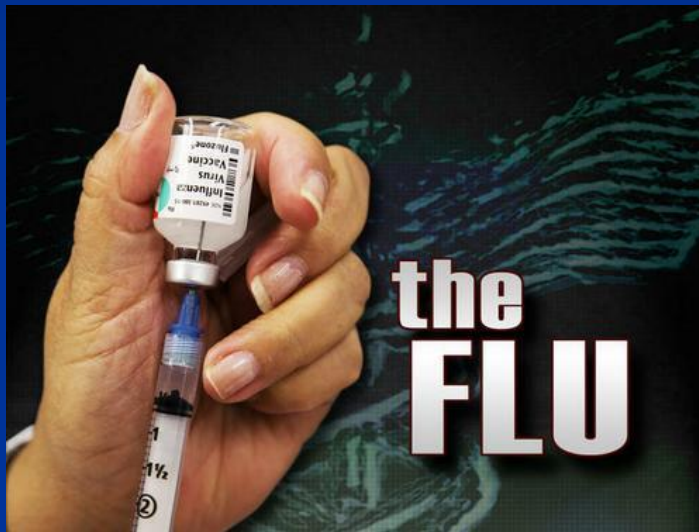


Infection *Control* *Measures*



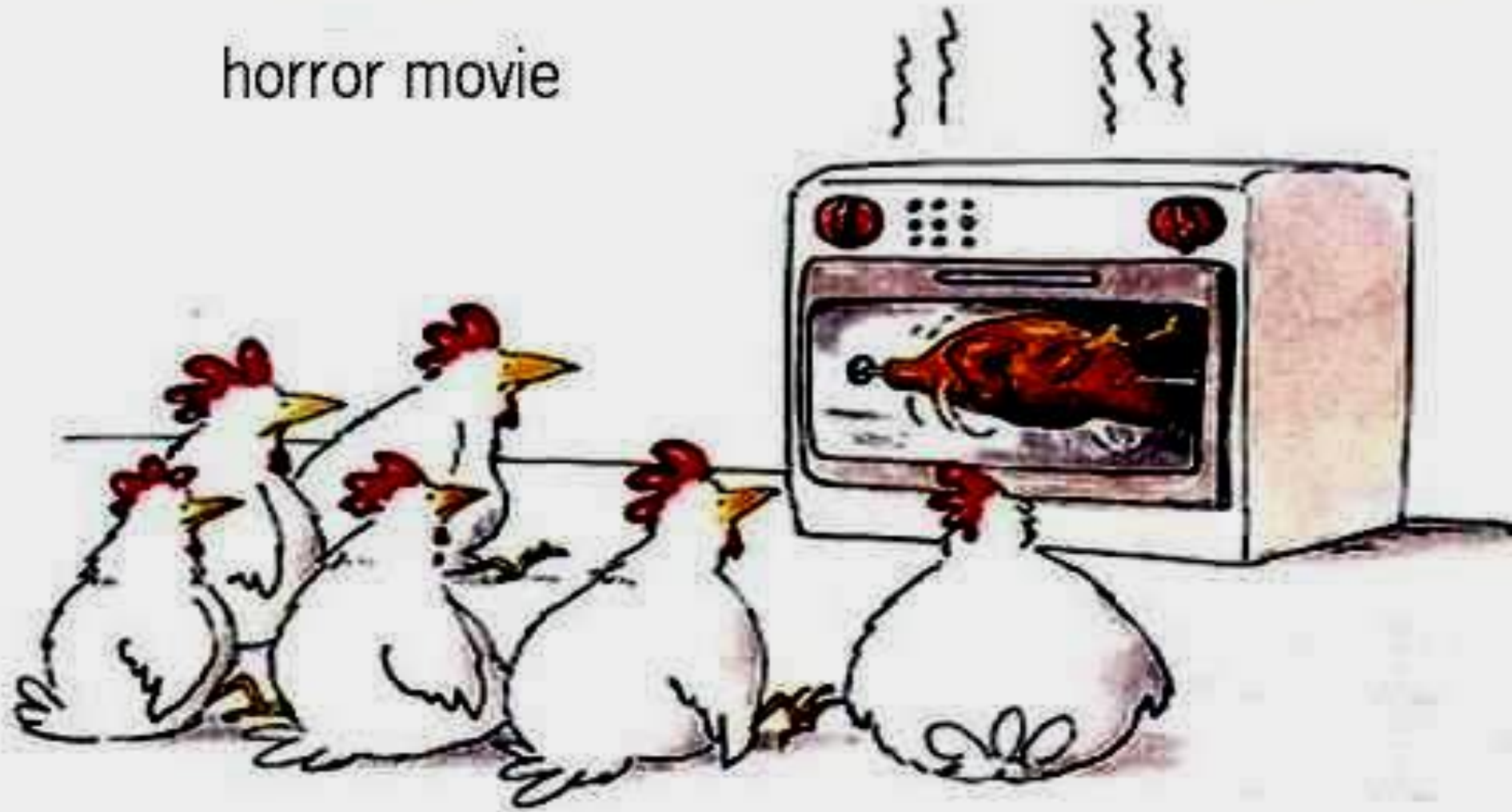
Ashraf El Houfi. MD
MS “pulmonology” FRCP “UK” EDIC
Chairman Infection Control Committee
Dubai Hospital



What is going on !!

Conspiracy Theory

horror movie



Enough is Enough



Enough is Enough

Bird Retaliation



Bird Flu

Why Not Us As Well !!



SWINE FLU H1N1

MERS-CoV



Don't
Blame
Me

MERS-Co V

Transmission

- *Corona viruses spread mainly from person to person through **Coughing or Sneezing**.*



Transmission

- Sometimes people may become infected by *touching* something with viruses on it and then *touching their mouth or nose*.
viruses can live *few hours / few days* on surfaces like cafeteria *tables, doorknobs, and desks*.



Flu

Signs & Symptoms

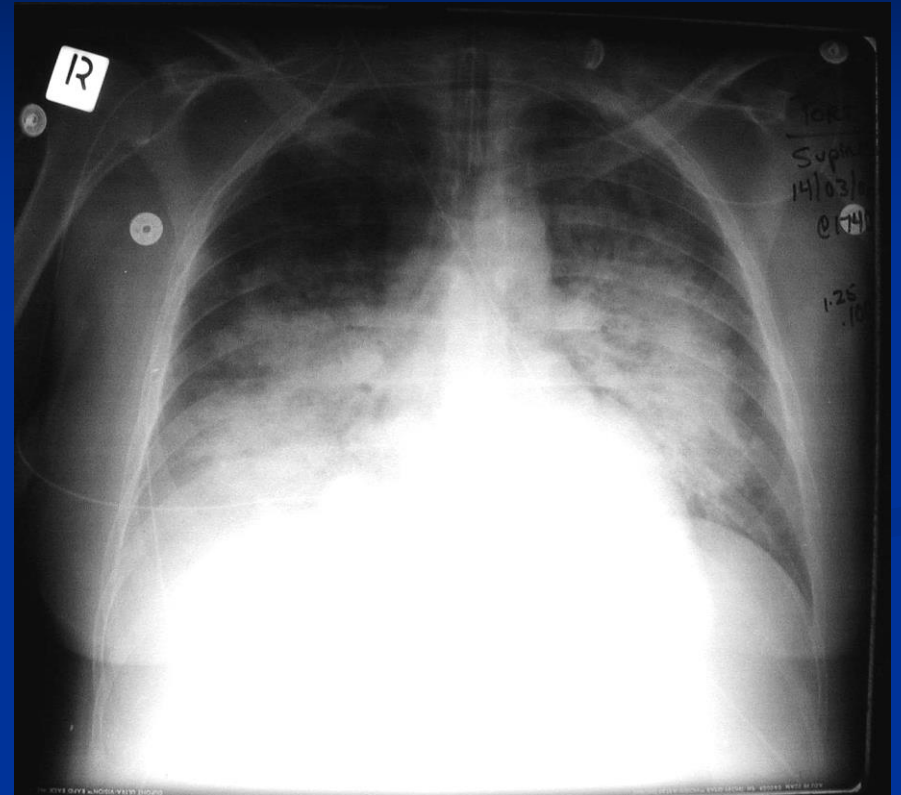
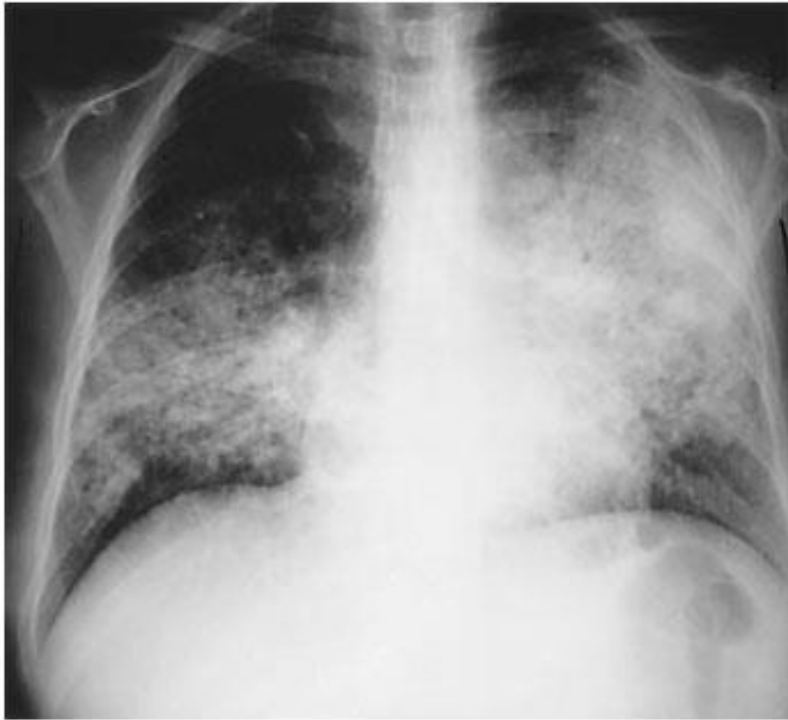
- Similar to regular flu and include
- *fever, dry cough, sore throat, body aches, headache, chills and fatigue.*
- Some people have reported *diarrhea and vomiting .*

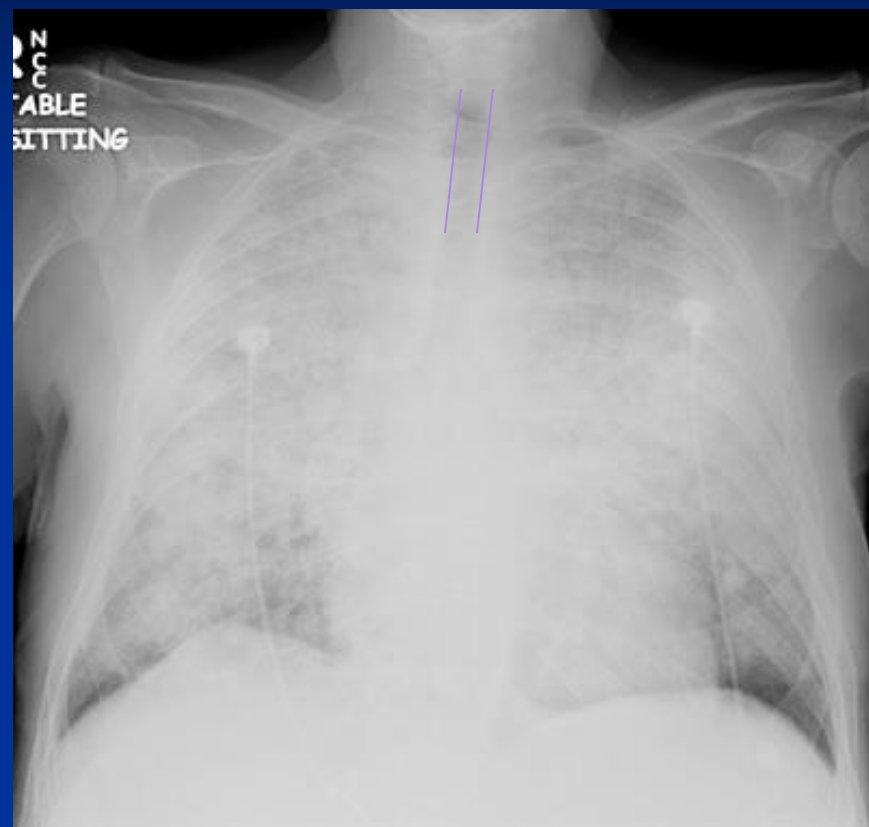
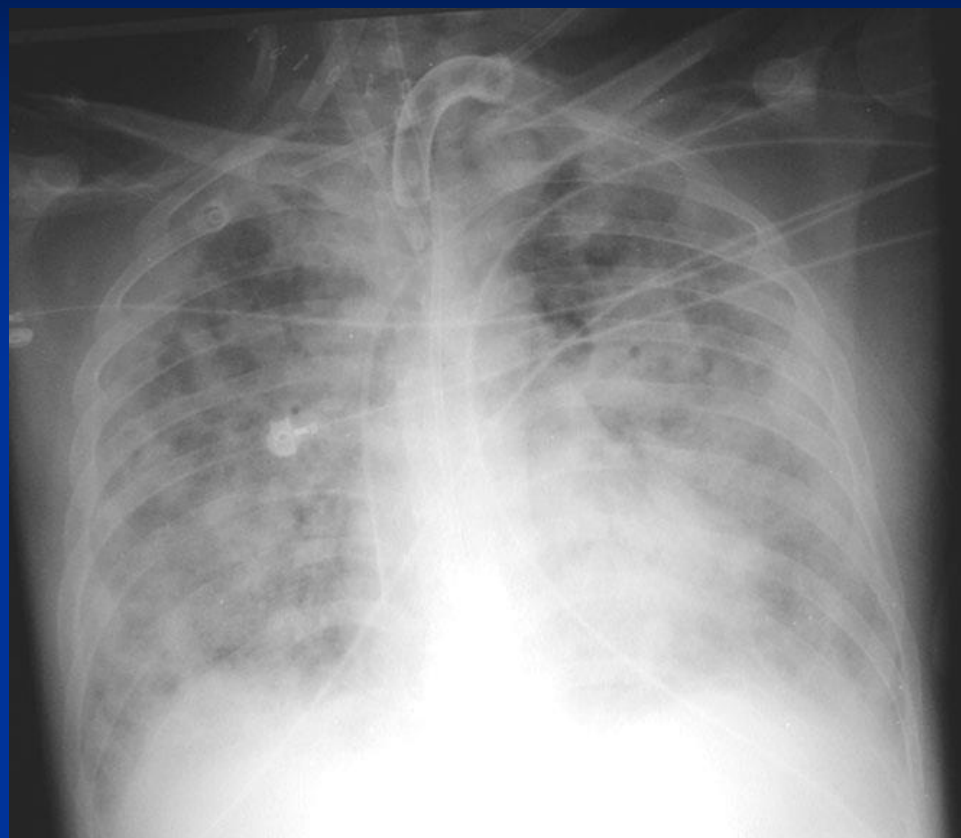
Sometimes

- Severe illness

(Pneumonia and Respiratory failure) &
Cause of death in swine flu infection .

- Like seasonal flu, swine flu may cause a
worsening of underlying
chronic medical conditions





Flu Treatment?

- According to the CDC,
H1N1 Influenza A (Swine)
is susceptible to the
neuraminidase inhibitor antiviral medications
Zanamivir and 150 mg
Oseltamivir. (Tamiflu) (75mg PO BD 5-7 D)
- It is resistant to Amantadine and Rimantadine
(<http://www.cdc.gov/swineflu/recommendations.htm>)

H1N1 Flu Treatment?

- **Pregnant women:**

Category C, so they should be used during pregnancy only if the potential benefit outweighs the potential risk to the embryo or fetus.

- **Children younger than 1 year:**

Because infants typically have high rates of morbidity and mortality from influenza, infants with swine influenza A (H1N1) infections may benefit from treatment with Oseltamivir.

Pregnancy

- *A pooled analysis of studies from the 2009 pandemic (Muthuri et al., 2014).*
- *Studies conducted during seasonal epidemics (Oboho et al., 2016).*
*Antiviral treatment should be initiated **ASAP***
- *Treatment with antiviral medications is recommended for pregnant women with suspected or confirmed influenza and can be taken during **any trimester of pregnancy.***

last reviewed: February 4, 2019
Centers for Disease Control



Antiviral Agent	Children	Adults
Oseltamivir (Tamiflu®)	Neonates* <38 weeks postmenstrual age: 1mg/kg twice a day for 5 days 38-40 weeks postmenstrual age: 1.5 mg/kg twice a day for 5 days	75 mg twice daily for 5 days
	Neonates and infants (1 day⁺ -12 months) 3mg/kg twice a day for 5 days	
	If ≥ 1 year, dose varies by child's weight ≤15 kg, the dose is 30 mg twice a day for 5 days >15 to 23 kg, the dose is 45 mg twice a day for 5 days > 23 to 40 kg, the dose is 60 mg twice a day for 5 days >40 kg, the dose is 75 mg twice a day for 5 days	
Zanamivir (Relenza®)	10 mg (2 x 5mg inhalations) twice daily (FDA approved and recommended for use in children 7 yrs or older)	10 mg (2 5-mg inhalations) twice daily for 5 days

MERS CoV Treatment Options

- *Supportive & ICU care (ECMO)*
- *Suspected Bacterial or Atypical infection*
!!!!!!
- *Ribavirin ! alone or*
- *in combination with interferon alfa 2b !*
- *Mycophenolic acid !*
- *Convalescent serum*
- *No vaccine yet*

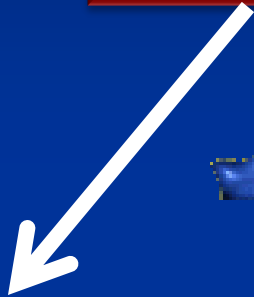
*Infection Control
&
Preventive Measures*



Suspected Flu
H1N1

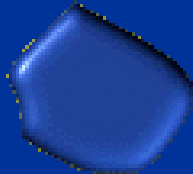
What to Do !?

Precautions !!



Droplet !

Air born !



Standard , Contact

*No evidence
to support
Air born precautions*

Droplet Precautions

Visitors : Please wash hands and wear a mask before enter the room



انتبه

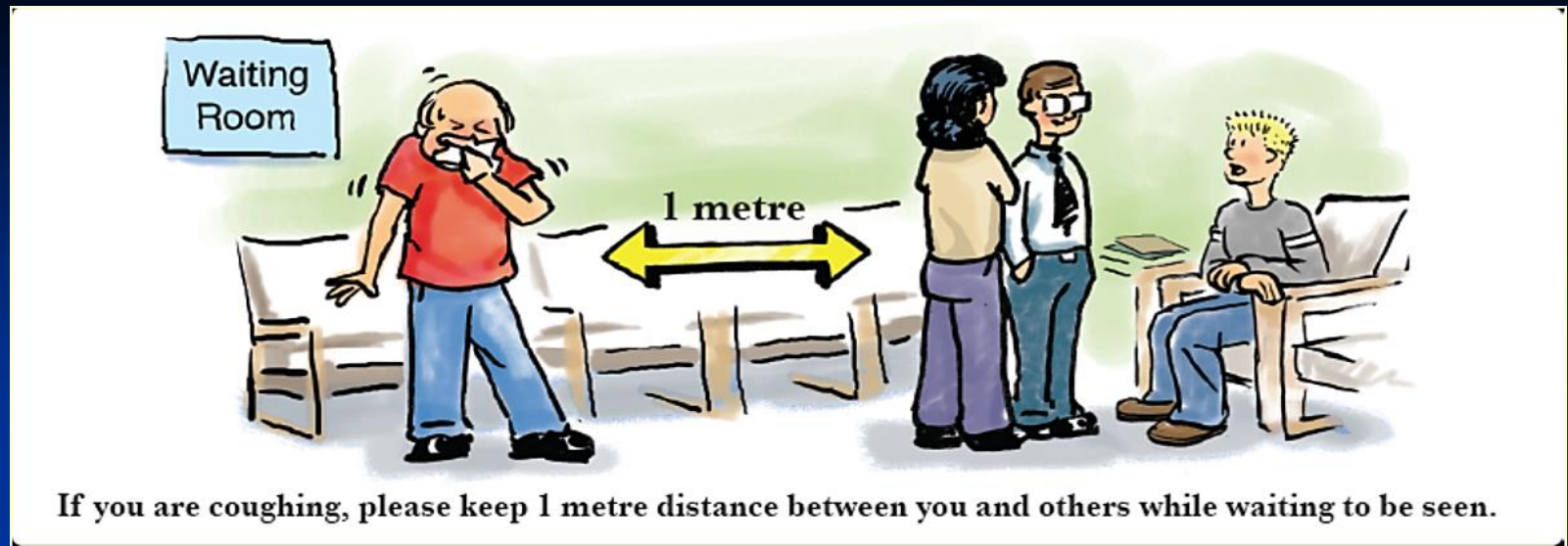
الرجاء مراجعة :- عزيزي الزائر
الممرض/ الممرضة المسؤولة قبل الدخول على المريض

Aerosol Generating Procedures

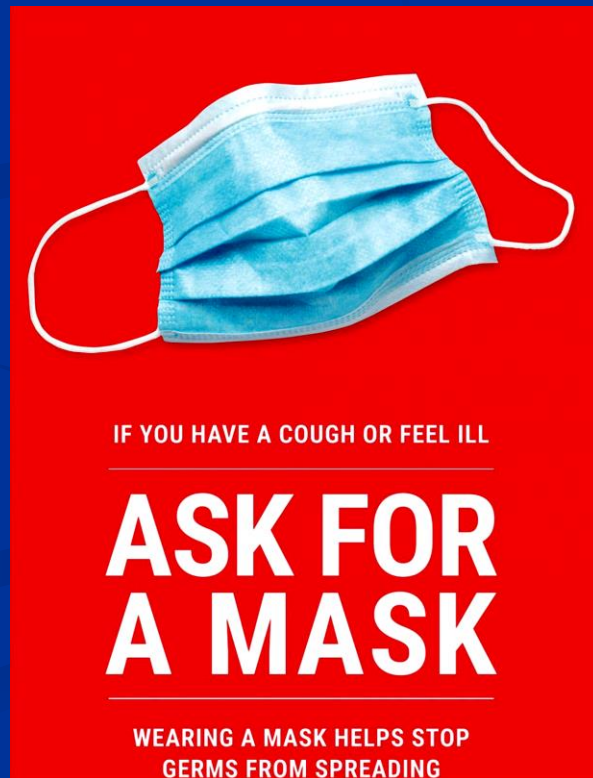
Aerosol- generating procedures with increased risk of respiratory infection transmission)

- Autopsy
- Bronchoscopy
- Cardiopulmonary
- Endotracheal intubation
- High-frequency jet ventilation
- Nebulizer therapy
- Non-invasive positive pressure ventilation (BiPAP & CPAP)
- Open suctioning of respiratory tract (including tracheostomy)
- Sputum induction





*Visual Triage
Alert*



Patient Placement

- *Preferred in a **single-patient room** with the **door closed**.*
- *Where **room exhaust** is re-circulated with high-efficiency particulate air (**HEPA**) filtration / Portable **HEPA** filter (Max power)*



Patient Placement

- *Do not Cohort*
Suspected with Confirmed cases
- *Do not Cohort*
Low risk with high risk suspected cases

What to do !?



- *Limit ill person movement outside the room to wear a Surgical Mask, Precautions in the receiving area encourage Hand Hygiene and follow Respiratory Hygiene Practices.*
- *Limit the number of personnel (staff or family) who need to enter the room.*

What to do !?

- *Recommended **PPE** should be worn by HCW & Visitors **upon entry** into patient rooms or care areas.*
- ***Upon exit** from the patient room or care area, **PPE** should be removed*



High Risk

- Extremes of Age
- Co morbidities
- Asthma/COPD
- Pregnant
- Immune compromised

Suspected Flu/H1N1

Precautions

- High Risk
- Severe symptoms

- Low Risk
- Mild symptoms

Severe Symptoms

- Respiratory Failure (ARDS)
- Super added infections
- Sepsis
- Organ Failure

- Admit
- Isolate
- Collect sample
- Treat
- Case Tracking

- Send Home
- Precautions
- Treat
- Instructions &
- Case Tracking

- Change Risk
- Deteriorate

- N95 :aerosol generating procedures
- Sample Precautions (to virology Lab.)
- Treatment
- Isolation till resolution of respiratory symptoms
- Hand Hygiene is crucial

Don't Panic

General Rules

- *Dedicate individual equipment.*
- *Disinfect shared equipment before use on the next patient.*



General Rules

- *Re-usable equipment are packed and then send to (CSSD) for decontamination,*



General Rules

- Use **70% alcohol** for metallic items.



- Appropriate **wipes** for other Surfaces



General Rules

■ *Linen and Laundry*

**** Pack on site and avoid shaking.
Send to laundry ASAP.**



General Rules

■ *Waste Management*

*** wastes arising from the patient care should be considered as **clinical waste** using the red bags.*



■ *Staff removing wastes should wear appropriate **PPEs***



General Rules

- *Clean and disinfect the environment and terminally disinfected at discharge. Use **High Level Disinfectant** solution,*





Message

Cover Your Cough

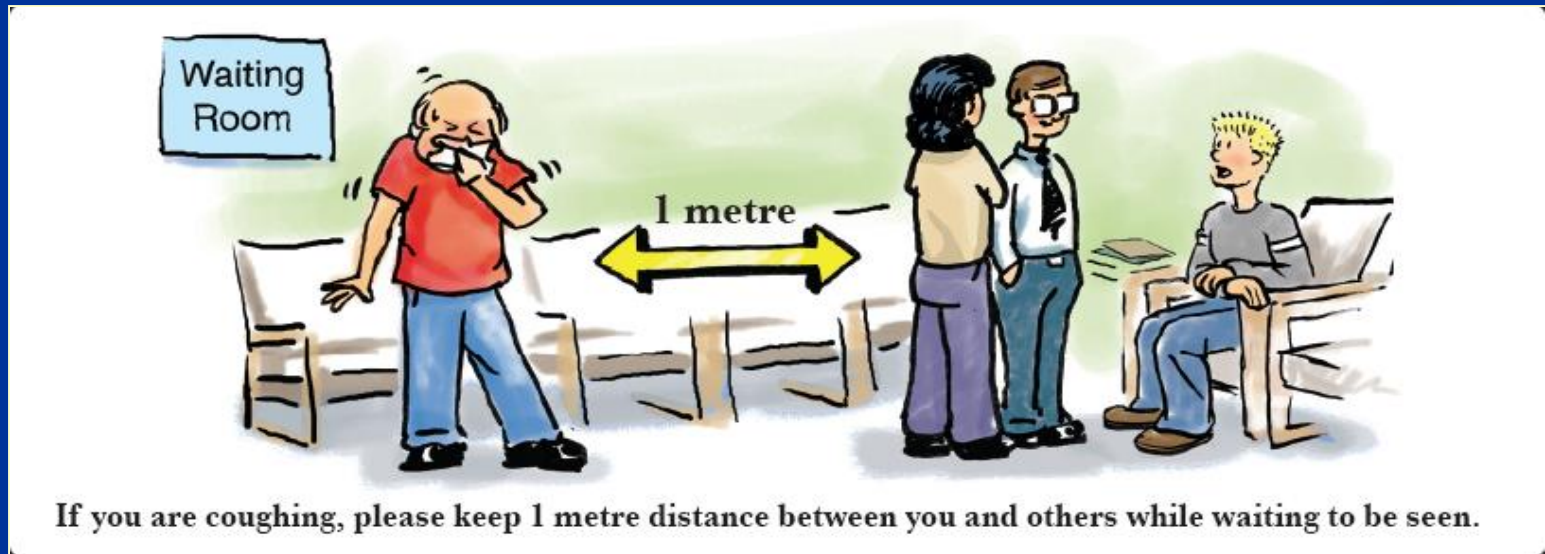


Clean Your Hands



Infection Control Committee. Dubai Hospital

Cover Your Cough



If you are coughing, please keep 1 metre distance between you and others while waiting to be seen.

Infection Control Committee. Dubai Hospital

Hand Hygiene

- Generally considered to be the most important measure in preventing the spread of infection.



Chemoprophylaxis ??

Chemoprophylaxis ??

- *Household close contacts of a confirmed or suspected case (had un-protected exposure) particularly those who are at high risk for complications of influenza (persons with certain chronic medical conditions, elderly).*
- *School children particularly those who are at high risk for complications of influenza (persons with certain chronic medical conditions) who have had close contact (face-to-face) with a confirmed or suspected case.*

Chemoprophylaxis ??

- *Healthcare workers or public health workers who have had unprotected close contact with a person with confirmed (H1N1) influenza A virus infection during the infectious period.*

<http://www.cdc.gov/swineflu/recommendations.htm>



Flu Vaccine

- *Indicated yearly by WHO/CDC/ECDC to general public/particularly HCWs*
- *Safe effective*
- *Recombinant technology (No virus)*
- *Single dose vial*
- *No mercury preservative*
- *Safe in Pregnancy and Lactation*





A new study finds that women are twice as likely to suffer a miscarriage if they catch the flu while pregnant, but getting the flu vaccine is safe for both mom and unborn baby.

A pregnant woman is shown from the waist up, wearing a bright yellow sweater. She is holding her belly with her right hand. A yellow diamond-shaped sign with a black border is superimposed on her abdomen. The sign contains the text "NO FLU ON BOARD" in bold, black, sans-serif capital letters.

**NO FLU
ON BOARD**

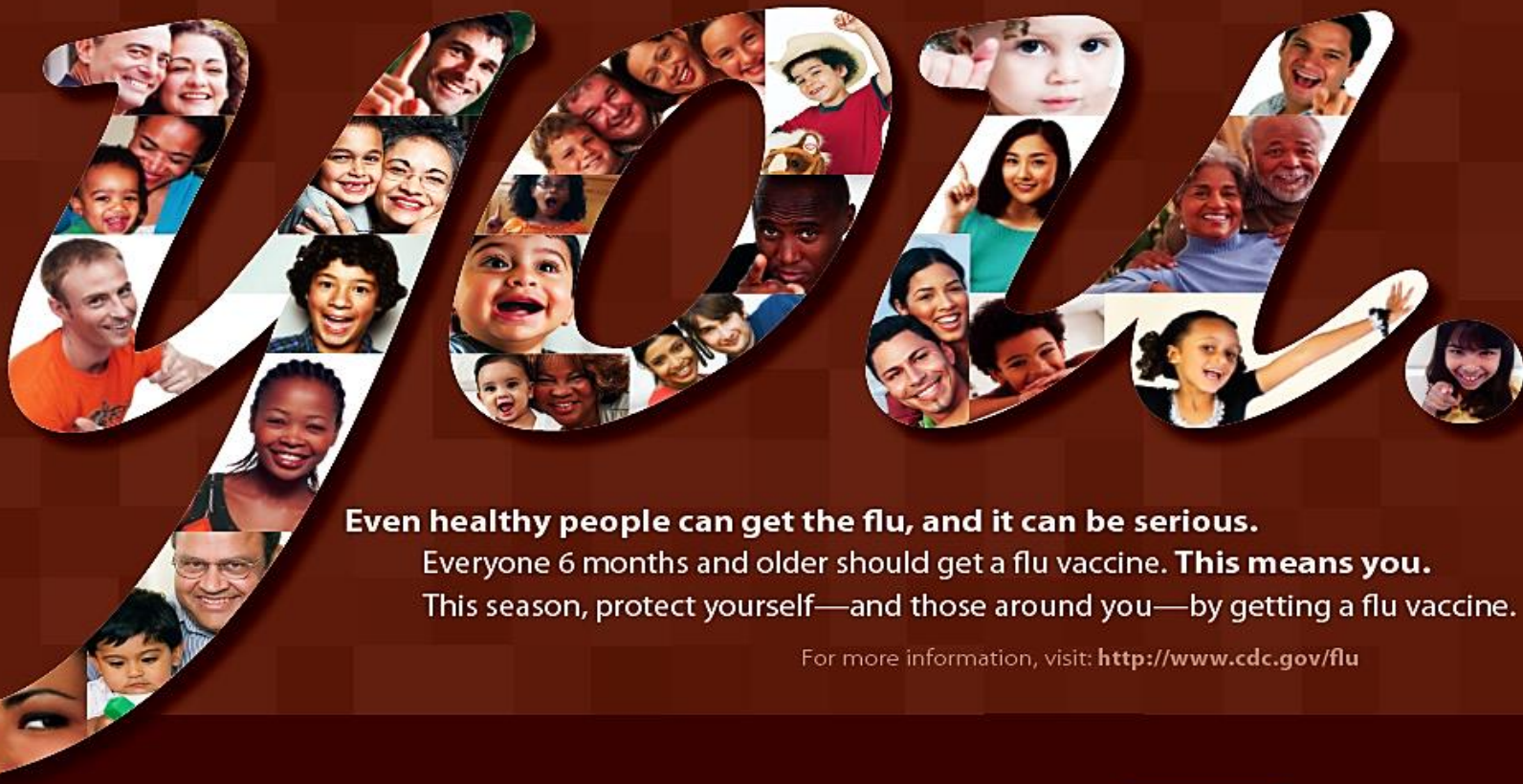
For information,
visit www.flu.gov, or
call 1-800-CDC-INFO.

FLU CAN HARM YOU AND YOUR BABY.



**VACCINATION CAN
PROTECT YOU BOTH!**

Who needs a flu vaccine?



Even healthy people can get the flu, and it can be serious.

Everyone 6 months and older should get a flu vaccine. **This means you.**

This season, protect yourself—and those around you—by getting a flu vaccine.

For more information, visit: <http://www.cdc.gov/flu>



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention



PREVENTION IS PRIMARY!

Protect patients...& Family

Protect healthcare personnel...& Family

Promote quality healthcare!



THANK YOU

DR. Ashraf Elhoufi

Infection Control Committee. DH



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6. CDC. Immunization of health-care personnel: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep 2011;60(No. RR-7):1–45
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<https://www.cdc.gov/flu/professionals/antivirals/index.htm>

Employee Health Program

Toward a culture of Safety

Pre-employment screening



HIV
Hep. B & C
MMR
Varicella
TB

Exposure management



Respiratory
Meningitis
TB
H1N1

Blood born
Sharps/needle
stick injury
(HIV, B, C)

Contact/others
MRSA, VRE, C diff
CCHF...

Vaccination



Hep. B
H1N1
MMR
Varicella
Pneumococcal

Work restriction



HCWs with
Communicable
dis.