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Health Care Guideline

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- physicians, nurses, and other health care professional and provider organizations;
- health plans, health systems, health care organizations, hospitals and integrated health care delivery systems;
- medical specialty and professional societies;
- researchers;
- federal, state and local government health care policy makers and specialists; and
- employee benefit managers.

This *ICSI Health Care Guideline* should not be construed as medical advice or medical opinion related to any specific facts or circumstances. If you are not one of the expert audiences listed above you are urged to consult a health care professional regarding your own situation and any specific medical questions you may have. In addition, you should seek assistance from a health care professional in interpreting this *ICSI Health Care Guideline* and applying it in your individual case.

This *ICSI Health Care Guideline* is designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and is not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition. An *ICSI Health Care Guideline* rarely will establish the only approach to a problem.

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INSTITUTE FOR CLINICAL SYSTEMS IMPROVEMENT

Health Care Guideline:

Viral Upper Respiratory Infection (VURI) in Adults and Children

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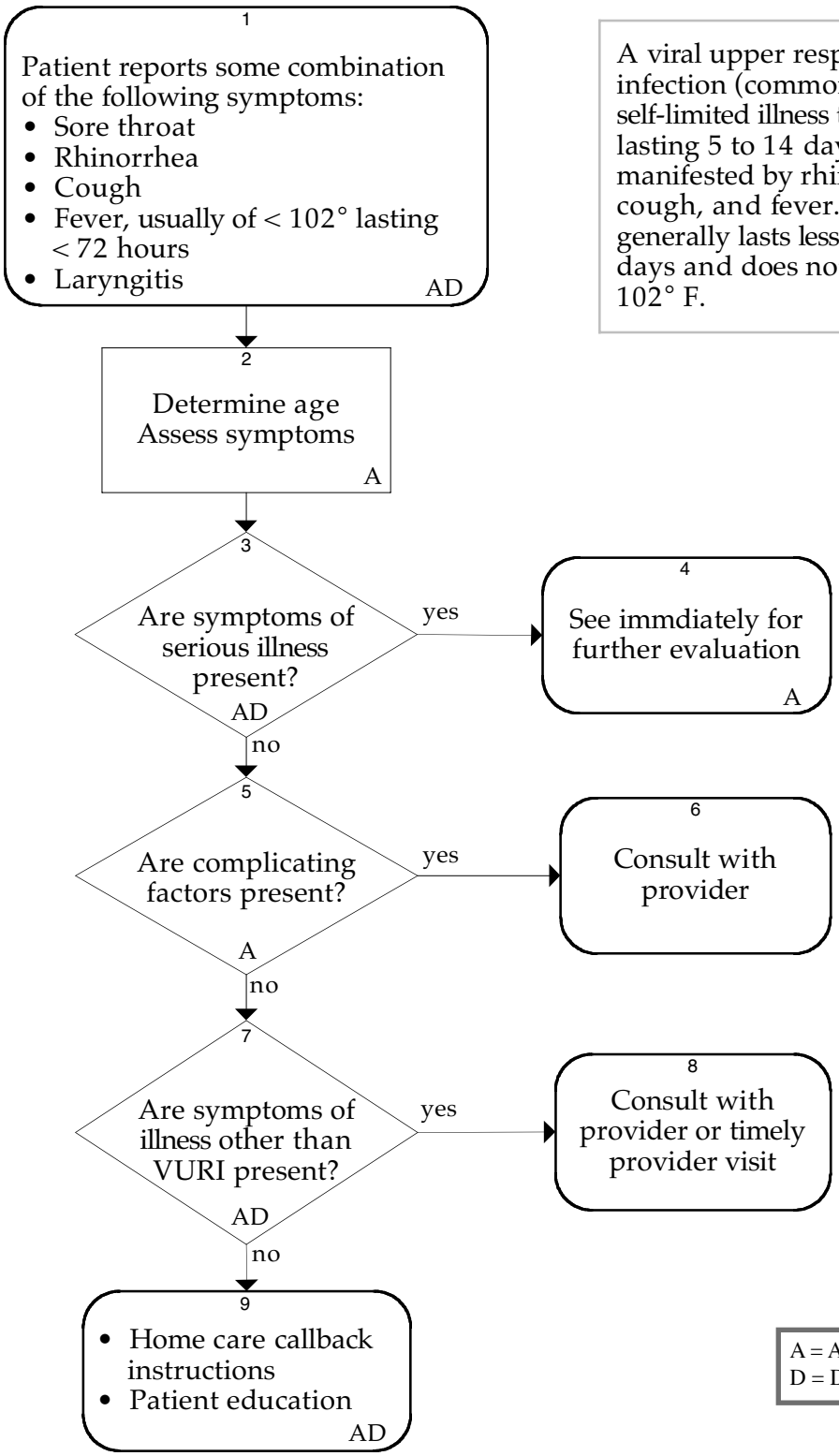

A viral upper respiratory infection (common cold) is a self-limited illness typically lasting 5 to 14 days manifested by rhinorrhea, cough, and fever. The fever generally lasts less than three days and does not exceed 102° F.

A = Annotation
D = Discussion

Table of Contents

Foreword

Scope and Target Population

Children, adolescents and adults who are in generally good health and are not at risk.

Introduction

The goal of the guideline is threefold: through education to assist patients to be competent and comfortable with home care of the viral upper respiratory infection (VURI); to assist medical personnel to differentiate the VURI from more severe illness; to improve the appropriateness of care for VURIs while decreasing the cost of that care.

Related ICSI Scientific Documents

Other ICSI guidelines whose scope and/or recommendations are closely related to the content of this guideline are:

1. Acute Sinusitis in Adults
2. Acute Pharyngitis
3. Community-Acquired Pneumonia
4. Diagnosis and Management of Asthma
5. Otitis Media in Children
6. Preventive Counseling and Education
7. Preventive Services for Adults and Children
8. Rhinitis

Clinical Highlights and Recommendations

1. Patients and/or parents and children presenting or calling with symptoms suggestive of the common cold should be evaluated for other symptoms and the presence of more serious illness. *(Annotation #3, Table 1; Annotation 7, Tables 2 and 3)*
2. Patients and/or parents should receive an outline of home care and callback instructions when symptoms are not exhibiting more serious illness or complicating factors. *(Annotation #9)*
3. The primary treatment of VURI is education-based; education is to take place in the clinic, on the telephone, at the worksite and in newsletters. *(Annotation #9)*
4. The common cold is viral in origin and antibiotic treatment should be reserved for more serious illness. *(Annotation #9c)*

Priority Aims and Suggested Measures

1. Increase the appropriateness of patient visits for VURI.

   Possible measure of accomplishing this aim:

   a. Percentage of patients with an office visit for VURI who have had symptoms for less than 7 days.

2. Eliminate the inappropriate use of antibiotics in patients presenting with cold symptoms.

   Possible measures of accomplishing this aim:

   a. Percentage of patients with an office visit for cold symptoms who have had symptoms for less than 7 days and who receive an antibiotic.

   b. Percentage of patients with an office visit for cold symptoms who have had symptoms for less than 7 days and for whom documentation in the medical record supports a VURI diagnosis alone who receive an antibiotic.

   c. Percentage of documented patient/parent demand for antibiotics for patients who are seen with cold symptoms present for less than 7 days and who receive an antibiotic.

3. Increase patient knowledge of effective home treatment of cold symptoms.

   Possible measure of accomplishing this aim:

   a. Percentage of encounters for cold symptoms (phone care and/or office visits) for which there is documentation that educational messages and/or materials were given.

Evidence Grading

Individual research reports are assigned a letter indicating the class of report based on design type: A, B, C, D, M, R, X.

A full explanation of these designators is found in the Discussion and References section of the guideline.

Disclosure of Potential Conflict of Interest

In the interest of full disclosure, ICSI has adopted the policy of revealing relationships work group members have with companies that sell products or services that are relevant to this guideline topic. The reader should not assume that these financial interests will have an adverse impact on the content of the guideline, but they are noted here to fully inform readers. Readers of the guideline may assume that only work group members listed below have potential conflicts of interest to disclose.

No work group members have potential conflicts of interest to disclose.

ICSI's conflict of interest policy and procedures are available for review on ICSI's website at www.icsi.org.

Algorithm Annotations

1. Patient Reports Some Combination of Symptoms

The symptoms of VURI may include general malaise, laryngitis, infection of the conjunctiva, decreased appetite, headache, and increased fussiness. Onset of symptoms is rapid. The fever usually lasts 1 to 3 days and commonly does not exceed 102° F. Nasal discharge is initially clear and usually becomes yellow or green toward the end of the VURI; this does not signify a bacterial infection and the patient does not need to be seen. The symptoms of a VURI usually peak in 3 to 5 days and should resolve in 7 to 14 days. A mild cough may persist at night for 2 to 3 weeks. Refer to ICSI's Acute Pharyngitis guideline for those patients reporting a sore throat without rhinorrhea, cough, or hoarseness.

Supporting evidence is of classes: B, R

2. Determine Age/Assess Symptoms

As Table 1 in Annotation #3 and Table 2 in Annotation #7 show, seriousness of symptoms is often dependent on the patient's age. Thus, it is important to assess age in determining symptom severity or in ruling out a more serious illness than VURI.

3. Are Symptoms of Serious Illness Present?

Recognizing the signs of a serious illness before it becomes life-threatening is usually the medical provider's key concern. An important purpose of Table 1 is to assist providers and triage personnel in distinguishing between VURIs and more serious illness. The urgency index increases with the number and severity of symptoms. Symptoms in Table 1 indicate which patients presenting with VURI symptoms need to be seen by a provider.

Upper Airway Obstruction

Peritonsillar or retropharyngeal abscesses, epiglottitis or related conditions are life-threatening and require combined ENT/anesthesia management in an emergency room or operating room setting.

Lower Airway Obstruction

Lower airway obstruction signals an underlying or different condition than VURI. If moderate to severe distress is present, this suggests pneumonia, COPD, asthma, foreign body, cardiac condition or other underlying conditions requiring specific evaluation and treatment in an intensive setting. Such symptoms indicate the need for urgent evaluation, and/or the need for intensive treatment, supplemental oxygen, and prolonged observation.

Severe Headache

Severe headache could indicate subarachnoid hemorrhage; complications of sinusitis such as cavernous sinus thrombosis or sphenoid sinusitis; meningitis; encephalitis; or other conditions. Such symptoms require prompt, intensive evaluation and care.

Table 1 - Symptoms of Serious Illness

< 3 months	3 months - 3 years	4 years - adult
respiratory distress • grunting • retractions • cyanosis • stridor with croup symptoms not relieved by conservative measures	**respiratory distress** • retractions • cyanosis • marked dyspnea • rapid respiratory rate • shallow respirations • difficulty swallowing • choking • foreign body inhalation • stridor with croup symptoms not relieved by conservative measures	**respiratory distress** • retractions • cyanosis • moderate to severe dyspnea • rapid rate • shallow respirations • difficulty swallowing • choking • foreign body inhalation • drooling • dysphonia • feeling that throat is closing
responsiveness and activity • flaccid • lethargic • cannot awaken or keep awake • weak cry or weak suck • inconsolable • refuses feedings	**responsiveness and activity** • unresponsive • decreased level of consciousness • cannot awaken or keep awake • markedly decreased activity • very lethargic • sleeps excessively • inconsolable • weak suck or weak cry (if infant) • refuses feedings	**responsiveness and activity** • altered mental state • decreased level of consciousness • markedly decreased activity • refuses to eat • very lethargic • sleeps excessively • cannot awaken or keep awake • unresponsive
dehydration and vomiting • reduced wet diapers > 8 hrs	**dehydration and vomiting** • no urine > 6-8 hrs if < 1 yr • no urine > 12 hrs if > 1 yr	**dehydration and vomiting** • no urine > 12 hrs
	meningeal signs • stiff neck • persistent vomiting	**meningeal signs** • stiff neck • persistent vomiting • severe headache
other • petechial or purpuric rash	**other** • petechial or purpuric rash	**other** • increased urination with decreased intake • petechial or purpuric rash

Urgency index increases with number and severity of symptoms.

If assessment is VURI, document "symptoms consistent with VURI; no signs of serious illness noted." It is not necessary to create a checklist that includes all of the symptoms.

Supporting evidence is of class: R

4. See Immediately for Further Evaluation

Annotation #7, Tables 2 and 3 include symptoms of illness other than VURI, including serious illnesses. Also refer to the following ICSI guidelines: Diagnosis and Management of Asthma, Community-Acquired Pneumonia, Otitis Media in Children, Acute Sinusitis in Adults, Acute Pharyngitis, and Rhinitis.

5. Are Complicating Factors Present?

This guideline applies to patients in normal health and without complicating health factors.

The guideline should be applied with great care, if at all, to any patients with complicating factors. A list of potential complicating factors, though not comprehensive, may include:

- Elderly
- Infants less than 3 months old
- Smokers
- Pregnancy*
- Diabetes
- Asthma
- Inhalant allergies
- Immunosuppression
- Immunocompromised
- Chronic Illness/disease (CHF, COPD, sickle-cell disease, etc.)

*Although this guideline should be applied with caution to pregnant women, therapies recommended in this guideline are generally safe for pregnant women except for the use of zinc and dextromethorphan. Dextromethorphan is classified pregnancy category C (no controlled studies, give only if benefits outweigh the risks).

7. Are Symptoms of Illness Other Than VURI Present?

Table 2

Symptoms listed in the table below may indicate an illness other than VURI. This table may be used as a triage tool.

Infants and Toddlers (to age 3 years)	Children and Adolescents
Ear (see ICSI guideline: Otitis Media in Children)	**Ear** (see ICSI guideline: Otitis Media in Children)
Lower Respiratory (tracheobronchial and pulmonary) • consult provider for fever in a < 3-month-old • persistent cough if < 3 mos of age (chlamydia) • hoarse or barky cough with stridor; improves with conservative measures • difficulty feeding • fever for greater than 72 hours (≥ 3 months-3 yrs.) • history of exposure to infectious agent, especially pertussis, tuberculosis or mycoplasma pneumoniae • cough to the point of vomiting (consider pertussis) • constant cough • persistent cough for > 2-3 weeks • wheezing	**Lower Respiratory** • wheezing (refer to ICSI Asthma guideline) • fever (with chills or pain with breathing) • fever > 72 hours/or delayed onset of fever • cough persisting beyond 7-14 days and not improving and/or worsening • exposure to mycoplasma pneumoniae with typical tracheobronchial (brassy) cough • exposure to TB • cough productive of discolored or foul smelling sputum • consider pertussis
Paranasal Sinus Symptoms • nasal discharge of any type >10-14 days • cough persisting beyond 7-14 days and not improving and/or worsening • cracked, crusted or bleeding sores around nares • purulent nasal discharge, fever, and seems ill • moderate periorbital swelling with red or blue discoloration	**Paranasal Sinus Symptoms** • nasal discharge > 10-14 days • pain localized to face, eyes or teeth • loss of smell • cough persisting beyond 7-14 days and not improving and/or worsening • persistent sore throat • fever • malaise or muscle aches
Other • moderate swelling or redness of anterior cervical area with fever (lymphadenitis) • sore throat and fever with history of exposure to strep pharyngitis • foul smelling unilateral nasal discharge (foreign body) • profuse mucopurulent discharge in infant < 12 weeks often excoriating the upper lip (syphilis) • allergic rhinitis symptoms	**Pharyngitis** (see ICSI guideline: Pharyngitis)
	Allergic Rhinitis (see ICSI guideline: Chronic Rhinitis)

Table 3 - Illnesses to be Differentiated from VURI

Table 3 utilizes a diagnostic-based approach and a more complete summary of illnesses to be differentiated from the VURI and associated symptoms.

Diagnosis	Symptoms	Caution
strep pharyngitis**	• sudden onset of sore throat • exudative tonsillitis • tender anterior cervical adenopathy • history of fever • no rhinorrhea, cough, hoarseness	If severe dysphagia, drooling, should see M.D. Otherwise, can see R.N.
otitis media**	• otalgia • otorrhea • hearing loss • ear popping • ear fullness • dizziness	
sinusitis**	• upper respiratory symptoms present > 7 days • two or more of the following factors present at a point of > 7 days after onset: - poor response to decongestive - tenderness over sinus area - facial pain particularly if aggravated by postural changes or by valsalva maneuver - fever > 102 - documented past history of sinusitis - tooth pain - ear pressure - known anatomical nasal blockage	
pneumonia**/bronchitis	• deep cough • deep mucus • fever • pleuritic chest pain • wheezing • rhonchi • mild dyspnea • chest tightness	Be particularly concerned if person has asthma, is a smoker, or has lung disease.
epiglottitis	• hoarseness • severe sore throat • severe dysphagia • stridor • drooling	Needs immediate evaluation at appropriate site.

** Refer to the corresponding ICSI guideline.

Table 3 - Illnesses to be Differentiated from VURI (continued)

Diagnosis	Symptoms	Caution
mononucleosis	• sore throat - usually severe • many enlarged lymph nodes • fatigue • temperature elevated longer than usual for VURI	If symptoms are severe, consider treatment for mononucleosis.
influenza	• fever • myalgia • headache • sore throat • cough, chest tight	If symptoms are severe, the patient may be at risk for pneumonia.
allergic rhinitis**	• pruritis of the eyes, nose palate, ears • watery rhinorrhea • sneezing • seasonal changes • family history of allergies • sensitivity to specific allergens, especially dust, animal pollen and mold • atopy	
asthma/allergy**	• cough • wheezing • dyspnea • chest tightness • bronchitis • sputum production	Some patients may not know they have asthma. Viral infection may be a trigger. Use of inhaler beyond prescribed amount indicates that further evaluation is needed.
pertussis	• prodromal typical URI symptoms for several days • severe cough follows prodromal period • characteristic whoop after paroxysm of severe cough often seen in preschool age • severe cough, without the whoop, but with associated gagging or vomiting seen in adolescents and adults • culture and DFA positive only if done early in the illness, within the first one or two weeks of severe cough • contact history may be helpful; previous or subsequent contacts with same symptoms should also be tested	

**Refer to the corresponding ICSI guideline.

Supporting evidence is of class: M

9. Home Care Callback Instructions/Patient Education

A. Prevention:

1. Hand washing is the most effective way to prevent the spread of the common cold (VURI). VURI is most contagious at the onset of symptoms and while febrile.
2. For infants and toddlers:
   a. Discourage visitors who have an acute illness, a fever or contagious disease.
   b. Prevent child with VURI from sharing toys and pacifier with other children and clean these items with soap and hot water as feasible to reduce opportunities for viral transmission.

c. Use and teach good hand washing.

d. Ask visitors to wash their hands before holding baby.

e. Daycare with three or more families represented is associated with higher incidence of VURIs, ear infections and lower respiratory infections, therefore:

- check to see if staff and children at your child's daycare are being taught good hand washing and other infection control measures (excellent educational materials are available that daycare providers can obtain).
- consider daycare options that reduce exposure to other children:
  - relative or friend
  - in-home nanny shared by two families.

f. Because human milk contains ingredients that help protect babies from infections, encourage and support mothers to continue breast-feeding for an appropriate period.

B. Frequency, symptoms and natural course of VURI:

1. A viral upper respiratory infection is characterized by some combination of the following symptoms: sore throat, rhinorrhea, post-nasal mucus, cough, fever < 102° F lasting < 72 hours, laryngitis.
2. The onset of symptoms is rapid. Symptoms worsen during the first three to five days and then gradually begin to improve.
3. Symptoms will usually resolve in 7 to 14 days regardless of what is done.
4. Mild coughs often persist for two to three weeks after other symptoms improve.
5. "Sinus congestion," colored nasal discharge and headaches frequently accompany colds and do not necessarily indicate that a serious infection is present.

For children:

6. It is not unusual for a child to have five to eight colds a year.
7. Children with VURIs have some combination of the following symptoms: nasal congestion and discharge, fever, sore throat, cough, laryngitis, mild fussiness or irritability, decrease in appetite, sleep disturbance, and mild eye redness or drainage.

C. Treatment Recommendations:

1. Antibiotics

a. **Antibiotics are only effective for treating bacterial infections**. Because colds are viral infections, antibiotic use will not cure or shorten their length.

b. Antibiotics cause side effects such as gastrointestinal discomfort, diarrhea, allergic reactions, diaper rash, and yeast infections.

c. Unnecessary use of antibiotics can lead to the development of antibiotic-resistant strains of bacteria.

2. Over-the-counter medications

a. Over-the-counter cold and cough medications and acetaminophen do not shorten the duration of VURI.

b. For adults with a cold, over-the-counter nasal sprays or decongestants may provide temporary relief of sore throat, runny nose, coughing, minor aches and fever. Because of potential side effects, however, be sure to follow the recommended dosage and precautions. Patients who have high blood pressure, diabetes, thyroid disease, or are pregnant, should check with their physician regarding recommendations for decongestant use.

c. Fevers that accompany colds are usually less than 102° F and last less than three days. Use medication for discomfort as recommended by a physician or nurse.

d. In adults there is some evidence that zinc gluconate may decrease the duration of a cold if started within 24 hours of onset, however, adverse reactions including nausea and bad taste may limit its usefulness. No current studies indicate zinc has effectiveness in treating cold symptoms in children.

3. Over-the-counter medications recommended for children

a. Do not use cold or cough medications for children under six months unless advised by a physician. For children over six months, cold and cough medications should be used very sparingly, if at all; do not use these regularly or throughout the day; follow directions on product.

b. Do not treat cold symptoms with aspirin-containing products for anyone under the age of 21.

c. For fever:

1. Less than three months of age: if temperature > 100.5° F rectally, seek further evaluation to rule out more serious illness.

2. Three months of age to 3 years of age: give acetaminophen 10-15mg/kg/dose every 4-6 hours.

3. Three years to 18 years of age: use acetaminophen at appropriate dosage for age.

d. For fussiness:

1. Less than three months of age: give acetaminophen 10-15mg/kg/dose every 4-6 hours.

2. Three months of age to three years of age: give acetaminophen 10-15mg/kg/dose every 4-6 hours.

3. Three years to 18 years of age: use acetaminophen at appropriate dosage for age.

4. Over-the-counter medications recommended for adults

a. For general discomfort, headache and fever reduction: Acetaminophen

b. For nasal discharge and congestion:

1. Pseudoephedrine HCl (e.g., Sudafed®) 60 mg q 4-6 hours, not to exceed 4 doses per 24 hours

2. Decongestant nasal sprays for no longer than three days, such as oxymetazoline (Afrin®), phenylephrine HCl (Neo-synephrine®)

3. Ipratropium bromide nasal spray (Atrovent®, 0.06%) 2 puffs each nostril 3-4 times per day. The cost/benefit ratio of this therapy is questionable.

c. For sore throat:

1. Phenol-type throat spray (e.g., Chloraseptic®) or lozenges

d. For cough:

Use the following only for coughs not relieved by non-pharmacological measures:

1. Dextromethorphan [antitussive] (Delsym®)
2. Dextromethorphan [antitussive] plus guaifenesin [expectorant] (Robitussin DM®)
3. Phenol-type throat spray (e.g., Chloraseptic®)
4. Dextromethorphan is contraindicated for people who are on MAO inhibitors (for example, phenelzine sulfate (Nardil®), and Tranylcypromine (Parnate®)

e. Echinacea

Findings in the medical literature do not support the use of echinacea in preventing VURI. Some preliminary data indicate that echinacea may shorten the course of VURI; however, studies that produced this data are small. Methods by which echinacea is prepared are not standardized and actual dose delivered by specific products varies widely. Hence, the work group cannot recommend the use of echinacea in preventing or shortening the duration of VURI at this time.

5. Comfort measures

a. Maintain adequate humidity in the home. Sit in the bathroom with a steamy shower running.

b. Extra fluids. Warm fluids are especially soothing for irritated throats (e.g., chicken soup).

c. Nutritious diet as tolerated.

d. Elevate head of bed.

e. Salt water gargle for sore throat. Homemade salt water (1/4 teaspoon dissolved in eight ounces warm water), or a store version.

f. Hard candy or throat lozenge for sore throat or cough. (Not recommended for children 12 and under.)

g. Saline nose drops/sprays. Commercial (Ocean, Salinex, Nasal) or homemade (1/4 teaspoon salt dissolved in eight ounces warm water; use dropper purchased from drug store).

h. Adequate rest.

i. To relieve nasal congestion for infants less than three months, suction gently with a blunt-tipped bulb syringe before feedings and sleep.

1. Compress bulb before placing over nose.
2. Wash bulb syringe with hot soapy water, rinse and allow to drain and air dry between uses.

D. Callback Instructions:

1. Children less than three months of age

   Callback if:

   - fever (temperature > 100.5° F rectally)
   - breathing with difficulty
   - feeding poorly
   - decreased responsiveness

2. Children three months to 18 years of age

   Callback if:

   - fever (temperature > 101° F) for three days or more
   - symptoms worsen after three to five days or if new symptoms appear (e.g., increasing symptoms of illness, lethargy, decreased responsiveness, poor eye contact, difficulty breathing)
   - symptoms have not improved after 7-10 days; it is not unusual, however, for a mild cough and congestion to continue 14 days or more

3. Adults

   a. Callback if symptoms worsen after three to five days; new symptoms develop or symptoms do not improve after 14 days.

   b. These symptoms require immediate evaluation at an appropriate site:

      1. Upper respiratory distress
         - stridor
         - drooling
         - inability to swallow
      2. Lower respiratory distress
         - moderate to severe dyspnea
      3. Severe headache
         - "worst ever"
         - rigid neck
         - altered mental state
         - focal neurologic symptoms

Supporting evidence is of classes: A, B, C, D, M, R

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Evidence Grading System

I. CLASSES OF RESEARCH REPORTS

A. Primary Reports of New Data Collection:

Class A: Randomized, controlled trial

Class B: Cohort study

Class C: Non-randomized trial with concurrent or historical controls
Case-control study
Study of sensitivity and specificity of a diagnostic test
Population-based descriptive study

Class D: Cross-sectional study
Case series
Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M: Meta-analysis
Systematic review
Decision analysis
Cost-effectiveness analysis

Class R: Consensus statement
Consensus report
Narrative review

Class X: Medical opinion

Discussion and References

1. Patient Reports Some Combination of Symptoms

There was consensus within the work group regarding the symptoms of the VURI that are not indicative of a more serious illness. Medical textbooks and a widely used self-care source also listed essentially the same constellation of symptoms.

American Academy of Pediatrics. Caring for Your Baby and Young Child - Birth to Age 5. Shelov SP, Hannemann RE, Rome LP, et al., eds. New York, Bantam Books, 1991: 535-36. (Class R)

Glezen WP. "Viral respiratory infections." *Pediatr Ann* 20:407-15, 1991. (Class R)

Schmitt BD. "Colds: Nose." Your Child's Health. Schmitt BD, ed. New York: Bantam Books, 1991: 533-539. (Class R)

Szilagyi PG. "What can we do about the common cold." *Contemp Pediatr* 7:23-49, 1990. (Class R)

Vickery DM, Fries JF. "The Ears, Nose, and Throat." Take Care of Yourself: Your Personal Guide to Self-Care and Preventing Illness, 4th ed. Reading, MA: Addison-Wesley, 1994: 218-31, 254-55, 261. (Class R)

Wald ER, Guerra N, Byers C. "Upper respiratory tract infections in young children: duration of and frequency of complications." *Pediatrics* 87:129-33, 1991. (Class B)

Walson PD. "Coughs and colds." *Pediatrics* 74(suppl):937-40, 1984. (Class R)

3. Are Symptoms of Serious Illness Present?

Recognizing the signs of a serious illness before it becomes life-threatening is usually the medical provider's key concern. An important purpose of the guideline is to assist the providers and triage personnel in distinguishing between VURIs and more serious illness. The symptoms presented in this section indicate which patients need to be seen almost immediately.

Haugen JR, Ramlo JH. "Serious complications of acute sinusitis." *Postgrad Med* 93:115-25, 1993. (Class R)

Ingraham RH, Davies SF. "Respiratory medicine, chronic obstructive pulmonary disease." *Sci Am Med* 14:1-23, 1992. (Class R)

Nelson WE, Behrman RE, Kleigman RM, et al, eds. "Infections of the upper respiratory tract." *In* Nelson's Textbook of Pediatrics, 14th ed. Philadelphia: W.B. Saunders, 1992: 1187-93. (Class R)

Oski FA, DeAngelis CD, Feigin RD, et al., eds. Principles and Practice of Pediatrics. Philadelphia: Lippincott, 1990: 875-78; 1179-92. (Class R)

Simon HB. "Pulmonary infections." *Sci Am Med* 7:1-4, 1997. (Class R)

7. Are Symptoms of Illness Other than VURI Present?

It is essential to recognize symptoms that indicate an illness other than, or in addition to, VURI that should be evaluated and treated. (Refer to the ICSI Sinusitis, Pharyngitis, Rhinitis, Otitis, and Community-Acquired Pneumonia health care guidelines for a more complete summary of illnesses to be differentiated from the VURI and associated symptoms.)

Wood RW, Tompkins RK, Wolcott BW. "An efficient strategy for managing acute respiratory illness in adults." *Ann Intern Med* 93:757-63, 1980. (Class M)

9. Home Care Callback Instructions/Patient Education

Our goal is to provide solid useful advice to patients without putting them at undue risk or expense. Our recommendations should provide improved comfort or otherwise proven benefit and not just represent "something to do."

Studies of effectiveness of patient/parent education: A number of investigators have found that health care consumer education resulted in appropriate self-care for the common cold specifically, or illness in general, with less unnecessary medical treatment and lowered cost of care.

Estabrook B. "Consumer impact of a cold self-care center in a prepaid ambulatory care setting." *Med Care* 17:1139-45, 1979. (Class D)

Lorig K, Kraines RG, Brown BW, et al. "A workplace health education program that reduces outpatient visits." *Med Care* 23:1044-54, 1985. (Class C)

Mossad SB, Macknin ML, Medendorp SV, et al. "Zinc gluconate lozenges for treating the common cold: a randomized, double-blind, placebo-controlled study." *Ann Intern Med* 125:81-8, 1996. (Class A)

Roberts CR, Imrey PB, Turner JD, et al. "Reducing physician visits for colds through consumer education." *JAMA* 250:1986-89, 1983. (Class A)

Terry PE, Pheley A. "The effect of self-care brochures on use of medical services." *JOM* 35:422-26, 1993. (Class A)

Vickery DM, Golaszewski TJ, Wright E, et al. "The effect of self-care interventions on the use of medical service within a medicare population." *Med Care* 26:580-88, 1988. (Class A)

Vickery DM, Golaszewski TJ, Wright EC, et al. "A preliminary study on the timeliness of ambulatory care utilization following medical self-care interventions." *Am J Health Promot* 3:26-31, 1989. (Class A)

Vickery DM, Kalmer H, Lowry D, et al. "Effect of a self-care education program on medical visits." *JAMA* 250:2952-56, 1983. (Class A)

Zapka J, Averill BW. "Self care for colds: a cost-effective alternative to upper respiratory infection management." *AJPH* 69:814-16, 1979. (Class M)

Other investigators failed to find that health care consumer education reduced health care visits and cost of care. However, no negative effects of such education were found and some other benefits were reported.

Kemper DW. "Self-care education: impact on HMO costs." *Med Care* 20:710-18, 1982. (Class A)

Moore SH, LoGerfo J, Inui TS. "Effect of a self-care book on physician visits: a randomized trial." *JAMA* 243:2317-20, 1980. (Class A)

A. Prevention:

1. Although the VURI is a respiratory illness, researchers have found that VURIs are spread more by hands of the person with a cold and by very close contact than by droplets in the air.

   Frequent careful hand washing can help prevent the spread of VURIs in the home and in day care.

Carabin H, Gyorkos TW, Soto JC, et al. "Effectiveness of a training program in reducing infections in toddlers attending day care centers." *Epidemiology* 10:219-27, 1999. (Class A)

Godes JR, Braun JE, eds. Infectious Diseases in Child Care Settings: Information for Directors, Care Givers, and Parents or Guardians, 3rd ed. Minneapolis: Epidemiology Program, Hennepin County Community Health Department, 1993. (Class not assignable)

Schmid S, Mazzitello E, Niewolny C, et al. A Preschool Hand Washing Curriculum. Minneapolis: Minnesota Department of Health, May 1993. (Class not assignable)

2. For infants and toddlers

For many parents, day care for their infant is a necessary fact of life, but there are some issues to consider. Day care has been shown to increase the frequency, severity and duration of upper respiratory infections and the risk of secondary upper and lower respiratory infections.

Fleming DW, Cochi SL, Hightower AW, et al. "Childhood upper respiratory tract infections: to what degree is incidence affected by day-care attendance?" *Pediatrics* 79:55-60, 1987. (Class C)

Wald ER, Dashefsky B, Byers C, et al. "Frequency and severity of infections in day care." *J Pediatr* 112:540-46, 1988. (Class B)

Otitis, sinusitis, pneumonia and wheeze associated respiratory illnesses such as bronchiolitis have been shown to be more frequent among children who attend day care.

Denny FW, Collier AM, Henderson FW. "Acute respiratory infections in day care." *Rev Infect Dis* 8:527-32, 1986. (Class C)

Goodman RA, Osterholm MT, Granoff DM, et al. "Infectious diseases and child day care." *Pediatrics* 74:134-39, 1984. (Class R)

Loda FA, Glezen WP, Clyde WA Jr. "Respiratory disease in group day care." *Pediatrics* 49:428-37, 1972. (Class D)

Viral shedding continues for up to two weeks after the onset of initial upper respiratory symptoms.

Szilagyi PG. "What can we do about the common cold." *Contemp Pediatr* 7:23-49, 1990. (Class R)

Suggestions for limiting exposure are appropriate guidance for parents of children attending day care. Care provided in private home care has a lower rate of infectious disease. Children who are cared for in their own home by baby-sitters have the lowest rate of infection. Children under a year of age are at the highest risk with infections such as RSV and prudent counseling about day care attendance for this group would seem appropriate (4).

Schmitt BD. "Instructions for pediatric patients." *In* Your Child's Health. Philadelphia: W.B. Saunders, 1992:55-56. (Class R)

The first winter of the infant's life is the time when most caution should be exercised. Another measure that may be helpful for those in day care settings is segregation of infants and toddlers.

Encouraging continued breast-feeding may offer further protection from recurrent otitis and prolonged duration of upper respiratory illnesses.

Duncan B, Ey J, Holberg CJ, et al. "Exclusive breast-feeding for at least 4 months protects against otitis media." *Pediatrics* 91:867-72, 1993. (Class B)

Frank AL, Taber LH, Glezen WP, et al. "Breast-feeding and respiratory virus infection." *Pediatrics* 70:239-45, 1982. (Class B)

The national Year 2000 health promotion and disease prevention objectives state that the proportion of mothers who initiate breast-feeding in the hospital will increase to at least 75%, and that the proportion of mothers who continue breast-feeding for 5 to 6 months will increase to at least 50%.

Department of Health and Human Services. Healthy People 2000: National Health Promotion and Disease Prevention Objectives. DHHS Publication No. (PHS) 91-50213. Washington, DC 1991. (Class not assignable)

C. Treatment Recommendations:

1. Antibiotics have not been shown to shorten the duration of VURIs.

   Soyka LF, Robinson DS, Lachant N, et al. "The misuse of antibiotics for treatment of upper respiratory tract infections in children." *Pediatrics* 55:552-56, 1975. (Class R)

   Like viral URI, uncomplicated acute bronchitis in low-risk individuals is generally caused by viral infections. Routine use of antibiotics in these circumstances is not recommended.

   Snow V, Mottur-Pilson C, Gonzales R. "Principles of appropriate antibiotic use for treatment of acute bronchitis in adults." *Ann Intern Med* 134:518-20, 2001. (Class R)

2. Over-the-counter medications

   Over-the-counter medications recommended for children:

   Very few studies have been conducted with children. Of those, two done with preschool children found no symptom relief. Two done with older children showed some benefit. Combination preparations were tested in both of these studies. There is a meager body of knowledge about the safety and efficacy of over-the-counter preparations for treating colds in children on which to base practice.

   Doyle WJ, McBride TP, Skoner DP, et al. "A double-blind, placebo-controlled clinical trial of the effect of chlorpheniramine on the response of the nasal airway, middle ear and eustachian tube to provocative rhinovirus challenge." *Ped Infect Dis J* 7:215-42, 1988. (Class A)

   Howard JC, Kantner TR, Lilienfield LS, et al. "Effectiveness of antihistamines in symptomatic management of the common cold." *JAMA* 242:2414-17, 1979. (Class A)

   Smith MBH, Feldman W. "Over-the-counter cold medications: a critical review of clinical trials between 1950 and 1991." *JAMA* 269:2258-63, 1993. (Class R)

   Decongestants also have not clearly shown benefit in shortening or ameliorating symptoms.

   Hutton N, Wilson M, Mellits ED, et al. "Effectiveness of an antihistamine-decongestant combination for young children with the common cold: a randomized, controlled clinical trial." *J Pediatr* 118:125-30, 1991. (Class A)

   Cough suppressants with dextromethorphan may provide mild benefit but are recommended only at bedtime.

   Committee on Drugs. "Use of codeine- and dextromethorphan-containing cough syrups in pediatrics." *Pediatrics* 62:118-22, 1978. (Class R)

   A phenol-type throat spray (e.g., Chloraseptic) appears to be effective in relieving coughs and sore throats associated with colds, but no pertinent research could be located. Many coughs associated with colds respond to the non-pharmacological measures listed above and do not require an over-the-counter preparation.

Pruitt AW. "Rational use of cold and cough preparations." *Pediatr Ann* 14:289-91, 1985. (Class R)

Because of the risk of Reye's syndrome associated with aspirin use in children, acetaminophen should be suggested as the drug of choice for home use.

The fever that frequently accompanies a VURI in children is not harmful and is usually gone in 2 to 3 days. It is the consensus of the work group that fevers persisting beyond that time should be evaluated by a provider. Work group members also agree that infants less than three months with fevers should be thoroughly evaluated. Fever can only be evaluated in the specific context of the whole illness and the accompanying circumstances. By itself, the magnitude of fever bears little or no relationship to the severity of the illness. The following articles include discussion of the significance and evaluation of fevers in children of various ages.

Baraff LJ, Bass JW, Fleisher GR, et al. "Practice guideline for the management of infants and children 0 to 36 months of age with fever without source." *Pediatrics* 92:1-12, 1993. (Class R)

Baraff LJ. "Management of infants and children 3 to 36 months of age with fever without source." *Pediatr Ann* 22:497-504, 1993. (Class R)

Powell KR. "Evaluation and management of febrile infants younger than 60 days of age." *Pediatr Infect Dis J* 9:153-57, 1990. (Class R)

Schmitt BD. "Fever in childhood." *Pediatrics* 74(suppl):929-36, 1984. (Class R)

3. Over-the-counter medications recommended for adults:

General discomfort, headache and fever reduction

Graham et al. (1990) conducted a double-blind, placebo-controlled study to test the effects aspirin, acetaminophen, and ibuprofen in 56 volunteers who were infected with the cold virus. Use of aspirin and acetaminophen were associated with suppression of serum neutralizing antibody response and increased nasal symptoms and signs. There were no significant differences in viral shedding among the four groups. Sperber et al. (1992) compared the effects of naproxen with a placebo in a randomized, double-blind, controlled trial. Persons in the naproxen group had significant reductions in headache, malaise, myalgia, and cough, but viral titers and antibody responses were similar in the two groups.

Graham NMH, Burrell CJ, Douglas MR, et al. "Adverse effects of aspirin, acetaminophen, and ibuprofen on immune function, viral shedding, and clinical status in rhinovirus-infected volunteers." *JID* 162:1277-82, 1990. (Class A)

Sperber SJ, Hendley JO, Hayden FG, et al. "Effects of naproxen on experimental rhinovirus colds: a randomized, double-blind, controlled trial." *Ann Intern Med* 117:37-41, 1992. (Class A)

Aspirin, ibuprofen, and naproxen should be avoided by persons who: 1) are not eating well (risk of GI bleeding); 2) have a history of peptic ulcer or related disorder; 3) have aspirin-sensitive asthma; and 4) have renal dysfunction. For these reasons, plus the risk of Reye's syndrome associated with aspirin use in young, healthy adults, acetaminophen should be suggested as the drug of choice. However, it should be used only as needed because of the effects described by Graham et al. (1990).

Nasal Discharge and Congestion, and Cough

The most helpful source located to guide decisions about over-the-counter cold preparations is a major review article published in 1993. It includes clinical trials published between 1950 and 1991. Only 27 articles of the 106 retrieved met the study criteria and were judged to have adequate scientific validity to be included in the final review. In the adolescent/adult studies, the following drugs were found to reduce nasal symptoms: chlorpheniramine maleate (e.g., Chlor-Trimeton), pseudoephedrine HC1 (e.g., Sudafed), and oxymetazoline HC1 (e.g., Afrin).

Atrovent is not effective when there is documented significant nasal obstruction. The cost/benefit relationship for Atrovent Nasal Spray is rarely supportive for use of this medication. Retail cost of this drug is > $30. In addition, it requires physician intervention that consists of phone calls and/or office visits which significantly increases the cost of care for a benign condition.

Echinacea

Findings in the medical literature do not support the use of echinacea in preventing VURI. Some preliminary data indicate that echinacea may shorten the course of VURI; however, studies that produced this data are small. Methods by which echinacea is prepared are not standardized and actual dose delivered by specific products varies widely. Hence, the work group cannot recommend the use of echinacea in preventing or shortening the duration of VURI at this time. The work group will continue to evaluate the data on this and other herbal preparations.

Barrett B, Vohmann M, Calabrese C. "Echinacea for upper respiratory infection." *J Fam Prac* 48:628-35, 1999. (Class R)

Grimm W, Müller H-H. "A randomized controlled trial of the effect of fluid extract of *echinacea purpurea* on the incidence and severity of colds and respiratory infections." *Am J Med* 106:138-43, 1999. (Class A)

Melchart D, Walther E, Linde K, et al. "Echinacea root extracts for the prevention of upper respiratory tract infections." *Arch Fam Med* 7:541-45, 1998. (Class A)

Vitamin C

There is no consistent evidence in the medical literature that high doses of Vitamin C help shorten the course of VURIs. Hence, it was the consensus of the work group that high doses of Vitamin C should not be recommended.

Zinc

There is some evidence zinc may decrease the duration of a cold. However, adverse reactions including bad taste and nausea are significant. Zinc is not indicated and may be dangerous during pregnancy. It has only been shown to be effective when started within 24 hours of onset of symptoms. The study this recommendation was based on was a randomized controlled trial and meets ICSI's evidence grading criteria of A. Patients in the zinc group received one lozenge every 2 hours while awake. The time to complete resolution of symptoms was a median 4.4 days for the zinc group, compared with 7.6 days for the placebo group. No current studies indicate zinc has effectiveness in treating cold symptoms in children.

Macknin ML, Piedmonte M, Calendine C, et al. "Zinc gluconate lozenges for treating the common cold in children: a randomized controlled trial." *JAMA* 279:1962-67, 1998. (Class A)

Mossad SB, Macknin ML, Medendorp SV, et al. "Zinc gluconate lozenges for treating the common cold: a randomized, double-blind, placebo-controlled study." *Ann Intern Med* 125:81-8, 1996. (Class A)

Prasad AS. "Zinc: the biology and therapeutics of an ion." *Ann Intern Med* 125:142-43, 1996. (Class R)

5. Comfort Measures

For infants/children

Parents have comfort and convenience, personal plans and work to contend with as well as a fear of the unknown potential of their child's illness. These factors drive parents to seek help (and sometimes antibiotics) as early as possible to minimize the impact of the illness. Health care providers need to help parents gain knowledge about childhood respiratory illnesses and develop decision-making skills and realistic expectations.

Cowan PF. "Patient satisfaction with an office visit for the common cold." *J Fam Pract* 24: 412-13, 1987. (Class D)

Mayefsky JH, El-Shinaway Y, Kelleher P. "Families who seek care for the common cold in a pediatric emergency department." *J Pediatr* 119:933-34, 1991. (Class D)

Zapka J, Averill BW. "Self care for colds: a cost-effective alternative to upper respiratory infection management." *AJPH* 69:814-16, 1979. (Class M)

Elevating the head of the bed and using a bulb syringe to aspirate nasal secretions may promote drainage and comfort. When using a blunt-tipped bulb syringe, compressing the bulb before placing the syringe over the nose prevents pushing mucus further into nasal passage. Proper cleaning and air drying of bulb syringe reduces the opportunity for growth of organisms inside the syringe.

Saline nose drops and gargling salt water provide relief to many children without the cost and side effects associated with over-the-counter (OTC) preparations. Saline nose drops help loosen secretions, making it easier to clear nares. The work group found no studies in which the efficacy of saline nose drops or saline gargles were compared with any of the commonly used OTC preparations. It seems prudent to recommend that parents give children the safest and least expensive preparations before trying OTC drugs.

Gadomski A, Horton L. "The need for rational therapeutics in the use of cough and cold medicine in infants." *Pediatrics* 89:774-76, 1992. (Class D)

Szilagyi PG. "What can we do about the common cold." *Contemp Pediatr* 7:23-49, 1990. (Class R)

Avoid using honey-lemon preparations for children under one year because of the risk of botulism.

How a child feels is an indication of the amount of rest needed. When a child with a VURI is afebrile and feels like being up and about, normal activity should not prolong the illness.

Steam inhalation does serve as an effective comfort measure for some people. Because of burns that have occurred when people use steam vaporizers and the potential for microorganism growth in vaporizers, the recommended method for steam inhalation is standing in a hot shower or sitting in the bathroom when the hot shower is running.

Microorganisms grow easily in humidifiers/vaporizers unless they are cleaned properly and often. Health care providers often advise against using steam humidifiers/vaporizers because of the risk of the child getting burned with the hot water in the device. Also, added humidity can cause the growth of mildew in the home. These well-known risks should be weighed against the potential benefits of using humidifiers and the parents' ability and willingness to use and clean the device properly.

For Adults/Adolescents

Warm/hot shower vapor

The effects of steam inhalation on VURI symptoms using a specifically-designed device have been tested in several clinical trials, with mixed results. An easily detectable placebo was a threat to the internal validity in at least one of the studies in which a significant treatment effect was detected. Although this work is of interest, it has not been conclusive enough to date to guide treatment decisions.

Steam inhalation does serve as an effective comfort measure for some people. Because of burns that have occurred when people use steam vaporizers, and the potential for microorganism growth in vaporizers, the recommended method for steam inhalation is standing in a hot shower or sitting in the bathroom when the hot shower is running.

Macknin ML, Mathew S, Medendorp SV. "Effect of inhaling heated vapor on symptoms of the common cold." *JAMA* 264:989-91, 1990. (Class A)

(No beneficial treatment effect demonstrated.)

Ophir D, Elad Y. "Effects of steam inhalation on nasal patency and nasal symptoms in patients with the common cold." *Am J Otolaryngol* 8:149-53, 1987. (Class A)

(Treatment effect demonstrated.)

Tyrrell D. "Hot news on the common cold." *Ann Rev Microbiol* 42:35-47, 1988. (Class R)

(Author presents review of studies testing effects of steam inhalation.)

Tyrrell D, Barrow I, Arthur J. "Local hyperthermia benefits natural and experimental common colds." *BMJ* 298:1280-83, 1989. (Class A)

Saline nose drops, salt water gargle, hard candy

These provide relief to many patients without the cost and side effects associated with over-the-counter (OTC) preparations. The work group found no studies in which the efficacy of saline nose drops or saline gargles were compared with any of the commonly used OTC preparations. It is prudent to recommend that individuals try the safest and least expensive measures before trying over-the-counter drugs.

Adequate Rest

How a person feels is an indication of the amount of rest needed. When a person with a VURI is afebrile and feels like being up and about, normal activity should not prolong the illness.

Vickery DM, Fries JF. "The Ears, Nose, and Throat." Take Care of Yourself: Your Personal Guide to Self-Care and Preventing Illness, 4th ed. Reading, MA: Addison-Wesley, 1994: 218-31, 254-55, 261. (Class R)

This section provides resources, strategies and measurement specifications for use in closing the gap between current clinical practice and the recommendations set forth in the guideline.

The subdivisions of this section are:

- Priority Aims and Suggested Measures
  - Measurement Specifications

Priority Aims and Suggested Measures

1. Increase the appropriateness of patient visits for VURI.

   Possible measure of accomplishing this aim:

   a. Percentage of patients with an office visit for VURI who have had symptoms for less than 7 days.

2. Eliminate the inappropriate use of antibiotics in patients presenting with cold symptoms.

   Possible measures of accomplishing this aim:

   a. Percentage of patients with an office visit for cold symptoms who have had symptoms for less than 7 days and who receive an antibiotic.

   b. Percentage of patients with an office visit for cold symptoms who have had symptoms for less than 7 days and for whom documentation in the medical record supports a VURI diagnosis alone who receive an antibiotic.

   c. Percentage of documented patient/parent demand for antibiotics for patients who are seen with cold symptoms present for less than 7 days and who receive an antibiotic.

3. Increase patient knowledge of effective home treatment of cold symptoms.

   Possible measure of accomplishing this aim:

   a. Percentage of encounters for cold symptoms (phone care and/or office visits) for which there is documentation that educational messages and/or materials were given.

Possible Success Measure #1a

Percentage of patients with an office visit for cold symptoms who have had symptoms for less than 7 days.

Population Definition

Patients with a visit to primary care (General Internal Medicine, Family Practice, Pediatrics, Urgent Care) for cold symptoms. Choose specific age groups of either children ≥ 3 months and ≤ 18 years, or adults over 18.

Data of Interest

$$\frac{\text{\# patients presenting with symptoms of a cold present for less than 7 days}}{\text{\# patients presenting with an office visit for symptoms of a cold}}$$

Numerator/ Denominator Definitions

Numerator: Patients in the denominator who have had symptoms documented for less than 7 days.

Denominator: Patients with a visit with one or more of the following symptoms:

Cold, cough, sneezing, runny nose, congestion, sinusitis (or URI or VURI noted) as presenting complaint(s). If the impression and/or discharge diagnosis in the medical record is sinusitis, do NOT include in denominator.

Method/Source of Data Collection

Medical record review. Patients are identified from schedules or computer runs for the target month. A minimum of 20 charts per month per medical group is suggested.

Note: To assure sufficient numbers of patients (n=10) for Measure #2.a, you may need to review additional charts.

Time Frame Pertaining to Data Collection

Suggested data collection time frame is monthly.

Notes

The VURI guideline recommends that if symptoms of a VURI worsen after 3-5 days or symptoms do not improve after 7-14 days, contact with a nurse or provider is appropriate.

Possible Success Measure #2a

Percentage of patients with an office visit for cold symptoms who have had symptoms for less than 7 days and who receive an antibiotic.

Population Definition

Patients with a visit to primary care (General Internal Medicine, Pediatrics, Family Practice, Urgent Care) for cold symptoms.

Data of Interest

$$\frac{\text{\# of patients with cold symptoms receiving a prescription for antibiotic}}{\text{\# of patients with an office visit for symptoms of a cold present for less than 7 days}}$$

Numerator/ Denominator Definitions

Numerator: Patients in the denominator who are prescribed an antibiotic.

Denominator: Patients with a visit with one or more of the following symptoms:

Cold, cough, sneezing, runny nose, congestion, sniffles (or URI or VURI noted) as the presenting complaint(s) who have had symptoms documented for < 7 days. If the impression and/or discharge diagnosis in the medical record is sinusitis, do NOT include in denominator. (Numerator for Measure #1.a).

Method/Source of Data Collection

Medical record review. Patients will be those identified for Measure #1.a who are determined to belong in the numerator group. A minimum of 10 medical records per month per medical group are reviewed.

Time Frame Pertaining to Data Collection

Suggested data collection time frame is monthly.

Notes

VURI is a self-limiting illness that lasts about 5-14 days. Whereas some colds will progress to bacterial illness, this transition is not readily diagnosed. As there is no evidence warranting antibiotics for a viral illness, the work group recommends duration of illness as a proxy for determining approximate rates of inappropriate antibiotic use.

Possible Success Measure #3a

Percentage of encounters for cold symptoms (phone care and/or office visits) for which there is documentation that educational messages and/or materials were given.

Population Definition

Patients with a call or visit to primary care (General Internal Medicine, Pediatrics, Family Practice, Urgent Care) for cold symptoms.

Data of Interest

$$\frac{\text{\# of records with documentation that educational messages and/or materials were given}}{\text{total \# of patients with cold symptoms whose medical records are reviewed}}$$

Numerator/ Denominator Definitions

Numerator: Documented is defined as any evidence in the medical record that education or educational materials were provided to the patient or parent or caregiver related to any of the following:

- Prevention of VURI
- Frequency, symptoms and natural course of VURI
- Treatment recommendations, including comfort measures
- Callback instructions

Denominator: All patients with an encounter by phone or office visit to primary care with one or more of the following symptoms:

Cold, cough, sneezing, runny nose, congestion, sniffles (or URI or VURI noted) as the presenting complaint(s). If the impression and/or discharge diagnosis in the medical record is sinusitis, do NOT include in denominator.

Method/Source of Data Collection

Data will be collected through medical record review. Patients are identified from schedules, phone logs or computer runs for the target month. A minimum of 20 charts per month per medical group is recommended.

Time Frame Pertaining to Data Collection

Suggested data collection time frame is monthly.

Notes

Providing education to patients or caregivers of children with cold symptoms is intended to provide solid, useful advice to patients without putting them at undue risk or expense. A number of investigators have found that health care consumer education resulted in appropriate self-care for the common cold specifically, or illness in general, with less unnecessary medical treatment and lowered cost of care.