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Palivizumab Prophylaxis — Alaska, 2014–15 RSV Season

Background

Respiratory syncytial virus (RSV) is the most common cause of bronchiolitis and pneumonia in infants in the United States.¹ Hospitalization rates are higher for certain risk groups, such as premature infants—particularly those <29 weeks gestation—and infants with chronic lung disease or congenital heart disease.¹ Rural Alaska Native children have historically had 5-fold higher RSV hospitalization rates compared to other U.S. children.² For severely ill children in rural areas, medical evacuation to Anchorage may cost over \$20,000.²

Palivizumab (Synagis®) is a monoclonal antibody that reduces the risk of RSV hospitalization in certain high-risk children.^{1,3} In 2014, the American Academy of Pediatrics (AAP) revised eligibility criteria for palivizumab prophylaxis to restrict recommendations to children who are at highest risk.¹ These guidelines recommend palivizumab only for 1) premature infants aged <12 months who are born before 29 weeks gestation, 2) infants aged ≤12 months with hemodynamically significant heart disease, 3) infants with anatomic or neuromuscular conditions that impair the ability to clear airway secretions during the first year of life, 4) preterm infants ≤32 weeks gestation who require supplemental oxygen for at least the first 28 days after birth during their first year of life (and also in the second year if they require ongoing medical management), and 5) children aged <2 years who are profoundly immunocompromised.¹ Throughout most of the U.S., palivizumab prophylaxis for high-risk children starts in November and involves up to five monthly doses.^{1,3}

Alaska RSV Seasonality

The RSV season is generally defined as the first and last 2 consecutive weeks during which RSV was laboratory-confirmed in ≥2 specimens and >10% of submitted specimens.⁴ RSV direct fluorescent antibody testing is performed by the Alaska State Virology Laboratory (ASVL) on respiratory specimens collected from children aged <2 years, and when RSV testing is specifically requested. The RSV season can vary by year; for example, the 2013–14 RSV season started and concluded about 1 month later than during the five prior seasons. During 2013–14, ASVL consistently detected RSV in the weeks from January 5 through June 21 (Figure 1). Seasonality also varies by region. At YK Delta Regional Hospital, RSV was consistently detected in the weeks from March 10 through June 23, while at an Anchorage hospital, RSV was consistently detected in the weeks from January 5 through June 17 (Figure 2).

Alaska Medicaid Palivizumab Reimbursement Criteria

During the 2013–14 RSV season, Alaska Medicaid reimbursed for palivizumab from November 25 through May 14, with extension through May 31 due to the protracted season.⁴ For the 2014–15 season, the reimbursement period for palivizumab will be November 30 through May 15. However, Medicaid will only pay for up to five monthly doses of palivizumab for children meeting specified criteria. If the

2014–15 RSV season starts prior to November 30, Medicaid will adjust the coverage dates accordingly (Table).

While providers are encouraged to review the AAP 2014 guidelines, Medicaid coverage criteria for the 2014–15 RSV season will not change to the 2014 AAP guidelines, but will continue to reflect the 2009 AAP criteria (Table).⁴

Figure 2. RSV-Positive Tests by Week from Two Alaska Hospitals — Alaska, 7/1/13 through 6/30/14

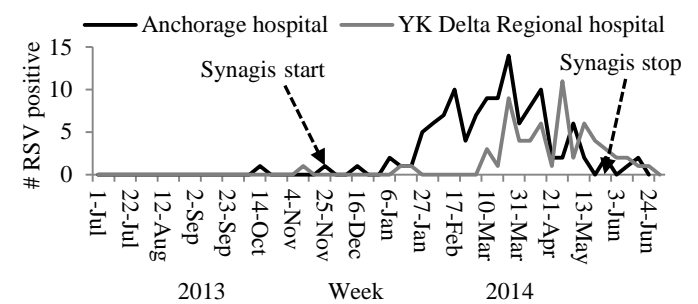


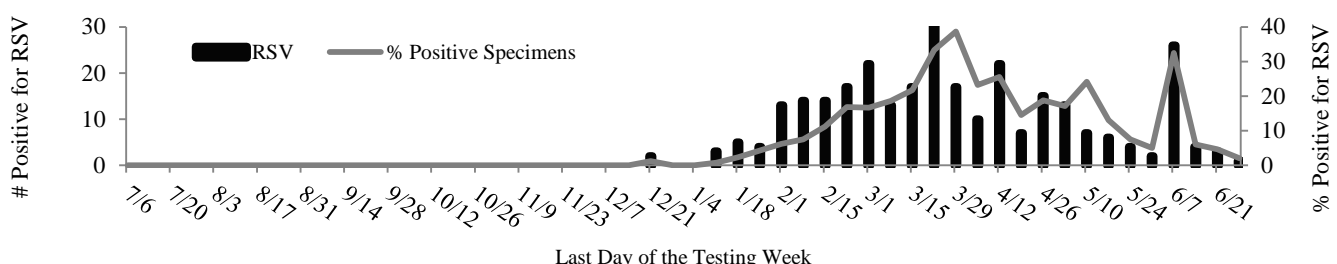
Table. Alaska Medicaid Palivizumab Coverage for the 2014-15 RSV Season

Date of Birth	Gest. Age (Weeks)	Risk Factors	# of Doses
Born Sep 3 or after, 2014 (<3 months)	32 to <35	At least one: • daycare attendance • sibling aged <5 years • home without running water ⁴ • ≥3 people in child's bedroom or ≥7 in child's household	≤3, until 90 days of age
Born after May 30, 2014 (<6 months)	29 to <32		≤5
Born after Nov 30, 2013 (<12 months)	<29		≤5
Born after Nov 30, 2013 (<12 months)	Any	• congenital airway anomaly • neuromuscular disease	≤5
Born Nov 30 2012 or after, with CHD; or born after Nov 30, 2012 with CLD	Any	• congenital heart disease (CHD) • chronic lung disease (CLD)	≤5

References

- AAP. Updated guidance for palivizumab prophylaxis among infants and young children at increased risk of hospitalization for RSV infection. *Pediatrics* 2014, 134(2):415-420. Available at: <http://pediatrics.aappublications.org/content/early/2014/07/23/peds.2014-1665>
- Singleton RJ, Bruden D, Bulkow LR. Respiratory syncytial virus season and hospitalizations in the Alaskan Yukon-Kuskokwim Delta. *Pediatr Infect Dis J* 2007;26:S46-S50.
- Alaska Section of Epidemiology *Bulletin*. Palivizumab Prophylaxis Recommendations – Alaska, 2013-14 RSV Season. No. 22, Aug 30, 2013. Available at: http://www.epi.alaska.gov/bulletins/docs/b2013_22.pdf
- Committee on Infectious Diseases, Policy Statement—Modified Recommendations for Use of Palivizumab for Prevention of Respiratory Syncytial Virus Infections. *Pediatrics* 2009;124(6):1696-1701.

Figure 1. Number and Percent of RSV Positives by Week Tested at the Alaska State Virology Laboratory, 7/1/2013-6/23/2014



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