What doctors wish patients knew about RSV infection

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This flu season, as influenza cases pick up and experts weigh concerns about a possible surge in COVID-19 cases, children’s hospitals are already filling up with another viral threat: respiratory syncytial virus (RSV). The drastic and unusually early spike in the respiratory infection is causing long waits for treatment and worries about a “tripledemic” of a surge in flu, COVID-19 and RSV cases.

RSV is a common respiratory virus that usually causes mild, cold-like symptoms. While most people recover in a week or two, RSV can be serious, especially for infants, older adults and adults with chronic medical conditions. According to surveillance from the Centers for Disease Control and Prevention (CDC), there has been an increase in RSV-associated emergency department visits and hospitalizations across the country, with some regions near seasonal peak levels.

RSV leads to about 2.1 million outpatient visits annually in the U.S., between 58,000 and 80,000 hospitalizations, and 100–300 deaths among children under than 5. For patients 65 or older, each year brings about 60,000–120,000 hospitalizations and 6,000–10,000 deaths, according to the CDC.

The AMA’s What Doctors Wish Patients Knew™ series provides physicians with a platform to share what they want patients to understand about today’s health care headlines, especially throughout the COVID-19 pandemic.

For this installment, two physicians took time to discuss what patients need to know about the rising RSV infections. They are:

- Sandra Fryhofer, MD, an Atlanta general internist and chair of the AMA Board of Trustees. Dr. Fryhofer also serves as the AMA’s liaison to the CDC’s Advisory Committee on Immunization Practices (ACIP) and is a member of ACIP’s COVID-19 Vaccine Work Group.
- Preeti Malani, MD, an infectious diseases specialist and professor of medicine in the infectious diseases division at the University of Michigan Medical School. Dr. Malani is also deputy editor of JAMA®.
RSV season is starting earlier

“Outbreak timing and severity can vary geographically and from season to season. RSV usually starts in the fall and peaks in the winter,” Dr. Fryhofer said. But “this year’s RSV and flu seem to be starting early,” and because “COVID-19 is already circulating we have a triple threat this year.”

Right now, “many children’s hospitals are being flooded with RSV cases,” Dr. Fryhofer said, noting that “COVID-19 is still a threat, but many are no longer masking or physical distancing, which makes it easier for all three viruses to spread.”

Understand your risk level

“Those at highest risk of severe complications of RSV infections include infants under 6 months old—especially premature infants—and those 65 and older,” said Dr. Fryhofer. “RSV is especially dangerous for those with underlying medical conditions including heart or lung problems, as well as weakened immune systems.”

“The highest RSV-hospitalization rates for children are in the first few months of life. RSV risk declines with increasing age in early childhood,” said Dr. Fryhofer. “Prematurity and other chronic medical conditions increase risk of RSV-associated hospitalizations, but most hospitalizations are in healthy term infants. Most children have had it by their 2nd birthday.”

For older adults, “RSV is a frequent cause of severe respiratory illness that is likely underdetected,” she explained. “RSV infections in adults can trigger acute myocardial infarction, stroke and can exacerbate asthma and chronic cardiopulmonary disease, or COPD. RSV infection rates are nearly two times higher in patients with COPD as compared to others.”

Preterm babies need preventive meds

For “pre-term infants, their lungs are not as developed. So, if they get RSV they can be hospitalized and may even require ventilation,” said Dr. Malani, noting a preventive medication is available called palivizumab (marketed as Synagis).

“It’s a monoclonal antibody. It’s interesting because this has been done for more than 20 years, but they get this monthly,” she explained. “It’s not a vaccine. It’s a monoclonal antibody, but it’s a preventive.”
“But those babies don’t even start getting dosed until usually December because they don’t typically get RSV in the summer,” Dr. Malani said, emphasizing that “you absolutely don’t want pre-term infants to get RSV. As to how well this protects this year, we’re going to find out because there’s just more infection circulating.”

Watch out for RSV signs and symptoms

“The biggest sign is just like with other infections—there’s a range. So, little babies may have difficulty breathing, fever, cough, wheezing, chest congestion or it could just be a runny nose and they don’t want to eat,” said Dr. Malani. “For many of us, RSV could look like any other common cold.”

“One thing that is a bit specific to RSV is that wheezing and bronchospasm,” she said. “Then in older adults—particularly those in nursing homes—it is pneumonia.”

Keep in mind how RSV spreads

“You get it from exposure to respiratory droplets when an infected person coughs or sneezes,” said Dr. Fryhofer. “You can also get it from direct exposure to virus droplets including kissing the face of an infected child or from contact with surfaces.

“The virus can live for many hours on hard surfaces,” she added, noting that “people with RSV are contagious for about three to eight days. However, some with weakened immune systems can be ill for up to eight weeks.”

Testing is key to identify viruses

With symptoms of RSV, flu and COVID-19 all similar, “it’s a perfect storm of all three viruses circulating. The only way to know for sure is to test,” said Dr. Fryhofer. “Rapid antigen tests, direct fluorescent antibody testing and polymerase chain reaction, or PCR, testing are the most common.”

“There is also respiratory panel testing, which tests for spectrum of respiratory viruses,” she said, adding that “viral culture is the gold standard, but it takes a while for results to come back.”

“Consider testing those 6 months or younger as well as those 65 and older and those with underlying heart or lung problems or weakened immune systems,” Dr Fryhofer said.
Treatment varies from person to person

“The care is like with other with other colds: Treating the symptoms” with pain relievers such as acetaminophen (marketed as Tylenol), said Dr. Malani, adding that “sometimes you need medications for wheezing to treat asthma type symptoms, so inhalers or nebulizers.”

For RSV, “some infants—especially those under 6 months old and older adults—may require hospitalization if breathing problems are severe,” she explained. In those instances, “treatment is supportive with oxygen, IV fluids, and for some, intubation and mechanical ventilation.”

Additionally, palivizumab “can prevent severe disease in certain high-risk infants,” Dr. Fryhofer said, noting that vaccines and other monoclonal antibody products “are under development.”

“There are not specific medications that are given for this infection, except in the case of very immunocompromised individuals,” said Dr. Malani. “Someone who has a bone-marrow transplant, for example, we would treat them with an antiviral, but in most people, antivirals are not going to be used.”

The recovery period varies too

“It’s helpful for people to understand what they have and what recovery might look like,” said Dr. Malani, who noted that “you’re not going to be better in a day.”

“For little kids, it might be three days, it might be seven days,” she said, adding that “for parents who have to take time off to take care of them or they have to bring somebody in to help take care of them, those are difficult conversations because you don’t want an older family member to be exposed either.”

“Symptoms usually start to improve within a week and certainly by two weeks you would expect them to improve, but it can take a long time to feel completely better,” Dr. Malani explained. “And a lot of us have had that experience too where that cough is lingering.”

Vaccines are in the works

“Although there is no vaccine for RSV, there are vaccines for flu and COVID for everyone ages 6 months and older,” said Dr. Fryhofer. However, “there are five different types of RSV vaccines under
study: Live attenuated, protein-based, nucleic acid, and also recombinant-vector vaccines.”

At the ACIP meeting in October, the British drugmaker GSK “presented study data for their protein-based plus adjuvant RSV vaccine—GSK RSV preF3—for adults 60 and older,” she explained. “Overall, vaccine efficacy was 82.6% against lower respiratory tract disease.”

Pfizer also presented its protein-based bivalent RSV vaccine for adults 60 or older, which “had overall vaccine efficacy of 85% against lower respiratory tract infections,” Dr. Fryhofer said, adding that there “are also at least three monoclonal antibody prophylactic products under study which target different antigenic sites” and are intended for use in those under 2 years old.

“There’s a lot of hope that we might have a vaccine in the next year or two,” Dr. Malani said. “It wouldn’t be something that would be given to all of us like the flu vaccine, but would be for kids and older adults who are impacted the most.”

**It’s important to stop the spread**

“RSV is spread from person to person and it’s people coughing and sneezing, but it’s also hands,” said Dr. Malani. “And this is something that we spent a lot of time early in the pandemic talking about—surfaces.

“Everyone was cleaning surfaces, but this is one where you do want to clean up the surface and you want to keep your hands clean,” she added.

That’s because “the best RSV prevention is to stop the spread. Cover coughs and sneezes and wash your hands for 20 seconds with soap and water,” said Dr. Fryhofer. And “keep that hand sanitizer with you.”

Additionally, “if you are sick or your child is sick, don't go into a crowded space. Don't go to class, don't go to work,” said Dr. Malani.

**Consider wearing masks as parents**

“Masks may also help provide triple protection from COVID, flu, and RSV,” Dr. Fryhofer recommended.

“It’s a little odd to wear a mask around your child, but wear a mask,” said Dr. Malani. “Part of it is that you need to stay healthy to take care of your child and we have found that masks really do work well.”
Contact your doctor

“Any kind of difficulty breathing is going to be one of the biggest concerns, especially little babies because they don’t have a lot of reserve and a baby who’s struggling to breathe needs to be seen,” said Dr. Malani. Then “older adults who aren’t eating, they have a fever, they’re having difficulty breathing, those are going to be what I am going to look for clinically.”

“I would just err on the side of caution taking the child in, because there are things doctors can do even though there’s not an antiviral or a vaccine or an antibiotic, but they can treat the breathing difficulties with nebulizers,” she said, noting that “young children can also get dehydrated because they have difficulty eating and drinking if they’re having difficulty breathing.”

“As a parent, when you feel like your child isn’t well, rely on that instinct,” said Dr. Malani. “Trust your gut because this can be quite serious, but it can be treated and managed.”