

## **RSV Vaccine (Arexvy) – For Adults > 60 years old**

**Respiratory syncytial virus (RSV) has an annual elevated activity from late fall to early spring.**

- Most children experience RSV infections by age of 2.
- Infections produce only partial and temporary immunity (reinfections occur at all ages)
  - Repeat infections often less severe
- Estimated Incidence of RSV infection in Canada
  - 52.7 admissions per 100,000 people over the age of 65
  - 1,042 admissions per 100,000 infants (<1) annually
- Approximately 9% of RSV cases in patients  $\geq 60$  yrs old are hospitalized
  - For hospitalized patients, there is a mortality rate of 7%.
    - This incidence is low, but significant

### **Risks of severe outcomes from RSV**

- Children <2; Children with lung disease, congenital heart disease, compromised immune system, neuromuscular disorders
- Adults with chronic lung or heart disease or weakened immune systems
- Adults  $\geq 65$  or adults living in nursing homes or long-term care facilities.

### **Symptoms and specifics about RSV infection**

The incubation period of RSV ranges from 2 to 8 days. Common clinical presentations can include:

- Rhinorrhea, coughing, sneezing, wheezing, pharyngitis, bronchiolitis, Headache, fatigue, Fever

Humans are the only source of infection and it is spread from respiratory particles and contact with contaminated surfaces. The infectious period is about 8 days – range of 1 to 21 days.

## **What does the evidence say for the RSV Vaccine (NEJM 2023;388:595-608)**

- **VACCINE EFFICACY FOR RSV LOWER RESPIRATORY TRACT DISEASE (LRTD) FOR ONE RSV SEASON**
  - Intervention group: 7 of 12,466 (0.056%) vs Placebo: 40 of 12 494 (0.32%)  
**Absolute Risk reduction of 0.26%**  
**Number needed to treat to prevent one infection is 384**
- **VACCINE EFFICACY (AT MEDIAN FOLLOW UP OF 6.7 MONTHS)**
  - 82.6% (95% CI 57.9-94.1)

### **TAKE HOME MESSAGE**

For high risk patients  $\geq 60$  years and older, the RSV vaccine may be beneficial (vaccine efficacy of 82.6%), however it is important to note the following:

1. The vaccine only lasts 15 to 18 months (MAX 2 RSV seasons) and unclear if revaccination is required
2. The cost of the vaccine is approximately \$300 and is not covered by Alberta Health at this time
  - a. NACI reviewing and will provide assessment in early 2024
3. Absolute numbers of infections that lead to hospitalization is very low, however, if hospitalized there is a risk of serious outcomes

**Prescribing of RSV vaccine needs to be done in a shared decision making approach with the patient. To ensure our patients have the most up to date information about the benefits of the vaccine as well as their individualized risk of acquiring severe RSV infection that may lead to hospitalization.**

**Please advise patient to book an appointment with their primary care provider at their earliest convenience to discuss further.**