AHRQ Safety Program for Telemedicine: Improving Antibiotic Use

Best Practices in Managing Viral Upper Respiratory Tract Infections (the Common Cold) Over Telemedicine

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Objectives

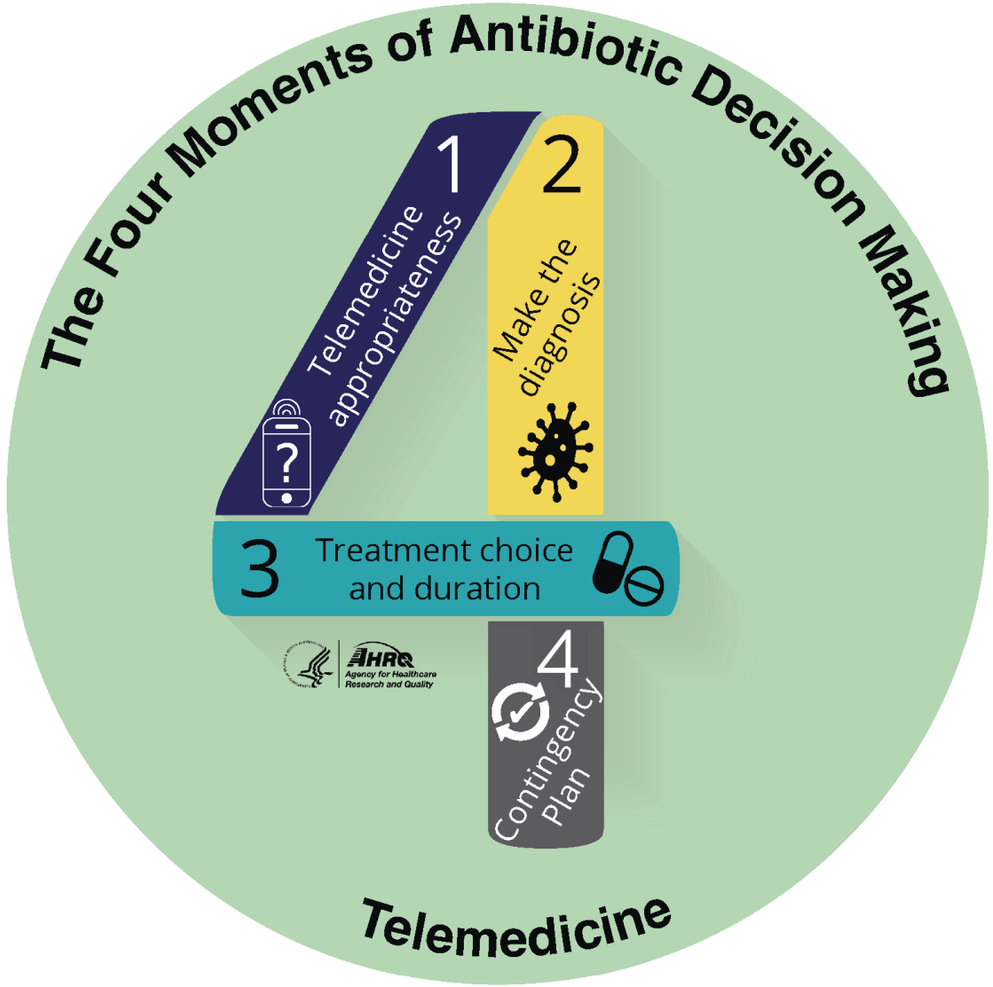
By the end of this presentation, participants will be able to—

- Describe how to diagnose a viral upper respiratory tract infection (URI), or the common cold, in children and adults
- Explain why antibiotic therapy is not necessary for the treatment of viral URI in children or adults
- Describe treatment options to manage the symptoms of viral URI in the telemedicine setting in children and adults
- Discuss strategies to communicate with patients the appropriate management of viral URI in the telemedicine setting for both children and adults

Background[1-5]

- Approximately 12.8 billion viral URIs occur globally yearly
- Every year, 25 million people in the United States will have a clinic visit for a viral URI
- Viral URIs are responsible for about 20 percent of telemedicine visits for infectious concerns

The Four Moments of Antibiotic Decision Making



1. Is my patient an appropriate candidate for a telemedicine visit?

2. Does my patient have signs and symptoms indicating an infection that may require antibiotics? Is a diagnostic test needed?

3. If antibiotics are indicated, what is the narrowest, safest, and shortest regimen I can prescribe?

4. What symptomatic relief should I offer or prescribe to my patient? What should I tell my patient about the expected course and the followup plan?

Case Presentation

- A 45-year-old healthy male presents via telemedicine with 3 days of rhinorrhea, sore throat, a mild headache, and a productive cough
- Able to eat and drink, decreased appetite
- No vomiting or diarrhea
- He is seeking an antibiotic prescription



Moment 1: Telemedicine Appropriateness

Is my patient an appropriate candidate for a telemedicine visit?

- No concerning signs or symptoms suggesting an immediate need for an in-person visit (e.g., high fevers, altered mental status, difficulty breathing, severe dehydration)
- You can proceed with a telemedicine evaluation



Moment 2: Patient History

Does my patient have signs and symptoms indicating an infection that may require antibiotics? Is a diagnostic test needed?

- Patient reports having a “really bad cold,” a few days of runny nose, hurts when he swallows, mild headache, occasional cough
- Well until 3 days ago
- No known fever
- Able to complete usual daily activities



Moment 2: Physical Examination 1

- He is able to answer questions appropriately
- No signs of fever or hypothermia (no flushing or shivering)
- Self-checks his heart rate: 80 beats per minute
- No difficulty with extraocular movements, no proptosis, no blurry vision



Moment 2: Physical Examination 2

- No sinus tenderness, nuchal rigidity, pharyngitis, peritonsillar abscess, or cervical lymph node tenderness on self-palpation
- Normal respiratory rate, able to speak in full sentences without difficulty, no wheezing or shortness of breath
- You confirm no other concerns (e.g., abdominal pain) necessitating further investigation on virtual physical examination



Moment 2: Diagnostic Testing

- No additional testing appears necessary
- Although the patient may have respiratory syncytial virus (RSV), antiviral treatment is not available for adults without severe immunocompromise
- COVID-19 testing is not routinely necessary unless patient prefers testing or meets criteria for treatment
- Lack of fevers makes influenza less likely

Moment 3: Potential Harm of Antibiotics

If antibiotics are indicated, what is the narrowest, safest, and shortest regimen I can prescribe?

- No antibiotics indicated as they may cause more harm than good for a viral URI[6-9]
- Discuss antibiotic-associated adverse events such as allergic reactions, rashes, kidney injury, and others
- Note that antibiotic use is the primary driver of antibiotic resistance



Moment 3: Optimizing Communication

- Develop effective approaches to communicate how to treat viral URIs with patients
- Common reasons patients might be interested in an antibiotic prescription:[10-11]
  - Patient wants to make sure the clinician is taking their symptoms seriously
  - Patient previously received antibiotics for similar symptoms
  - Patients may be worried about becoming more ill

Solution: Validate Patient Concerns

- Validate the patient's symptoms. Some example phrases might be:
  - "I can see you're feeling pretty miserable."
  - "Let's work on making you feel better."
- After making statements like these, consider saying:
  - "Antibiotics won't help, but here are some things that might help."
- Follow with alternative nonantibiotic treatments.

Communication: Patients Receiving Conflicting Messages

- Conflicting messages around antibiotic prescriptions for viral URIs
- Patients may have received antibiotics for viral URIs in the past, and so they may expect antibiotics for the present telemedicine visit
- Family members may have received antibiotics for viral URIs, and the patient has similar symptoms



Communication and Sample Phrases

- “There’s a lot of newer evidence showing antibiotics have more side effects than we used to think. We are being more careful about only prescribing antibiotics when you really need them.”
- “While I can’t say for certain what type of infection you had in the past, the good news is that this time you don’t have an infection that requires antibiotics.”
- “People often start feeling better after about 3 days, which often coincides with when antibiotics were started. Even though it might seem like the antibiotic helped, you most likely experienced the natural and expected course of the viral infection.”

Solution: Managing Patient Expectations

- “I have an important family commitment this weekend, and I can’t be sick!”
  - “I understand that you have important commitments this weekend, but antibiotics won’t make this go away faster. In fact, they could lead to a side effect, like diarrhea, that could make it harder to participate in the family event.”
  - “Contact me or others in my group if the symptoms get worse or you have new symptoms.”

Moment 4: Symptomatic Relief for Adults[12-21]

What symptomatic relief should I offer or prescribe to my patient? What should I tell my patient about the expected course and the followup plan?

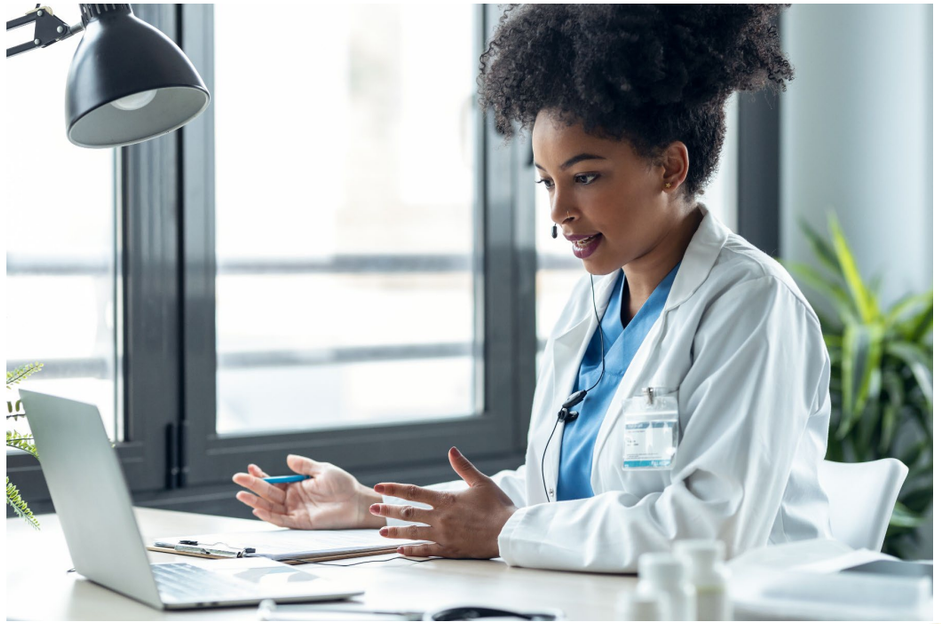
- Acetaminophen and nonsteroidal anti-inflammatory drugs may help relieve pain, such as sore throat or sinus tenderness
- Intranasal decongestants, oral decongestants, antihistamine-decongestant combinations, and antihistamine-decongestant-analgesic combinations may have some limited benefit
    - Pseudoephedrine may be only available behind the counter
    - Phenylephrine is not recommended
- No strong data for or against echinacea, zinc, or vitamin C but low-risk

Moment 4: Symptomatic Relief for Children[22]

- Do not recommend cough and cold medicines or multi-ingredient products for children <6 years because of potential harm
    - This is an American Academy of Pediatrics recommendation
- For children over 1 year of age, honey can soothe cough
- Cool-mist humidifiers can provide comfort and symptom relief for cough and congestion
- Nasal saline drops or spray followed by bulb suctioning may provide congestion relief for younger children

Moment 4: Expectations & Followup Plan

- Tell patients: it is normal for nasal discharge to change color
  - The cough may last 2–3 weeks
  - While he should start to feel better within a few days, symptoms can linger for a few weeks
- Return to care:
  - High fever (above 102 degrees Fahrenheit)
  - Confusion
  - Difficulty breathing or swallowing
  - Severe headache
  - Pain in the face or forehead
  - Severe fatigue
  - Significant rash
  - Symptoms not improving after 10 days



Take-Home Messages

- ✓ Viral URIs are commonly seen in the telemedicine setting
- ✓ If history and virtual physical exam do not suggest that a bacterial infection is likely, no antibiotics are needed
- ✓ In fact, antibiotics can cause more harm than benefit
- ✓ It is helpful to offer helpful communication strategies to convey this message
- ✓ Other symptomatic treatment can be offered to patients
- ✓ A discussion of symptoms that warrant a return to medical care is always necessary

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