Impact of Influenza on Immunocompromised Patients

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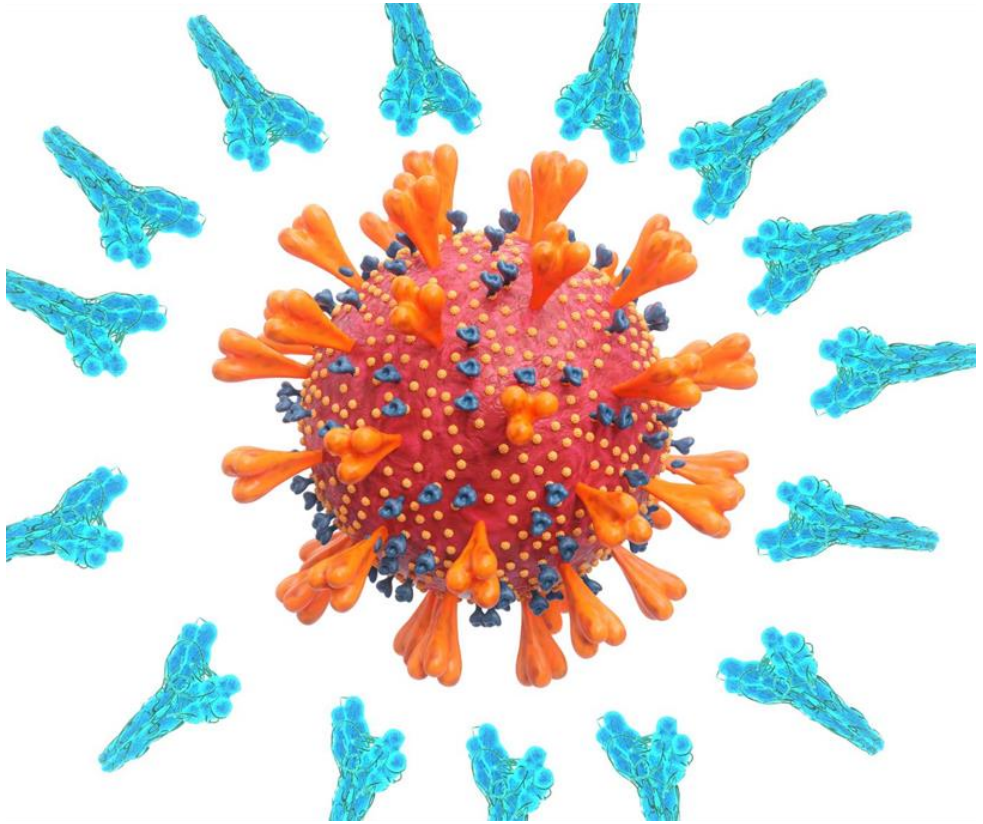
August 25th, 2025

Disclosures

- Merck speaker
  - HPV and pneumococcal vaccines

- I do promote immunization and judicious use of antimicrobials

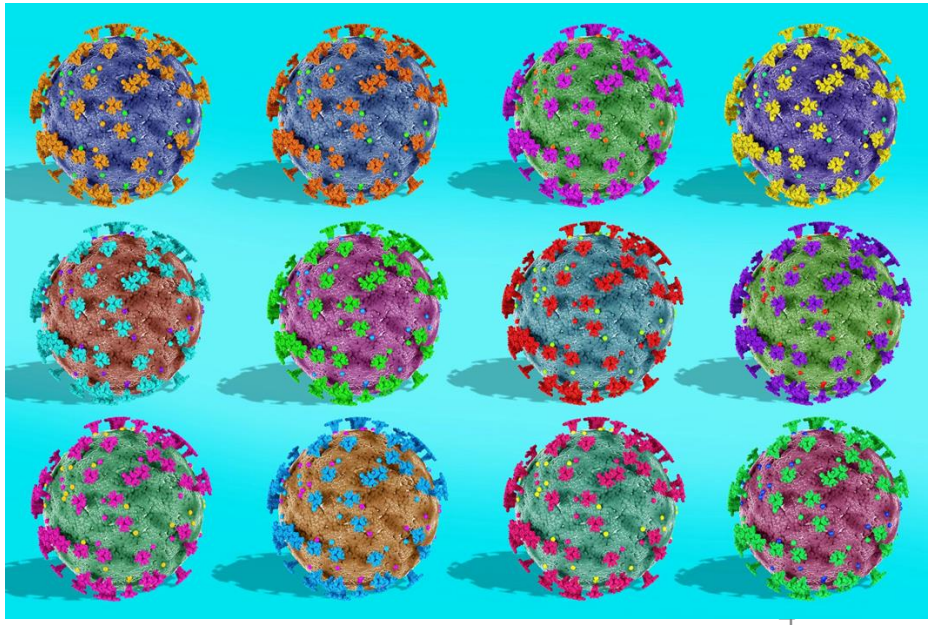
Introduction



Influenza Virus

- Among the most common human respiratory viruses
  - Affects 5-10% of world's population annually

- Significant burden of disease



Preliminary 2024–2025 U.S. Flu In-Season Disease Burden Estimates

Since October 1, 2024, CDC estimates there have been between:

Flu Illnesses	Flu Medical Visits	Flu Hospitalizations	Flu Deaths
47 Million - 82 Million	21 Million - 37 Million	610,000 - 1.3 Million	27,000 - 130,000

Based on data from October 1, 2024, through May 17, 2025

Because influenza surveillance does not capture all cases of flu, CDC provides these estimated ranges to better reflect the full burden of flu in the United States. These estimates are calculated using a mathematical model based on CDC's weekly influenza surveillance data and are preliminary and are updated weekly throughout the season.

FluVIEW

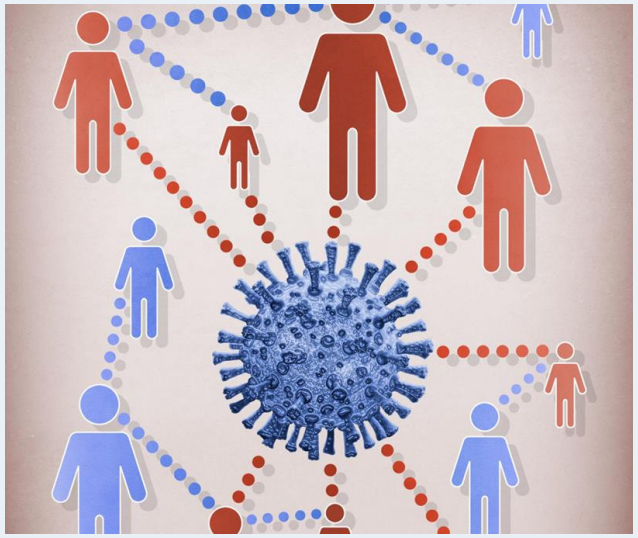
CDC

Why Focus on Immunocompromised?

- Increased vulnerability of infections

- Higher morbidity and mortality rates
  - Influenza-related pneumonia
  - Higher rates of hospital admission when compared to general population
  - Worse outcomes
    - Prolonged hospital stays
    - Increased risk for intubation
    - Increased risk for ICI admission

Who are Immunocompromised Patients?



Who are Immunocompromised Patients?

- Immunosuppression can result from many different biological mechanisms
  - Primary
  - Acquired/secondary

Who are Immunocompromised Patients?

- Congenital immunodeficiencies

- Immunosuppressive conditions:
  - Autoimmune diseases
    - SLE, IBD, JIA
  - HIV/AIDS
  - Transplant
    - SOT
    - HSCT
  - Cancer undergoing chemotherapy
  - Daily corticosteroid use
    - >20mg/day (or >2mg/kg/dose) for more than 14 days

Who are Immunocompromised Patients?

- Other considerations
  - Immature immune system
    - Neonates
  - Weakened immunity
    - Elderly
    - Malnourished individuals

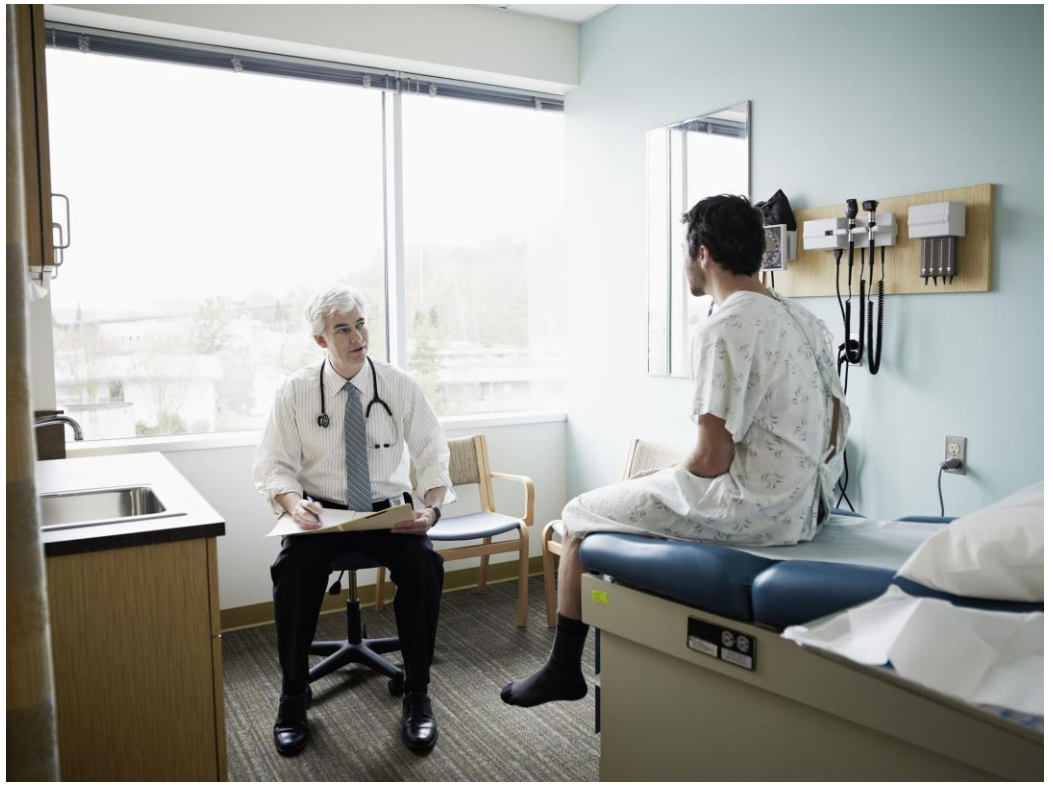
Why are They at Risk?

- Reduced ability to fight infections

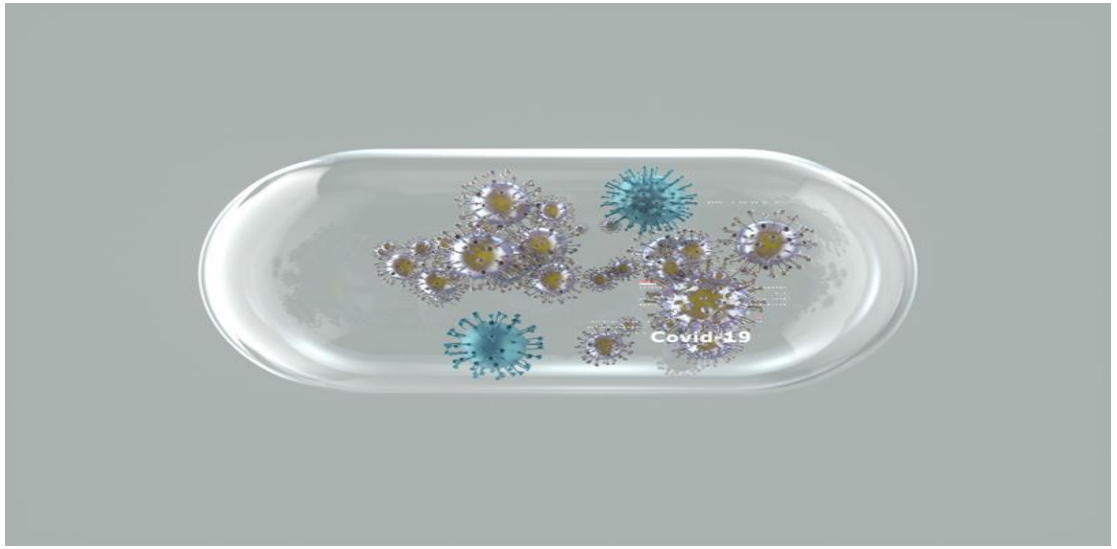
- Prolonged viral shedding leads to higher transmission rates

Clinical Presentation of Influenza in Immunocompromised Patients

- Symptoms may be atypical and more severe than in healthy individuals.
- Common signs include fever, cough, fatigue, and shortness of breath.
- Higher likelihood of complications such as pneumonia and respiratory failure.
- Prolonged symptom duration and slower recovery times are common.
- Possible exacerbation of underlying immunosuppressive conditions.



Prevention Strategies



Diagnosis

- Importance of early recognition is crucial

- Diagnostic tools:
  - History and physical exam
  - Rapid Dx tests
  - PCR-based tests

Treatment

- Antiviral meds
  - Start as soon as possible
    - Ideally, within 48hrs of symptom onset
  - Oseltamivir, zanamivir
- Supportive care

Infection Control and Public Health Measures

Hand Hygiene Practices

Hand hygiene effectively reduces the transmission of infectious agents in community and healthcare settings.

Respiratory Etiquette

Covering coughs and sneezes limits the spread of respiratory droplets carrying infections.

Isolation of Infected Individuals

Isolating infected people helps prevent disease transmission to healthy populations.

Public Health Campaigns

Campaigns increase awareness, encourage vaccination, and promote early treatment to control infections.

Should Immunocompromised Patients Receive Influenza Vaccine?

- Annual vaccination with Inactivated Influenza vaccine (IIV) is recommended for immunocompromised patients aged ≥6 months
    - Except for those receiving intensive chemotherapy or those who have received anti–B-cell antibodies within 6 months

Influenza vaccine

- Inactivated influenza vaccine (IIV)

- High-dose or adjuvanted IIV
  - Adults ≥65 years
  - SOT recipients aged 18-64 years on immunosuppressives

Questions??

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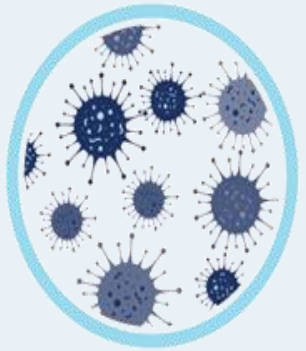

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