RSV in Pregnancy: Vaccinations, Prevention, and Treatment Recommendations

Our easy-to-read fact sheets provide clinicians with reliable information to share with patients and their caregivers.

Respiratory syncytial virus (RSV) is a seasonal lower respiratory tract infection (LRTI) responsible for millions of hospitalizations globally on an annual basis. It commonly affects patients who are immunocompromised, individuals who are younger than 5 or older than 65 years of age, and patients with chronic heart and lung disease. Common symptoms of RSV include cough, fever, and shortness of breath, which peak within the first week of infection. The risk factors for infection in infants include premature birth. Risk factors in adults and children include existing immune disorders and pulmonary diseases.

RSV diagnosis requires testing. In the past, diagnosis was based on cell cultures or laboratory tests. More recently, rapid and specific PCR tests have become available.

Most people are infected by RSV by the age of 2. Frequent reinfection for RSV, even within the same season, is possible. Following the initial infection, any reinfection should be less severe.

RSV in Pregnant Women

The incidence of RSV in pregnancy is low, with about 2% to 9% of pregnant individuals developing RSV. However, the actual number may be higher because of infrequent testing. Common symptoms of RSV in pregnant women include fever lasting 2 to 3 days, runny nose, and sore throat lasting 4 days. Less common but more severe symptoms include wheezing and shortness of breath.

When pregnant individuals are infected with RSV, they are at a greater risk for developing a severe infection because the body makes changes to the immune system, heart, and lungs to accommodate a developing baby, while still defending the body from pathogens. Studies have shown that 50% of pregnant women may develop severe RSV infections requiring hospitalization. Also, pregnant women have a higher risk for hospitalization in the third trimester, as well as for hospitalization due to pneumonia or other respiratory illnesses. Common pre-existing conditions in pregnant women who are hospitalized are obesity, another infection, and asthma.

Although not clearly understood, RSV in pregnancy has been linked to RSV in babies at birth. It's believed that this may be possible because the RSV infection in the mother can be passed to the baby in utero.
RSV in Infants

Research to address RSV in infants has primarily focused on how the mother passes antibodies to the child during pregnancy. There are 33 million cases of RSV in infants and children annually in the United States, and infants under 6 months of age account for 46% of RSV-related deaths. RSV is the most common cause of viral pneumonia and acute respiratory tract infections in children and the second most common cause of infant deaths worldwide.

Babies are especially at risk for a severe infection because they are born with small airways. When they get infections that cause inflammation, the already small airways become even smaller, leading to wheezing and difficulty breathing. RSV infections in infants are associated with severe bronchiolitis that has been associated with recurrent wheezing. Infants who get RSV within the first 3 years of life are 3 times more likely to develop asthma.

RSV Treatment for Pregnant Women

Treatments for RSV are mostly interventions to reduce symptoms, like supplemental oxygen and rehydration with intravenous fluids. For patients who are immunocompromised, ribavirin (Virazole®), an aerosolized antiviral medication, is recommended.

RSV seasonal prevention includes 2 injectables, palivizumab (Synagis®) and nirsevimab (Beyfortus®). Once-monthly palivizumab is given to infants under 2 years of age with serious comorbidities or born at less than 32 weeks gestation. Single-dose nirsevimab is approved for use in infants who are preterm and full-term with a high risk for infection.

RSV Vaccination for Pregnant Women

In 2023, the FDA approved a new RSV vaccine, Abrysvo®. The 1-dose RSVpreF vaccine is recommended for pregnant women between 32 to 36 weeks of gestation. The vaccine provides immunity to the mother for 2 years. After administration, it takes 14 days for the mother to develop antibodies that then pass immunity to the baby. The vaccine is intended both to lower the mother’s risk for getting RSV and to protect the infant; the vaccine prevents RSV and lowers the risk for respiratory tract infections in infants up to 6 months of age. With the advent of the new vaccine, infants will only need prophylactic medications in rare circumstances, such as when the infant is born less than 14 days after the mother received the vaccine, or when the mother has HIV.

Frequently Asked Patient Questions
What happens to my baby if I get RSV while pregnant?

RSV infection during pregnancy may be associated with early delivery and low birth weight. Some studies suggest that babies born with RSV are more likely to develop acute respiratory illnesses, asthma, and wheezing, and to require supplemental oxygen.

Is the RSV vaccine safe for pregnant women?

Although research is ongoing, the RSV vaccine is considered safe during pregnancy. The most common side effects were injection site reactions, headache, nausea, and muscle pain, resolving within 3 days.

Can I get the RSV vaccine with the other vaccines recommended during pregnancy?

Abrysvo is considered safe to simultaneously get with the other vaccines for pregnancy, including the tetanus, diphtheria, and pertussis (Tdap; Boostrix® and Adacel®), influenza (Afluria Quadrivalent® and Fluad®), and COVID-19 (Comirnaty®: Spikevax®) vaccines. Although the Tdap vaccine is considered safe to receive, the pertussis immunity is lessened but still considered protective.

Are there any natural products that prevent or treat RSV while pregnant?

Pregnant women with cold and flu-like symptoms sometimes use ginger or cranberry to relieve symptoms. The decision to take any kind of herbal or over-the-counter medication while pregnant should be discussed in advance with a health care provider. If a high fever develops or RSV symptoms become too severe, an emergency room visit is warranted.