

VIROLOGY LECTURE

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Viral Pneumonia

- Acute inflammation of the lungs.

Viral etiology:

- Influenza
- RSV & Parainfluenza virus type 3 in infants
- Adeno
- CMV in the immunocompromised
- Varicella-zoster virus (VZV) in adults

Transmission:

- By inhalation of respiratory droplets


Age:

- Both children and adults.
- More severe infection in elderly and the immunocompromised.

I.P.:

- 2 - 5 days

Symptoms:

- Fever
 - Chills
 - Cough with mucopurulent sputum
 - Shortness of breath
 - Pharyngitis
 - Fatigue
 - Headache
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Prognosis

- Most episodes of viral pneumonia improve without treatment within 1-3 weeks
- Some episodes last longer and require hospitalization
- Viral pneumonia can be serious and potentially life threatening in the immunocompromised.

Treatment:

- Specific anti-viral drug therapy are available for:
 - CMV (ganciclovir)
 - VZV (acyclovir)
 - Influenza A (amantadine, rimantadine)

- For the remaining viruses, treatment is supportive
 - Bed rest
 - Antipyretic
 - Analgesics
 - Cough suppressants
 - Decongestant tablets

- Severe case require hospitalization for treatment with:
 - Intravenous fluids
 - Supplement oxygen or breathing support by a mechanical ventilator

Lab Diagnosis:

- Direct demonstration of the virus in the patient sample.
- Specimen: nasopharyngeal aspirate (NPA) for infants and young children.