#### Mini-Medical School



# **Acute Upper Respiratory Tract Infection**

# 急性上呼吸道感染(英文)

#### Introduction

Upper respiratory tract infection (URI) is the most common acute illness in outpatient setting. URIs range from the common cold, typically a mild, self-limited, catarrhal syndrome of the nasopharynx, to life-threatening illnesses such as epiglottitis. Viruses account for most URIs. Bacterial primary infection or superinfection may require targeted therapy.

The upper respiratory tract includes sinuses, nasal passages, pharynx, and larynx. Rhinitis, pharyngitis, sinusitis, tonsillitis, epiglottitis, and laryngitis are specific manifestations of URIs.

In some cases of URIs, the disease may progress to severe conditions such as abscess formation, airway compromise, visual or neurologic abnormal function.

### Etiology

Person- to-person spread of viruses accounts for most URIs. Patients with bacterial infections may present with a combination of a viral URI. Infection begins with the contact of secretions of pathogens, or by directly inhaling respiratory droplets from an infected person's coughing or sneezing.

Most URIs are viral in origin. Typical viral agents that cause URIs are rhinoviruses, coronaviruses, adenoviruses, and coxsackieviruses.

## **Symptoms**

The common symptoms of URIs include local swelling, erythema, edema, secretions, and fever, resulted from the inflammatory response of the immune system. An initial nasopharyngeal infection may spread to adjacent

structures, resulting in sinusitis, otitis media, epiglottitis, laryngitis, tracheobronchitis, and pneumonia.

Inflammatory narrowing at the level of the epiglottis and larynx may result in airway compromise, especially in children(critical condition). Beyond childhood, laryngotracheal inflammation may also pose serious threats to individuals with congenital or acquired subglottic stenosis. (Barking cough, saliva drooling, voice change, dyspnea and tachypnea)

#### **Examinations**

Detailed history and symptom description and contact history will help doctor reach the diagnosis quickly. Physical examinations include direct inspection of nose, pharynx, larynx, and conjuctiva. Sometimes fiberscope for detailed examination over nasopharynx, epiglottis and larynx is necessary.

As for images, the X-ray films help us make diagnosis of rhinosinusitis, supraglottic laryngitis, subglottic stenosis, and pneumonia.

Blood analysis can provide more information of disease severity, condition of immunity and other information of general condition. Blood culture, throat swab culture or other specific specimen culture will help physician realize the exact pathogens and the medication sensitivity.

But the images, blood analysis and cultures are not necessary for all patients. Most URIs can be easily diagnosed by physician via detailed history, symptoms, and physical examinations.

### Treatment

- Sufficient rest
- Symptomatic medications: such as antitussive, antihistamine, mucolytic, decongestant, and antipyretic agents.
- Fluid supplement: water and electrolytes supplement.
- Antibiotic agents: in bacterial or atypical pathogen infection.
- Anti-inflammatory medication
  - NSAIDs: non-steroid anti-inflammatory drugs.
  - Steroid: must use under physician's orders. Usually in severe viral infection and/or airway compromise.

#### Prevention

- Healthy life style such as healthy diet, sufficient sleep, and regular exercise.
- Avoid staying in not-ventilated public place, if must, use a mask.
- Frequent hand washing

若有任何疑問,請不吝與我們聯絡 電話: (04) 22052121 分機 3207

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