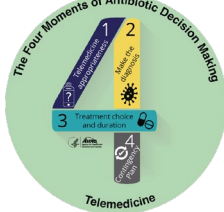
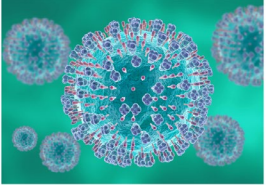


Slide Title and Commentary	Slide Number and Slide
The Four Moments of Antibiotic Decision Making SAY: We will review two clinical cases—an adult and a pediatric case—using the Four Moments of Antibiotic Decision Making framework. Briefly, this framework consists of the following moments: Moment 1: Is my patient an appropriate candidate for a telemedicine visit? Moment 2: Does my patient have signs and symptoms indicating an infection that may require antibiotics? Is a diagnostic test needed? Moment 3: If antibiotics are indicated, what is the narrowest, safest, and shortest regimen I can prescribe? Moment 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? We will be limiting discussion to adults and children 3 years of age and older.	Slide 3 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? AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 3
Case Presentation: Adult SAY: A 59-year-old male is presenting via telemedicine with rhinorrhea, cough, and low-grade fevers. He was taking care of his 2-month-old granddaughter within the past week. At the time his granddaughter had a runny nose, but in subsequent days she developed respiratory distress and was hospitalized yesterday. She was diagnosed with RSV bronchiolitis, and the patient wants to know if he needs to take any antibiotics.	Slide 4 Case Presentation: Adult • 59-year-old male with 2 days of rhinorrhea, cough, and low grade fevers • Recently taking care of his 2-month-old granddaughter • Granddaughter was diagnosed with RSV and needed to be hospitalized yesterday • Inquiring if he should be receiving antibiotics  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 4

Slide Title and Commentary	Slide Number and Slide
RSV Epidemiology SAY: Let's start with a brief overview of RSV infection in adults. RSV is a respiratory virus that typically causes seasonal outbreaks. The "RSV season" depends on where you are located. For most of the United States, the typical RSV season lasts from November to April. For some states in the southern United States and Puerto Rico, RSV season may last from May to September. You can determine the typical RSV season in your region by visiting the U.S. Centers for Disease Control and Prevention (CDC) website: https://www.cdc.gov/rsv/php/surveillance/index.html. Direct contact is the most common route of transmission as RSV can survive for hours on hands and objects. It also can spread through large droplets.	Slide 5 RSV Epidemiology¹ • RSV is a respiratory virus that causes seasonal outbreaks ◦ November to April in the north ◦ Some Southern states and Puerto Rico: May to September • Direct contact is the most common route of transmission ◦ Can also can spread through large droplets https://www.cdc.gov/rsv/hcp/clinical-overview/index.html  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 5
RSV Infection in Adults SAY: Most adults with RSV infection present with mild disease like the patient in the case. They can generally be managed in the outpatient setting. In fact, less than 1 percent of adults with RSV infection need to be hospitalized. Common symptoms of RSV in adults include cough, which occurs in up to 95 percent of adults; nasal congestion or rhinorrhea, which occur in up to 78 percent of adults; sore throat, which occurs in up to 64 percent of adults; and low-grade fevers, which occur in up to 50 percent of patients. Infection may occasionally progress to the lower respiratory tract and cause symptoms such as wheezing and dyspnea. Progression to lower respiratory tract disease is most common in the elderly (particularly patients over 75 years of age); patients with severe immune compromise such as solid organ transplant recipients, those with neutropenia, or those with prolonged corticosteroid use; and patients with underlying cardiac disease such as congestive heart failure or underlying pulmonary disease such as asthma or chronic obstructive pulmonary disease.	Slide 6 RSV Infection in Adults • Common symptoms in adults² ◦ Cough (<95%) ◦ Nasal congestion or rhinorrhea (<78%) ◦ Sore throat (<64%) ◦ Fever (<50%) • May progress to lower respiratory tract symptoms² ◦ Elderly (≥75 years) ◦ Severe immune compromise (e.g., solid organ transplant, neutropenia, prolonged corticosteroid use) ◦ Underlying cardiac disease (e.g., congestive heart failure) ◦ Underlying lung disease (e.g., asthma, chronic obstructive pulmonary disease) • <1% of adults require hospitalization^{3,4} AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 6

Slide Title and Commentary	Slide Number and Slide
Moment 1: Telemedicine Appropriateness (Adults) SAY: Let's start with Moment 1, "Is my patient an appropriate candidate for a telemedicine visit?" Based on the information obtained from the triage form, the patient is 59 years old—so less than 75 years of age, when the risk of hospitalization significantly increases. He has relatively mild upper respiratory tract symptoms. He mentioned that his only pre-existing medical condition is hypertension that is reasonably well controlled with lisinopril. Based on the information available to you, it appears that he is a reasonable candidate for an initial evaluation over telemedicine. It is important to recognize, however, that your decision about whether he needs to be seen in person may change upon obtaining further history and after your physical examination.	Slide 7 Moment 1: Telemedicine Appropriateness (Adults) • Is my patient an appropriate candidate for a telemedicine visit? ◦ <75 years⁵ ◦ Relatively mild respiratory symptoms ◦ No severe immune compromise • Proceed with a telemedicine evaluation  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV)

Moment 2: Patient History and Physical Exam (Adults)

SAY:

Let's move on to Moment 2. The first part of Moment 2 is, "Does my patient have signs and symptoms indicating an infection that may require antibiotics?" To appropriately address these questions, you will have to rely on a patient history and physical examination.

You confirm the patient's age and pre-existing medical conditions. He confirms that he does not have any history of immune-compromising conditions such as a solid organ transplant. He does not take any immunosuppressive medications such as chronic corticosteroids. After asking the patient about his symptoms, he repeats the concerns he indicated on the triage form.

He had a recent exposure to RSV, and his symptoms are impacting his upper respiratory tract. Therefore, the primary goal of the history and physical examination is to evaluate for any potentially serious conditions that would warrant an in person visit.

On the virtual examination, you note that his mentation is appropriate as he is able to answer questions appropriately. He does not appear flushed, nor does he appear to be shivering. Although he is unable to check his temperature, you ask him to put the back of his hand on his forehead and he mentions that he does not feel warm. You ask him if he has been sweating or feeling flushed more than his baseline. He says no. You ask him if he has been shivering. He also says no. His responses suggest that he has not been experiencing fevers.

Of note, whether he had a fever or not would be unlikely to change the management of his RSV as adult patients with RSV without severe immunocompromise or patients in respiratory distress can generally be managed in the outpatient setting. However, if he was having rigors or reporting significant night sweats, it would be more appropriate for him to have an in-person evaluation for a potential alternative diagnosis.

You ask him to check his heart rate by placing the tips of his index and middle finger on the inside of his wrist, just below his thumb. You ask him to press lightly until he feels his pulse, and then count the beats for 15 seconds. Multiply that number by four to get beats per minute. His pulse is 80 beats per minute.

Slide 8

Moment 2: Patient History & Physical Exam (Adults)

Does my patient have signs and symptoms indicating an infection that may require antibiotics?

- Well appearing without tachycardia or tachypnea
- Recent RSV exposure
- Normal respiratory rate without increased work of breathing
- No indication for antibiotics



AHRQ Safety Program for Telemedicine: Improving Antibiotic Use

Respiratory Syncytial Virus (RSV) 8

Slide Title and Commentary	Slide Number and Slide
You request that he either remove his shirt or unbutton his shirt so you can observe his chest movements. If the patient is uncomfortable removing his shirt, you could assess for signs of dyspnea such as nasal flaring or using his neck or upper chest muscles to help breathe. His respiratory rate is about 18 breaths per minute. You observe that he is able to speak in full sentences without difficulty, does not appear to be wheezing, and does not appear short of breath. These findings reassure you he does not have bacterial pneumonia. For more comprehensive details on performing virtual examinations for adult patients presenting with viral respiratory tract symptoms, please refer to the toolkit presentations on “Best Practices in Managing Viral Upper Respiratory Tract Infections (the Common Cold) Over Telemedicine” and “Best Practices in Managing Influenza Over Telemedicine.” Based on the history and physical exam you decide that he does not need antibiotics at this time.	
Moment 2: Diagnostic Testing (Adults) SAY: The second part of Moment 2 asks whether diagnostic testing is necessary. The decision to obtain diagnostic testing generally depends on whether a positive RSV result would inform treatment decisions. In this patient who would not meet criteria for antiviral therapy, there is little utility in pursuing RSV testing. Even though a diagnosis of RSV has not been confirmed and although it is plausible that he may have another respiratory viral infection such as SARS-CoV-2, parainfluenza, human metapneumovirus, or even influenza, confirmation of the specific respiratory virus would not alter his management. Even if influenza was the cause of his symptoms, he does not have risk factors that would place him at high risk of complications that would warrant antiviral therapy. Similarly, since he appears to be an immunocompetent person under 65 years of age without any risk factors that would put him at risk for progression to severe disease, even if he had COVID-19, it would be reasonable to not suggest COVID-targeted therapy—making the need for testing unnecessary.	Slide 9 Moment 2: Diagnostic Testing (Adults) Is a diagnostic test needed? • No respiratory viral testing necessary for this patient who would be unlikely to qualify for antiviral therapy (e.g., for influenza or COVID-19)  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 9

Slide Title and Commentary	Slide Number and Slide
Moment 2: Diagnostic Testing (Adults) SAY: However, if the patient prefers to be tested for RSV, two general options are available: RT-PCR and rapid antigen testing. You would need to check with pharmacies or urgent care facilities local to this patient to determine which testing options are available. Two methods for RSV testing exist, both of which involve swabbing the nasopharynx or throat. RT-PCR is the reference standard for detecting RSV. It has a very high sensitivity (85–100%). Although RSV-specific PCRs are available, assays that detect multiple viruses (that is, RSV along with SARS-CoV-2 and influenza) are preferred. Unfortunately, these are not widely available in the outpatient setting. Rapid antigen testing with enzyme immunoassays or EIAs are point-of-care tests with results available in 15 to 30 minutes. Adults tend to have more false negative results for RSV in rapid antigen testing than children, likely due to lower viral loads in older patients. Their sensitivity in detecting RSV is approximately 70 percent. However, there is one rapid antigen test that was approved for self-testing in the home in January 2026 for RSV, influenza A, influenza B, and SARS-CoV-2. This could be an option for patients who want to know if they have RSV, influenza, or COVID-19. To summarize, unless the patient strongly prefers testing, testing for RSV or other respiratory viruses is not necessary for this patient.	Slide 10 Moment 2: Diagnostic Testing (Adults) 2 If a decision is made to perform diagnostic testing: - Two methods for RSV testing, both of which involve swabbing the nasopharynx or throat - RT-PCR (sensitivity 85%–100%)⁶⁻⁷ - Rapid antigen testing (sensitivity $\leq 70\%$)⁸⁻⁹ - Rapid antigen testing available for at-home use with RSV, influenza A, influenza B, COVID-19¹⁰  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 10
Moment 3: Role of Antibiotics (Adults) SAY: Antibiotics are not indicated for RSV infections. It is important to remind the patient that antibiotics will not make him feel better and may make him feel worse. Although bacterial superinfections occasionally occur with RSV infections, they are generally limited to patients with severe disease warranting hospitalization. Of note, the antiviral ribavirin can be considered for patients with severe immunocompromise. Patients who are highly immunocompromised, such as because of a hematologic malignancy or stem cell transplant, with confirmed or suspected RSV infection should be referred for an in-person evaluation to determine if they are a candidate for ribavirin therapy.	Slide 11 Moment 3: Role of Antibiotics (Adults) If antibiotics are indicated, what is the narrowest, safest, and shortest regimen I can prescribe? No antibiotics are indicated for RSV infections - Ribavirin is an option for adult patients with hematologic malignancies after an in-person evaluation¹¹  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 11

Slide Title and Commentary	Slide Number and Slide
Moment 4: Symptomatic Relief (Adults) SAY: Although antibiotics will not improve the patient’s symptoms, options to relieve symptoms should be offered. Moment 4 states, “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/or nonsteroidal anti-inflammatory drugs may help relieve pain associated with RSV, such as a sore throat. Several systematic reviews suggest that other over-the-counter medications—intranasal decongestants (which should not be used for more than 5 days), oral decongestants, antihistamine-decongestant combinations, and antihistamine-decongestant-analgesic combinations—may only have some limited benefit. The risk of adverse events from the medications should be taken into consideration before recommending them to individual patients. Albuterol is suggested only for patients with known issues with airflow obstruction.	Slide 12 Moment 4: Symptomatic Relief (Adults)¹²⁻¹⁵ 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/or nonsteroidal anti-inflammatory drugs • Intranasal decongestants, oral decongestants, antihistamine-decongestant combinations, and antihistamine-decongestant-analgesic combinations can be offered but have limited benefit • Albuterol (only for patients with airflow obstruction) AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 12

Slide Title and Commentary	Slide Number and Slide
Moment 4: Expectations & Followup Plan (Adults) SAY: For people infected with RSV, symptoms are typically worst on day 3–5 of illness, and people generally start to feel better after day 5 although some symptoms commonly linger for up to 2 weeks. Infected people tend to be most contagious during the first week, so it is reasonable for your patient to consider wearing a mask and washing hands frequently during this time, if he cannot avoid being near other people. Given the severe illness RSV can cause infants, let the patient know that it is probably better he stay away from small children until his symptoms resolve. It is also important to provide information about when he should seek return or in-person medical care. This information may include advice to be seen for in-person care if he develops a high fever (above 102°F), confusion, wheezing, or shortness of breath, or if symptoms are not improving and are just generally worsening.	Slide 13 Moment 4: Expectations & Followup Plan (Adults) • Symptoms worst on day 3-5 of illness • Symptoms last for up to two weeks • Viral shedding ~3-8 days • Seek in-person care if: ◦ High fever (above 102°F) ◦ Confusion ◦ Wheezing ◦ Shortness of breath ◦ Not improving or worsening symptoms  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 13

Slide Title and Commentary

RSV Vaccine (Adults)

SAY:

Let's say your patient asks if there is a way to prevent RSV.

There are three different RSV vaccines licensed by the U.S. Food and Drug Administration for use in adults 60 years of age and older in the United States.

The CDC recommends everyone ages 75 and older receive the RSV vaccine. The CDC recommends that adults ages 60–74 who are at increased risk of severe RSV disease also receive an RSV vaccine. For most adults at least 60 years of age, the choice of vaccine is determined by availability. Risk factors for severe disease include the following: chronic cardiovascular disease with the exception of isolated hypertension, chronic lung disease, end-stage renal disease, diabetes with complications or requiring treatment with insulin or SGLT2 inhibitor, neurologic or neuromuscular conditions causing impaired airway clearance or respiratory muscle weakness, cirrhosis, chronic hematologic conditions, severe obesity with a body mass index of at least 40 kilograms per meter squared, moderate or severe immune compromise, or residence in a nursing home.

Pregnancy is the other population in whom RSV prevention should be considered. To protect infants from severe RSV disease, either maternal RSV vaccination or infant immunization with an RSV monoclonal antibody is recommended. Maternal vaccination consists of a single dose of the Abrysvo vaccine administered between 32 and 36 weeks' gestation, during September through January. Both criteria must be met: the person must be 32–36 weeks pregnant during the September–January vaccination window. Vaccination is not recommended earlier in pregnancy because of an FDA concern regarding a potential (although not statistically significant) signal for preterm birth, or after 36 weeks because insufficient time may remain for adequate transplacental antibody transfer. If these timing criteria are not met, the recommended alternative is administration of an RSV monoclonal antibody to the infant after birth, as discussed later in this presentation.

Slide Number and Slide

Slide 14

RSV Vaccine (Adults)¹⁶⁻¹⁹

Vaccine	Age Range (years)	Pregnant Women
RSVPreF3 (Arexvy)	75 and older 50–74 with risk factors*	No
RSVPreF (Abrysvo)	75 and older 50–74 with risk factors*	Single dose weeks 32–36 of pregnancy between Sep–Jan
mRNA-1345 (Mresvia)	75 and older 50–74 with risk factors*	No

*Risk factors: chronic heart or lung disease, immune compromise, end stage renal disease, diabetes with complications, cirrhosis, neuromuscular conditions causing impaired airway clearance, severe obesity (BMI ≥ 40 kg/m²), nursing home resident, etc.

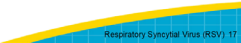
AHRQ Safety Program for Telemedicine: Improving Antibiotic Use

- One-dose vaccine
- Preferred to receive vaccine in late summer or early fall but it is not an annual vaccine
- Also recommended for immunocompromised patients ≥18 years (solid organ transplant, stem cell transplant, primary immunodeficiency, hematologic malignancy, chemotherapy, B-cell depletion, HIV)

Respiratory Syncytial Virus (RSV) 14

Slide Title and Commentary	Slide Number and Slide
Case Presentation: Children SAY: Let's move on to a pediatric case. You receive the following information from the triage form: A 2-year-old girl born full-term is seen over telemedicine in November with 3 days of rhinorrhea, what her father describes as "noisy" breathing, and low-grade fever. She has been drinking fluids without difficulty. Despite not feeling well, she has still been able to play with her brother. The 2-year-old patient stays at home, and her 5-year-old brother is in kindergarten. Her father is seeking medical care via telemedicine because he would like to know if his daughter needs antibiotics.	Slide 15 Case Presentation: Children • 2-year-old girl born full-term presents in November with 3 days of rhinorrhea, "noisy" breathing, and low-grade fever • Drinking fluids without difficulty • Playing • Father would like to know if his daughter needs antibiotics  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 15

Slide Title and Commentary	Slide Number and Slide
RSV Infection in Children SAY: RSV is the most common cause of lower respiratory tract infection (i.e., bronchiolitis) in children up to 1 year of age. RSV hospitalization rates are highest among infants under 6 months of age. For most infants and children, RSV presents similar to the patient in this case with rhinorrhea, congestion, and low-grade fevers. But about 3 percent of infants—especially if under 6 months of age—will progress to developing wheezing, increased work of breathing, or apnea necessitating hospitalization. Hospitalization may occur in older children, but these children often have underlying medical problems such as severe asthma, congenital cardiac disease, neurologic disease, or immunodeficiency. Almost all children are infected by 2 years of age. In a study of over 3,000 children under 2 years of age seen in an emergency department or pediatric clinic for acute respiratory infection or fever at three sites in the United States from 2004 to 2009, approximately 20 percent of those tested for RSV tested positive. Although virtually all individuals have been infected with RSV by 2 years old, previous infection with RSV does not appear to protect against reinfection, even in patients with high titers of specific antibody. Reinfection is common, but usually the infection is less severe with each episode. As is likely the case in this patient, infection of infants most often follows infection of older siblings.	Slide 16 RSV Infection in Children²⁰⁻²¹ • Most common cause of lower respiratory tract infection (i.e., bronchiolitis) in children <1 year ◦ Upper respiratory infection may progress to wheezing, increased work of breathing, or apnea • Hospitalization rates highest among infants <6 months ◦ Hospitalization in older children usually limited to those with underlying medical problems (e.g., severe asthma, neurologic disease, immunodeficiency) • Almost all children are infected by two years of age; reinfection common • Infection of infants most often follows infection of older siblings AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 16

Slide Title and Commentary	Slide Number and Slide
Moment 1: Telemedicine Appropriateness (Children) SAY: Moment 1 asks “Is my patient an appropriate candidate for a telemedicine visit?” When deciding whether it is appropriate for a child likely to have RSV infection to be seen via telemedicine, it is important to confirm that certain risk factors are not present. If the infant is under 6 months of age, given the association of RSV infection and apnea, the infant should always be seen in person. Depending on your practice’s specific criteria for how young you see patients via telemedicine, the cutoff for seeing young children may be 2 or 3 years. For example, you may decide as a group that you do not see any child under the age of 2 for any infectious complaints via telemedicine. Other criteria for which children with potential RSV infection should be seen in person are children with underlying lung disease (for example, chronic lung disease, bronchopulmonary dysplasia, cystic fibrosis, or severe asthma), congenital heart disease, Trisomy 21 or similar conditions with hypotonia, and severe immune compromise. For the current patient, she is a little over 2 years old and your practice allows you to see children 2 years of age and older via telemedicine. From the information available to you on the triage form, she does not have any concerning underlying medical conditions, and her father does not describe her as being in respiratory distress. It is reasonable to proceed with a telemedicine evaluation.	Slide 17 Moment 1: Telemedicine Appropriateness (Children) Is my patient an appropriate candidate for a telemedicine visit? • Risk factors for an in-person consultation ◦ <6 months of age ◦ Practice-specific criteria for age at which you see young children in person (for example, under 2 or 3 years) ◦ Underlying lung disease (e.g., chronic lung disease, bronchopulmonary dysplasia, cystic fibrosis, severe asthma) ◦ Congenital heart disease ◦ Trisomy 21 ◦ Immunocompromised patients (e.g., severe combined immunodeficiency, leukemia, or hematopoietic cell or lung transplant) • You proceed with the patient’s evaluation AHRQ Safety Program for Telemedicine: Improving Antibiotic Use  Respiratory Syncytial Virus (RSV) 17

Slide Title and Commentary	Slide Number and Slide
Moment 2: Patient History SAY: Moment 2 asks, “Does my patient have signs and symptoms indicating an infection that may require antibiotics? Is a diagnostic test needed?” Before conducting a virtual examination, you reconfirm the information in the triage form with the father. You inquire about prominent symptoms, and he reports runny nose, noisy breathing, and low-grade fevers. He states that his 5-year-old has been having the same symptoms. You ask about oral intake and wet diapers. She is drinking well but is eating a little less than usual. She has at least four wet diapers a day, so you feel reassured that she is well hydrated. You then ask about activity level. The father reports that although she is more tired than usual, she is able to play with her sibling. You ask the father if he has noticed any head bobbing, nasal flaring, tachypnea, wheezing, or stridor. It is helpful to demonstrate what these look like or sound like. He reports “no” to all of these. You confirm that she does not have any new rashes, abdominal pain, diarrhea, vomiting, or difficulty walking or moving any extremities. If he endorses any of these findings, you should visualize the affected areas more carefully during the physical examination. Overall, the history seems reassuring against severe disease warranting an in-person visit or a bacterial process. You now proceed with the physical examination.	Slide 18 Moment 2: Patient History (Children) Does my patient have signs and symptoms indicating an infection that may require antibiotics? Is a diagnostic test needed? • Careful re-review of information in the triage form • Review of hydration and activity level • Review of signs of respiratory distress  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 18

Slide Title and Commentary	Slide Number and Slide
Moment 2: Physical Exam (Children) SAY: Now you ask the father to focus his camera on the child while he holds her in his lap. You ask him to take her shirt off. You notice the child is able to sit in her father's lap and maintain proper tone. She is looking at the camera with curiosity and does not appear to be lethargic or in distress. You request her father keep her distracted while you count her respiratory rate, which you determine to be normal for her age at 20 breaths per minute. You observe closely that she is not bobbing her head or flaring her nostrils. You also note that she is not retracting her upper neck muscles or intercostal muscles (which are the muscles between her ribs). You ask him to make sure his speaker volume is on maximum and to bring her as close to the speaker as possible. You do not hear any stridor or evidence of gasping for air. If the child can understand commands, you ask the father to ask her to turn her head to the left, right, up, and down by asking her to follow his hand. Otherwise, he can try jingling some keys in each direction to get his daughter's attention. She is moving her head in all directions without difficulty, and he confirms he has not noticed any neck bulges or drooling more than usual. You feel reassured against nuchal rigidity or a retropharyngeal abscess. Next, you ask the father to open his mouth wide and make an "aah" sound or to sing a song that requires opening his mouth to try to get his daughter to do the same. You try to look at the back of her throat. This is admittedly difficult in a 2-year-old, but fortunately bacterial pharyngitis like strep pharyngitis is extremely rare in this age group, so it is OK to proceed even without a good look in her throat. Taken together, these findings make the likelihood of a bacterial infection unlikely.	Slide 19 Moment 2: Physical Exam (Children) • No tachypnea • No head bobbing • No nasal flaring • No extra use of neck or chest muscles (i.e., retractions)  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 19

Slide Title and Commentary	Slide Number and Slide
Moment 2: Diagnostic Testing (Children) SAY: If it is RSV season, as it is in this patient's case, and the child is presenting with symptoms suggestive of RSV infection, the likelihood that the child has RSV is high, so testing is unnecessary. For previously healthy young children with bronchiolitis, testing for RSV does not impact management.	Slide 20 Moment 2: Diagnostic Testing (Children) If it is RSV season and the child is presenting with symptoms suggestive of RSV infection, the likelihood that the child has RSV is high, so testing is unnecessary  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 20
Moment 2: Diagnostic Testing (Children) 2 SAY: If a parent or guardian strongly prefers testing, consider referring them for local testing options or at-home testing options as discussed in the previous adult case. Testing is more important in patients with immune compromise because they may qualify for treatment with ribavirin.	Slide 21 Moment 2: Diagnostic Testing (Children) 2 - For previously healthy young children with bronchiolitis, testing for RSV does not impact management - Test patients with immune compromise because they may qualify for ribavirin  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 21
Moment 3: Role of Antibiotics (Children) SAY: Moment 3 focuses on the need for antibiotics and, as previously discussed, antibiotics are not necessary for RSV infections. Similar to adults, the likelihood of a bacterial superinfection for children managed over telemedicine is low.	Slide 22 Moment 3: Role of Antibiotics (Children) If antibiotics are indicated, what is the narrowest, safest, and shortest regimen I can prescribe? No indication for antibiotics  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 22

Slide Title and Commentary	Slide Number and Slide
Moment 4: Symptomatic Relief (Children) SAY: The first part of Moment 4 asks, “What symptomatic relief should I offer or prescribe to my patient?” For most children with RSV infection, no supportive care is necessary other than ensuring the child is well hydrated. If the child is not as interested in eating or drinking, consider administering small amounts of fluids frequently. The American Academy of Pediatrics or AAP recommends the following general volumes to ensure a child stays well hydrated: for children 1–3 years old, 4 cups of fluids per day; 4–8 years old, 5 cups of fluids per day; and 7–8 years old and older, 7–8 cups of fluids per day. For children not interested in drinking Pedialyte®, juice, milk, or water, they can be given juicy fruits like pears or peaches, yogurt, soup, or popsicles. Parents or guardians can also be offered supportive care as necessary such as nasal saline drops or spray followed by bulb suctioning for younger infants or ibuprofen or acetaminophen following age-specific instructions on the label. If they have access to a cool-mist humidifier, it can provide comfort and symptom relief for cough and congestion. Alternatively, they can have their child sit on their lap while they allow the bathroom to become steamy to reduce their child’s congestion. The AAP does not recommend cough and cold medicines and multi-ingredient products for children younger than 6 years because of potential harm (such as apnea and serious overdoses). Similarly, studies indicate that corticosteroids, albuterol inhalers, or chest physiotherapy are unlikely to be helpful for children with RSV infections.	Slide 23 Moment 4: Symptomatic Relief (Children) What symptomatic relief should I offer or prescribe to my patient? • Hydration goals²² ○ 1–3 years old: 4 cups of fluids per day ○ 4–8 years old: 5 cups of fluids per day ○ ≥7–8 years old: 7–8 cups of fluids per day • Supportive care ○ Nasal saline drops or spray followed by bulb suctioning for younger infants ○ Ibuprofen or acetaminophen ○ Cool-mist humidifiers for cough and congestion • Not helpful ○ Avoid cough and cold medicines and multi-ingredient products for children <6 years because of potential harm (e.g., apnea and serious overdoses)²³ ○ Steroids, inhalers, chest physiotherapy AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 23

Slide Title and Commentary	Slide Number and Slide
Moment 4: Expectations & Followup Plan (Children) SAY: The second part of Moment 4 asks, “What should I tell my patient about the expected course and the followup plan?” It is often helpful to remind parents that symptoms associated with RSV infection are generally worst on day 3–5 of illness, and children are expected to gradually improve after this time. However, it is important to let them know signs and symptoms that warrant an in-person evaluation. These include high fever (above 102°F); lethargy that might present as refusal to drink, needing to be carried everywhere, or an absence of periods where the child seems relatively at baseline; wheezing; shortness of breath; or a lack of interest in oral intake or an inability to keep down any fluids.	Slide 24 Moment 4: Expectations & Followup Plan (Children) What should I tell my patient about the expected course and the followup plan? • Symptoms worst on day 3–5 of illness; symptoms can linger for up to 2 weeks • Return to care if— ◦ High fever (above 102°F) ◦ Lethargy ◦ Refusal to drink fluids ◦ Wheezing ◦ Shortness of breath  AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 24

Slide Title and Commentary

Monoclonal Antibodies

SAY:

We will conclude with discussing available options for protecting infants against RSV infection. Similar to RSV vaccines, you will not be administering these agents in the telemedicine setting, but it is good to be aware of options as patients may ask targeted questions about them.

Nirsevimab (brand name Beyfortus) is a monoclonal antibody. It has a long half-life and potent neutralizing activity. A single dose of nirsevimab in an infant is expected to provide protection for at least 5 months, so only one dose is needed at the beginning of the RSV season. Similarly, clesrovimab (brand name Enfonsia) is another monoclonal antibody with a long half-life that also provides protection to infants for at least 5 months.

It is currently recommended that all infants younger than 8 months who are born during the RSV season or are entering their first RSV season receive one dose of nirsevimab or clesrovimab if the mother did not receive RSV vaccination during pregnancy.

Additionally, infants 8–19 months at increased risk for severe RSV should receive a second dose of nirsevimab upon entry into their second RSV season. A dose of nirsevimab can also be administered to infants 8–19 months at increased risk for severe RSV who received clesrovimab during first RSV season. Some of the most common risk factors for severe RSV include underlying lung disease (for example, chronic lung disease, bronchopulmonary dysplasia, cystic fibrosis, or severe asthma), congenital heart disease, Trisomy 21 or similar conditions with hypotonia, and severe immune compromise. A comprehensive list can be found at the CDC website listed on this slide: www.cdc.gov/rsv/infants-young-children/index.html.

Slide Number and Slide

Slide 25

Monoclonal Antibodies²⁴⁻²⁶

Monoclonal Antibody	Recommended for
Nirsevimab (brand name Beyfortus) ²⁴	All infants whose mothers were not vaccinated during pregnancy regardless of RSV risk factors
Clesrovimab (brand name Enfonsia) ²⁵	Select infants at increased risk meeting AAP criteria (if nirsevimab is unavailable)

- All infants <8 months born during RSV season or entering first RSV season should receive one dose of nirsevimab or clesrovimab if the mother did not receive RSV vaccination during pregnancy
- Infants 8-19 months at increased risk for severe RSV should receive a second dose of nirsevimab upon entry into their second RSV season (including those who received clesrovimab instead of nirsevimab in their first RSV season)²⁶

<https://www.cdc.gov/rsv/infants-young-children/index.html>

AHRQ Safety Program for Telemedicine: Improving Antibiotic Use

Respiratory Syncytial Virus (RSV) 25

Slide Title and Commentary	Slide Number and Slide
Take-Home Messages SAY: In summary, RSV can cause infection in adults but most adults are not at risk for severe disease and can be managed over telemedicine. RSV can cause significant diseases in infants, particularly those under 6 months of age. For children with risk factors for severe RSV, it is important to refer them for an in-person visit. Antibiotics are not indicated for RSV infections. Supportive care is the cornerstone of treatment. The RSV vaccine should be considered for all eligible pregnant and elderly patients. Similarly, newborns whose mothers did not receive the RSV vaccine should receive a dose of nirsevimab or clesrovimab.	Slide 26 Take-Home Messages ✓ RSV can cause infection in adults but most adults are not at risk for severe disease ✓ RSV can also cause significant disease in infants, particularly those < 6 months or with underlying risk factors for severe illness ✓ Antibiotics are not indicated for RSV infections ✓ Supportive care is the cornerstone of treatment ✓ Offer the RSV vaccine to elderly patients and pregnant women meeting criteria AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 26
Disclaimer SAY: Please review this disclaimer.	Slide 27 Disclaimer • The findings and recommendations in this presentation are those of the authors, who are responsible for its content, and do not necessarily represent the views of AHRQ. No statement in this presentation should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services. • Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and their own professional development. The information presented in this activity is not meant to serve as a guideline for patient management. Any procedures, medications, or other courses of diagnosis or treatment discussed or suggested in this activity should not be used by clinicians without evaluation of their patient's conditions and possible contraindications and/or dangers in use, review of any applicable manufacturer's product information, and comparison with recommendations of other authorities. AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 25
References 1 SAY: Here are the references.	Slide 28 References 1 - Centers for Disease Control and Prevention. Clinical overview of RSV. August 18, 2025. https://www.cdc.gov/rsvhosp/clinical-overview/index.html. Accessed May 14, 2026. - Hall CB. Respiratory syncytial virus and parainfluenza virus. N Engl J Med. 2001 Jun 21;344(25):1917-28. PMID: 11419430. - Branche AR, Saiman L, Walsh EE. Incidence of respiratory syncytial virus infection among hospitalized adults, 2017-2020. Clin Infect Dis. 2022 Mar 23;74(6):1004-1011. PMID: 34244735. - Savie M, Penders Y, Shi T, et al. Respiratory syncytial virus disease burden in adults aged 60 years and older in high-income countries: A systematic literature review and meta-analysis. Influenza Other Respir Viruses. 2023 Jan;17(1):e13031. Epub 2022 Nov 11. PMID: 36369772. - Melgar M, Britton A, Roper LE, et al. Use of respiratory syncytial virus vaccines in older adults: Recommendations of the Advisory Committee on Immunization Practices - United States, 2023. MMWR Morb Mortal Wkly Rep. 2023 Jul 21;72(29):793-801. PMID: 37471262. - Branche AR, Falsley AR. Respiratory syncytial virus infection in older adults: An under-recognized problem. Drugs Aging. 2015 Apr;32(4):261-9. PMID: 25951217. - Onwushiekwia C, Moreo LM, Menon S, et al. Underascertainment of respiratory syncytial virus infection in adults due to diagnostic testing limitations: A systematic literature review and meta-analysis. J Infect Dis. 2023 Jul 14;228(2):173-184. PMID: 36661222. - Schwartz RH, Selvarangan R, Zisman EN, BD Veritor System respiratory syncytial virus rapid antigen detection test: Point-of-care results in primary care pediatric offices compared with reverse transcriptase polymerase chain reaction and viral culture methods. Pediatr Emerg Care. 2015 Dec;31(12):830-4. PMID: 25803752. AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 28

Slide Title and Commentary	Slide Number and Slide
References 2 SAY: Here are the references.	Slide 29 References 2 - Chartand C, Tremblay N, Renaud C, et al. Diagnostic accuracy of rapid antigen detection tests for respiratory syncytial virus infection: Systematic review and meta-analysis. <i>J Clin Microbiol</i>. 2015 Dec;53(12):3738-49. Epub 2015 Sep 9. PMID: 26354816. - PR Newswire. Flowflex launches first FDA-cleared 4-in-1 home test detecting RSV, flu A/B and COVID for ages 6 months+. News release. ACON Laboratories Inc. January 23, 2026. https://www.prnewswire.com/news-releases/flowflex-launches-first-fda-cleared-4-in-1-home-test-detecting-rsv-flu-a-b-and-covid-for-ages-6-months-302683750.html. Accessed May 14, 2026. - Tejada S, Martinez-Revejo R, Karakoc HN, et al. Ribavirin for treatment of subjects with respiratory syncytial virus-related infection: A systematic review and meta-analysis. <i>Adv Ther</i>. 2022 Sep;39(9):4037-4051. Epub 2022 Jul 25. PMID: 35676973. - De Sutter AI, Eriksson L, van Dieët ML. Oral antihistamine-decongestant-analgesic combinations for the common cold. <i>Cochrane Database Syst Rev</i>. 2022 Jan 21;1(1):CD004976. PMID: 35060018. - Deeks L, De Sutter AI, Guo L, et al. Nasal decongestants in monotherapy for the common cold. <i>Cochrane Database Syst Rev</i>. 2016 Oct 17;10(10):CD006612. PMID: 27748955. - Smith SM, Schroeder K, Fahey T. Over-the-counter (OTC) medications for acute cough in children and adults in community settings. <i>Cochrane Database Syst Rev</i>. 2014 Nov 24;2014(11):CD001831. PMID: 25420096. - Fashner J, Ericson K, Werner S. Treatment of the common cold in children and adults. <i>Am Fam Physician</i>. 2012 Jul 15;86(2):153-9. PMID: 22962927. - Scott J, Abers MS, Marwah HK, et al. Updated evidence for covid-19, RSV, and influenza vaccines for 2025-2026. <i>N Engl J Med</i>. 2025 Dec 4;393(22):2221-2242. Epub 2025 Oct 29. PMID: 41100817. AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 29
References 3 SAY: Here are the references.	Slide 30 References 3 - Infectious Diseases Society of America. IDSA 2025 Guidelines on the Use of Vaccines for the Prevention of Seasonal COVID-19, Influenza, and RSV Infections in Immunocompromised Patients. November 04, 2025. https://www.idsociety.org/practice-guideline/idsa-2025-guidelines-on-the-use-of-vaccines-for-the-prevention-of-seasonal-covid-19-influenza-and-rsv-infections-in-immunocompromised-patients/. Accessed May 14, 2026. - Centers for Disease Control and Prevention. RSV vaccine guidance for adults. February 24, 2026. https://www.cdc.gov/rsv/vaccine-clinical-guidance/adults.html. Accessed May 14, 2026. - Centers for Disease Control and Prevention. RSV vaccine guidance for pregnant women. August 30, 2024. https://www.cdc.gov/rsv/vaccine-clinical-guidance/pregnant-people.html. Accessed May 14, 2026. - Lively JY, Curns AT, Wenberg GA, et al. Respiratory syncytial virus-associated outpatient visits among children younger than 24 months. <i>J Pediatric Infect Dis Soc</i>. 2019 Jul 15;3(3):284-286. PMID: 30840770. - Piedmonte G, Perez MK. Respiratory syncytial virus infection and bronchiolitis. <i>Pediatr Rev</i>. 2014 Dec;35(12):S19-30. Erratum in: <i>Pediatr Rev</i>. 2015 Feb;36(2):85. PMID: 25452661. - Rethy J. Choose water for healthy hydration. American Academy of Pediatrics. July 26, 2024. https://www.healthychildren.org/English/healthy-living/nutrition/Pages/Choose-Water-for-Healthy-Hydration.aspx. Accessed May 14, 2026. - U.S. Food & Drug Administration. Use caution when giving cough and cold products to kids. February 8, 2018. https://www.fda.gov/drugs/special-features/use-caution-when-giving-cough-and-cold-products-kids. Accessed May 14, 2026. AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 30
References 4 SAY: Here are the references.	Slide 31 References 4 - Jones JM, Fleming-Dutra KE, Phil MM, et al. Use of nirsevimab for the prevention of respiratory syncytial virus disease among infants and young children: Recommendations of the Advisory Committee on Immunization Practices - United States, 2023. <i>MMWR Morb Mortal Wkly Rep</i>. 2023 Aug 25;72(34):920-925. PMID: 37816235. - Moulla DL, Link-Gelles R, Chu HY, et al. Use of clesrovimab for prevention of severe respiratory syncytial virus-associated lower respiratory tract infections in infants: Recommendations of the Advisory Committee on Immunization Practices - United States, 2025. <i>MMWR Morb Mortal Wkly Rpt</i>. 2025;74(32):508-514. PMID: 40880502. - Centers for Disease Control and Prevention. RSV in infants and young children. February 20, 2026. https://www.cdc.gov/rsv/infants-young-children/index.html. Accessed May 14, 2026. AHRQ Safety Program for Telemedicine: Improving Antibiotic Use Respiratory Syncytial Virus (RSV) 31

AHRQ Pub. No. 26(27)-0021
October 2026