
Upper Respiratory Infections

— Dr.Rexi Thomas —

Upper Respiratory Infection (URI)

Rhinitis and rhinosinusitis: acute, chronic, bacterial, viral

Pharyngitis: acute, chronic

Tonsillitis, adenoiditis

Peritonsillar abscess

Laryngitis

Priority Labs/Diagnostics

Lab

RAST

Culture & Sensitivity (C&S)

Diagnostics (EKG, MRI, CT Scan)

X-Ray

CT scan

MRI

Assessment and Clinical Manifestations of the Patient with URI

- Health history
- Signs and symptoms: headache, cough, hoarseness, fever, stuffiness, generalized discomfort, and fatigue
- Allergies
- Inspection of nose, neck, throat, and palpation of lymph nodes

Planning and Goals for the Patient with URI

- Airway management, reduce risk of aspiration
- Pain management
- Effective communication strategy
- Normal hydration
- Patient teaching: prevention of URI, and absence of complications

Priority Medications

- | | |
|--------------------|--------------------|
| Antihistamine | Corticosteroids |
| Nasal decongestant | Allergy treatments |
| Anitpyretics | Expectorants |
| NSAIDs | |
| Antibiotics | |
| Anitvirals | |

Priority Nursing Interventions

- ↑ fluid intake
- Rest
- Gargles
- Cool or warm beverages
- Popsicles
- Oral hygiene
- Preventative measures
- Airway management, reduce risk of aspiration
- Pain management
- Effective communication strategy
- Patient teaching: self-care, prevention, and health promotion
- Home care, if indicated

Nursing Interventions for the Patient with URI

- Elevate head
- Ice collar to reduce inflammation and bleeding
- Hot packs to reduce congestion
- Analgesics for pain
- Topical anesthetics
- Monitor for severe complications
- Gargles for sore throat
- Use alternative communication
- Encourage liquids and use of room vaporizers or steam inhalation to keep secretions loose and moist for easier expectoration
- Rest

Potential Complications and Collaborative Problems with URIs

- Airway obstruction
- Hemorrhage
- Sepsis
- Meningitis or brain abscess
- Nuchal rigidity
- Medicamentosa
- Acute otitis media
- Trismus
- Dysphagia
- Aphonia
- Cellulitis

Patient Education for URI

- Prevention of upper airway infections
- Emphasize frequent hand washing
- When to contact health care provider
- Need to complete antibiotic treatment regimen
- Annual influenza vaccine for those at risk

Evaluation of the Patient with URI

- Maintenance of patent airway
- Expresses relief of pain
- Able to communicate needs
- Evidence of positive hydration
- Free of signs and symptoms
- Absence of complications

Viral Rhinitis (Common Cold)

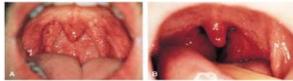
- Viral
- Treatment
 - ↑ fluid intake, rest, expectorant, gargles, NSAID's, antihistamines, expectorants, antivirals

Rhinosinusitis

- Follows URI
- S/S
- Dx- S/S, X-Ray, CT, MRI
- Complications
- Treatment
 - Nasal saline lavage, decongestants, antihistamines, antibiotics
- Chronic/ recurrent

Pharyngitis

- Inflammation of pharynx
- Viral or bacterial (GABHS)
- 3-10 days
- Complications
- Dx- RAST
- Treatment
 - Cool or warm beverages, popsicles, gargles
 - Antibiotics
 - Oral hygiene
 - Preventative measures



Tonsillitis

- Inflammation
- Bacterial (GABHS) or viral
- S/S
- Dx
 - RAST
 - culture
- Treatment
 - Antibiotic
 - Recurrent- tonsillectomy

Adenoiditis

- S/S
 - Mouth breathing
 - Earache, ear drainage
 - Frequent head colds
 - Bronchiolitis
 - Bad breath
 - Voice changes
 - Noisy respirations
- Treatment
 - Adenoidectomy

Tonsillectomy/ Adenoidectomy

- Risk for hemorrhage
- Post op
 - Prone, head to side
 - Assess swallow and gag reflexes
 - Assess for bleeding
 - Ice collar to neck
 - Fever
 - Pain
 - Mental status
 - Oral intake: NPO→water/ ice chips→ clear liquid

Peritonsillar Abscess

- GABHS
- Can be life-threatening
- S/S unilateral or bilateral
 - Trismus, drooling, raspy voice,odynophagia, dysphagia
- Treatment
 - Needle aspiration
 - IV antibiotics
 - Airway obstruction
 - Topical analgesic: mouth wash

Obstructive Sleep Apnea

- Risk factors
 - Male, obesity, postmenopause, ↑ age
 - Structural abnormalities
- S/S
- Dx
 - Polysomnographic finding (sleep study)
- Treatment
 - CPAP, BiPAP, oxygen therapy, surgery

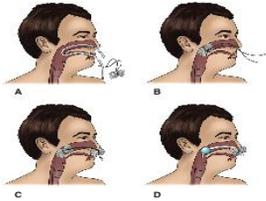
Epistaxis

- Hemorrhage from the nose
- Anterior septum, most common site
- Serious problem, may result in airway compromise or significant blood loss
- Risk factors, refer to Chart 18-5

Medical Management of Epistaxis

- Identify cause and location
- Pinch soft portion of nose for 5 to 10 minutes, patient sits upright
- Phenylephrine spray, vasoconstriction
- Cauterize with silver nitrate or electrocautery
- Gauze packing or balloon-inflated catheter inserted into nasal cavity for 3 to 4 days
- Antibiotic therapy

Control of Epistaxis – Packing of Nasal Cavity or Balloon Catheter



Nursing Management of Epistaxis

- Airway, breathing, circulation
- Vital signs, possible cardiac monitoring and pulse oximetry
- Reduce anxiety
- Patient teaching:
 - Avoid nasal trauma, nose picking, forceful blowing, spicy foods, tobacco, exercise
 - Adequate humidification to prevent dryness
 - Pinch nose to stop bleeding; if bleeding does not stop in 15 minutes, seek medical attention

Nasal Obstruction

- S/S
 - Deviated septum, turbinate hypertrophy, polyps
- Treatment
 - Removal of object
 - Nasal corticosteroids
 - Oral leukotriene inhibitors
 - Polyps- oral corticosteroids
 - Antibiotics
 - Surgery

Nasal Fracture

- S/S
 - Traumatic obstruction
- Dx
- Treatment
 - Ice packs
 - Reduction of fracture
 - Control epistaxis
 - Oral hygiene
 - NSAID's
 - No sports x 6 weeks

Laryngeal Obstruction

- Foreign body
- Angioedema
- S/S
 - Edema
- Dx
 - X-Ray
- Treatment
 - Patent airway
 - Oxygenate
 - Subcutaneous epinephrine
 - Heimlich maneuver/ subdiaphragmatic abdominal thrust
 - Tracheostomy
 - Angioedema

Cancer of Larynx

- | | |
|---|---|
| Early: | Later: |
| <ul style="list-style-type: none">• Hoarseness• Persistent cough• Sore throat or pain burning in throat• Raspy voice, lower pitch• Lump in neck | <ul style="list-style-type: none">• Dysphagia, dyspnea• Nasal obstruction• Persistent hoarseness• Persistent ulceration• Foul breath• General debilitation |

Dx- Laryngoscopic exam, FNA biopsy, barium swallow study, endoscopy, CT, MRI, PET , Tumor grade and stage by TNM

Assessment of the Patient Undergoing Laryngectomy

- Health history
- Physical, psychosocial, and spiritual assessment
- Nutrition, BMI, albumin, glucose, electrolytes
- Literacy, hearing, and vision; may impact communication after surgery
- Coping skills and available support systems for patient and family after surgery

Cancer of Larynx (Con't)

- Treatment
 - Radiation
 - Complications
 - Ulceration of mucous membranes
 - Pain
 - Xerostomia
 - Loss of taste
 - Dysphagia
 - Fatigue
 - Surgery
 - Vocal cord stripping, cordectomy, laser, partial laryngectomy, total laryngectomy

Medical Management of Laryngeal Cancer

Stages I and II

- Radiation therapy
- Cordectomy
- Endoscopic laser excision
- Partial laryngectomy

Stages III and IV

- Radiation therapy
- Chemotherapy
- Chemoradiation
- Total laryngectomy

Collaborative Problems and Potential Complications for the Patient Undergoing Laryngectomy

- Respiratory distress
- Hemorrhage
- Infection
- Wound breakdown
- Aspiration
- Tracheostomal stenosis

Nursing Interventions for the Patient Undergoing Laryngectomy

- Preoperative teaching
- Reduce anxiety
- Maintain patent airway, control secretions
- Support alternative communication
- Promote adequate nutrition and hydration
- Promote positive body image, self-esteem
- Monitor for potential complications
- Self-care management; homecare (Chart 18-7)

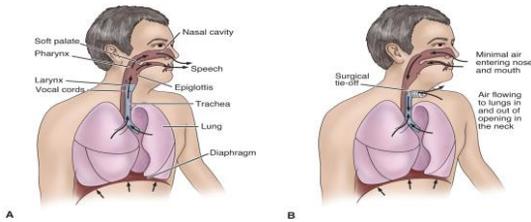
Post Operative Nursing Care

- Maintain patent airway
 - Laryngectomy tube- stoma
- Use opioids cautiously
- Suction prn
- Ambulation
- Provide alternative communication methods
- Provide adequate nutrition and hydration

Patient Education

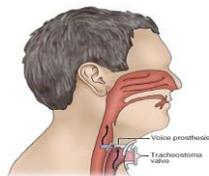
- Cover stoma when showering
- No swimming
- Avoid hair & powder entering stoma
- Wash hands before and after tracheostomy care

Changes in Airflow With Total Laryngectomy



Speech Therapy

- 3 techniques of communication
 - Esophageal speech
 - Electric larynx
 - Tracheoesophageal puncture



References

- Hinkle, J.L., Cheever, K. H., & Overbaugh, K. (2021). Brunner & Sudarath's Textbook of Medical- Surgical Nursing 15th Ed. Philadelphia: Wolters Kluwer Lippincott Williams & Wilkins.

