

# IPCRG practice driven answers on COVID-19 and respiratory questions



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## What are the risk factors for severe illness with common respiratory viruses such as influenza and RSV?

### What the research says

Influenza (Kalil et al 2019; Vitoratou et al 2023; Zhao et al 2020))

- Risk factors for severe illness associated with influenza infection include pregnancy and extreme obesity
- Risk factors for the development of pneumonia associated with influenza infection include:
  - Younger age (<5 years)
  - Older age (>65 years)
  - Nursing home residency
  - Chronic lung or heart disease
  - History of smoking
  - Immunocompromised state

### Respiratory syncytial virus (RSV)

- Adults at highest risk for severe RSV include (CDC 2023a):
  - Older adults (>65 years)
  - Those with chronic heart or lung disease
  - Those with weakened immune systems
- Infants and young children at highest risk for severe RSV include: (CDC 2023b)
  - Premature infants and those <6 months of age

- Children <2 years with chronic lung disease or congenital heart disease
- Children with weakened immune systems
- Children with neuromuscular disorders are at increased risk for PCS (Tsampasian et al 2023).

### What this means for your clinical practice

- Continue to encourage patients, especially those at increased risk for more severe illness from influenza infection, to consider annual influenza vaccinations as recommended in your National Guidelines.
- There are newly approved vaccines against RSV for use in adults (but not children) and more approved vaccines are expected in the coming months.
- Maintain particular vigilance for individuals with multiple risk factors and promote preventive measures to reduce the risk for infection during endemic seasons.

[When can we expect the Respiratory Syncytial Virus \(RSV\) vaccine to be approved and available?](#)

[What is the importance of annual double vaccination for SARS-CoV-2 and influenza?](#)

## Authors

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## Useful links and supporting references:

Centers for Disease Control and Prevention. Respiratory Syncytial Virus (RSV). Older Adults. 2023a. Available at: <https://www.cdc.gov/rsv/high-risk/older-adults.html>. Accessed May 2023.

Centers for Disease Control and Prevention. Respiratory Syncytial Virus (RSV). Infants & Young Children. 2023b. Available at: <https://www.cdc.gov/rsv/high-risk/infants-young-children.html>. Accessed May 2023.

Kalil AC, Thomas PG. Influenza virus-related critical illness: pathophysiology and epidemiology. Crit Care 2019;23:258. Available at: <https://pubmed.ncbi.nlm.nih.gov/31324202/>. Accessed May 2023.

Vitoratou DI, et al. Obesity as a risk factor for severe influenza infection in children and adolescents: a systematic review and meta-analysis. Eur J Pediatrics 2023;182:363–374. Available at: <https://pubmed.ncbi.nlm.nih.gov/36369400/>. Accessed May 2023.

Zhao X, et al. Obesity increases the severity and mortality of influenza and COVID-19: A systematic review and meta-analysis. Front Endocrinol 2020;11:595109. Available at: <https://pubmed.ncbi.nlm.nih.gov/33408692/>. Accessed May 2023.

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