

Use smallest effective dose children or elderly
May check numbness and "touch up"
Onset: 2-5 minutes.
Duration plain lidocaine: 30 min to 2 hours.
Duration of lidocaine with epi: 30 min up to 3 hours.
Incision and drainage of abscess
- Skin abscess: collection of pus within the dermis and deeper tissues. Painful, tender, fluctuant (moveable and compress-able) erythematous nodule
- May be “heading up” and surrounded by erythema
- When in doubt, let it out
- Not for the beginning practitioner: peri-rectal abscesses, neck abscesses arising from congenital cysts, hand, abscesses adjacent to vital nerves or blood vessels, some facial, breast abscesses

I & D procedure
Supplies:
- Gloves
- Gown
- Eye protection
- Betadine
- Lidocaine
- Scalpel #10, if small #15
- curved hemostats
- Forceps
- Scissors
- Packing usually 1/4 inch iodoform

I and D Procedure continued
Small Abscess:
- Direct infiltration: inject one time in to the dome of abscess and syringe is rotated circumferentially. Observe for blanching
- Ethyl chloride sprayed topically may avoid a needle stick

Larger Abscess:
- May require a local field block
- Consider parenteral or oral analgesia

Field block

Anesthetize your abscess
I & D procedure continued
- **Cleanse** abscess with betadine or antiseptic. Not a sterile procedure
- **Incise** with a simple linear incision large enough for adequate drainage and for insertion of a hemostat
- **Possibly the total length of the abscess**
- **Follow skin tension lines when possible**

Skin tension lines

Skill Challenge: Drain Your Abscess

- Identification of landmark sites
- Local anesthetics and digital blocks
- Antibiotic and drainage of abscess
- Foreign body removal (e.g., bullet, wood, and glass)
- Finger and thumb dressing (e.g., paronychial, impaction)
- Mass incision cell with scissors, hooks, awls

Loculations, Irrigation, Packing
- **Probe** with curved hemostat to break up loculations
- **May inject** lidocaine inside wound to decrease pain and/or irrigate cavity with normal saline
- **NO EVIDENCE** to support packing wound < 5 cm in size
- **Pack wound**: avoid over-packing
- **Tetanus prophylaxis if needed**

I & D after care
- **Follow up** for packing change in 24-48 hours
- **Repack every 24-48 hours** if continued purulent drainage
- **Once drainage** is gone and granulation tissue present, may begin warm, wet soaks several times per day

Who needs Culture?
- **Cultures not needed** for healthy patients who do not otherwise need antibiotics.
- **Common practice** to treat for MRSA without a culture.
- **What meds cover MRSA? Overused?**
Who needs Culture?
YES gram stain, culture and sensitivity: if treated with antibiotics and meets one of the following criteria:
1. Severe, local infection (extensive cellulitis, pilonidal cyst)
2. Systemic signs of infection (fever, hemodynamic instability)
3. History of multiple abscesses
4. Failure of initial antibiotic regime
5. Young infants or elderly
6. Immunocompromised

Digital Blocks
- Why? Anesthesia injected into base of finger or toe in sites are less painful than injecting into palmar surfaces
- Contraindications: compromised circulation, infection of tissues at injections sites, allergy to anesthetic
- Lidocaine with epinephrine controversial for digits

Digital Blocks
- Use small volumes (4-6cc in syringe) of anesthetic to prevent compression of nerves and vessels
- Anatomy: Each digit has 4 nerves, two dorsal and two ventral nerves running on the medial and lateral sides of the digit
- May take 10-15 minutes. Go see another patient!

Skill Challenge: Digital Block
- Injection of local anesthetic
- Local anesthetic and digital block
- Evaluation and diagnosis of abnormal
- Foreign body removal (e.g., splinters and foreign bodies)
- Finger and thumb fractures (e.g., fractures and dislocations)
- Minor laceration with or without sutures, staple, access

Increase skill knowledge and confidence in performing procedures with a full day of instruction and simulation of office and emergency procedures.
Acute paronychia
- Acute inflammation and abscess formation within the subcutaneous layer between the eponychial fold (cuticle) and the germinial layer of the eponychial cul-de-sac (space below the cuticle)
- Earliest form is cellulitis without pus, minimal swelling
- May use a #18 needle to separate the cuticle of the lateral nail fold to rule out any collection of pus. Warm soaks in soapy water and antibiotics for 3-4 days.

Acute paronychia
Redness, swelling, pus of nail: use a #15 scalpel, separate cuticle from nail, open eponychial cul-de-sac and drain.
Keep blade flat against dorsal nail. May not need digital block
Can use a tiny wick or have patient soak every 2 hours
Short course of Clindamycin or Augmentin: considered for oral flora (nail biting, thumb sucking) Non oral flora: Kellex, Bactrim, Doxy

Subungual hematoma
(blood under the fingernail or toenail): blow to the distal phalanx
- Throbbing pain: pressure in a contained space pressing against nerve fibers
- Trephination only for acute hematoma - <24 hours old, otherwise clotted

Fingernail trephination

Evaluation: assess neurovascular status of digit, check for extensor tendon disruption or mallet finger
X-rays:
- Children
- large subungual > 50% of nail plate

Fingernail trephination

Nail Anatomy
**Fingernail trephination**
- Portable electric cauteray or 18g 1" needle
- Should be pain free unless other injuries to digit; then consider digital block
- Clean nail with betadine, no alcohol due to flammable
- Be ready for spurt of blood! Eye Protection!

- **Fingernail trephination/infrequent adverse effects**
  - Pain caused by contact with nail bed
  - Discoloration of nail for up to 4 weeks
  - Possible loss of nail related to primary injury
  - Secondary infection
  - No prophylactic antibiotics for simple hematoma/trephination

**Skill Challenge: Do It.**
- Reduction of hematoma's volume
- Local anesthesia and digital blocks
- Ultrasound and ultrasound of abdomen
- Foreign body removal (p. 234)
- Finger and toe amputations (p. 234, 236)
- Minor laceration self with dressing, starch, suture
- Increase your knowledge and condition
  - Guide to performing physical with a daily day of instruction and evaluation of effects and anger psychology

**Basic Interrupted Suturing**
- Reduction of hematoma's volume
- Local anesthesia and digital blocks
- Ultrasound and ultrasound of abdomen
- Foreign body removal (p. 234)
- Finger and toe amputations (p. 234, 236)
- Minor laceration self with dressing, starch, suture
- Increase your knowledge and condition
  - Guide to performing physical with a daily day of instruction and evaluation of effects and anger psychology
**Types of lacerations for suturing**

- **Clean, straight wound** from a knife, glass or sharp object
- **Flap laceration** from impact with hard object at an angle
- **Crush injury** from a direct blow causing an irregular or stellate laceration

**Sutures**

- **Suture size:**
  - Diameter of the suture
  - Smaller the number - larger the suture
  - (4-0 is larger than 5-0)
- **Smaller the suture**
  - (higher number – 6-0, 7-0) less tensile strength of the strand.

**Assessment**

- Establish the approximate **time of injury.** No increased infection rates with wounds closed within 18 hours
- Determine the exact **mechanism of injury** which might suggest a underlying fracture, retained foreign body, wound contamination or tendon or nerve injury
- **Comorbidities**? including diabetes, malnutrition, obesity immunosuppression, including AIDS, alcoholism and renal failure

**Methods to decrease injection PAIN**

- **Buffer** with sodium bicarbonate 1 part to 9-10 parts lidocaine
- **Patient distraction**
- **Gentle pinching** near site of injection
- **Use of small needles** 25, 27, 30, small volume syringe

**Methods to decrease injection PAIN**

- Inject slow, warm anesthetic
- **Topical anesthesia** for 20 minutes, may finish with injection.
  - Works well with children
- **Lidocaine 4% Epi, Tetracaine - LET**
  - Allow 15-20 minutes.
- **Hide needle from view especially with children**
**Technique of direct infiltration**

In open wounds instill a few drops into wound then place needle in to subcutaneous layer through the wound opening

Slowly inject small volumes at 90 degrees when possible; infiltrate as the needle is withdrawn

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**Anesthesia**

- Anesthetize adjacent areas by inserting needle through previously injected area when possible
- Wait 5-10 minutes. May test area with needle or forceps
- Use of digital blocks to avoid distorting tissue

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**After anesthesia: Preparation MOST IMPORTANT**

- Thoroughly clean wound after anesthesia
- Saline for facial or scalp wounds without visible contamination 150-200cc
- Thoroughly irrigate deeper contaminated laceration 500cc or more for dirty wounds
- High pressure irrigation > 25 PSI for contaminated wounds 30-60 ml syringe – 14g angiocath

---

**Preparation for suturing**

Remove debris and devitalized tissue. Use the edge of the scalpel blade or excise with scalpel or scissors.

Hair usually does not need to be removed but if necessary use scissors

Hemostasis for 10 minutes as needed. Finger tourniquet provides a clean field for a finger laceration

---

**Basic interrupted suturing**

Place sutures 0.5 cm apart, 0.5 cm deep, and 0.5 cm back from the wound edge.

Pick up wound edges with tissue forceps avoiding compression
Place needle at 90 degree angle passing through to opposite side and out. Tie each stitch with only enough tension to approximate the edges.
**Staples**

- Appropriate in longer lacerations in areas where cosmesis (making it look good) is not a concern
- Often used in scalp
  - Avoid on face, neck, poorly approximated wounds, feet, hands, palms or over joints

**Staples**

- **Advantages:**
  - easy wound eversion
  - less reactive than sutures
  - faster
  - equal cosmetic outcomes
  - possible lower incidence of infection
- **Equipment:** pickups, stapler

**Staples technique**

Assess, clean wound
Possible topical or injectable anesthesia
Explore, irrigate, debride, prepare wound
Approximate and evert skin edges, assistant slightly elevates skin in front of stapler

3.5 cm wound = 6 staples

**Staples technique pearls**

- Apply staples close enough to avoid poor approximation — if well approximated, use fewer staples.
- Apply with even pressure so staples are level with skin
- Remove ones you are not happy with and reapply
- Rare complications
- Remove usually 8-10 days

**Skill Challenge:** Staple
**Tissue adhesives**

- Histoacryl or Dermabond
- For lacerations < 5cm with low wound tension often on the face
- Can be used for elderly with fragile skin with tears and flaps

**Tissue adhesive**

Do not use on:
- Wounds under tension, unless deep sutures
- Hands, feet, joints, oral mucosa
- Complex stellate lesions, bite wounds
- Wounds in patients allergic to adhesives
- Bleeding disorders or comorbid conditions that delay healing

**Tissue Adhesive Pearls**

Consider topical anesthesia to limit sting, thorough irrigation and cleaning, Establish hemostasis

Position patient to prevent runoff in to the eyes e.g. Trendelenberg for just above the eyes or reverse Trendelenberg for just below the eyes, Otherwise work in a horizontal position

Wall of antibiotic ointment around laceration prevents excess glue leakage

Medical Assistant to help approximate wound

---

**Tissue Adhesives**

- Superglue ethylcyanoacrylate
- Dermabond 2-octylcyanoacrylate
  - FDA approval 8/26/98
- Histoacryl n-2-butylcyanoacrylate
  - FDA approval 2/16/07

“Results from some experimental studies have shown that cyanoacrylate is not as toxic as it was initially thought to be, hence it is safe”


---

Jillian Knowles MMS, PA-C in Clinical Advisor August 5, 2014
Tissue adhesive patient instructions

- Keep dry 24 hours then may shower over
- No topical meds to wound
- Do not pull or pick at the wound
- Avoid extreme physical activity
- Report pain, redness, swelling

Skill Challenge: Tissue Adhesives

Fishhook removal fingers or feet

- Cleanse hook and puncture wound site with Betadine
- Tetanus as needed
- 1% lidocaine injected at the point of hook

Fish-hook removal

1. Back out technique - only with barless hooks
2. Push through technique – most effective when point of hook is near skin surface
3. String technique – commonly done in field – use when embedded in a body part that can be firmly secured – no movement
4. Needle technique – superficially embedded, best with larger hooks
5. Cut it out technique – when other methods fail
Fishhook removal
- If a treble hook is embedded clip or cover barbs with corks or snip to protect patient or others
- Assess tetanus status, but no need for antibiotics unless hook was deeply embedded in an infection-prone area (fingertip, ear cartilage) same ax as uncomplicated cellulitis
- Soak warm water 2-3 x d return if infected

Foreign Body Removal from Skin
- Get a good, careful history: Non healing puncture wounds can harbor a foreign body
- If visible or easily palpated, use a local with 1% lidocaine and a #15 blade to cut the length of the splinter exposing it. May use a #18 needle if small and superficial
- Check tetanus status

Foreign Body Removal from Skin
- Wooden splinters, splintered glass particularly difficult — they fragment...
- Do not cut down deeper into tissue to expose FB than can be closed with superficial sutures.
- Do not incise across a skin line, neurovascular bundle, or tendon
- Do not attempt to remove FB in a bloody field.

Nasal Foreign Body

Removal of nasal foreign bodies
- Witnessed insertion of a toy, bead, nuts, food?
- Unilateral mucopurulent nasal discharge, possible foul odor or nose bleed, thorough ENT exam on sinusitis “URI” symptoms
- Button batteries and paired disc magnets can cause tissue erosion, ulceration, necrosis. Magnets: septal perforation if left in place and require urgent removal and likely ENT referral
- Refer for poorly visualized or posterior foreign bodies

Removal of nasal foreign bodies
- Parent assisted technique: parent occludes unaffected nostril and blows in to the child’s mouth causing object to be expelled 60% efficacy
- Tissue adhesive on the end of a cotton tipped applicator may be effective for removal
- 12 french foley method: apply a vasoconstrictor (oxymetazoline or phenylephrine), slide catheter lubricated with lidocaine jelly past the object, inflate 2 cc and pull out gently to remove object
Pearls – removal nasal FB

- Most nasal FB are in the right nostril due to predominance of right-handed children
- Insert a nasal speculum with the handles parallel to the floor
- If you can visualize you may gently try a bayonet forcep or ear curette
- Avoid using forceps on smooth objects that are difficult to grasp; may force the object deeper in to the nasal cavity

Tick Removal

If sections of the mouthparts of the tick remain in the skin, they should be left alone as they will normally be expelled spontaneously.

After the tick removal and the skin cleansing, the person bitten (or the parents) should observe the area for the development of EM for up to 30 days following exposure. Components of tick saliva can cause transient erythema that should not be confused with EM.

Since the tick usually needs to be attached for two to three days before transmission of the Lyme disease agent occurs, removal of the tick within this time frame often prevents the infection.

Eye Problem: Common or Serious?

Provider maintains HIGH LEVEL of SUSPICION during history and physical exam.

Provider asks KEY QUESTIONS that lead to correct diagnosis and correct management of ocular pathologies.

History
- Onset sudden?
- Other family same?
- Medications?
- Trauma?
- One or both eyes?
- Contact lenses?
- Sleep in contacts?
- Recent eye surgery?
- Decreased vision or pain?
- Discharge?
- Scant profuse watery, purulent?
- Eye itch?
- Sensitivity to light?
- Anything else – other symptoms?

Ophthalmology Referral
Change in Visual Acuity – (including peripherals)
- Photophobia

Ophthalmology Referral
Severe Eye Pain
- Ciliary Flush

Ophthalmology Referral
- Blurred vision that is not helped by blinking or glasses
- Seeing halos around objects

Ophthalmology Referral
- Double vision
- Seeing light flashes, black dots, or curtain effect

Ophthalmology Referral
- Eye complaint with HEADACHE and NAUSEA
- Increased Intraocular Pressure
- Painful EOM
- Proptosis with painful EOM
- Pain involving contact lenses, especially extended wear lenses
I've got something in my eye!!

Corneal Injury:
Eye pain with foreign body sensation
- Basic exam (no topical anesthesia):
  - Visual acuity
  - Confrontation
  - Adnexal assessment lids etc.
  - Sclera conjunctiva
  - EOM
  - PERRLA
  - Cornea Iris Lens
  - Anterior chamber
  - Tonometry
  - Fluorescein stain

Inspection: Corneal abrasion
- Flip upper lid to rule out retained foreign body
- Contact lenses: most common cause of infectious keratitis

Fluorescein exam
- Topical anesthetic usually Tetracaine 2-3 drops
  - Pull lower lid down
  - Moisten fluorescein strip with topical anesthetic, saline or eye irrigation solution
  - Have patient blink

Fluorescein exam
- Visualize with cobalt blue or Wood's lamp
- Staining defect
  - Usually linear
  - Geographic or branching – herpes
  - Contact lens – round, covers entire cornea
  - Punctate – viral or bacterial keratitis

Corneal abrasion treatment
- Rx: topical antibiotics preferably ointment which provides lubrication e.g. Erythromycin ointment
- Ophthalmology follow-up within 24 hours
- Contact lenses wearers: urgent referral and fluoroquinolone eye drops for pseudomonas coverage, Throw out lenses!
- May need pain meds,
- Never prescribe steroid drops.
Ocular Communication Skills!
Latin abbreviations:
- O: *oculus* – which means “eye”
- S: *sinister* – which means LEFT, so OS = eye, left “the evil eye”
- D: *dexter* – which is right, so OD = eye, right
- U: *uterque* – which is both so OU means eye, both

Skill Challenge:
Fluorescein Stain Exam

Ingrown toenail conservative treatment 70% efficacy
- Loose fitting shoes
- Hot soapy soaks 3x d
- Dental floss under nail edge
- Wedge small piece of packing with sharp point of wooden stick or small instrument
- If too inflamed will need a digital block

Ingrown toenails: Best Referred out!
How to treat in your clinical setting without referral
- Partial nail plate avulsion
- Digital block, may need only partial block if medial side
- Soak nail to soften
- Elevate nail with Freer elevator or carefully separate with scissors

Ingrown toenails
- Cut nail edge longitudinally, remove section with hemostat **inspecting for nail remnants**
- Cauterize matrix with phenol, silver nitrate or cautery
- Pain meds, possible antibiotics
- Soak 2 x day in Epsom salts
- Nail elevation as nail grows out

[http://www.youtube.com/watch?v=2YFD6qLpF](http://www.youtube.com/watch?v=2YFD6qLpF)
Nursemaid's elbow

**History:** Forearm was pulled by swinging the child or when parent grabs child to prevent falling

- Alias radial head subluxation or “pulled elbow”. Portion of the annular ligament slips over the head of the radius
- Most common elbow injury kids ages 1-4 y
- Peak incidence 2-3 years old
- Girls more affected than boys
- Left arm more than Right
- Chief Complaint: “Lydia is not moving her arm.” Child holds arm flexed and forearm pronated. No distress unless arm is moved

**Nursemaid's elbow**
- X-rays not necessary if no fall or trauma history
- Reduction is done by a quick supination of the arm and flexion with one hand supporting the radial head
- Feel or hear a crack at the elbow with flexion
- Leave the room for 5-10 minutes and offer a popsicle or object and observe child using the previously affected arm
- 27-39% recurrence rates.
  - Prevent: instruct avoiding excessive traction on forearm.
  - Instruct on reduction technique

**Skill Challenge: Grab Your Partner!**
- Reduction of nursemaid's elbow
- Local anesthesia and digital blocks
- Injection and aspiration of abscess
- Foreign body removal (e.g., skateboard and pencil)
- Finger vertebrae fracture (e.g., proximal phalanx)
- Minor laceration call vs. admission, stap, suture
Management of Epistaxis

The differences between anterior and posterior epistaxis

<table>
<thead>
<tr>
<th></th>
<th>Anterior</th>
<th>Posterior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence and site</td>
<td>More common, mostly from the labial area or anterior part of lateral wall.</td>
<td>Less common, mostly from posterior part of nasal cavity.</td>
</tr>
<tr>
<td>Age</td>
<td>Mostly occurs in children and young adults.</td>
<td>Occurs after 40 years of age.</td>
</tr>
<tr>
<td>Cause</td>
<td>Mostly trauma or by nasal mucosal drying.</td>
<td>Spontaneous, often due to hypertension or arteriosclerosis.</td>
</tr>
<tr>
<td>Bleeding</td>
<td>Usually mild and can be controlled by local pressure or anterior packs.</td>
<td>Bleeding is severe and requires hospitalisation; posterior packs often required.</td>
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</tbody>
</table>

Figure 4a
A nasoscope view of the right nasal cavity showing a burst vessel on the Little's area (on the right nasal septum).  

Figure 4b
Application of a silver nitrate stick to the blood vessels.  

Figure 4c
Appearance of the right Little's area after application of the silver nitrate stick to seal off the bleeding blood vessels.

Rhino Rocket Nasal Sponge System

1. Soak the sponge with a 4% solution of Xylocaine.  
2. Insert the tip of the sponge into the nasal cavity and press the sponge with the thumb.  
3. Remove the sponge and apply pressure with a gauze pad.  
4. If bleeding does not stop, repeat the procedure until the bleeding stops.

Cerumen Removal

- Cerumen composed of secretions of the sebaceous and ceruminous glands located in the lateral 1/3 of the ear canal mixed with desquamated skin and skin flora bacteria.
- Migratory pattern of epithelium lining the ear canal is medial to lateral.
- Reasons for cerumen accumulation: bony obstructions, eczema, autoimmune disease, narrowing of the ear canal, failure of epithelial migration with aging, hearing aids, ear plugs, overproduction of wax.
Cerumen removal: patient presentation

- Cerumen Impaction
- Hearing loss
- Earache
- Ear fullness
- Itchiness
- Dizziness
- Ringing in the ears (tinnitus)

(need a ICD 10 diagnosis to bill CPT 69210)

Cerumen removal

- Cerumenolytics: mineral oil or docuentsate sodium
- Evidence Based Practice: shows that cerumenolytics improve the success of subsequent ear lavage. 5-10 ear gtt 2 x day for 4 days
- Irrigate with a large syringe (at least 30cc) with a large gauge angiocath with needle removed (16-18 gauge)

Cerumen Removal

- Warm water and bacteriostatic agent such as hydrogen peroxide
- Direct the stream upwards in the ear canal
- Tip of the syringe no more than 8mm in to the canal
- Manual removal with an ear curette if at the canal orifice

NO EVIDENCE

- "What makes the Welch Allyn Ear Wash System truly revolutionary is its built-in Hydrovac Action. This proprietary technology..."

Cerumen removal pearls

- No evidence for efficacy of mechanical jet irrigators
- Consider treating diabetics and immunosuppressed patients with fluoroquinolone ear drops for 5 days post lavage
- Rare complications: ear pain, bleeding (caution with patient's on anticoagulation therapy) laceration and TM perforation

Cerumen Removal

- Recurrent wax: may use a cotton ball dipped in mineral oil placed in the external canal once a week
- Referrals to ENT: chronic wax, perforated TM, hx of ear surgery, purulent or necrotic tissue in auditory canal, persistent complaints after lavage
- NO Q TIPS! Self care just packs it in!
Removing Skin Tags

- Infiltrate base of skin tag with lidocaine
- Grab tag at largest part with hemostat, pull until stalk base is visible
- **Freeze** the tag with liquid nitrogen
- **Burn** the tag with electric cautery
- **Remove** the tag with scissors

Questions?

- Please:
  - fill out evaluation
  - Obtain CE Certificate

Thanks for your time and attention

IMPACT’S NURSING WORLD

- Keep a moral compass, pray
- Work like you don’t need the money
- Do the extras, never feel you are above any task
- Commit to lifelong learning, develop references

Question “things we’ve always done this way”
- Support your colleagues, never second guess
- Healing touch
- Never burn your bridges

IMPACT Reference List


