

RESPIRATORY SYNCYTIAL VIRUS

Q: What is Respiratory Syncytial Virus?

Respiratory Syncytial Virus (RSV) is a contagious seasonal virus that causes infections in the respiratory system.

Although adults can get RSV, it more often affects infants and toddlers. Most children have had RSV by age two.¹

Like the flu season, the RSV season usually runs from October to April. In fact, one reason RSV is dangerous is that its symptoms resemble those of the common cold or the flu. Parents may dismiss runny noses, coughing, sneezing or fever as signs of a mild illness.

For most RSV victims, it may be just that. However, infants with weak immune systems, especially preemies, are at greater risk. Parents of at-risk infants and toddlers need to be aware of RSV and take any warnings signs seriously.

Q: Why is RSV dangerous for preemies?

Premature infants have small, underdeveloped airways that are vulnerable to respiratory problems. Their immature immune systems are not able to fight the virus. Added complications such as congenital heart disease, chronic lung disease or transplant medications can increase their risk.

RSV is the most common cause of bronchiolitis and pneumonia² and the leading cause of hospitalization in babies less than one year old.³ At-risk babies often need repeat hospitals stays, and long-term complications can be severe.

Some evidence suggests a connection between RSV and childhood asthma.⁴ And there is a significant risk of death; in the United States, across all age groups, RSV causes 177,000 deaths a year.⁵ Worldwide, it is the second leading cause of mortality in infants outside the neonatal period.⁶

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Q: Which families are most impacted by RSV?

RSV rates vary by ethnic group. In particular, African American infants are at greater risk of RSV because this population has higher rates of prematurity. They also have higher rates of low birthweight, even among full-term babies.⁷

Lower-income families have additional risk factors. Ideally, parents of a premature baby could stay at home with their child, protecting him or her from germs. But working parents often must take their children along on errands or place them in daycare, which are both likely to expose them to RSV. For low-income families living in densely populated urban areas, air pollutants and crowded living conditions can also increase the risk of RSV.⁸

FAST*facts*

Q: How can parents protect their infants?

No vaccine currently exists to treat or cure RSV. But an FDA-approved drug called "palivizumab" can help reduce an infection's severity. It reduces RSV infections and decreases hospitalizations by 55 percent.⁹

Palivizumab is a preventive shot that should be administered monthly to at-risk children before and throughout RSV season.¹⁰



Figure 1. Risk Factors Associated With RSV Don't Touch All Infants Equally



Source: Respirator Synctial Virus and African Americans

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Q: Why can some infants access preventive treatment—while others cannot?

In recent years, many private and government health plans have limited coverage for preventive RSV treatment to only severely premature infants—those born before 29 weeks gestation. This approach creates a coverage gap, leaving the majority of premature infants with no protection from the potentially deadly virus. For the first RSV season following the creation of coverage gap policies, data collected from 43 U.S. hospitals found an alarming 709 hospitalized "gap babies," infants born at 29 to 35 weeks who were likely denied coverage for preventive treatment."



Q. What is RSV's impact on the health care system?

Insurance companies and state Medicaid plans may save money in the short term by limiting coverage for preventive RSV treatment, but they face financial consequences over the long term.

A study comparing RSV hospitalizations between full-term and premature infants found that stays for preemies exacted a much higher cost. Hospitalizations for full-term infants with RSV averaged \$8,324 for Medicaid patients and \$10,570 for commercially insured patients. Yet RSV hospitalizations for preterm infants born between 33 and 34 weeks gestation averaged \$15,839 for Medicaid patients and \$19,931 for commercially insured patients. Preterm infants born before 29 weeks gestation presented the highest care costs, an average of \$39,354 for Medicaid patients and \$40,813 for commercially insured patients. Preterm infants also had longer hospital stays, and a higher proportion of preterm infants were admitted to the intensive care unit.¹²

Certain complications may further increase costs. Bronchiolitis, for example, costs more than \$500 million every year, and a co-diagnosis of pneumonia can push costs even higher.¹³ Care for RSV-related conditions that emerge later in life also can be staggering: asthma care in the United States, for example, totals \$56 billion.¹⁴



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Q: How are families without preventive treatment impacted by RSV?

Parents who cannot pay for preventive RSV treatment out of pocket have no real alternatives. They often work to support their families, and that means exposing their baby to RSV via public transportation and daycare.

This, of course, can result in hospitalization, which requires parents to miss work and sacrifice wages. The emotional toll, particularly for parents who already spent time in the NICU with a preemie, can also be significant. Moreover, logistical costs like babysitters, transportation back and forth from the NICU, and meals away from home add up. This experience can break families' banks as well as their hearts. It can also leave a lasting impact on their child's health.

To reduce RSV's impact on premature infants and their families, policymakers must work to improve health plan coverage for preventive RSV treatment.



Mayo Clinic: Respiratory Syncytial Virus (RSV): Definition [Internet]. Rochester (MN): Mayo Clinic; c2016 [cited 2016 Sep 23]. Available from: <u>http://www.mayoclinic.</u> <u>org/diseases-conditions/respiratory-syncytial-virus/</u> <u>basics/definition/con-20022497</u>

REFERENCES

- Centers for Disease Control and Prevention: Respiratory Syncytial Virus (RSV): Infection and Incidence [Internet]. Atlanta (GA): U.S. Department of Health and Human Services; c2016 [cited 2016 Sep 23]. Available from: <u>http://www.cdc.gov/rsv/about/infection.html</u>
- Nair H, Nokes DJ, Gessner BD, et al. Global burden of acute lower respiratory infections due to respiratory syncytial virus in young children: a systematic review and meta-analysis. Lancet May 1 2015; 375(9725):1545-55.
- Mayo Clinic: Respiratory Syncytial Virus (RSV): Complications [Internet]. Rochester (MN): Mayo Clinic; c2016 [cited 2016 Sep 23]. Available from: <u>http://</u> www.mayoclinic.org/diseases-conditions/respiratorysyncytial-virus/basics/complications/con-20022497
- Falsey AR, Hennessey RN, Formica MA, Cox C, Walsh EE. Respiratory syncytial virus infection in elderly and highrisk adults. New Engl J Med. 2005; 352(17):1749-59.
- Drysdale SB, Green CA, Sande SJ. Best practice in the prevention and management of paediatric respiratory syncytial virus infection. Therapeutic Advances in Infect Disease. 2016 Apr; 3(2): 63–71.
- The National Medical Association RSV Consensus Panel. Respiratory Syncytial Virus and African Americans. 2010 Oct 27: 20.

- 8. Ibid.
- 9. The Impact-RSV Study Group. Palivizumab, a humanized respiratory syncytial virus monoclonal antibody, reduces hospitalization from respiratory syncytial virus infection in high-risk infants. Pediatrics Sep 1998; 102(3 Pt 1):531-7.

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- U.S. Food and Drug Administration: Drugs@FDA: Synagis [Internet]. Silver Spring (MD): U.S. Department of Health and Human Services; c2016 [cited 2016 Sep 23]. Available from: <u>http://www.accessdata.fda.gov/ drugsatfda_docs/label/2002/palimed102302LB.pdf</u>
- Conschafter A. IfPA's Patient Access Policy Blog: New Study: Preterm Infants without Prophylaxis Suffer Severe RSV. Washington DC: Alliance for Patient Access. 2015 Aug 18 [cited 2016 Sep 23]. Available from: <u>http://</u> <u>allianceforpatientaccess.org/new-study-preterm-infants-</u> <u>without-prophylaxis-suffer-severe-rsv/</u>
- McLaurin KK, Farr AM, Wade SW et al. Respiratory syncytial virus hospitalization outcomes and costs of full-term and preterm infants. Journal of Perinatology Aug 2016; 00:1.
- Pelletier AJ, Mansbach JM, Camargo CA. Direct Medical Costs of Bronchiolitis Hospitalizations in the United States. Pediatrics 2006 118(6):2418-23.
- Asthma and Allergy Foundation of America: Cost of Asthma on Society [Internet]. Landover (MD): Asthma and Allergy Foundation of America; c2016 [cited 2016 Sep 23]. Available from: <u>http://www.aafa.org/page/costof-asthma-on-society.aspx</u>



NCFIH National Coalition for Infant Health

Protecting Access for Premature Infants through Age Two

The National Coalition for Infant Health educates and advocates on behalf of premature infants from birth to age two. NCfIH envisions safe, healthy infants whose families can access the information, care and treatment their babies need.

