

Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases



New Respiratory Syncytial Virus (RSV) Vaccines for Older Adults: General Information and Clinical Guidance

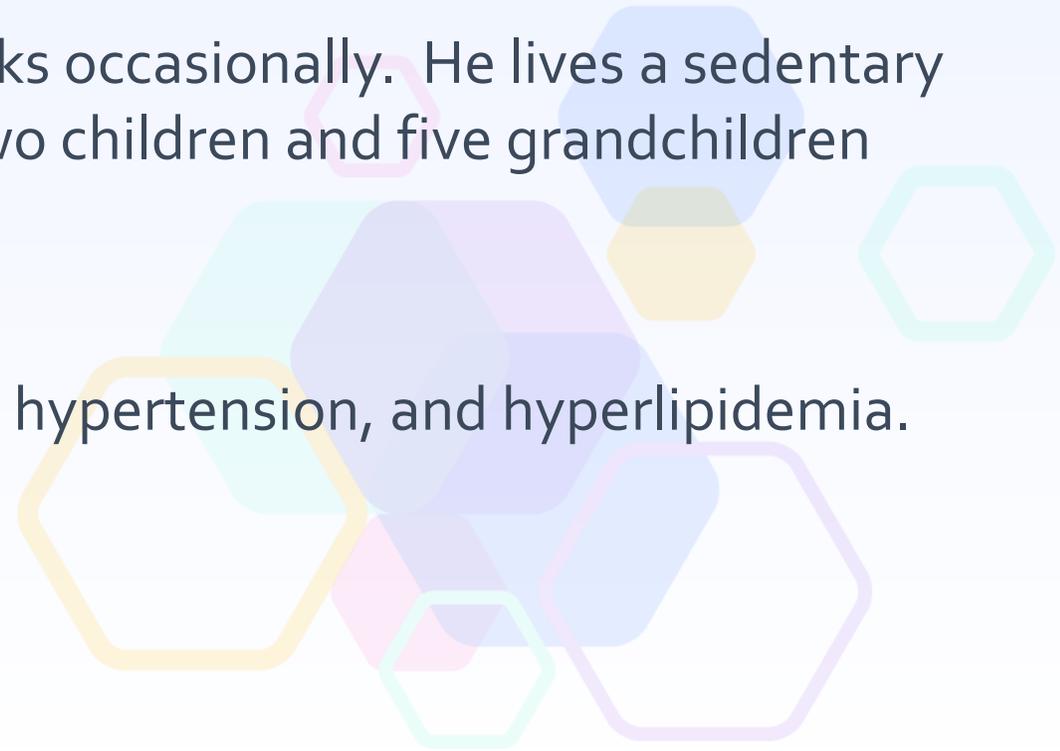
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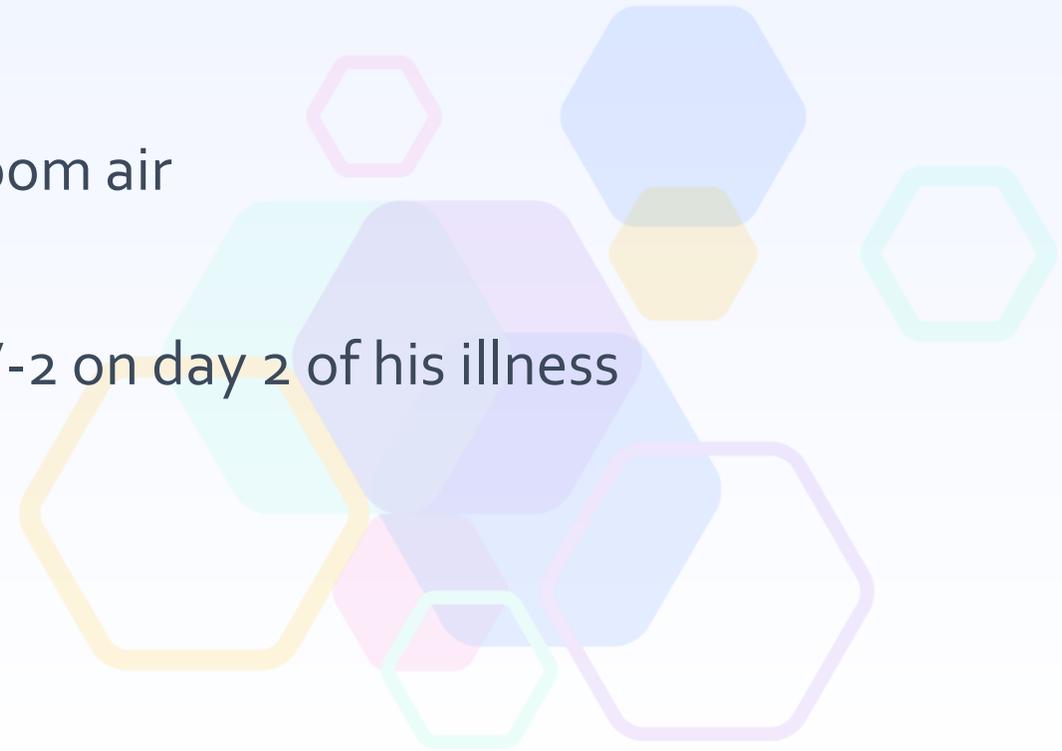
Case Presentation

- 77 year old male presents with fever, mild congestion, cough, and wheezing for 3 days. He has noted mild dyspnea and is not sleeping well. He lives in a skilled nursing facility where no one else has reported being sick recently with similar symptoms.
- He is a former smoker – quit 8 years ago and drinks occasionally. He lives a sedentary lifestyle and is obese. He is a widower and has two children and five grandchildren who visit him frequently.
- His past medical history is significant for asthma, hypertension, and hyperlipidemia.



Case Presentation

- His medications are fluticasone-salmeterol, hydrochlorothiazide, lisinopril, and atorvastatin. He uses albuterol as needed and has been using it consistently over the last 2 days. He has been taking Tylenol for his fever and his doctor started him on a short course of prednisone.
- T 101.5 BP 145/87 RR 18 P 88 pulse ox 95% on room air
- He is tested negative for influenza and SARS CoV-2 on day 2 of his illness



Respiratory Syncytial Virus (RSV) in Adults



About Respiratory Syncytial Virus (RSV)



Common
respiratory virus



Causes mild,
cold-like
symptoms

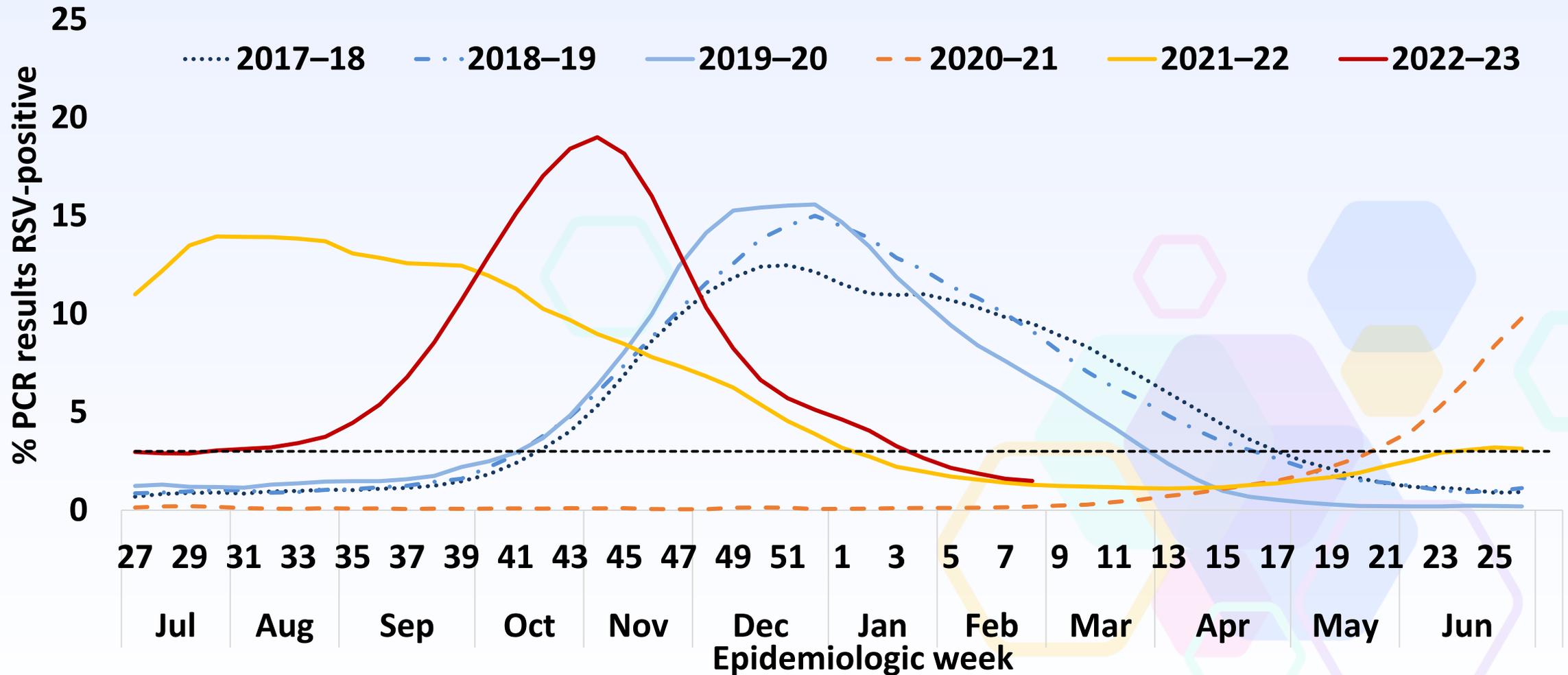


Seasonal
epidemics



Spread through
respiratory
droplets, direct
contact, fomites

Changes in seasonality of RSV transmission following SARS-CoV2 introduction— NREVSS¹, 2017–2023



Abbreviation: PCR = polymerase chain reaction; RSV = respiratory syncytial virus.

1. <https://www.cdc.gov/mmwr/volumes/72/wr/mm7214a1.htm>

* 3-week centered moving averages of percentage of RSV-positive PCR results nationwide. The black dotted line represents the threshold for a seasonal epidemic (3% RSV-positive laboratory PCR results).

Annual RSV Burden Among Adults Ages 65 Years and Older



900,000–1,400,000 medical encounters



60,000–160,000 hospitalizations

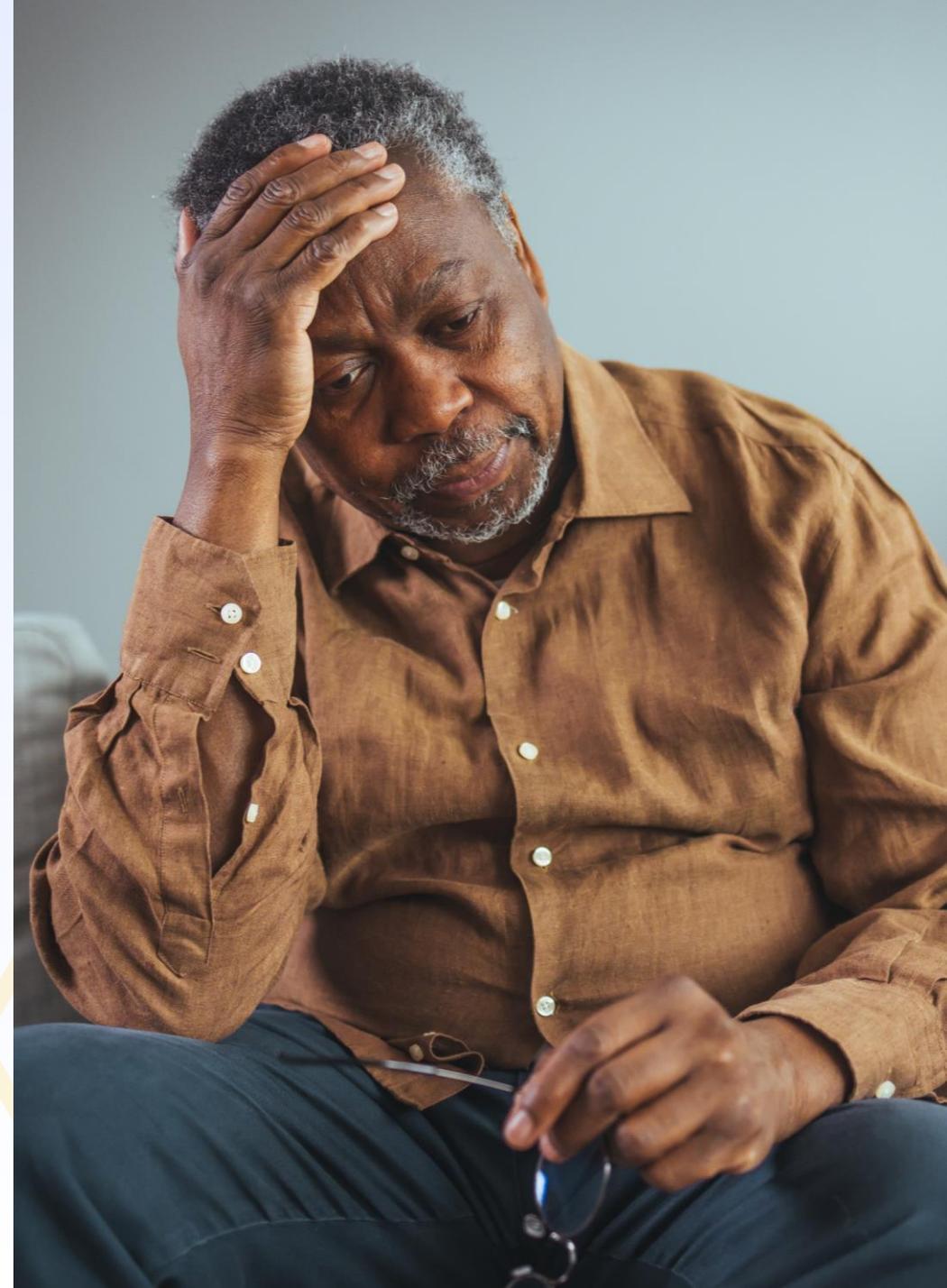


6,000–10,000 deaths



Clinical Presentation in Adults

- Usually **mild or no symptoms**
 - runny nose, sore throat, cough, headache, fatigue, and fever
- Older adults are at **increased risk** for becoming **seriously ill**
- This includes:
 - Lower respiratory tract infection
 - Exacerbation of existing conditions



Chronic Underlying Medical Conditions Associated with Increased Risk of Severe RSV Disease



Lung disease



Neurologic or neuromuscular conditions



Cardiovascular disease



Kidney disorders



Moderate or severe immune compromise



Liver disorders



Diabetes Mellitus



Hematologic disorders



Other conditions that might increase the risk for severe disease

Other Factors Associated with Increased Risk of Severe RSV Disease



Residence in a nursing home or other long-term care facility (LTCF)



Frailty



Advanced age

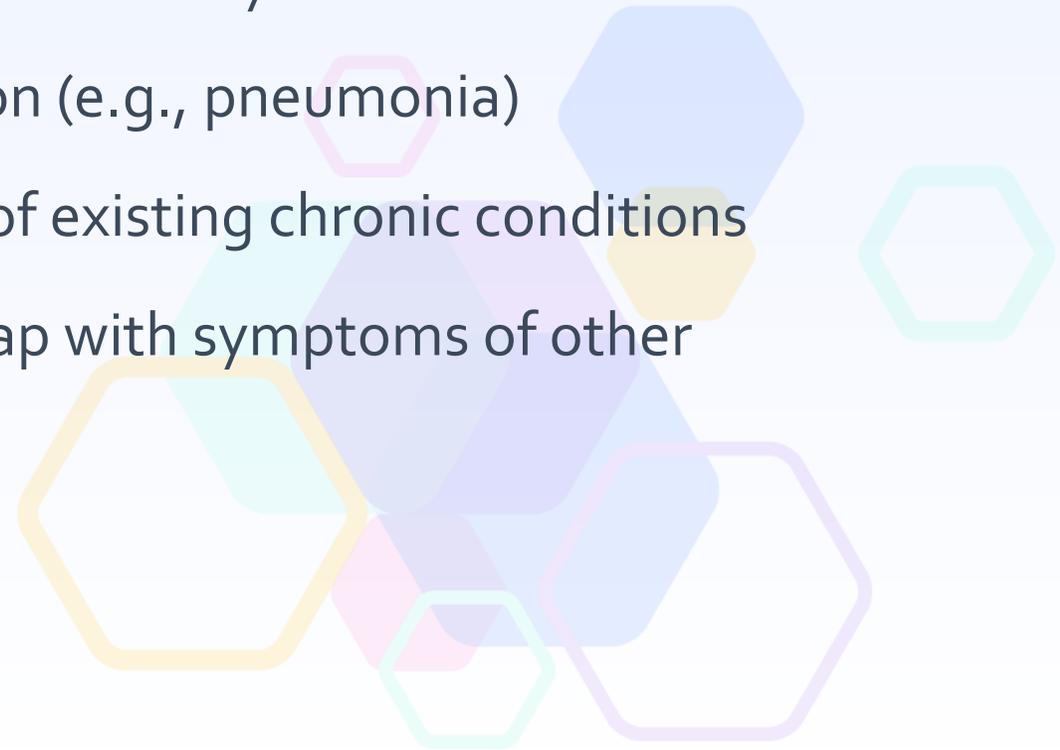
There is no consensus definition, but Fried frailty phenotype defines frailty as **3 or more of the following:**

- Unintentional weight loss (10 pounds in past year)
- Self-reported exhaustion
- Weakness (grip strength)
- Slow walking speed
- Low physical activity

Self-knowledge check

Which of the following statements about RSV clinical symptoms in older adults is FALSE?

- a. RSV only causes upper respiratory symptoms like runny nose and sore throat
- b. RSV can cause lower respiratory tract infection (e.g., pneumonia)
- c. RSV infection can cause exacerbation (flare) of existing chronic conditions
- d. Clinical symptoms are non-specific and overlap with symptoms of other respiratory infections

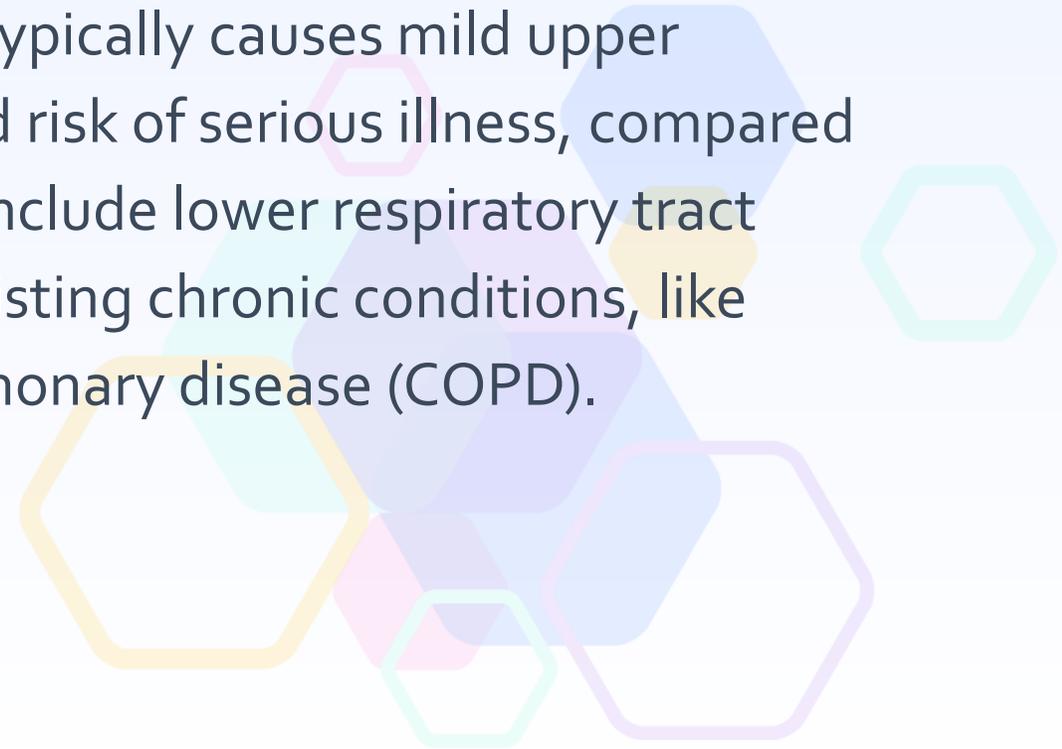


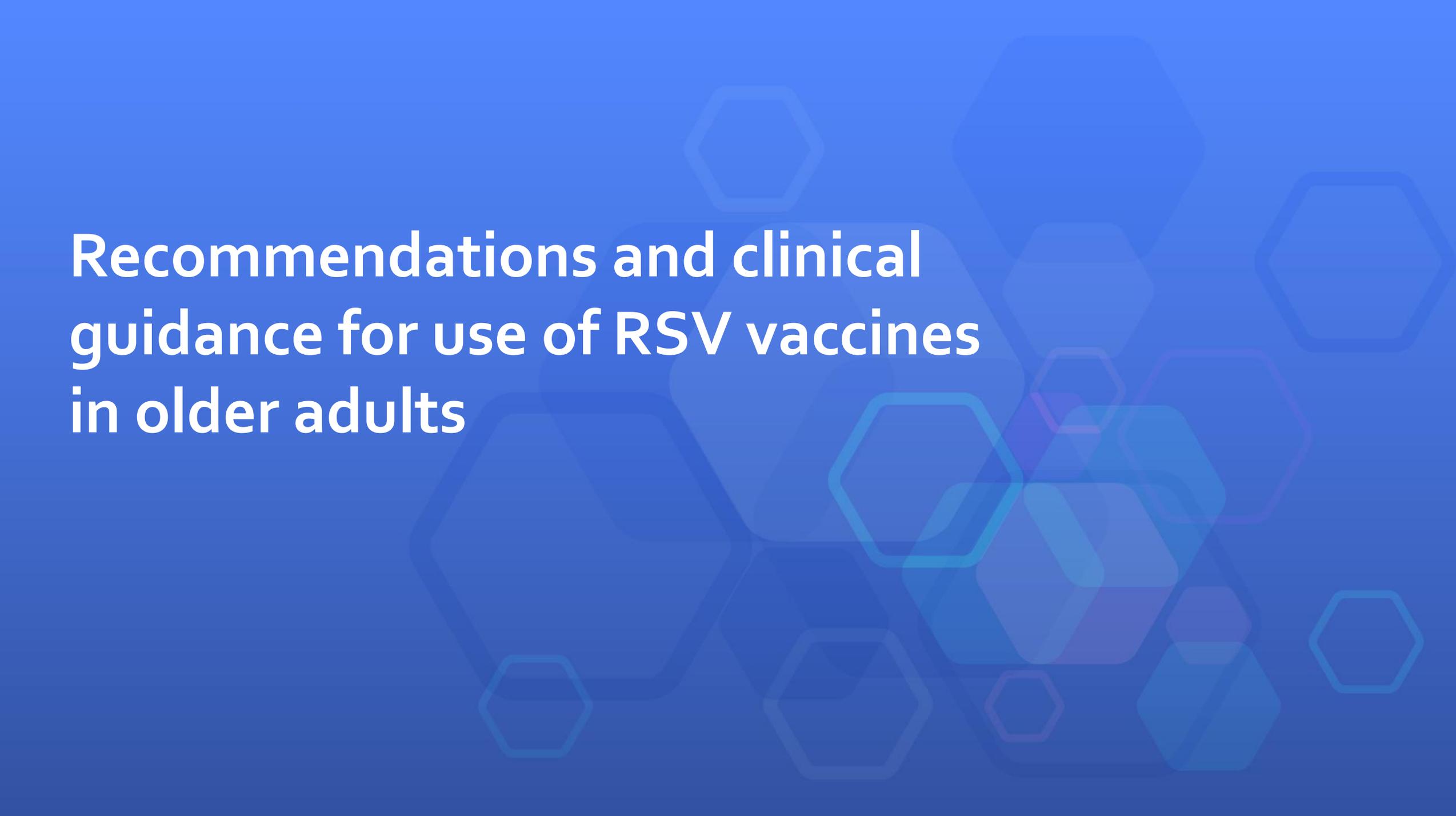
Self-knowledge check

The correct answer is:

a. **RSV only causes upper respiratory symptoms like runny nose and sore throat**

Rationale: Although RSV infection in most adults typically causes mild upper respiratory symptoms, older adults are at increased risk of serious illness, compared with younger adults. Serious illness from RSV can include lower respiratory tract infection, like pneumonia, or an exacerbation of existing chronic conditions, like congestive heart failure or chronic obstructive pulmonary disease (COPD).



The background features a solid blue gradient with a pattern of overlapping hexagons in various shades of blue and white, some with thin outlines and others as solid shapes.

Recommendations and clinical guidance for use of RSV vaccines in older adults

RSV Vaccination Recommendations

- ACIP and CDC recommend that adults ages 60 years and older may receive a **single dose** of RSV vaccine using **shared clinical decision making**.



Shared clinical decision-making

- There is no **default decision** to vaccinate.
- Recommendations are **individually based** and informed by a decision process between the **health care provider and patient**.



Best available evidence



Patients' risk for disease, characteristics, values, preferences



Clinical discretion



Characteristics of the vaccine

Coadministration

- Coadministration with **all** other adult vaccines is **acceptable**.
- If vaccines are NOT administered the same day, **there is no required interval between vaccines**.



Data on immunogenicity of coadministration of RSV vaccines with other vaccines

- There are currently limited data available on immunogenicity of coadministration of RSV vaccines and other vaccines.
- **In general, coadministration of RSV and seasonal influenza vaccines met non-inferiority criteria for immunogenicity.***
- However, RSV and influenza antibody titers were generally somewhat lower with coadministration; the clinical significance of this is unknown.
- Additional studies on immunogenicity of coadministration of RSV with other adult vaccines are in process.

* Pre-specified non-inferiority criteria for immune responses were met across trials, with the exception of the FluA/Darwin H₃N₂ strain after simultaneous administration of RSVPreF₃ vaccine (Arexvy by GSK) and adjuvanted quadrivalent inactivated influenza vaccine.

<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-06-21-23/07-RSV-Adults-Britton-508.pdf>

RSV vaccine resources

- [RSV Vaccination: What Older Adults 60 Years of Age and Over Should Know | CDC](https://www.cdc.gov/vaccines/vpd/rsv/public/older-adults.html)
(<https://www.cdc.gov/vaccines/vpd/rsv/public/older-adults.html>)
- [Frequently Asked Questions About RSV Vaccine for Adults | CDC](https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults-faqs.html)
(<https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults-faqs.html>)
- [Healthcare Providers: RSV Vaccination for Adults 60 Years of Age and Over | CDC](https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults.html)
(<https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults.html>)
- [ACIP Shared Clinical Decision-Making Recommendations | CDC](https://www.cdc.gov/vaccines/acip/acip-scdm-faqs.html)
(<https://www.cdc.gov/vaccines/acip/acip-scdm-faqs.html>)

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