

Clinical Pearl: RSV(P): Will It Be Joining Us this Fall? Interim Guidance from the AAP for the Use of Pavalizumab Prophylaxis During the Delayed RSV Surge

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“RSV is one of the most common causes of viral childhood illness and constitutes a significant public health burden, on average responsible for approximately 2.1 million outpatient visits and 57,000 hospitalizations annually in children under the age of 5 years (1).”

Every year, respiratory syncytial virus (RSV) infections follow a typical seasonal pattern. Once the new pediatric interns get well acquainted with the pediatric units and emergency rooms over the summer, the cases rapidly increase in the fall, peaking in early February and declining in the spring. RSV is one of the most common causes of viral childhood illness and constitutes a significant public health burden, on average responsible for approximately 2.1 million outpatient visits and 57,000 hospitalizations annually in children under the age of 5 years (1).

However, during the classic RSV season of 2020, with the use of non-pharmacologic interventions, including universal masking and social distancing, it appeared as if we started to not only slow down the spread of COVID-19 but also other common respiratory illnesses (2). Throughout that winter, the pediatric units across the country remained unusually less busy. Based on the available data tracked by the CDC, only 0.037% of RSV PCR tests performed across the country the week of 12/26/20 were positive, compared to 15.639% during the corresponding week in 2019, demonstrating a marked reduction in RSV cases (3, 4).

In the spring of 2020, we observed increased COVID-19 vaccine availability and vaccination rates, with the rates of COVID-19 cases finally starting to decline. As the world cautiously started to return back to its “normal,” with more relaxed mask policies, reopening of daycares, schools, and restaurants, pediatricians started to note increased patient volumes in the emergency rooms, as a result of what appears to be a delayed RSV surge, with 16.097% of positive RSV PCR tests nationally in the week of 8/21/21 (4).

Pavalizumab) has been shown to greatly reduce RSV-related hospitalizations and ICU admissions in infants at high risk for a more severe course of the disease. History of prematurity is a well-known risk factor, with increased hospitalization rates and longer hospital stays in these patients (5). As a result, the AAP guidelines from 2014 recommend palivizumab prophylaxis in infants born before 29 weeks 0 days gestation who are younger than 12 months prior to the start of RSV season for a total of 5

monthly doses. Additionally, infants born after 29 weeks gestation can also qualify for Synagis if they suffer from chronic lung disease or congenital heart disease (6).

Given the available data on the current RSV activity in the United States, associated with increased numbers of emergency room visits and hospitalizations, the AAP released an interim guideline on Synagis use during this time, strongly supporting consideration for Synagis use in those patients who meet the eligibility criteria listed in their 2014 guideline. This strategy should be implemented in regions with high rates of RSV infections, consistent with the rates classically seen during the fall-winter RSV season (7).

“This delayed increase in RSV activity leaves some uncertainty as to what we should expect this fall. In light of what we have learned from last year’s RSV season, if local authorities re-instate universal masking and strict social distancing policies across the country with the current rise in COVID-19 hospitalizations, we could potentially see these non-pharmacologic measures affect the RSV curve as much as the COVID-19 one.”

This delayed increase in RSV activity leaves some uncertainty as to what we should expect this fall. In light of what we have learned from last year’s RSV season, if local authorities re-instate universal masking and strict social distancing policies across the country with the current rise in COVID-19 hospitalizations, we could potentially see these non-pharmacologic measures affect the RSV curve as much as the COVID-19 one. Conversely, if the high rates of RSV persist, it might be necessary to expand the course of Synagis to include more than five doses to ensure adequate protection of those with a history of prematurity. With all that in mind, the AAP guideline suggests to re-assess the need for administering Synagis to infants at risk at least monthly, as it appears that the COVID-19 pandemic will continue to play a significant role in the patterns we see in RSV as well as other common infectious diseases.

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Disclosures: The authors have no conflicts to disclose

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