

## Respiratory Syncytial Virus (RSV) and Vaccination for Older Adults

### WHAT IS RSV

**Respiratory syncytial virus (RSV)** is a common and contagious pathogen known to affect the lungs. RSV causes cold-like symptoms that can cause significant morbidity and mortality, especially in infants and older adults. The virus is spread via aerosolization of respiratory droplets or contact with contaminated surfaces. RSV infections are typically seen in the fall, and peak during the winter months.

### IMPACT OF RSV

- CDC estimates between 60,000-160,000 older adults in the United States are hospitalized and 6,000-10,000 of them die due to RSV infection each year.<sup>1</sup>
- Annually, RSV is estimated to cause over 1 billion dollars in hospitalization costs in older, high-risk adults.<sup>2</sup>
- 10-31% of older adults hospitalized with RSV are admitted into the ICU.<sup>2,3,4</sup>
- For those admitted into the hospital with RSV, mortality rate is close to 8%.<sup>2,3,4</sup>

### SIGNS AND SYMPTOMS OF RSV IN OLDER ADULTS AND ADULTS WITH CHRONIC MEDICAL CONDITIONS<sup>1</sup>

Adults who get infected with RSV typically have mild or no symptoms. Disease usually lasts less than 5 days. When disease is symptomatic, symptoms are usually consistent with an upper respiratory tract infection, including **rhinorrhea, pharyngitis, cough, headache, fatigue, and fever.**

Some adults, however, may have more severe symptoms consistent with a lower respiratory tract infection, such as pneumonia. Epidemiologic evidence indicates that people 60 years and older who are at highest risk of severe RSV disease include those with any of the chronic conditions and risk factors below.

### THOSE AT INCREASED RISK<sup>5</sup>

#### Chronic medical conditions associated with increased risk

- Chronic lung disease (Asthma, COPD)
- Chronic cardiovascular disease (CHF, CAD)
- Moderate to severe immunocompromise
- Neurologic or neuromuscular conditions
- Kidney or liver disorders
- Hematologic disorders
- Diabetes Mellitus

#### Other associated risk factors

- Frailty
- Advanced age
- Residence in a long-term care facility

### AVAILABLE VACCINATIONS<sup>5</sup>

There are currently two FDA vaccines approved for the prevention of RSV in adults 60 years old or older. These vaccines are expected to be available Q3 2023.

#### Arexvy (RSV Vaccine, Adjuvanted)

- Manufacturer: GlaxoSmithKline
- Adjuvanted recombinant stabilized prefusion F protein vaccine (RSVPreF3)
- Single dose of 0.5mL
- Ongoing phase 3 trial for efficacy and phase 1/2 trial for safety
- Efficacy of 1 dose in preventing symptomatic RSV lower respiratory tract disease is 82.6%

#### Abrysvo (RSV Vaccine)

- Manufacturer: Pfizer
- Recombinant stabilized preF vaccine (bivalent RSVpreF)
- Single dose of 0.5mL
- Ongoing phase 3 trial for efficacy and phase 1/2 trial for safety
- Efficacy of 1 dose in preventing symptomatic RSV lower respiratory tract disease is 88.9%

**Please see page two for current CDC recommendations on RSV immunization.**

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### RECOMMENDATIONS FROM THE CDC<sup>5</sup>

On June 21, 2023, the Advisory Committee on Immunization Practices (ACIP) voted to recommend that adults aged 60 years old and older may receive a single dose of **either** RSV vaccine, utilizing shared clinical decision making based upon patient specific risk factors and patient preferences.

Coadministration of the RSV vaccine with other adult vaccines during the same visit is acceptable, however it may increase the risk of local or systemic reactogenicity. Vaccination should be delayed for those experiencing moderate to severe acute illness with or without fever as a precaution.

Until further post marketing surveillance is completed, there is no further guidance available on the necessity of revaccination.

### REFERENCES

1. U.S. Department of Health and Human Services. (2022, October 28). *Respiratory Syncytial Virus Infection (RSV)*. Centers for Disease Control. <https://www.cdc.gov/rsv/index.html>
2. Falsey AR, et al. *N Engl J Med*. 2005;352(17):1749-1759.
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4. Colosia AD, et al. *PLoS One*. 2017;12(8):e0182321.
5. Melgar, M., Britton, A., Roper, L., Talbot, K., Long, S., Kotton, C., & Havers, F. (2023, July 21). *Use of Respiratory Syncytial Virus Vaccines in Older Adults: Recommendations of the Advisory Committee on Immunization Practices – United States, 2023*. Centers for Disease Control and Prevention.

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