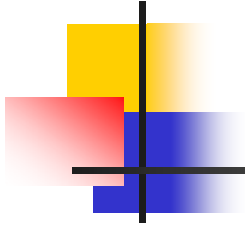




Training cum awareness workshop on Swine Flu

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7/8/2009



-
- Lecturer Medicine on duty received an urgent call at 4 am to call over to rule out Swine Flu.
 - 2 cases with Influenza A H1N1 admitted in ICU for Swine Flu at Infosys building
 - Enquiries on phone.



Introduction--

- Lot of fear and worry
- Just an influenza virus (H1N1)
- Component of pig & bird influenza virus
- Since human don't have immunity against it , there is a pandemic



In India--

As on 6 August 2009-

- 615 confirmed cases are reported in India
- 173 cases are from Maharashtra,
- In Pune, total 119 confirmed cases
- 2 in ICU, & 1 death
- Tip of Iceberg

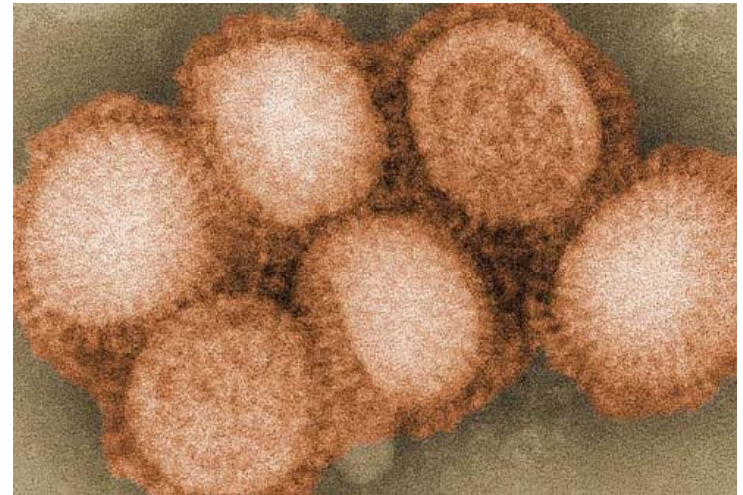


As on 7th August

- 228 patients in Maharashtra
- 158 patients in Pune

Epidemiology

- The Agent—
New subtype of
influenza A Virus
H1N1
- Transmission –
by droplet infection &
fomites
- Incubation period—
1- 7 days





Transmission

- Close contact
- Large particle droplets (sneezing, coughing)
(droplet travel only for 6 feet)
- Contact with contaminated surfaces
- Small droplets- airborne
- **Communicability—**
 - From 1 day before to 7 days after the onset of symptoms
 - If illness persists for longer time , communicability may persists till resolution of illness
 - Children may spread virus for a longer time



Close Contact

YES

Coughing sneezing

Hugging/ kissing

Sharing eating or
drinking utensils

Physical Examination

Shake hands

NO

Walking by infected
persons

Sitting across patients



Clinical features--

symptoms last for 3-5 days, usually mild

- Fever
- cough
- sore throat
- Rhinorrhea
- headache,
- body ache,
- Extreme fatigue, / tiredness / exhaustion
- diarrhea, & vomiting



Severe symptoms

- Tachypnoea/ dyspnoea
- Cyanosis
- Persistent vomiting
- Altered sensorium
- Reappearance of fever with worse cough



High risk group--

- Age -- <5 yrs, & > 65yrs
- Person with chronic medical illness like-
Bronchial asthma, COPD, CVS, renal, hepatic
diseases, DM, hematological illness, etc.
- Immunosuppressed i.e HIV, / drugs
- Pregnant women
- Young patients on Aspirin

Case Definition



Suspected case-

A person with acute febrile respiratory illness with any of the following

- Fever not subsiding after 3 days of antipyretics
- Development of dyspnoea / tachypnoea
- Associated with diarrhea / vomiting

OR

onset of symptoms within 7 days of close contact with a person who is a confirmed case of H1 N1 virus infection,



A Confirmed case—

- A person with an acute febrile respiratory illness with laboratory confirmed swine influenza A (H1N1) virus infection at WHO approved laboratories by one or more of the following tests-
 - Real time PCR
 - Viral culture
 - 4 fold rise in swine influenza A virus specific neutralising antibodies



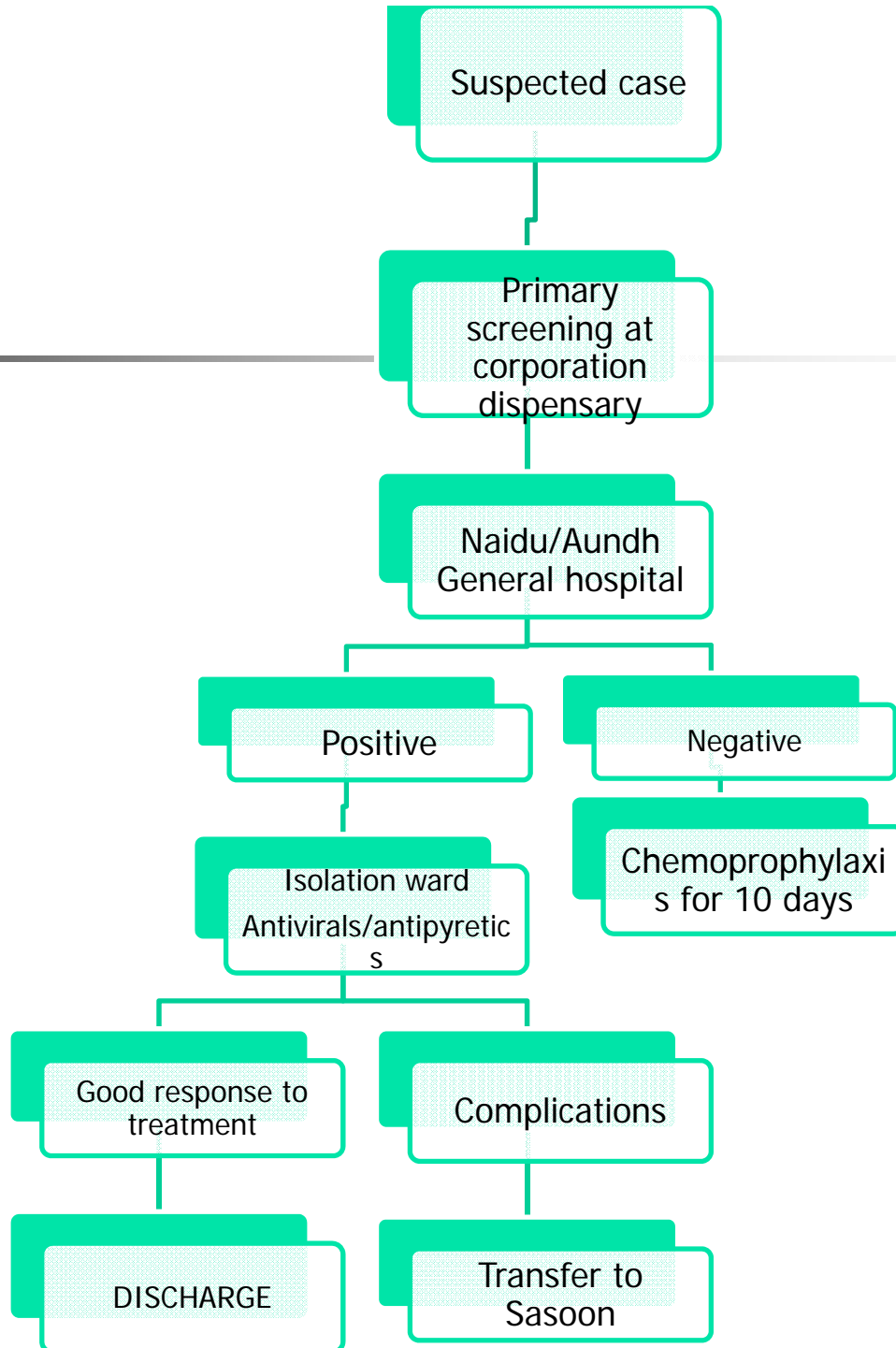
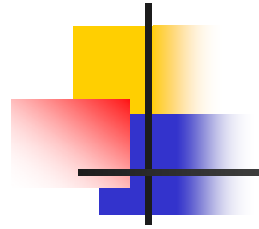
Complications

- Sinusitis
- Otitis media
- Pneumonia
- Bronchiolitis
- Myocarditis, pericarditis
- Myositis, rhabdomyolysis
- Encephalitis, seizures
- Toxic shock syndrome



Investigations

- Hematological
- Biochemical
- Radiological
- Microbiological





Treatment

- Isolation
- Standard infection control precautions
- Restrict number of visitors
- Antiviral prophylaxis to health care personnel & primary contacts of H1N1 +ve patients
- Proper disposal of waste.

Medical Treatment--

Neuroaminidase inhibitors

- Oseltamivir
- Zanamivir

Amantadane Group

- Amantadine
- Rimantadine

- Benefit is best if started within 48 hrs of symptoms





Medical Treatment

- Oseltamivir (Tamiflu)---
- Dose by Wt
- < 15 kg- 30 mg BD X 5 days
- 15-23 kg- 45mg BD
- 24-40 kg- 60 mg BD
- > 40 kg- 75mg BD



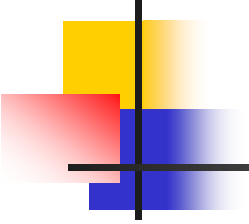
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- For infants—
 - < 3 mths- 12mg BD X 5 days
 - 3-5 mths- 20mg BD
 - 6-11 mths- 25mg BD
- Side effects of drug—
 - Usually well tolerated.
 - GI side effects , insomnia, dizziness , rash, bronchitis, angina, pseudomembranous colitis, rare anaphylaxis



Supportive therapy—

- IV fluid
- Nutrition
- Oxygen therapy/ ventilatory support
- Tx of secondary infection
- Vasopressors for shock



- **Resistant cases—
Relenza(zanamivir).**

Oral inhalation only, 2%

5mg with 20 mg lactose

Inhaled with diskhaler

Combination of Tamiflu with Relenza found to be superior

Prevention

- Vaccine
- Cover your nose & mouth when sneezing / coughing
- Hand wash with soap & water or alcohol based cleaner (30 % reduction)
- Avoid close contact with sick patients
- Avoid touching eyes/ nose/ mouth
- Voluntary home quarantine





Chemoprophylaxis

- Oseltamivir
- Till 10 days after last exposure
- Dose is once a day
- Can be given up to 6 wks
- For close contact of suspected , & confirmed cases .
- To all health care personnel in contact with suspected / confirmed cases



To summarize --

- Mild disease
- No need for panic
- Severe in high risk population
- Early diagnosis & prompt treatment
- Effective antiviral drugs available
- Preventive measures to control spread