What’s New with RSV This Year? Vaccines.

James W. Antoon, MD, PhD, MPH, MSc
Assistant Professor of Pediatrics
Division of Hospital Medicine
Vanderbilt University Medical Center

Diana Metropulos, MD, MSc
Assistant Professor of Pediatrics
Division of General Pediatrics
Vanderbilt University Medical Center

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No funding from Pfizer, GSK or other makers of RSV vaccines
Who we are

Hannah – 18 mo (19th Ave Sycamores)

James – 4 yrs (19th Ave Red Oaks)

Alex – 6 yrs (former 19th Ave)
What’s New with RSV This Year?

1. New ‘vaccine’ for infants
   - CDC recommends a powerful new tool to protect infants from the leading cause of hospitalization | CDC online...

2. New vaccine for the elderly
   - F.D.A. approves Pfizer's R.S.V. vaccine for older adults

3. New vaccine for pregnant women
   - CDC recommends Pfizer's RSV vaccine during pregnancy as protection for newborns
What is RSV?

• **Virus that causes respiratory symptoms**
  - Bronchiolitis
  - Viral pneumonia

• **~60,000-100,000 children are hospitalized in the US each year**
  - Most common cause of hospitalization in young children

• **High risk children:**
  - Children < 2 years, especially < 9 months
  - Premature infants
  - Chronic lung disease or congenital heart disease
  - Children with weakened immune systems
  - Two viruses at same time (RSV and flu, RSV and COVID etc)
What is RSV?

Mild infection:
- Runny nose
- Nasal congestion
- Cough
- Fever

Serious infection:
- Difficult or rapid breathing
- Wheezing
- Persistent, high fever
- Irritability and restlessness
- Poor appetite leading to dehydration

Slide courtesy of Ali Carroll, MD, MPH
• Prophylaxis for High-Risk Infants and Young Children with Palivizumab (Synagis)
RSV Vaccines: What to Know For Babies, Pregnant Women and Older Adults

New vaccines for older adults and pregnant women, and an antibody therapy for infants, provide options for preventing severe infection.
Nirsevimab (Beyfortus™)

- Long acting monoclonal antibody
  - Studied in term and preterm babies
  - Studied in healthy babies and those with lung/heart disease

- Single shot-passive immunization
  - Duration of protection ~ 5 months

- Available this month
  - Covered by insurance

- Approved for:
  - ≤ 8 months of age, including newborns
  - Children 8-19 months at ↑ risk
Single-Dose Nirsevimab for Prevention of RSV in Preterm Infants

M. Pamela Griffin, M.D., Yuan Yuan, Ph.D., Therese Takas, B.S., Joseph B. Domschowsk, M.D., Shabir A. Madhi, M.B., B.Ch., Ph.D., Paolo Manconi, M.D., Ph.D., Eric A.F. Simões, M.D., Mark T. Esser, Ph.D., Anis A. Khan, Ph.D., Filip Dubovsky, M.D., Tonya Villafana, Ph.D., and John P. DeVincenzo, M.D., for the Nirsevimab Study Group"
Effectiveness of Nirsevimab

- 70-75% ↓ RSV office visits
- ~80% ↓ RSV hospitalization
Nirsevimab Safety

- Similar profile to palivizumab

- Adverse reactions uncommon
  - 1.3% Nirsevimab group vs. 1.5% placebo groups
  - Pain, redness or rash at injection site

- No serious adverse reactions in clinical trials
RSV Vaccine for Older Adults

- 2 FDA Approved RSV Vaccines
  - GSK (Arexvy)
  - Pfizer (Abrysvo)

- Adults > 60 years

- ~70% ↓ RSV infection
- ~85% ↓ RSV pneumonia
- ~95% ↓ RSV hospitalization
RSV Vaccine for Pregnant Women

- Pfizer (Abrysvo, Sep 2023)

- Protects mother + baby

- ~80% ↓ in Office visits for RSV in baby
- ~70% ↓ in RSV hospitalization in baby
RSV vaccine research for children and adults in full swing in Nashville

RSV can be deadly for older adults and young children, so that's why research to find a vaccine that works is full steam ahead.

Dec 2, 2022
What Can You Do?

- Nirsevimab if \( \leq 8 \) months of age
- Vaccinate grandparents
- Consider vaccination if pregnant

- Wash your hands (A LOT)
- Time!!! Most cases of RSV are mild
- Nasal saline and suctioning for infants
- Tylenol and ibuprofen
- No OTC cold and cough medications
- Get flu and COVID vaccines

Are you RSV aware?

What are the signs and symptoms of RSV in infants?

Unlike adults, who can sometimes get RSV infections and not have symptoms, infants almost always show symptoms. Some of the most common are:

- A runny nose
- Cough, which may progress to wheezing
- Irritability
- Decreased activity
- Decreased appetite
- Apnea (pauses while breathing)
- Fever (does not always occur with RSV infections)

How do I recognize severe RSV?

1. Coughing or wheezing that does not stop
2. A bluish colour around the mouth or fingernails
3. Spread-out nostrils and/or caved-in chest when trying to breathe
4. A fever (especially greater than 38°C in infants under 3 months of age)

If you see any of these symptoms listed above, call your paediatrician, midwife or general practitioner (GP) right away!
# Summary

## New Immunizations to Protect Against Severe RSV

<table>
<thead>
<tr>
<th>Who Does It Protect?</th>
<th>Type of Product</th>
<th>Is It for Everyone in Group?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults 60 and over</td>
<td>RSV vaccine</td>
<td>Talk to your doctor first</td>
</tr>
<tr>
<td>Babies</td>
<td>RSV antibody given to baby</td>
<td>All infants entering or born during RSV season. Small group of older babies for second season.</td>
</tr>
<tr>
<td>Babies</td>
<td>RSV vaccine given during pregnancy</td>
<td>Can get if you are 32–36 weeks pregnant during September–January</td>
</tr>
</tbody>
</table>

[www.cdc.gov/rsv](http://www.cdc.gov/rsv)
RSV Resources

• Center for Disease Control and Prevention (CDC)
  - RSV: https://www.cdc.gov/rsv/index.html
  - Flu: https://www.cdc.gov/Flu/Index.htm

• American Academy of Pediatrics (AAP)
  - RSV: When It’s More Than Just a Cold: https://tinyurl.com/4f7rsmcn
  - Acetaminophen (Tylenol) dosing chart: https://tinyurl.com/yc6scdan
  - NSAID (Motrin) dosing chart: https://tinyurl.com/y6d2vapr
Questions?

• James W. Antoon MD, PhD, MPH  
  (james.antoon@vumc.org)

• Diana Metropulos, MD, MSc  
  (diana.Metropulos@vumc.org)