Pediatric ENT Potpourri
Practical Management of Common ENT Conditions for the PCP

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A few notes about today's Grand Rounds

- All lines are muted throughout the presentation.
- Please use the Q&A to ask questions or make comments.
- We will be recording the session.
- Today's recording and materials will be posted to the PHN website 3 business days following the presentation:

https://pediatrichealthnetwork.org/

Speakers

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No conflicts to disclose:

- No financial or business interest, arrangement or affiliation that could be perceived as a real or apparent conflict of interest in the subject (content) of their presentation.
- No unapproved or investigational use of any drugs, commercial products or devices.

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Goal and Objectives for Today's talk

Goal:

Define strategies for pediatricians and pediatric otolaryngologists to work more efficiently to deliver outstanding patient care

Objectives:

- Optimize strategies for epistaxis management
- Diagnose and manage pediatric sinusitis in an outpatient setting
- Identify, initiate treatment and evaluation of obstructive sleep apnea
- Manage cerumen impactions
- Recognize, evaluation, and indications for referral for neck masses

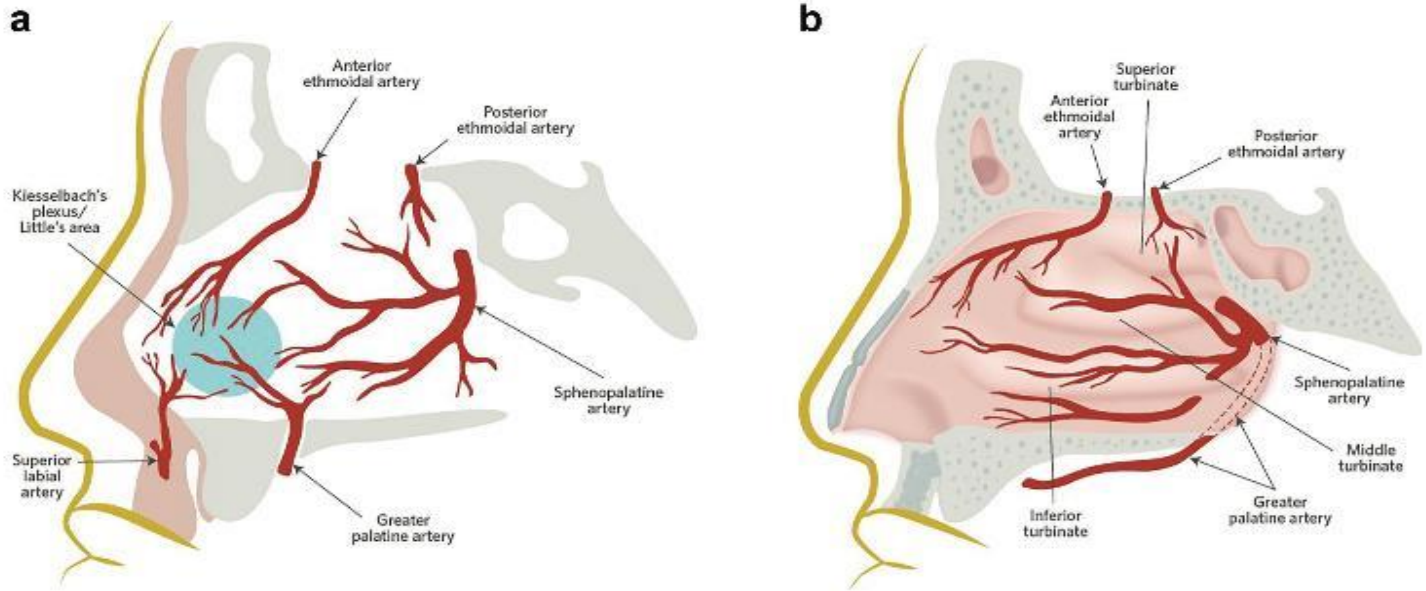
Epistaxis

2020 AAO Clinical Practice Guideline: Nosebleed

Applying Nosebleed Clinical Guideline: Target Setting and Practice Setting	
Target Patient	**Exclusions**
Age ≥ 3 years	Age < 3 years
Severe, persistent, recurrent, or affects QoL	Nasal or nasopharyngeal tumor
	H & N Vascular malformation
	Bleeding disorder
	Recent facial trauma
	Recent sinonasal surgery

Otolaryngology–Head and Neck Surgery 2020, Vol. 162(1S) S1–S38

Epistaxis



- Pediatric bleeds usually on anterior nasal septum (Kisselbach/Little area)
- Review of 4 state ER database for pediatric epistaxis showed:

1. Average age 7.5 years
2. 57.4% males
3. ≈ 7 % required procedures; 93% were for simple control of anterior bleeding

[Shapiro S et al 1995]

How to Stop Epistaxis: For Patients

Nose Bleeds

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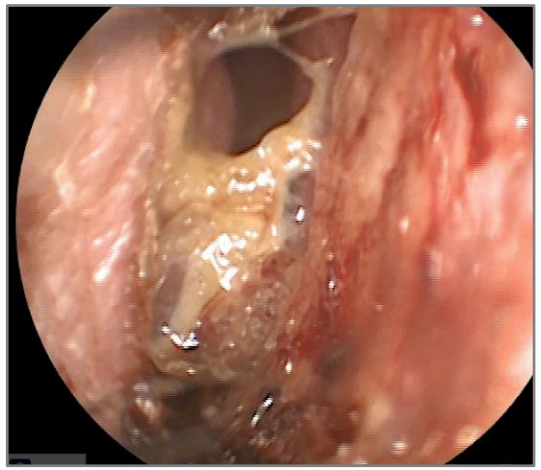
How to Stop a Nose Bleed

- Have child sit up and lean head over, **do not lay down.**
- Pinch the soft part of the nose, below the bone, holding the nose closed. Have child breathe through their mouth.
- Try to keep your child calm, Crying and screaming can increase bleeding.
- Squeeze firmly above nostrils for 5 minutes. If the bleeding does not stop after 5 minutes hold for another 5 minutes.
- If nose bleed has not stopped after applying pressure for a total of 10 min, call your pediatrician for advice.

Question 1

How would you manage a 7-year-old female with recurrent epistaxis and the nasal exam shown?

1. ENT referral
2. Humidifier
3. Flonase
4. Mupirocin/Nasal saline gel



Recurrent Nosebleeds: Treatment Plan

Nose Bleed Treatment Plan

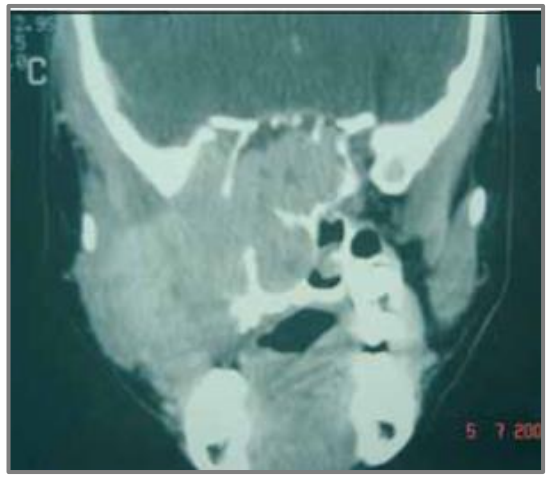
- **Nails:** Keep child's fingernails clean and short
- **Humidified Air:** In the winter months use a cool mist humidifier in child's bedroom. Be sure to clean it regularly. For children with a history of seasonal allergies the winter time is the only time this should be used.
- **Nasal Saline Spray:** Over the counter product. 2 sprays per nostril before applying any ointment. Use spray at least 2-4 times per day. Continue to use until otherwise directed by your physician.
- **Mupirocin 2% ointment:** Prescription. Gently apply a small pea size to inside of nose, 1 time the morning, 1 time in the evening. Use **ONLY for** 10 days.
- **Nasal Ayr Gel:** Over the counter product to be used **after** 10 days of prescription Mupirocin. Gently apply a small pea size to inside of nose 2 times a day. In the morning and in the evening. Start using Continue to use until otherwise directed by your physician.

A few more tips…

- Mupirocin may help because of increased colonization of nasal mucosa with *S aureus in* recurrent epistaxis [Whymark AD et al, 2008]
- Emphasize need for consistent use for optimal results
- For patients who are anticoagulated, have medical co-morbidities, or bleeding disorders:
  1. Avoid manipulating the nasal mucosa
  2. Control underlying medical problem
- Ask about use of allergy medications
- Remember foreign body as potential etiology

Epistaxis: When to Refer?

- Unilateral epistaxis
- Concurrent nasal obstruction
- Facial asymmetry
- Adolescent males



- Family history of recurrent nose bleeds- may represent hereditary hemorrhagic telangiectasia syndrome
- Failed medical therapy after consistent use
- Consider telemedicine visit for younger patients; in person for older patients as endoscopy may be needed

Active Bleeding: What Can Pediatrician Do?

- **Actively bleeding patient**
  1. Assure airway adequacy
  2. Pressure to lower 1/3 of the nose
  3. Patient's head slightly flexed position
  4. Obtain history including family history during this interval
  5. Look for telangiectasia, facial asymmetry, tumors, foreign bodies

Diagnosis and Management Pediatric Sinusitis

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Diagnosis of Acute Sinusitis

2013 AAP Clinical Guidelines for Acute Bacterial Sinusitis

Persistent illness, i.e., nasal discharge (of any quality), daytime cough, or both lasting > 10 days without improvement, OR
Worsening course, i.e., worsening or new onset of nasal dis- charge, daytime cough, or fever after initial improvement, OR
Severe onset, i.e., concurrent fever (temperature ≥39°C/102.2°F) and purulent nasal discharge for at least 3 consecutive days

Pediatrics 2013; 132:e262–e280

Acute Sinusitis Microbiology

- Bacteriology of sinusitis has changed with advent of PCV.
- Reductions in *S pneumoniae*, increases in *H influenzae*, and no changes in *M catarrhalis*
- Slight increases in *S pyogenes* and *S aureus*
- Increasing antibiotic resistance in non-PCV covered serotypes of *S pneumoniae* emerging

[2013 AAP CPG,Pediatrics 2013;132:e262–e280; Brooks I and Gober AE, 2007]

Question 2

Which antibiotic would you choose to treat a 2-year-old male with moderate symptoms of sinusitis and no history of prior infections or antibiotic use in the past month?

1. Bactrim
2. Amoxicillin or Augmentin
3. Azithromycin
4. Cefdinir

Medical Management: Uncomplicated Patient

- Age 2 or more years
- Mild to moderate symptoms
- No day care
- No prior antimicrobials in the past 4 weeks
- Community without known *S pneumoniae* resistance (10%)
- Amoxicillin 45 mg/kg/day or Amoxicillin and Clavulanate 45 mg/kg/day

2013 AAP Clinical Practice Guidelines for Acute Bacterial Sinusitis. Pediatrics 2013;132:e262–e280.
IDSA clinical practice guideline for acute bacterial rhinosinusitis in children and adults. Clin Infect Dis. 2012;54(8):e72–e112

Medical Management: More Complicated Patient

- Area with high *S pneumoniae* resistance (>10%)
- Moderate to severe sinusitis
- < 2 years old
- Recent antimicrobial therapy (within 4 weeks)
- Amoxicillin 90 mg/kg/day or Amoxicillin and Clavulanate 90 mg/kg/day
- High dose clavulanate sufficient to inhibit beta lactamase production in *H influenzae* and *M catarrhalis*

2013 AAP Clinical Practice Guidelines for Acute Bacterial Sinusitis. Pediatrics 2013;132:e262–e280.
IDSA clinical practice guideline for acute bacterial rhinosinusitis in children and adults. Clin Infect Dis. 2012;54(8):e72–e112

Medical Management: Penicillin Allergic Patients

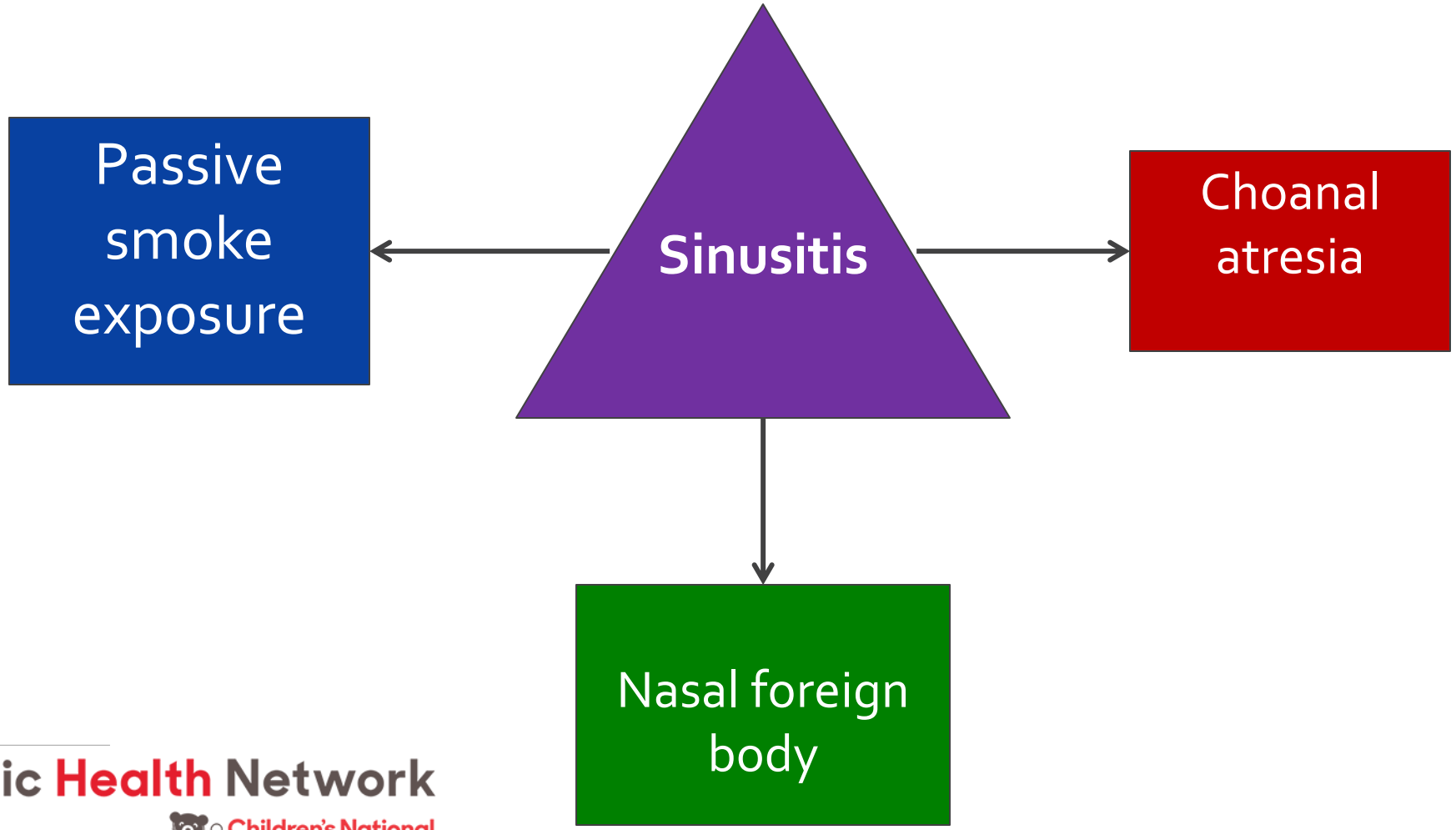
- Quinolone- levofloxacin or moxifloxacin
- 3rd generation cephalosporin (after allergy testing)
- In complicated sinusitis patient, consider combination of clindamycin or linezolid and cefixime
- Avoid Azithromycin and Bactrim- high rates of *S pneumoniae* and *H influenzae* resistance

[IDSA 2012 and CPG 2013]

Sinusitis Adjunctive Therapies

- Intranasal steroids – data suggests beneficial role
- Nasal saline – one pediatric study supports use in acute sinusitis
- Antihistamines, mucolytics, and decongestants-data too limited
- Empiric GERD therapy not helpful

Sinusitis Other Potential Etiologies



Obstructive Sleep Apnea: Initiation of Evaluation and Treatment

Polysomnography: Indications

Medical Management of Sleep Disordered Breathing

- Intranasal Corticosteroid Sprays
- Oral Montelukast

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Indications for Polysomnography

AAO-HNS Clinical Practice Guideline: Tonsillectomy in Children (2018)

Role of PSG:

- Define the severity of oSDB to assist in preoperative planning
- Provide a baseline PSG for comparison after surgery

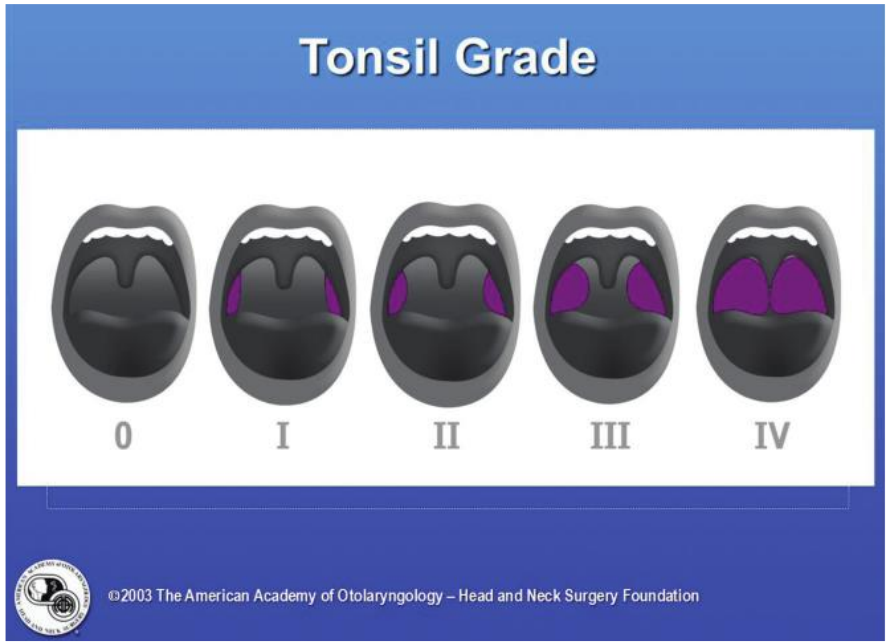
Indications for PSG:

- < 2 years Old
- Obese (BMI > 95%)
- Trisomy 21
- Craniofacial Abnormalities
- Neuromuscular Disorder
- Sickle Cell Disease
- Mucopolysaccharidoses

Additional Polysomnography Recommendations

- Need for tonsillectomy is uncertain
- Discordance between physical exam and symptoms

Helps direct care and minimizes risk of over treating or failing to accurately diagnose OSA



Question 3

A 7-year-old male presents with mild obstructive sleep apnea and lateral neck x-ray findings shown. What is your next step?

1. Intranasal steroid sprays
2. Montelukast
3. Allergy evaluation
4. ENT referral

Medical Management of Sleep Disordered Breathing: Montelukast

Double-blind, randomized, placebo-controlled trial: Montelukast for Treatment of OSA

Goldbart, 2012

Reduced OSA Severity & Adenoid Hypertrophy

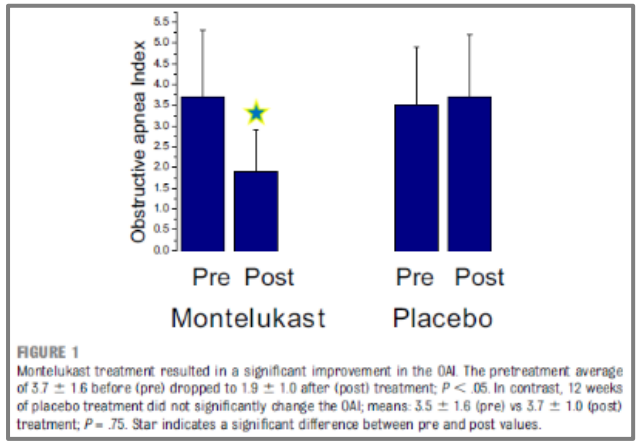


FIGURE 1
Montelukast treatment resulted in a significant improvement in the OAI. The pretreatment average of 3.7 ± 1.6 before (pre) dropped to 1.9 ± 1.0 after (post) treatment; $P < .05$. In contrast, 12 weeks of placebo treatment did not significantly change the OAI; means: 3.5 ± 1.6 (pre) vs 3.7 ± 1.0 (post) treatment; $P = .75$. Star indicates a significant difference between pre and post values.

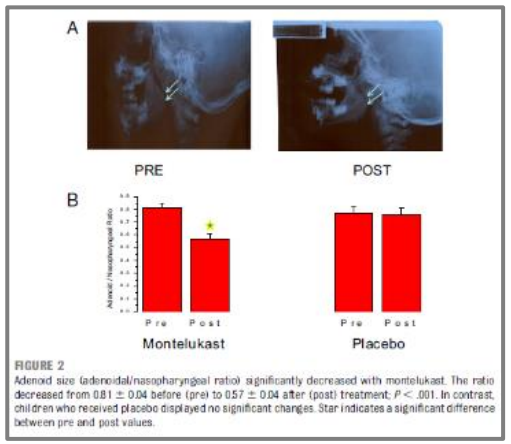


FIGURE 2
Adenoid size (adenoidal/nasopharyngeal ratio) significantly decreased with montelukast. The ratio decreased from 0.81 ± 0.04 before (pre) to 0.57 ± 0.04 after (post) treatment; $P < .001$. In contrast, children who received placebo displayed no significant changes. Star indicates a significant difference between pre and post values.

FDA Black Box Waring - 3/2020

- Neuro-psychiatric side effects
  - Sleep disorders (nightmares, insomnia)
  - Psychiatric disorders (depression, anxiety, hallucinations, OCD, suicidal ideation
- Limited Utility In Treatment of Snoring and Sleep Disordered Breathing

Medical Management of Sleep Disordered Breathing: Intranasal Corticosteroids

- There is insufficient evidence for the efficacy of intranasal corticosteroids for the treatment of OSA in children
- There may be short term benefits in children with mild to moderate OSA
- Previously discussed benefit of Montelukast confirmed

Implications for Practice

- Intranasal steroids are a low-risk topical medication
- Resolution of symptoms with use can reassure symptoms are not due to OSA
- Helps in clinical decision-making during ENT evaluation

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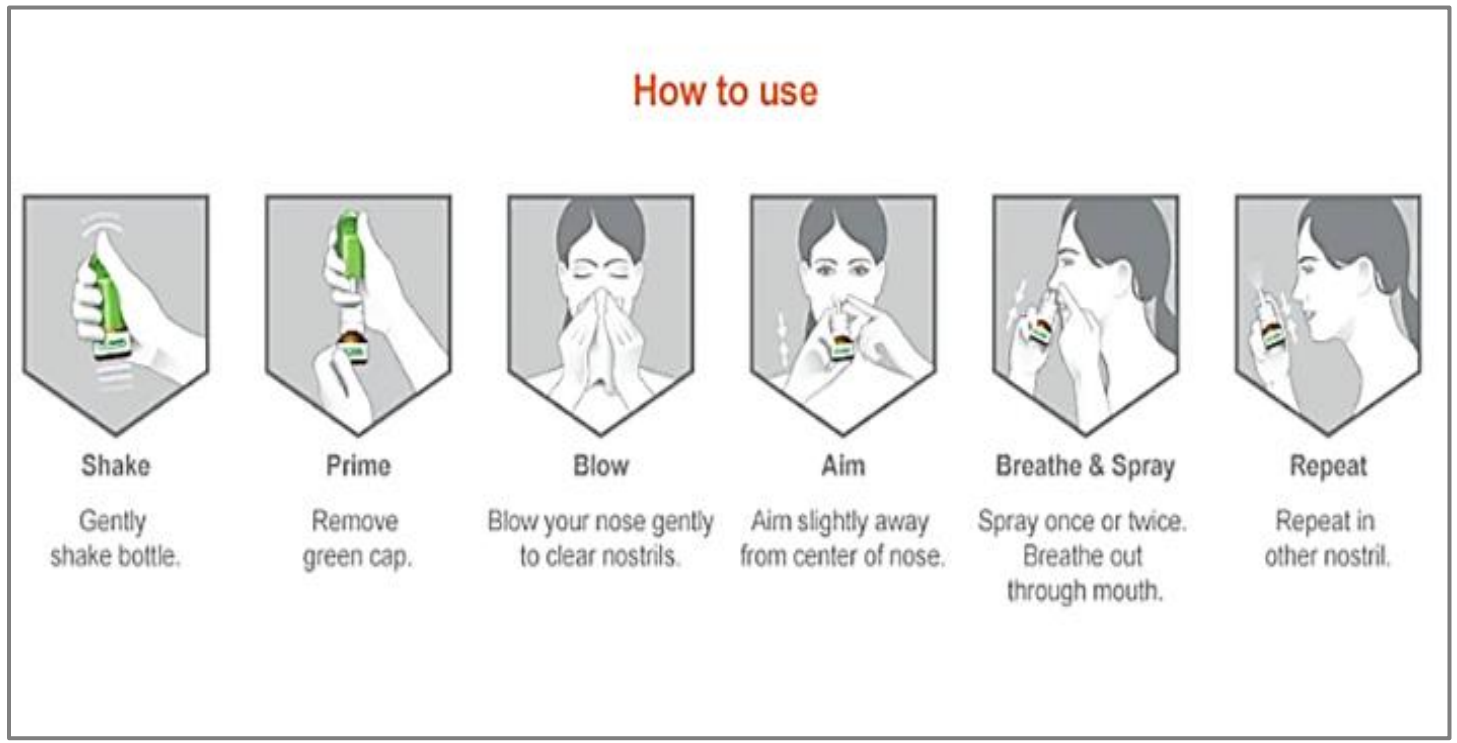
Flonase (Fluticasone) Instructions

Recommend a trial of Flonase using the following regimen for 6 to 8 weeks:

- Clear the nasal cavities of secretions and crusts with nasal saline.
- Administer Flonase _____ spray to each nostril _____ daily.
  - Aim the spray nozzle to the outer corner of the right eye when spraying the right nostril, and to the left outer corner of the left eye when spraying the left nostril.
- Follow the Flonase with application of Ayr gel (saline gel) to the inside of the nose on the wall that separates the two nostrils, twice daily and after the administration of Flonase.
- Follow up in 2 to 3 months is symptoms persist.


How to use
Shake
Gently shake bottle.
Prime
Remove green cap.
Blow
Blow your nose gently to clear nostrils.
Aim
Aim slightly away from center of nose.
Breathe & Spray
Spray once or twice. Breathe out through mouth.
Repeat
Repeat in other nostril.

Medical Management of Sleep Disordered Breathing: Montelukast and Intranasal Corticosteroids

- Retrospective review of 752 children with PSG proven mild OSA treated with oral Montelukast and Intranasal Corticosteroids for 12 weeks
  - 62% normalized sleep studies
  - Younger children (age <7 years) and non obese (BMI z-score >1.65) children more likely to normalize Khelrandish-Gozal (2016)
- Long-term studies to guide the duration of therapy and predict response are lacking

Cerumen Management

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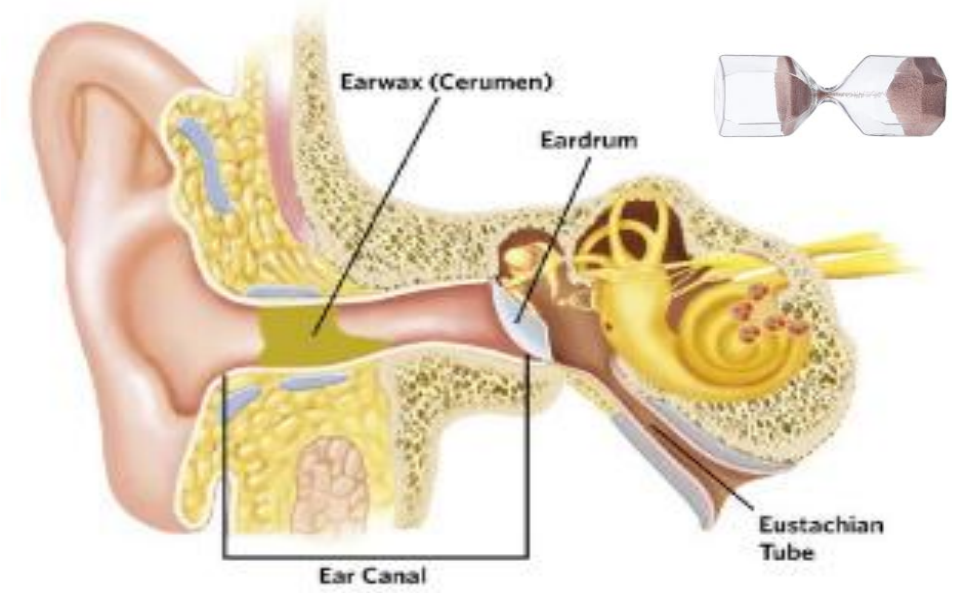
Cerumen Overview

Cerumen, or "earwax," is a naturally occurring substance that cleans, protects, and lubricates the external auditory canal.

It is also the primary reason why the ear canal can become obstructed, causing:

- Hearing loss
- Tinnitus
- Fullness
- Itching
- Otalgia
- Discharge



AAP Guidelines in Conjunction with AAO

Indications

- Excessive cerumen occurs in 10% of children on routine examination
- Removal is indicated when symptoms are present (pain, hearing loss, etc.)
  - However, therapy *is not* warranted for excessive cerumen without symptoms or when the ability to examine the ear is not impaired.
- Special consideration is required for patients unable to communicate symptomatology (infants and cognitively impaired patients)
- Patients with structural abnormalities of the ear canal, immunosuppression, anticoagulant therapy, diabetes and non-intact tympanic membranes may also require special consideration.

Clinical Practice Guideline (Update): Earwax (Cerumen Impaction)

Seth R. Schwartz, MD, MPH[1], Anthony E. Magit, MD, MPH[2], Richard M. Rosenfeld, MD, MPH[3], Bopanna B. Ballachanda, PhD[4],

Otolaryngology–
Head and Neck Surgery
2017, Vol. 156(1S) S1–S29

DOI: 10.1177/0194599816671491
http://otojournal.org
SAGE

AAP Guidelines in Conjunction with AAO

Treatment

- Appropriate methods to treat cerumen impaction include irrigation, manual removal of cerumen and the use of various types of cerumenolytic agents, including water and saline.
- All these methods are of equal efficacy when used by trained practitioners.

Topical Preparations		
Water based	Acetic Acid	Cerumenex
	Colace	Hydrogen Peroxide
	Sodium bicarbonate	Sterile saline
Oil based	Almond oil	Arachis oil
	Earex	Olive oil
	Mineral oil	
Non-water based	Audax	Debrox

Options to Reduce Ear Wax	
Secondary Prevention Choices	Alcohol or Hydrogen peroxide drops
	Topical earwax softening agents
	Irrigation with bulb syringe
	Check of canal (Hearing aid users)
	Manual extraction by provider
Not advised	Daily olive oil drops or sprays
	Ear candling
	Probing of ear (Q-tips, pens, paper clips)

What can the Pediatrician do?

Cerumen removal is not necessary unless symptomatic (itching, hearing loss, fullness, odor, need for eardrum evaluation), even if impacted.

- Cerumen is *HEALTHY & NORMAL*.

Children with hearing aids: Should have regular canal checks q6 months due to impaction if symptomatic

Do Recommend: prophylactic use of water, saline, cerumenolytics (>3 years old with intact drum) followed by irrigation, and then manual removal

- ENTs do not have irrigation in clinic for cerumen removal

Do NOT Recommend: Q-tip use, pencaps, *BeBird* video curettes, ear candling or coning

- "Nothing smaller than your elbow in your ear!"

When to Refer to ENT

If thinking about referral, *recommend* audiology assessment with audiogram prior to ENT evaluation.

If abnormal audiologic assessment, refer to Otolaryngology.

- In certain developmental or craniofacial cases, patients maybe unable to sit for such an exam in the clinic, and removal of cerumen under anesthesia maybe necessary

If cerumen causing fevers, pain, foul drainage, etc., this may instead be an otitis externa or complication from otitis media.

- Patient should be treated accordingly first with otic antibiotic drops before referral to Otolaryngology for cerumen removal.

Neck Masses

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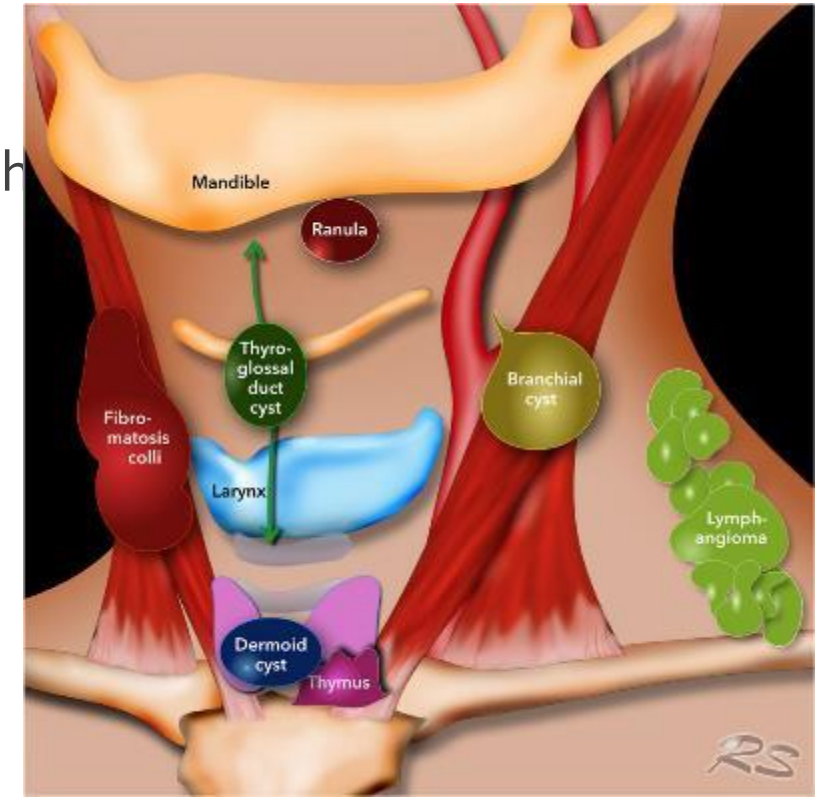
Neck Mass Overview

Cervical palpation very often identifies one or more neck mass in the pediatric patient.

- The differential diagnosis is extensive, but diagnosis is made with history and physical alone.



Primary categories of neck masses are described:

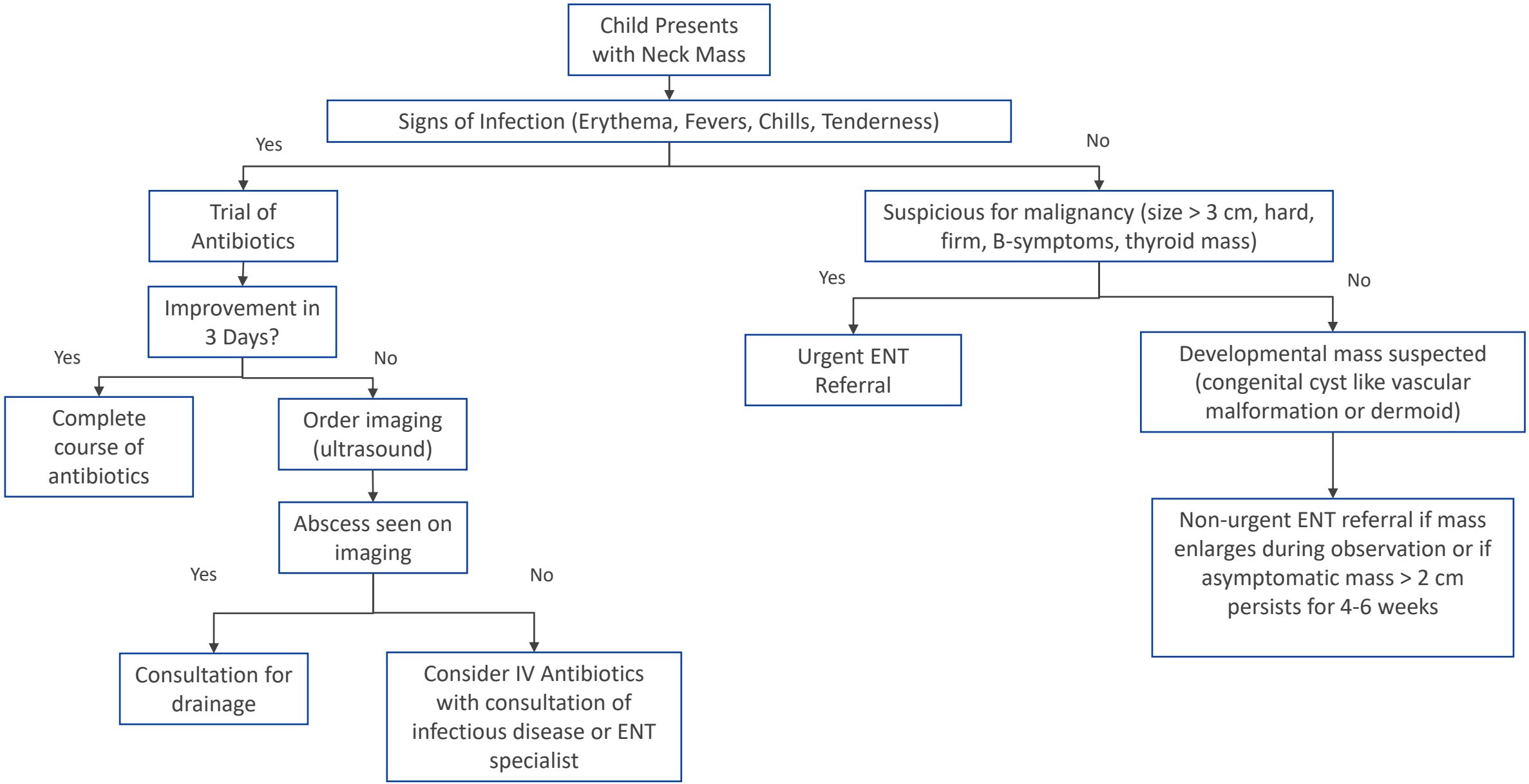
- Infectious/Inflammatory (Most common)
- Congenital
- Neoplastic
- Lesser Degree: Traumatic, Metabolic, Autoimmune, Idiopathic

When to Refer to ENT

- Most often, pediatric neck masses are inflammatory cervical lymphadenitis that can be observed for 2 weeks with or without antibiotic therapy dependent on suspected etiology.

- However, there should be a strong index of suspicion for congenital or potentially malignant masses.
  - Immediate referral should be made to an ENT for further evaluation

Indications for Referral in Children with a Neck Mass	
1) Developmental mass requiring excision for definitive therapy	
2) Infectious lymphadenitis requiring incision and drainage	
3) Mass suggesting malignancy	Enlarged lymph node persistent for 6 weeks
	Firm, rubbery lymph node > 2 cm
	Hard, immobile mass
	Size increased despite antibiotics
	Thyroid mass
	Supraclavicular mass



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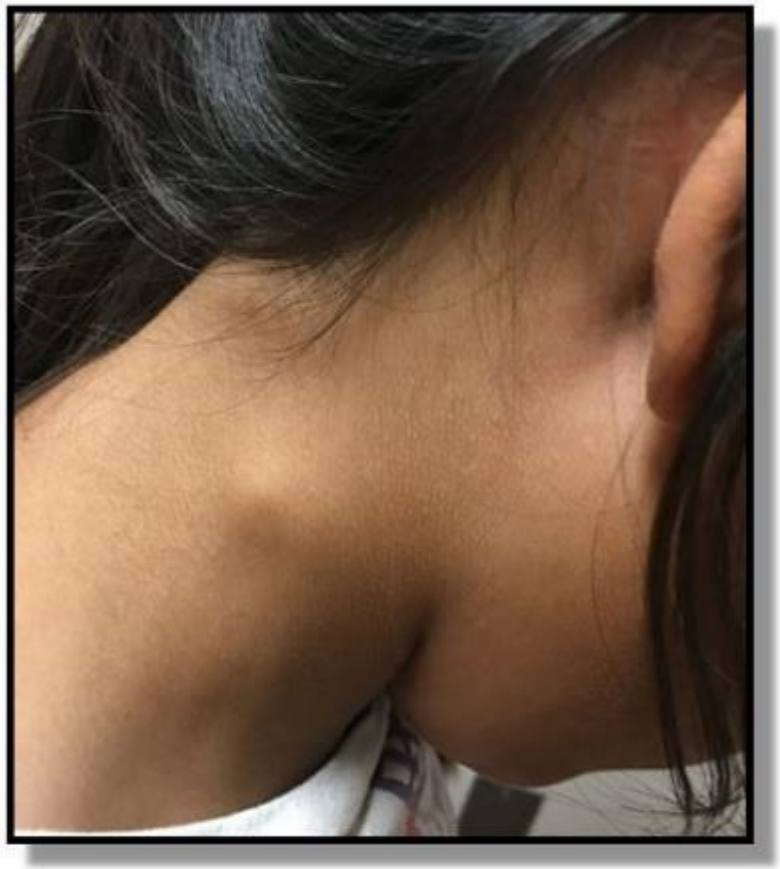
Meier JD, Grimmer JF. Evaluation and management of neck masses in children. Am Fam Physician. 2014 Mar 1;89(5):353–8.

Question Four

How would you treat a healthy 5-year-old female with a 1-week history of a 2 cm neck mass with tenderness but no fevers or erythema?

1. Trial of antibiotics
2. Ultrasound
3. ENT referral
4. PPD



Concerning Features Based on Age, Size & Symptoms

Demographic characteristics

- Neonates: palpable nodes or masses irrespective of its size
- 6-12mo: palpable nodes or masses >1cm
- >12y/o: persistent palpable nodes/masses >3cm

Mass size over time

- increase in size at initial 2-week follow-up
- no change in size after 6 weeks for any child
- failure of lesion to decrease to size considered within normal limits by 6-8 weeks

Local ENT symptoms

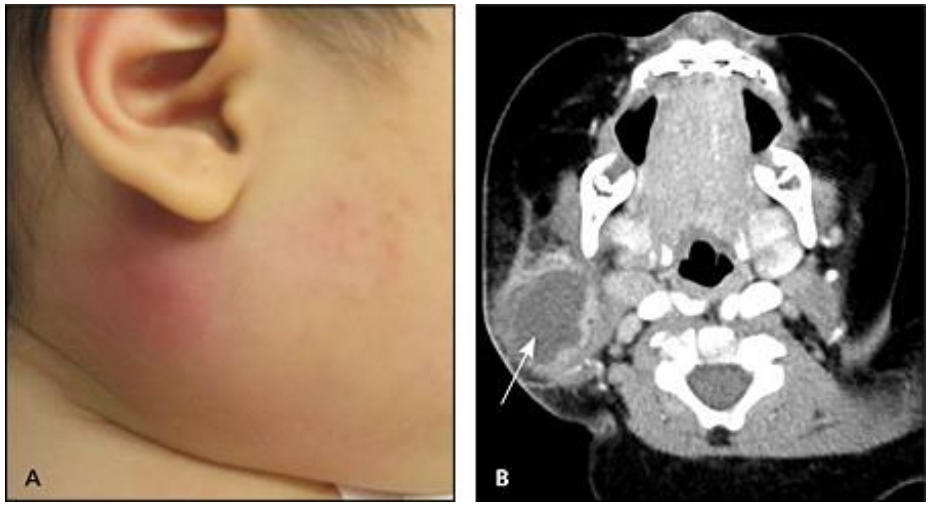
- Absence of URTI history or findings
- Chronic unilateral nasal discharge or bleeding
- Referred ear pain (otalgia)
- Hearing loss (unilateral)
- Difficulty handling secretions
- Voice changes (hoarse, muffled)
- Odynophagia, dysphagia, globus sensation

Systemic symptoms

- Hemoptysis
- Cough
- Anorexia and/or weight loss
- Persistent fatigue, fevers, chills, night sweats

Mass Characteristics

Characteristic	Normal	Abnormal
Size	<1cm	>1.5cm
Mobility	Mobile	Firm or fixed
Consistency	Soft, fleshy	Firm, rubbery, matted
Parotid or thyroid gland mass	No	Yes
Hoarseness, stridor	No	Yes
Otalgia with normal ear exam	No	Yes
Neck muscle weakness or altered sensation	No	Yes
Exposures	No	Yes*



*Recent upper respiratory tract infections; animal exposures (cat scratch, cat feces, or wild animals); tick bites; contact with sick children; contact with persons who have tuberculosis; foreign travel; and exposure to ionizing radiation should be reviewed

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Meier JD, Grimmer JF. Evaluation and management of neck masses in children. Am Fam Physician. 2014 Mar 1;89(5):353–8.

What can the Pediatrician do?

Key Recommendations	
Statement	*Rating / Consensus*
When indicated, ultrasonography is preferred initial imaging study for most children with a neck mass	Expert Consensus
Empiric antibiotic therapy with observation for four weeks is acceptable.	Consensus based practice guidelines
Excision of presumed congenital neck masses is recommended to confirm diagnosis and to prevent future problem	Based on observational studies
Referral if enlarged lymph nodes that are rubbery, firm, immobile or persist > 6 weeks or that enlarge during a course of antibiotics should be considered.	From a consensus guideline based on observation studies

Meier JD, Grimmer JF. Evaluation and management of neck masses in children. Am Fam Physician. 2014 Mar 1;89(5):353–8.

What can the Pediatrician do?

Indications for Ordering Specific Tests	
Test	Indication
Bartonella henselae titers	Cat Exposure
Complete Blood Count	Serious systemic disease suspected (AML, mononucleosis)
Computed tomography scan	Imaging for deep neck abscess or suspected malignancy
Magnetic resonance imaging	Preferred if vascular malformation is suspected
Purified protein derivative (PPD) test for tuberculosis	Exposure to tuberculosis, young child in a rural community (atypical tuberculosis)
Ultrasonography	Recommended initial imaging study for a developmental mass or thyroid problem
Viral Titers (CMV, EBV, HIV, Toxoplasmosis)	If history suggests exposure or a suspected inflammatory mass is not responding to antibiotics

Meier JD, Grimmer JF. Evaluation and management of neck masses in children. Am Fam Physician. 2014 Mar 1;89(5):353–8.

What can the Pediatrician do?

- Little evidence exists to definitively determine the best approach for the child with a neck mass.
- Observation is recommended initially in cervical lymphadenitis that is bilateral, whose lymph nodes are smaller than 3 cm and are not erythematous or tender.
- Empiric antibiotics should be considered for patients with cervical lymphadenitis with acute symptoms (e.g., fever, chills), unilateral lymphadenopathy, or erythema and tenderness, or lymph nodes larger than 2 to 3 cm.
  - A 10-day course of oral cephalexin (Keflex), amoxicillin/clavulanate (Augmentin), or clindamycin is recommended (most common organisms are *Staphylococcus aureus* and group A streptococcus).

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PHN and ENT Collaboration

PHN and CNH ENT working towards developing cohesive diagnostic and management plans to optimize patient care

Revising CNH scheduling templates with input from PHN

Development of mutually vetted patient information documents for common ENT problems

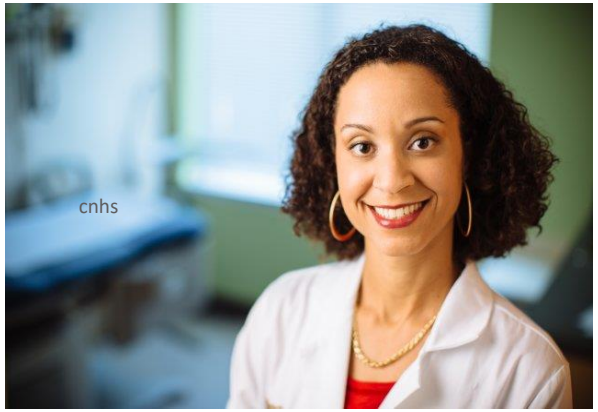
Creation of mutually vetted pediatrician educational supplements for common ENT problems

Improved and centralization of instructions for direct referrals and accessing CNH specific documents (surgical H & Ps)

Direct Messaging

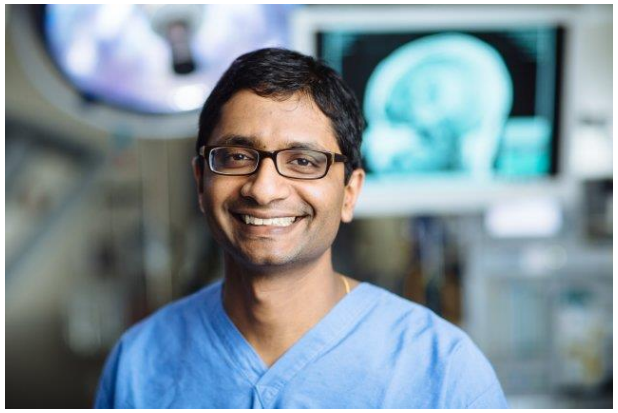
Direct Messaging is the national standard for securely and quickly exchanging protected health information (PHI) between providers -- **across their EHRs**

Direct Messaging functions similarly to email, providers can exchange:



Any EHR

Referrals
Provider-to-provider messages
Clinical Summaries
Labs
Images
Admit/Update/Depart Notifications
Summary of Care Records



Any EHR

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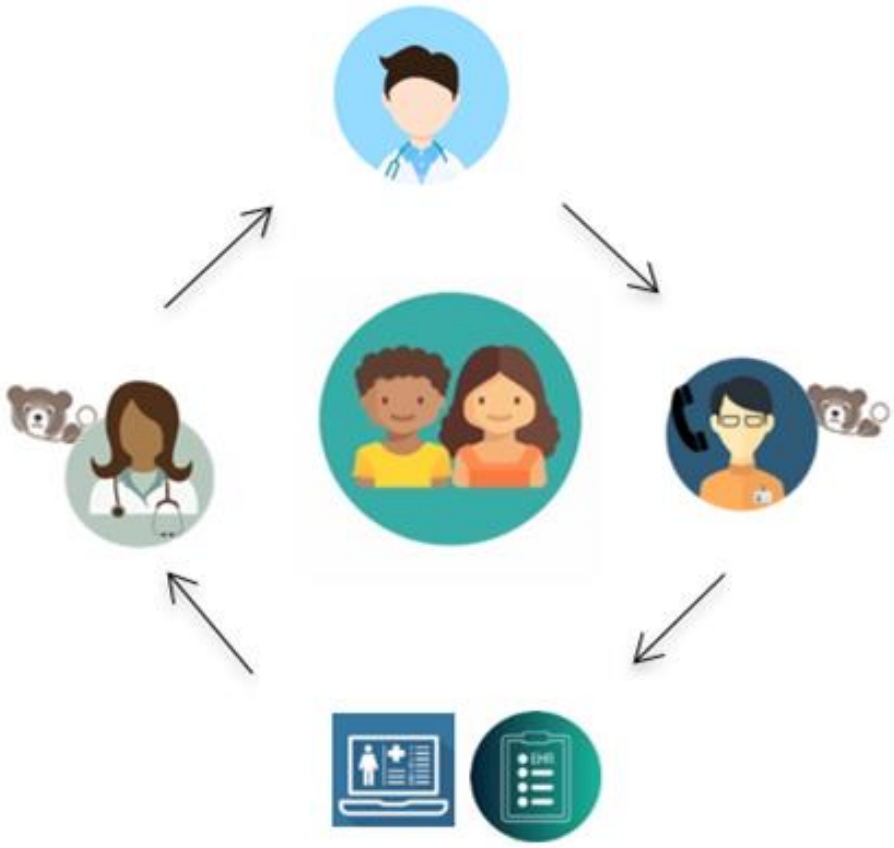

Direct Referral Loop for Ambulatory Appts

Send referrals to referrals@direct.childrensnational.org
Please include department, diagnosis, reason for referral.
Please free text any additional information (provider preference, primary language, etc)

Children's team members will contact your patient to schedule

Utilizing Direct enables CNH specialists to see provider-to-provider referral notes and the patient's Summary of Care Record

Referring providers receive appointment/no-show notifications and consult notes via Direct that easily attach to patient's chart

Directhelp@childrensnational.org

https://childrensnational.org/healthcare-providers/accessing-records/direct-messaging

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Additional Channels for Sending Referrals

Centralized Fax: 202-476-7651

Physician Access Line for urgent appointments: 202-476-4880

Contact your Physician Liaison: 202-476-4418

If you have any difficulties, please contact:

Carlin Barmada, PhD at 202-374-3791 or cbarmada@childrensnational.org

Link for Pre-Surgical H & P Documents:

https://childrensnational.org/healthcare-providers/consult-and-referral-resources

ENT Directory

Provider Name	Email	Office Phone/Admin Phone	Pager Number
Ali Espinel, M.D.	aespinel@childrensnational.org	202-476-6951/4270	202-259-4501
Maria Peña, M.D.	mpena@childrensnational.org	202-476-3837/4270	202-259-8106
Habib Zalzal, M.D.	hzalzal@childrensnational.org	202-476-3972/3659	202-259-4388

Medical Advice Line: 202-476-2159, option 8

Link for ENT Resources for Families: https://childrensnational.org/departments/ear-nose-and-throat-otolaryngology/resources-for-families

Helen Kidane (Practice Manager): hkidane2@childrensnational.org; 202-476-4272

ENT On Call: 202-476-5000 - ask operator to page ENT attending on call

Thank you

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Questions

Clinical Scenario #1

A 2-year-old otherwise healthy male presents with symptoms of disrupted sleep, snoring with choking, pausing and gasping. On exam, he has 3+ tonsils. You plan to refer to ENT. What else can be done in the meantime?

1. Begin trial of Flonase
2. Begin trial of Montelukast and Flonase
3. Order Sleep Study
4. Begin Flonase trial and order Sleep Study

Clinical Scenario #2

You started a 6 year old girl on Flonase for snoring and symptoms of sleep disordered breathing. All of her symptoms resolved after 2 weeks of use and she completed 12 weeks of treatment. She has been off Flonase for 2 weeks with recurrence of mild symptoms. Give her recurrence of symptoms, you will refer her to ENT. What are you next steps prior to ENT evaluation?

1. Continue watchful waiting off Flonase
2. Lateral Neck X-Ray
3. Restart Flonase
4. Start Montelukast

Clinical Scenario #3

A 4-year-old male with achondroplasia presents with symptoms of sleep disordered breathing. Symptoms mildly improve with Flonase. A sleep study is ordered and shows moderate obstructive sleep apnea.

The family would like to continue Flonase for treatment of his OSA. What is your recommendation?

1. Agree with continuation of Flonase
2. Continue Flonase and add Montelukast
3. Refer for consideration of Tonsillectomy
4. Discontinue Flonase

Patient Case 4

A 6-month-old presents to your clinic with 24 hours of fussiness after having swelling of the left neck for the last 4 days. Originally, the swelling was asymptomatic but progressing, but the patient has now is not eating, the neck is warm, and erythema is overlying the mass.

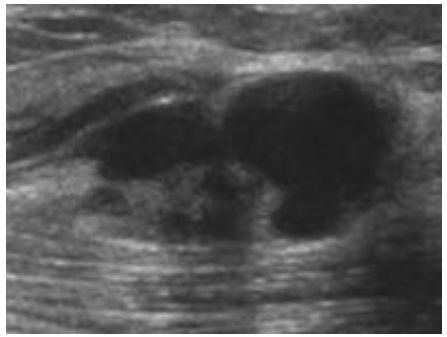
What is the next step:

1. Urgent refer to ENT
2. Order CT/MRI due to concern for Type 1 BCC
3. Prescribe Azithromycin and send home
4. Prescribe Amoxil and order U/S

Patient Case 4.5

Ultrasound returns and shows 1.8 cm fluid collection, concerning for abscess. Patient is now febrile. What is next?

1. Refer to outpatient ENT
2. Continue antibiotics
3. Arrange for patient to be admitted for surgical evaluation
4. Perform bedside incision & drainage in clinic



Patient Case 4.5

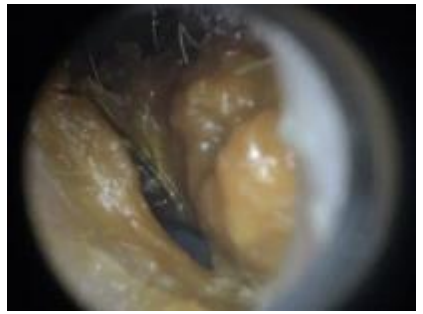
Ultrasound returns and shows cellulitic changes without definitive or drainable fluid collection. What is next?

1. Refer to outpatient ENT
2. Continue antibiotics
3. Arrange for patient to be admitted for surgical evaluation
4. Perform bedside incision & drainage in clinic

Patient Case 5

A 4-year-old girl presents to your clinic for a wellness check. Mother remarks she is concerned for some hearing loss, as iPad volume is really loud and the patient does not respond all the time to her name. She has a remote history of ear infections, most recently over the summer after swimming at her family's lake house. She was placed on Ofloxacin drops at the time, but her ear has not really improved.

On exam, she is afebrile, non-toxic, and her parents deny noticing any otalgia, dizziness, headaches, otorrhea, foul smelling drainage, sore throat, or other otologic concern.



What would be your next step in this patients care:

1. Refer to ENT for chronic fungal otitis externa
2. Culture ear in clinic
3. Remove debris with manual instrumentation/irrigation
4. Ignore exam finding as patient asymptomatic

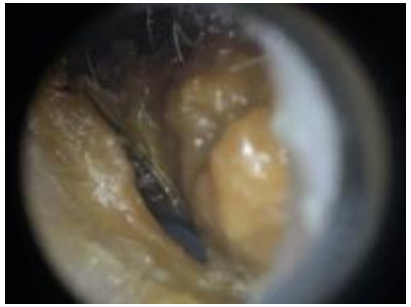
Patient Case 6

A 4-year-old girl presents to your clinic for a wellness check. She has a remote history of ear infections, most recently over the summer after swimming at her family's lakehouse. She was placed on Ofloxacin drops at the time but has not had any complaints since.

On exam, she is afebrile, non-toxic, and her parents deny noticing any otalgia, dizziness, headaches, otorrhea, foul smelling drainage, sore throat, or other otologic concern. She denies any hearing complaints and her speech development is normal.

What would be your next step in this patients care:

1. Refer to ENT for chronic fungal otitis externa
2. Culture ear in clinic
3. Remove debris with manual instrumentation/irrigation
4. Ignore exam finding as patient asymptomatic



Clinical Scenario 7

A 14-year-old male presents with recurrent epistaxis of 8 months duration associated with nasal congestion. He has been taking Flonase intermittently without much improvement and has never had his nose packed or been transfused. What do you recommend next?

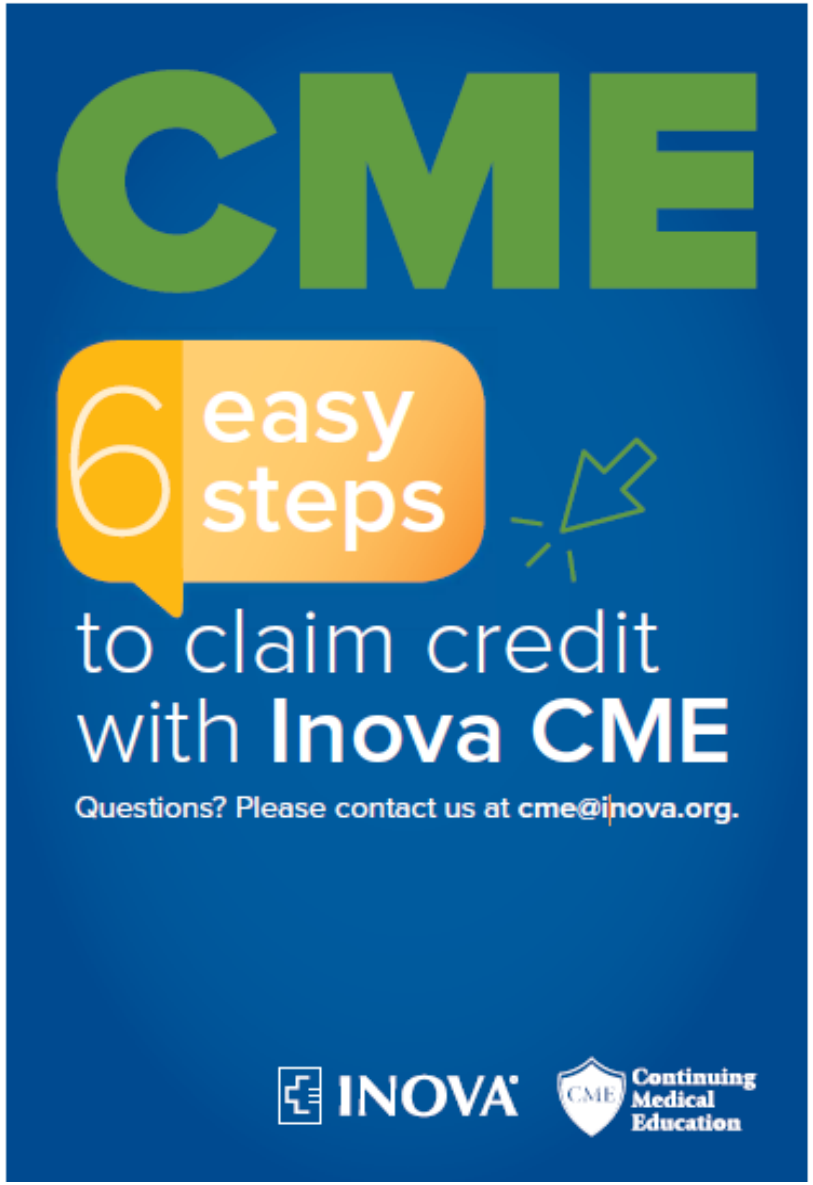
1. Mupirocin and nasal saline gel
2. Increase dose of Flonase
3. Lateral neck x-ray
4. ENT referral

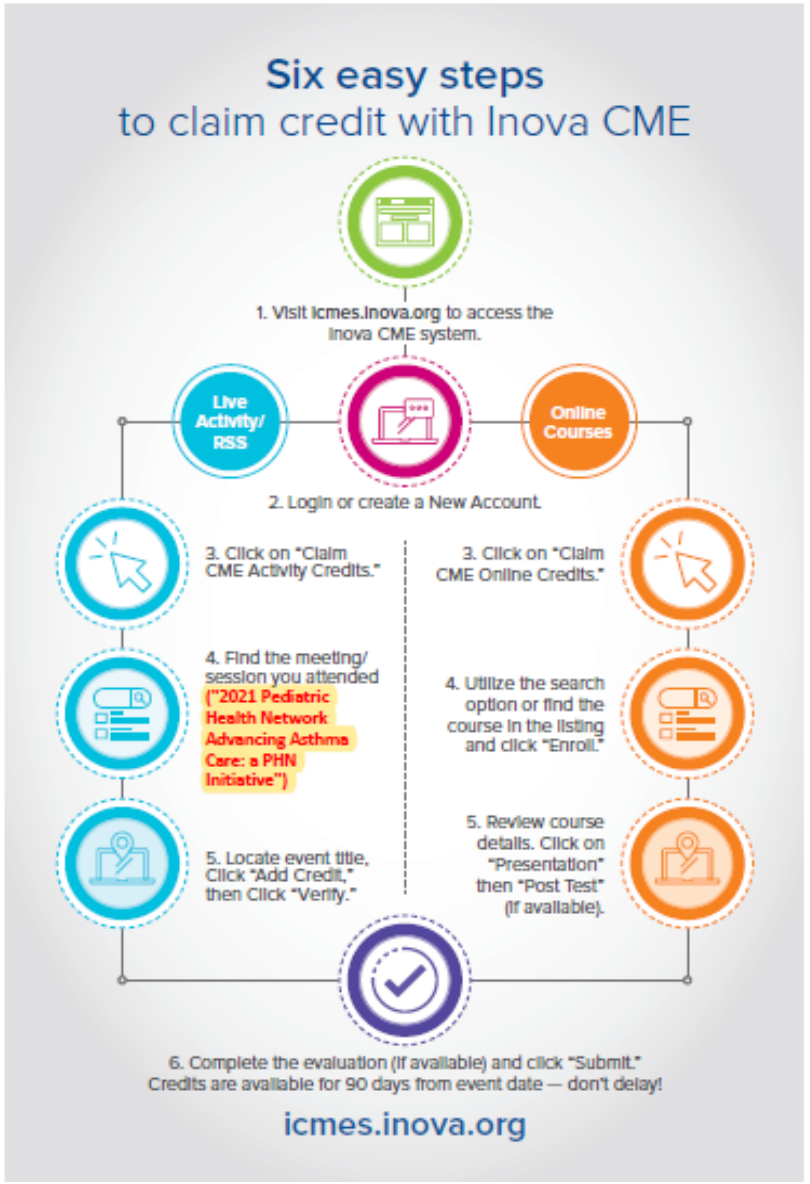
Clinical Scenario 8

A 14 year old female with moderate persistent asthma presents with fever, facial pain,purulent rhinorrhea, and exacerbation of cough despite use of albuterol, Pulmicort and Azithromycin. What is you next step treating this patient?

1. Bactrim
2. Augmentin 45 mg/kg/day
3. Clindamycin
4. Augmentin 90 mg/kg/day

Questions?





- ✓ CME must be claimed within **90 days** of event!

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Thank you

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