E-ISSN:2349-3275
P-ISSN:2349-5502
Editorial
Upper respiratory tract infection

Biomedical Review-Journal of Basic and Applied Medical Science
2015 Volume 2 Number 4

Publisher
Biomedical Review
www.medresearch.in

Upper Respiratory Tract Infection- Treatment Guidelines

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Acute upper respiratory tract infection (AURTI) is most common public health issue and a great burden to both families and the wider society. Symptom-based therapy is the mainstay of URI treatment in immuno-competent adults. Antimicrobial or antiviral therapy is required in only few selected patients.Upper respiratory tract infection (URI) represents the most common acute illness in children evaluated in the outpatient setting. It ranges from the common cold to lifethreatening illnesses such as epiglottitis. Upper respiratory tract infections, includes the common cold, acute pharyngitis, tonsillitis, acute sinusitis, acute otitis media and acute bronchiolitis. The incidence peaks between one and five years of age, especially winter season. In 2013, 18.8 billion cases of upper respiratory infections occurred [1]. A majority of upper respiratory infections are due to self-limited viral infections. Occasionally, bacterial infections may cause upper respiratory infections.

Keywords: Upper Respiratory Tract Infection, Antimicrobials

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How to Cite this Article

Umesh Patel, D Sharad Gedam, Upper Respiratory Tract Infection- Treatment Guidelines. Biomed Rev J Basic Appl Med Sci. 2015;2(4):102-104.
Available From
https://www.biomedicalreview.in/upper-respiratory-tract-infection-treatment-guidelines-editorials

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2015-10-21	2015-10-23	2015-10-30	2015-11-06	2015-11-13

Conflict of Interest	Funding	Ethical Approval	Plagiarism X-checker	Note
Nil	Nil	Yes	16%	

Editorial

Upper respiratory tract infection (URI) represents the most common acute illness in children evaluated in the outpatient setting. It ranges from the common cold to lifethreatening illnesses such as epiglottitis. Upper respiratory tract infections, includes the common cold, acute pharyngitis, tonsillitis, acute sinusitis, acute otitis media and acute bronchiolitis. The incidence peaks between one and five years of age, especially winter season. In 2013, 18.8 billion cases of upper respiratory infections occurred [1].

A majority of upper respiratory infections are due to self-limited viral infections. Occasionally, bacterial infections may cause upper respiratory infections.

Most upper respiratory tract infections (URIs) are selfdiagnosed and self-treated at home. A period of observation without immediate use of antibiotics is an option for certain children. In patients with sinus infection, acute bacterial rhino-sinusitis should be diagnosed and treated with antibiotics only, if symptoms have not improved after 10 days or have worsened after five to seven days.

In patients with sore throat, a diagnosis of group A beta-hemolytic streptococcus pharyngitis generally requires confirmation with rapid antigen testing, although other guidelines allow for empiric therapy if a validated clinical rule suggests a high likelihood of bacterial infection. Acute bronchitis in otherwise healthy child should not be treated with antibiotics; delayed prescriptions may help ease patient fears and simultaneously reduce inappropriate use of antibiotics.

Most recent principles of appropriate antibiotic prescribing for children obtaining care in an outpatient setting by CDC is following-

CDC guideline for treatment of URI-

1. Rhino-sinusitis: If a bacterial infection is established then amoxicillin or amoxicillin/clavulanate remain firstline therapy. In children who are vomiting or who cannot tolerate oral medication, a single dose of ceftriaxone can be used [2, 3].

2. Acute Otitis Media: Mild cases with unilateral symptoms in children 6-23 months of age or unilateral or bilateral symptoms in children >2 years may be appropriate for watchful Waiting. Amoxicillin remains first line therapy for children who have not received amoxicillin within the past 30 days.Amoxicillin/clavulanate is recommended if amoxicillin has been taken within the past 30 days, if concurrent purulent conjunctivitis is present, or if the child has a history of recurrent AOM unresponsive to amoxicillin. For children with a non-type I hypersensitivity to penicillin: cefdinir, cefuroxime, cefpodoxime, or ceftriaxone may be appropriate choices. Prophylactic antibiotics are not recommended to reduce the frequency of recurrent AOM [4, 5].

3. Pharyngitis: Amoxicillin and penicillin V remain firstline therapy. For children with a non-type I hypersensitivity to penicillin: cephalexin, cefadroxil, clindamycin, clarithromycin, or azithromycin are recommended. For children with an immediate type I hypersensitivity to penicillin: clindamycin, clarithyomycin, or azithroymycin are recommended [4, 6].

4. Common cold: Only symptomatic. Antibiotics should not be prescribed for these conditions. There is potential for harm and no proven benefit from over-the-counter cough and cold medications in children younger than 6 years. Low-dose inhaled corticosteroids and oral prednisolone do not improve outcomes in non-asthmatic children [4, 7].

5. Bronchiolitis: Antibiotics are not helpful and should not be used. Nasal suctioning is mainstay of therapy. Albuterol can be trialed. Nebulized racemic epinephrine has also shown some benefit in bronchiolitis. There is no role for corticosteroids, ribavirin, or chest physiotherapy [8].

When any patient takes antibiotics, he or she should follow the directions carefully. It is important to finish medicine even if patients feel better. If patient stop treatment too soon, some bacteria may survive and reinfect you.

Do not save antibiotics for later or use someone else's rescription.

Moulin Mehta et al published his article in this issue and as per study almost 50 % prescription has antibiotics, although most of URI are caused by viruses. Proper and effective prescribing pattern of medications, for any condition, is required to improve drug efficacy, decrease cost of therapy, adverse effects, drug-drug interaction and drug resistance [9].

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