

Viral Upper Respiratory Infection (URI)

Key Points:

- Viral URI is one of the most common acute illnesses of childhood
- Peaks in fall and winter
- Treatment is supportive anticipatory guidance is key to assisting caregivers
- Antibiotics are not indicated

Diagnosis:

Presentation - sneezing, nasal congestion and/or rhinorrhea, pharyngitis, cough, fever, headache, and fatigue. Diagnosis is clinical in nature.

Clinical Assessment:

- Respiratory rate and lung sounds to determine if there is any wheezing or concurrent pneumonia. Tachypnea can be a sign of more severe illness.
- Assess ears for concurrent acute otitis media
- Consider testing for COVID-19 or influenza during flu season

Treatment:

Supportive

- Hydration may help to thin secretions, warm fluids may be soothing
- Cool mist humidifier may be recommended although there is no data to support its effectiveness.
- Topical saline (ie nasal spray or drops) may help with relieving upper respiratory symptoms, decrease the use of other therapies, decreased recurrence of symptoms, and decreased school absence.
- Nasal suction in infants is done by bulb syringe or electric/non-electric nasal aspirator. Nasal irrigation using saline prepared with sterile water may be done in older children using neti-pot or squeeze bottle.
- Honey 2.5-5ml has been shown to reduce cough frequency greater than no treatment and diphenhydramine.
- Honey should NOT be given to infants < 1 year of age due to risk of botulism.

Medications

- OTC cold and cough medications should be avoided for children < 6 years of age.
- OTC cold and cough medications are NOT recommended and are not effective for children 6-12 years of age.
- Ipratropium 0.06% nasal spray may be considered for severe nasal discharge but is not proven to be effective for nasal congestion.
 - o Children 2-4 years: 2 sprays per nostril 3x daily up to 4 days (data is limited)
 - Children 5-11 years: 2 sprays per nostril 3x daily up to 4 days
 - Children ≥ 12 years: 2 sprays per nostril 3-4x daily up to 4 days
- OTC decongestants may provide symptomatic relief in adolescents >12 years of age:
 - Pseudoephedrine and phenylephrine for congestion may be useful.
 - o Topical decongestants such as oxymetazoline, xylometazoline, and phenylephrine may also be recommended but should be limited to no more than 3 days to prevent rebound congestion.

Revie	wers:

Created by	Department	Creation Date	Version Date
J. Holland, F. Kobiernicki	Pediatrics	12/2017	7/2023



Viral Upper Respiratory Infection (URI)

Avoid the following Medications or Supplements

- Aromatic vapor preparations (ie Vicks) have not been demonstrated to be effective in children with acute URI.
- Vitamin C has not shown benefit in reducing URI symptom and severity.
- Zinc has not been shown to reduce symptoms and duration of illness in children with URIs.
- Echinacea purpurea has not been shown to improve symptoms and duration of illness in URIs.
- Antibiotics are not recommended in the treatment of the common cold and cough.
- Antihistamines are not recommended for treatment of symptoms related to the common cold and cough.
- There are no recommendations for the use of antitussives, expectorants, and mucolytics in the treatment of cough in viral URIs in children. Codeine is not recommended for children younger than 12 years of age and those between the years of 12-18 who have asthma.
- Nasal steroid sprays show no benefit in the common cold
- Bronchodilators are not recommended to treat cough in non-asthmatic children with a cold.

Anticipatory Guidance:

- Length of illness: Symptoms of common cold peak between 3-5 days and gradually improve. Typical duration of illness is 10-14 days in younger children and 7-10 days in older children.
- Cough may linger for 2-4 weeks.
- Young children may have 6-12 colds per year, and it is common for them to have back-to-back illnesses.
- Hand washing is the single best way to prevent contracting illness.
- The child should return for reevaluation with persistent fever or worsening symptoms.

Rev	ie	w	er	s	

Created by	Department	Creation Date	Version Date
J. Holland, F. Kobiernicki	Pediatrics	12/2017	7/2023



Viral Upper Respiratory Infection (URI)

References

- King D, Mitchell B, Williams CP, Spurling GK. Saline nasal irrigation for acute upper respiratory tract infections. Cochrane Database Syst Rev. 2015 Apr 20;2015(4):CD006821. doi: 10.1002/14651858.CD006821.pub3. PMID: 25892369; PMCID: PMC9475221
- Oduwole O, Meremikwu MM, Oyo-Ita A, Udoh EE. Honey for acute cough in children. Cochrane Database Syst Rev. 2014
 Dec 23;(12):CD007094. doi: 10.1002/14651858.CD007094.pub4. Update in: Cochrane Database Syst Rev. 2018 Apr 10;4:CD007094. PMID: 25536086
- AlBalawi ZH, Othman SS, Alfaleh K. Intranasal ipratropium bromide for the common cold. Cochrane Database Syst Rev. 2013 Jun 19;2013(6):CD008231. doi: 10.1002/14651858.CD008231.pub3. PMID: 23784858; PMCID: PMC6492479
- Hemilä H, Chalker E. Vitamin C for preventing and treating the common cold. Cochrane Database Syst Rev. 2013 Jan 31;2013(1):CD000980. doi: 10.1002/14651858.CD000980.pub4. PMID: 23440782; PMCID: PMC8078152.
- Sterrantino C, Duarte G, Costa J, Vaz-Carneiro A. Análise da Revisão Cochrane: Antihistamínicos para a Constipação.
 Cochrane Database Syst Rev. 2015;11:CD009345 [Analysis of the Cochrane Review: Antihistamines for the Common Cold.
 Cochrane Database Syst Rev. 2015;11:CD009345]. Acta Med Port. 2016 Mar;29(3):164-7. Portuguese. doi: 10.20344/amp.7526. Epub 2016 Mar 31. PMID: 27285091.
- Hayward G, Thompson MJ, Perera R, Del Mar CB, Glasziou PP, Heneghan CJ. Corticosteroids for the common cold. Cochrane Database Syst Rev. 2015 Oct 13;2015(10):CD008116. doi: 10.1002/14651858.CD008116.pub3. PMID: 26461493; PMCID: PMC8734596.
- Macknin ML, Piedmonte M, Calendine C, Janosky J, Wald E. Zinc gluconate lozenges for treating the common cold in children: a randomized controlled trial. JAMA. 1998 Jun 24;279(24):1962-7. doi: 10.1001/jama.279.24.1962. PMI
- Paul IM, Beiler JS, King TS, Clapp ER, Vallati J, Berlin CM Jr. Vapor rub, petrolatum, and no treatment for children with nocturnal cough and cold symptoms. Pediatrics. 2010 Dec;126(6):1092-9. doi: 10.1542/peds.2010-1601. Epub 2010 Nov 8. PMID: 21059712; PMCID: PMC3600823.
- Taylor JA, Weber W, Standish L, et al. Efficacy and Safety of Echinacea in Treating Upper Respiratory Tract Infections in Children: A Randomized Controlled Trial. *JAMA*. 2003;290(21):2824–2830. doi:10.1001/jama.290.21.2824
- Adam L. Hersh, Mary Anne Jackson, Lauri A. Hicks, the COMMITTEE ON INFECTIOUS DISEASES, Michael T. Brady, Carrie L. Byington, H. Dele Davies, Kathryn M. Edwards, Yvonne A. Maldonado, Dennis L. Murray, Walter A. Orenstein, Mobeen Rathore, Mark Sawyer, Gordon E. Schutze, Rodney E. Willoughby, Theoklis E. Zaoutis; Principles of Judicious Antibiotic Prescribing for Upper Respiratory Tract Infections in Pediatrics. *Pediatrics* December 2013; 132 (6): 1146–1154. 10.1542/peds.2013-3260
- Kim KT, Kerwin E, Landwehr L, Bernstein JA, Bruner D, Harris D, Drda K, Wanger J, Wood CC; Pediatric Atrovent Nasal Spray Study Group. Use of 0.06% ipratropium bromide nasal spray in children aged 2 to 5 years with rhinorrhea due to a common cold or allergies. Ann Allergy Asthma Immunol. 2005 Jan;94(1):73-9. doi: 10.1016/s1081-1206(10)61289-6. PMID: 15702820.

Rev	vie	w	er	s:

Created by	Department	Creation Date	Version Date
J. Holland, F. Kobiernicki	Pediatrics	12/2017	7/2023