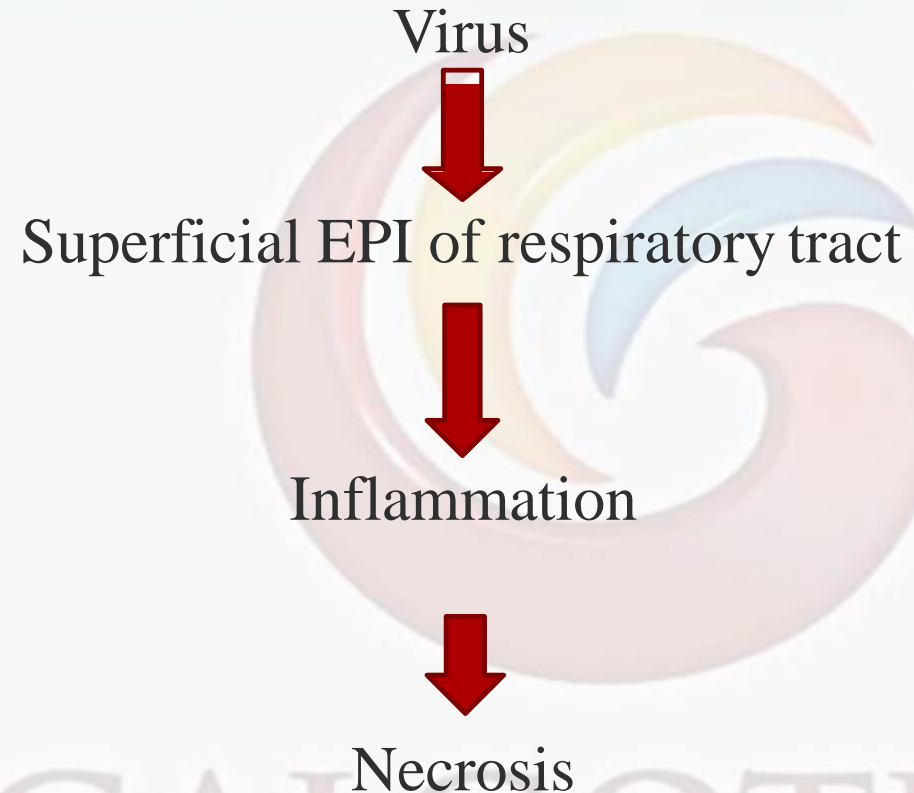


INFLUENZA LECTURE 2

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PATHOGENESIS

- Fever
- Chills
- Generalized ache and pain
- Headache and myalgia
- Coughing
- Generalized weakness
 - Fever last for 1-5 days and average 3 days in adults

CLINICAL FEATURES

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- Sinusitis
- Otitis media
- Purulent bronchitis
- Pneumonia



COMPLICATIONS

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- **H1NI 2009**
- Diff in pathogenesis from seasonal influenza in aspects
- Little or no pre-existing immunity against virus wider impact of infection among children and young adults
- Virus can infect the **Lower respiratory tract infection** rapidly progress to pneumonia especially in children and young to middle age group
- **Incubation period** approx. 2-3 DAYS up to 7 days

PANDEMIC INFLUENZA

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Uncomplicated influenza

- Fever
- Cough
- Sore throat
- Muscle pain
- Malaise
- No dyspnea and shortness of breath
- GIT symptom may also present

Complicated influenza

- Shortness of breath and dyspnea
- Lower RTI (pneumonia)
- CNS involvement
- Sever dehydration
- Secondary complications
- COPD asthma renal failure

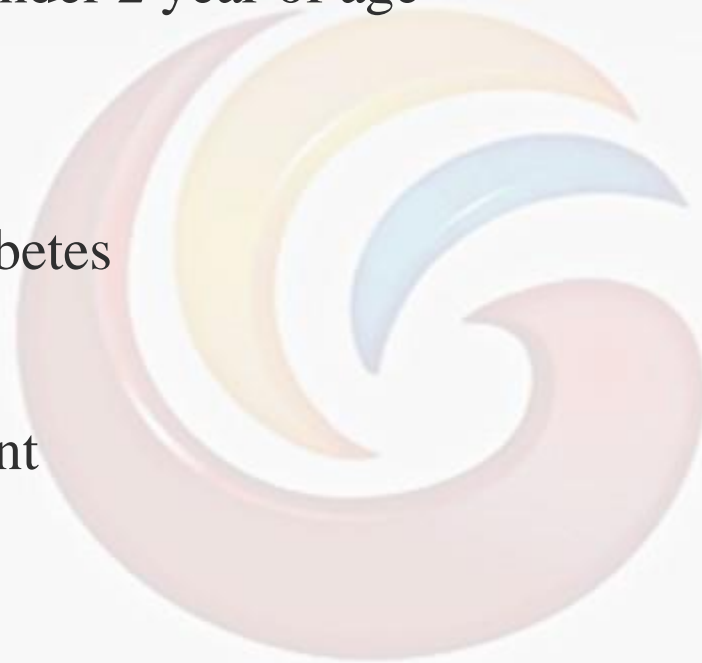
CLINICAL FEATURES

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Course Code : BSCN2004

Course Name: COMMUNITY HEALTH NURSING-I

- Infant and young children under 2 year of age
- Pregnant females
- Person of COPD or asthma
- Chronic cardiac disease
- Metabolic disorder, like diabetes
- Chronic renal failure
- Hepatic failure
- Immunocompromised patient
- Aspirin therapy
- Old age



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RISK FACTORS

- **VIRUS ISOLATION**
 - virus can be detected by indirect fluorescent antibody technique
- **SERIOLOGY**
 - Heamagglutination inhibition (HI) and ELISA

LAB DIAGNOSIS

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PREVENTION

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- **Good ventilation** of public buildings
- **Avoid overcrowding** specially during epidemics
- **Cover your mouth while sneezing** and coughing
- **Immunization vaccine** must administrate at least 2 weeks before the onset of epidemic
- Due to antigenic changes new vaccinations are always required

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- In industries to reduce absenteeism
- In public servants to prevent critical public services
- Certain age groups like elders and children under 18 month to prevent from sever complications
- Also the people with chronic illness like systemic diseased to prevent death

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VACCINE FOR SELECTED POPULATION



INFLUENZA VACCINES

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- Required strains of vaccine are grown in allantoic cavity of chick embryo
- Harvested purified and killed by beta- propiolacton(inactivating reagent)
- Formulation: aqueous or saline
- Administration:
 - 0.5ml for adults (IM as a single dose).
 - 0.5 mL IM for children **3 to 8 years** who have not received at least 2 doses of trivalent or quadrivalent influenza vaccine before the beginning of the influenza season, administer a second dose of 0.5 mL IM at least 4 weeks after the initial dose
 - 0.25ml or 0.5mL for children from 6 to 36 month of age (3 years)
 - 0.5ml for elderly individuals (≥ 65 years of age)

Killed vaccine

- Site of injection
 - Intramuscular: Preferable route
 - Subcutaneous



ROUT

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- A trivalent live attenuated vaccine administered as a single dose intranasal spray
- For healthy individual. Avoid in Immunocompromised patient



LIVE ATTENUATED VACCINE

- People with h/o anaphylactic shock
- People with h/o sever reaction to influenza vaccine
- Who develop Guillain-Barre syndrome(immune system attacks your nerves)
- Children less then 6 month of age (inactivated influenza vaccine is not approved)
- People with moderate to sever fever

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CONTRAINDICATION OF VACCINE

- Symptomatic treatment
- Prophylaxis
 - Neuraminidase inhibitors
 - Zanamivir and oseltamivir
- Influenza A is treated with zanamivir or combination of oseltamivir and rimantadine
- Influenza B is treated with osaltamivir

DRUG TREATMENT

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- Short incubation period
- Large number of subclinical cases
- High proportion of susceptible population
- Short duration of immunity
- Absence of cross immunity

Factors contribute to rapid spread

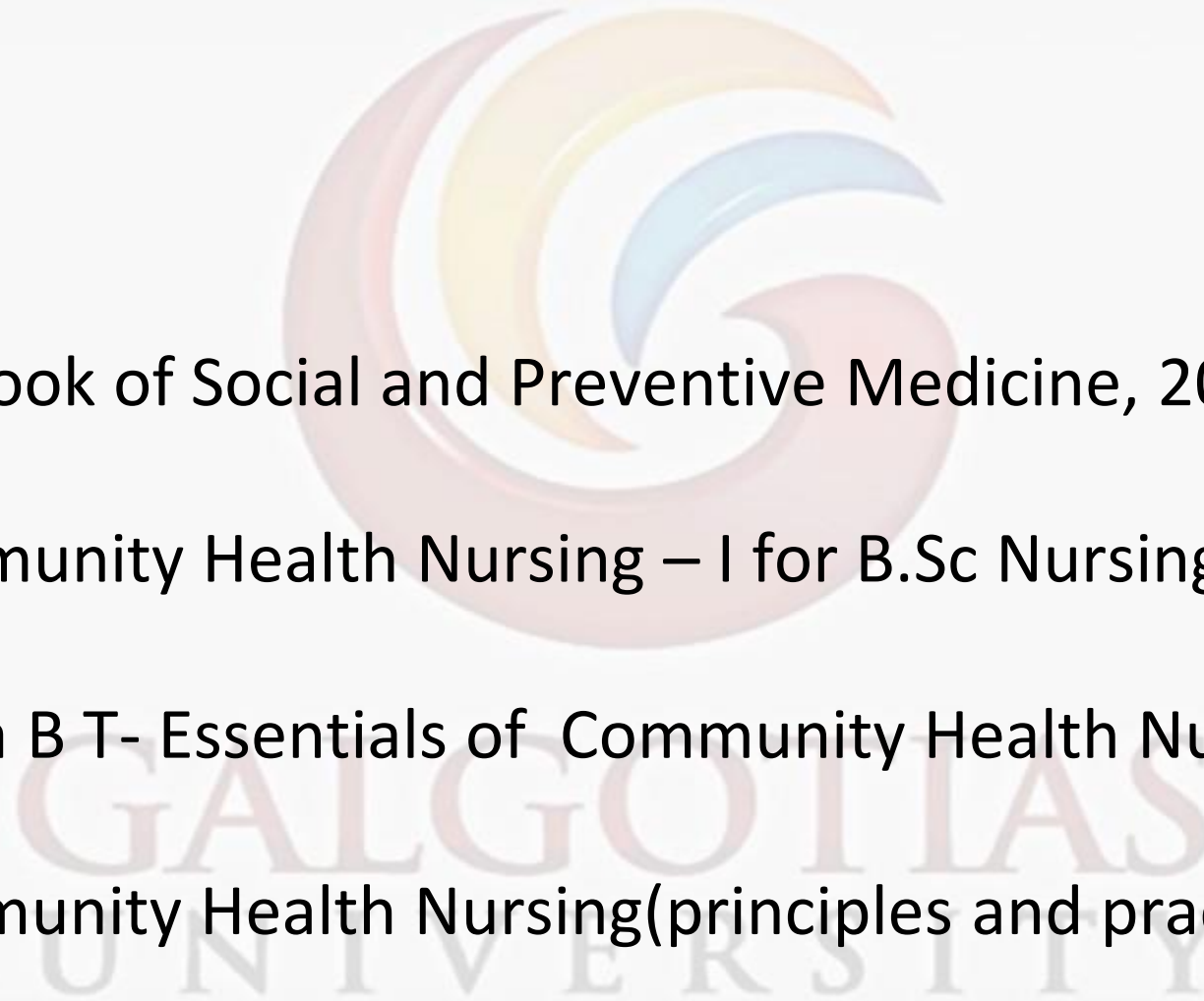
- Also called **Bird Flu**...Primarily infect birds
- H5N1 strain first infect humans in Hong Kong causes 18 cases and 6 deaths
- Poultry Outbreak in Pakistan in 2006
- Worldwide spread of disease since 2007

AVIAN INFLUENZA H5N1

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THANK YOU

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