VIRAL UPPER RESPIRATORY INFECTION IN ADULTS AND CHILDREN

GUIDELINE HISTORY

ORIGINAL APPROVAL DATE	**09/96**
REVIEW / REVISION DATES	**08/98, 11/00, 11/02, 10/04, 11/04, 12/06, 01/07, 01/09, 01/11, 1/13, 01/15, 01/17, 01/19, 01/21, 01/23**
NEXT REVIEW DATE	**01/25**

VIRAL UPPER RESPIRATORY INFECTION IN ADULTS AND CHILDREN

An Upper Respiratory Infection (URI) is an acute infection of the upper respiratory tract which includes the nose, paranasal sinuses, pharynx, larynx, trachea, and bronchi. URI's are often referred to as "the common cold." Rhinitis, sinusitis, epiglottitis, laryngitis, and tracheitis are specific manifestation of URI's.

The most common cause of URI's are viral infections. Some common organisms are rhinovirus, parainfluenza virus, coronavirus, adenovirus, respiratory synctial virus, coxsackievirus, and influenza virus. Transmission of these organisms may occur by aerosol, droplet, or direct contact with infectious secretions. Onset of symptoms usually occurs 1-3 days after exposure to the infectious agent.

Nasal congestion, sneezing, cough, and sore throat are the "hallmarks" of the common cold. Fever is also common. Symptoms usually last 7-14 days. Other symptoms which are typically seen in children are decreased appetite, fatigue, and a general feeling of illness (malaise). Headaches and body aches may also develop. Infants and young children may appear fussy and uncomfortable.

If the patient is generally healthy, experiencing no emergent symptoms, is greater than 3 months of age, and is not at high risk for complications, it is not necessary to see the physician. An exception would be for those with a history of risk for and symptoms suggesting infection with SARS-CoV2. Symptomatic treatment directed at relieving symptoms should be initiated. Antibiotics will not treat viral URI's and may increase the risk of antibiotic resistant infections. Changes in mucous to yellow, thick, or green are the natural course of a viral URI and not an indication for antibiotics.

Frequent hand washing remains the most effective, preventive measure for most URI's. Multivitamins, Vitamin C, Vitamin E, Zinc, and Echinacea are not recommended for prevention of URI's in the general public. Administration of the flu vaccine has shown to reduce respiratory illness by 30-50% and is recommended for greater than 50% of the general population.

Ensuring up-to-date vaccine status also reduces the risk of severe virual URI infection.

Viral Upper Respiratory Infection in Adults & Children

Patient reports some combination of symptoms: sore throat, rhinorrhea, postnasal drainage, cough, fever, hoarseness, laryngitis, and headache

Symptoms of Viral Upper Respiratory Infection:

- General malaise
- Laryngitis
- Injection of the conjunctiva
- Decreased appetite
- Headache
- Irritability
- Elevated temperature
- Yellow or green nasal discharge
- Cough
- Nasal congestion
- Sore throat

Does patient have emergent symptoms of symptoms of a serious illness?

- Bloody sputum
- Elevated temp > 102
- Chest pain
- s/s respiratory distress
- foreign body inhalation
- lethargy
- decreased urinary output
- stiff neck
- persistent vomiting
- petechial or purpuric rash
- severe headache
- severe ear pain or drainage from ear
- inability to swallow with drooling
- Facial pain/tenderness/swelling

YES

See patient immediately for evaluation

NO

Is patient at high risk for complications? Ex: immunosuppressed, Chronic Illness, Elderly, asthma, Diabetes, CAD, dialysis, pregnant, neuromuscular disorder, on chemotherapy, history of rheumatic fever, symptoms of whooping cough or recent exposure, smoker

YES

See patient immediately for evaluation

NO

Are symptoms suggestive of viral upper respiratory infection?

NO

Evaluate patient for allergic process or bacterial infection

YES

Have symptoms been present > 7 days or worsening?

YES

Evaluate patient for severe viral illness or bacterial infection

NO

Educate on symptom management and call back instructions if greater than 3 months of age

Patient Education:

- Educate on prevention, comfort measures, and treatment recommendations
- Educate on proper hand washing and use of hand sanitizers
- Prevent child with viral upper respiratory infection from sharing toys and pacifier with other children. Clean these items with hot soapy water and allow to air dry
- Discourage visitors
- Keep child home from daycare if possible
- Nasal saline nose drops help loosen secretions. Commercial or homemade may be used (1/4 tsp. salt dissolved in 8 ounces warm water distilled or boiled water, discard solution after 48-72 hours)
- To relieve nasal congestion for infants < 3 months, suction gently with a blunt tipped bulb syringe before feedings and sleep. Compress bulb before placing syringe in nares to prevent pushing mucus farther into nasal passage. Wash syringe in hot soapy water when done and allow to air dry.
- A mix of ½ honey and ½ lemon juice can be used to soothe the throat and help loosen thick mucus in the throat in patient's older than 1 year of age. Due to the risk of botulism, this should be avoided in children less than 1 year of age.
- Steam inhalation by standing in a hot shower or sitting in the bathroom when hot shower is running helps with nasal discomfort. Warm mist humidifiers are not recommended due to the risk of burns, bacterial growth in improperly cleaned equipment, and mold formation in the home. Cool mist humidifiers have not shown to improve symptoms but do not pose same risks as above.
- Maintain adequate humidity in the home
- Consume extra fluids
- Maintain a nutritious diet
- Elevate head of bed
- Use warm saltwater gargles
- Use of hard candy, or throat lozenges for sore throat or cough (not recommended for children 12 and under)
- Get adequate rest
- Take antipyretics and/or analgesics for pain and/or fever. Avoid aspirin in children due to risk of Reye's syndrome
- For adults with a URI, OTC nasal spray and decongestants may provide temporary relief. Persons with hypertension, diabetes, thyroid disease, or are pregnant should check with their physician before using these products.
- There is potential for harm and no proven benefit from OTC cough and cold medications for children <6 years old.

Call Back Instructions:

- Children 3 months to 18 years of age:
  - Call back if:
    - Temperature >100.4^{o}F for 5 or more consecutive days.
    - Symptoms worsen after 3-5 days or if new symptoms appear
    - Symptoms have not improved after 7-10 days (mild cough and congestion may continue 14 days or more)
- Adults:
  - Call back if:
    - Symptoms worsen after 3-5 days, new symptoms develop, or symptoms do not improve after 14 days

REFERENCES
(List is not inclusive)

1. Meneghetti, Anne (2014). Upper Respiratory Tract Infection. Updated Sept 2020 https://emedicine.medscape.com/article/302460-overview. Retrieved January 2021.

2. Centers for Disease Control and Prevention (CDC) (2019) What Everyone Should Know https://www.cdc.gov/antibiotic-use/community/about/should-know.html Retrieved January 2021.

3. Centers for Disease Control and Prevention (CDC) (2017) Viruses or Bacteria-What's Got You Sick? https://www.cdc.gov/antibiotic-use/community/pdfs/Viruses-or-Bacteria-Factsheet-Eng.pdf. Retrieved January 2021.

4. Centers for Disease Control and Prevention (2017) Antibiotic Prescribing and Use in the Doctor's Office. https://www.cdc.gov/antibiotic-use/community/index.html. Retrieved January 2021.

5. Centers for Disease Control and Prevention (2021) Clinical Care Guidance for Healthcare Professionals about Coronavirus (COVID-19). https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care.html. Retrieved January 2021.

6. https://www.cdc.gov/antibiotic-use/clinicians/pediatric-treatment-rec.html

7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6483632/