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Synagis (palivizumab) Prior Authorization Program Summary

FDA APPROVED INDICATIONS AND DOSAGE[1]

Agent(s)	Indication(s)	Dosage
Synagis® (palivizumab) Intramuscular injection	Prevention of serious lower respiratory tract disease caused by respiratory syncytial virus (RSV) in pediatric patients: • with a history of premature birth (less than or equal to 35 weeks gestational age) and who are 6 months of age or younger at the beginning of RSV season • with bronchopulmonary dysplasia (BPD) that required medical treatment within the previous 6 months and who are 24 months of age or younger at the beginning of RSV season • with hemodynamically significant congenital heart disease (CHD) and who are 24 months of age or younger at the beginning of RSV season	15 mg/kg of body weight administered monthly by intramuscular injection The first dose should be administered prior to commencement of the RSV season and the remaining doses administered monthly throughout the RSV season. In the northern hemisphere the RSV season typically commences in November and lasts through April but may begin earlier or persist later in certain communities. The efficacy of doses less than 15 mg/kg, or of dosing less frequently than monthly throughout the RSV season, has not been established.

CLINICAL RATIONALE

Respiratory syncytial virus (RSV) causes acute respiratory tract illness in patients of all ages. Almost all children are infected with RSV by two years of age, and reinfection is common. RSV typically causes mild to moderate upper respiratory tract symptoms in older children and adults, but has the potential to cause severe lower respiratory tract infection (LRTI) requiring hospitalization in risk groups such as premature infants (born before 35 weeks gestation), infants and children with underlying chronic lung disease (CLD) such as bronchopulmonary dysplasia (BPD), and infants and children with congenital heart disease (CHD).[2] Bronchiolitis is the most common cause of hospitalization among infants in the first year of life.[3,4] The RSV season in the Northern hemisphere is typically November to April.[1,2,4,5] The Center for Disease Control and Prevention tracks and provides regional information on the RSV season.[7] The severity of the RSV season, the time of onset, the peak of activity, and the end of the season cannot be predicted precisely and there may be substantial variation in timing of community outbreaks from year to year in the same community and between communities in the same region.[2,3,5]

The American Academy of Pediatrics (AAP) Policy Statement: Updated Guidance for Palivizumab Prophylaxis Among Infants and Young Children at Increased Risk of Hospitalization for RSV Infection (2014; reaffirmed 2019) states the benefit resulting from palivizumab is limited, and prophylaxis has limited effect on RSV hospitalizations on a population basis, with no measurable effect on mortality and a minimal effect on subsequent wheezing.[5] AAP recommends palivizumab use be restricted to the following populations:

- Infants born before 29 weeks, 0 days' gestation who are younger than 12 months of age at the start of the RSV season.[4,5,6]
    - Palivizumab prophylaxis is not recommended in the second year of life based on a history of prematurity alone.[5]
    - Infants born at 29 weeks, 0 days' gestation or later are not universally recommended to receive palivizumab prophylaxis but may qualify to receive prophylaxis on the basis of congenital heart disease (CHD), chronic lung disease (CLD), or another condition.[4,5,6]
    - For infants born during the RSV season, fewer than 5 monthly doses will be needed.[4,5]
- During the RSV season during the first year of life for preterm infants who develop chronic lung disease (CLD) of prematurity defined as gestational age <32 weeks, 0 days and a requirement for >21% oxygen for at least the first 28 days after birth.[4,5,6]
    - During the second year (12-24 months) of life, for those that meet the above requirement (develop CLD of prematurity defined as gestational age <32 weeks, 0 days and a requirement for >21% oxygen for at least the first 28 days after birth) AND continue to require medical support (chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) during the 6-month period before the start of the second RSV season.[4,5,6]
    - For children with CLD who do not continue to require medical support in the second year of life, prophylaxis is not recommended.[4,5]
- Infants 12 months or younger with hemodynamically significant congenital heart disease (CHD) who are most likely to benefit from immunoprophylaxis include infants with acyanotic heart disease who are receiving medication to control congestive heart failure (CHF) and will require cardiac surgical procedures, and infants with moderate to severe pulmonary hypertension.[5]
    - Infants with cyanotic heart defects in the first year of life should consult with a pediatric cardiologist for decisions regarding prophylaxis.[5]
    - Infants/children with CHD that are not at increased risk of RSV infection and generally should NOT receive immunoprophylaxis are:
        - Those with hemodynamically insignificant heart disease (e.g., secundum atrial septal defect, small ventricular septal defect, pulmonic stenosis, uncomplicated aortic stenosis, mild coarctation of the aorta, and patent ductus arteriosus).[5]
        - Infants with lesions adequately corrected by surgery, unless they continue to require medication for congestive heart failure.[5]
        - Infants with mild cardiomyopathy who are not receiving medical therapy for the condition.[5]
        - Children in second year of life.[5]
    - Children younger than 24 months with hemodynamically significant CHD who are currently receiving prophylaxis and who continue to require it after a surgical procedure, a post-operative dose should be considered after cardiac bypass or at the conclusion of extra-corporeal membrane oxygenation.[1,5]
- Prophylaxis with palivizumab may be considered in:
    - Children younger than 24 months with hemodynamically significant CHD who are undergoing cardiac transplantation during the RSV season.[5]
    - Infants younger than 12 months with neuromuscular disease or congenital anomaly that impairs the ability to clear secretions from the upper airway because of ineffective cough.[4,5,6]
    - Children younger than 24 months who are profoundly immunocompromised during the RSV season.[4,5,6]
    - Infants younger than 12 months with cystic fibrosis with clinical evidence of CLD and/or nutritional compromise.[4,5]
        - Continuation into the second year for infants with manifestations of severe

lung disease (previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest radiography or chest computed tomography that persist when stable) or weight for length less than the 10th percentile.[5]

If a breakthrough RSV infection is determined to be present based on antigen detection or other assay, monthly palivizumab prophylaxis should be discontinued because of the very low likelihood of a second RSV hospitalization in the same year.[4,5,6] Because 5 monthly doses of palivizumab at 15 mg/kg per dose will provide more than 6 months of serum concentrations above the desired level for most children, administration of more than 5 monthly doses is not recommended within the continental United States.[4,5]

Safety[1]
Synagis is contraindicated in children who have had a previous hypersensitivity reaction to Synagis.

REFERENCES

1. Synagis prescribing information. Sobi Inc. November 2020.
2. Barr FE, Graham BS, et al. Respiratory Syncytial Virus Infection: Clinical Features and Diagnosis. UpToDate. Literature review current through January 2021. Last updated August 2019. Accessed March 2021.
3. Smith DK, Seales S, Budzik C. Respiratory Syncytial Virus Bronchiolitis in Children. *Am Fam Physician*. 2017 Jan;95(2):94-99.
4. American Academy of Pediatrics (AAP) Clinical Practice Guideline: The Diagnosis, Management, and Prevention of Bronchiolitis; 2014 (reaffirmed 2019). *Pediatrics*. 2014;134:e1474-e1502.
5. American Academy of Pediatrics (AAP) Policy Statement: Updated Guidance for Palivizumab Prophylaxis Among Infants and Young Children at Increased Risk of Hospitalization for Respiratory Syncytial Virus Infection; 2014 (reaffirmed 2019). *Pediatrics*. 2014;134(2):415-420.
6. Barr FE, Graham BS, et al. Respiratory Syncytial Virus Infection: Prevention in Infants and Children. UpToDate. Literature review current through August 2021. Last updated August 2021. Accessed September 2021.
7. Respiratory Syncytial Virus Infection (RSV) – Trends and Surveillance. Center for Disease Control and Prevention. Available at: https://www.cdc.gov/rsv/research/us-surveillance.html. Accessed March 2021.

Synagis (palivizumab) Prior Authorization

TARGET AGENT(S)

Synagis® (palivizumab)

Brand (generic)	GPI	Multisource Code
Synagis (palivizumab)		
50 mg/0.5 mL vial	19502060002015	M, N, O, or Y
100 mg/1 mL vial	19502060002020	M, N, O, or Y

PRIOR AUTHORIZATION CRITERIA FOR APPROVAL

Target Agent(s) will be approved when ALL of the following are met:

1. The requested agent is being prescribed for the prevention of serious lower respiratory tract disease caused by respiratory syncytial virus (RSV)
   AND
2. The prescriber has provided the patient's RSV season (e.g., October to April)
   AND
3. The requested agent will be used during the patient's current RSV season
   AND
4. The patient has NOT been hospitalized for RSV infection during the current RSV season
   AND
5. ONE of the following:
   A. The patient was a preterm infant with gestational age < 29 weeks, 0 days AND the patient is younger than 12 months of age at the start of the RSV season
      OR
   B. The patient has a diagnosis of chronic lung disease (CLD) of prematurity AND ALL of the following:
      i. The patient was a preterm infant with gestational age < 32 weeks, 0 days
         AND
      ii. The patient required supplemental oxygen for at least the first 28 days after birth
         AND
      iii. ONE of the following:
         1. The patient is younger than 12 months of age at the start of the RSV season
            OR
         2. The patient is 12 months to 24 months of age at the start of the RSV season AND the patient continues to require medical support (chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) during the 6-month period before the start of the second RSV season

   OR
   C. The patient is profoundly immunocompromised during the current RSV season (e.g., severe combined immunodeficiency, solid organ/hematopoietic stem cell transplant, undergoing chemotherapy, or advanced acquired immunodeficiency) AND the patient is 24 months of age or younger
      OR
   D. The patient has a diagnosis of cystic fibrosis AND ONE of the following:
      i. The patient is younger than 12 months of age at the start of the RSV season AND has clinical evidence of chronic lung disease (CLD) and/or nutritional compromise
         OR
      ii. The patient is 12 months to 24 months of age at the start of the RSV season AND ONE of the following:

1. The patient has manifestations of severe lung disease (previous hospitalization for pulmonary exacerbation in the first year of life; abnormalities on chest radiography or chest computed tomography that persist when the patient is stable)
   OR
2. The patient has weight for length less than the 10th percentile

OR

E. The patient has hemodynamically significant congenital heart disease (CHD) AND ONE of the following:
   i. The patient is younger than 24 months of age AND undergoing cardiac transplantation during the RSV season
      OR
   ii. The patient is younger than 12 months of age at the start of the RSV season AND ONE of the following:
      1. The patient is an infant with lesions adequately corrected by surgery but continues to require medication for congestive heart failure
         OR
      2. The patient has cyanotic heart disease AND the prescriber is a pediatric cardiologist or has consulted with a pediatric cardiologist
         OR
      3. The patient has acyanotic heart disease AND BOTH of the following:
         a. The patient is currently receiving medication to control congestive heart failure
            AND
         b. The patient will require cardiac surgical procedures
         OR
      4. The patient has moderate to severe pulmonary hypertension
         OR
      5. The patient has mild cardiomyopathy AND is currently receiving medical therapy for the condition

OR

F. The patient has either congenital abnormalities of the airway or a neuromuscular condition that impairs the ability to clear respiratory tract secretions because of an ineffective cough AND the patient is younger than 12 months of age at the start of the RSV season

AND

6. The prescriber has provided the number of doses the patient has already received of the requested agent for the current RSV season, if applicable
   AND
7. The patient has NOT received 5 or more doses of the requested agent for the current RSV season
   AND
8. The prescribed dose is 15 mg/kg administered monthly

Length of Approval: up to 5 doses until the end of the RSV season