PHARMACY BULLETIN

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content

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What is IMMUNISATION ANXIETY-RELATED REACTIONS? *[1, 2]*

The term "immunization anxiety-related reaction" is used to describe a range of signs and symptoms that may arise around immunization that are related to "anxiety" and not to the vaccine product, a defect in the quality of the vaccine or an error of the immunization program. These reactions are described as AEFIs arising from anxiety about immunization and include vasovagal-mediated reactions, hyperventilation-mediated reactions and stress-related psychiatric reactions or disorder.

SYMPTOMS of immunisation anxiety-related reactions *[4]*

Dizzines

Syncope/ Fainting

Non-epileptic seizure

Vomiting

Pallor

Nausea

Sweating

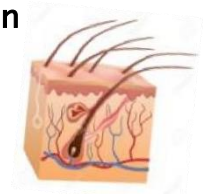
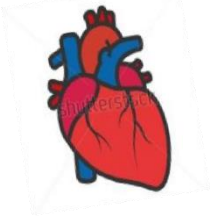
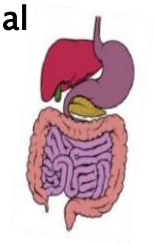
Hyperventilation

14 Immunisation ANXIETY-RELATED reactions have been reported to NPRA until October 2019

Anxiety-related fainting or Anaphylaxis? *[6]*

- Fainting which is one of the symptoms of immunization anxiety-related reaction may be falsely diagnosed as anaphylaxis. Anaphylaxis is very rare but severe and potentially fatal allergic reaction which caused by vaccine antigens and components.
- Vaccinators should be able to distinguish anaphylaxis from fainting and vasovagal syncope as well as anxiety and breath-holding spells, which are all commonbenign adverse events.
- Misdiagnosis of faints and other common causes of collapse, such as anaphylaxis, can lead to inappropriate treatment.

DIFFERENTIAL DIAGNOSIS Anxiety-related fainting and anaphylaxis *[5]*

Clinical Features	Anxiety-related Fainting	Anaphylaxis
Timing 	Before, during, or few minutes after injection	Short time, up to few hours
Skin 	Generalized pallor, cold clammy skin	Itchy, generalized erythema, urticaria, swelling of lips and face, tingling around lips
Respiratory system 	Normal breathing or shallow breathing	Tachypnoea, difficulty in breathing, wheezing, stridor, hoarseness, cyanosis, recession of intercostal spaces
Cardiovascular system 	Bradycardia, weak pulse, carotid pulse felt, hypotension – reversed by supine position	Tachycardia, weak pulse, carotid pulse may be weak, hypotension – not reversed by supine position
Gastrointestinal system 	Vomiting	Vomiting, diarrhoea, abdominal cramps
Central nervous system 	Feeling faint, light-headedness – relieved by supine position	Anxiety and distress, loss of consciousness – not relieved by supine position

ADVICE to healthcare professionals *[5]*

1. Rule out **anaphylaxis** or **immunisation anxiety-related**

2. Immunisation anxiety-related reactions may be **minimised** by:

Conduct vaccine preparation away from vaccinee's view

Provide simple explanation and confident delivery of vaccine

Conduct teacher to accompany pupils during school-based immunisation programmes

Provide relaxed environment

Provide short waiting time, comfortable room, and privacy during procedure

References:

1. World Health Organisation (2018). Causality assessment of adverse event following immunization (AEFI): User manual for the revised WHO classification, 2nd edition.
2. World Health Organisation (2015). Immunization safety surveillance: Guidelines for immunization programme managers on surveillance of adverse events following immunization, 3rd edition.
3. Definition and application of terms for vaccine pharmacovigilance. Report of CIOMS/WHO Working Group on Vaccine Pharmacovigilance. Geneva, Council for International Organizations of Medical Sciences, 2012. See: http://www.who.int/vaccine_safety/initiative/tools/CIOMS_report_WG_vaccine.pdf
4. The Malaysian Adverse Drug Reactions Database, NPRA. Accessed: October 2019
5. National Pharmaceutical Regulatory Agency MADRAC Bulletin Vol.30 Issue 03/2019
6. WHO Vaccine Basic e-learning course Module 2: Anaphylaxis https://vaccine-safety-training.org/anaphylaxis.html

I N F L U E N Z A

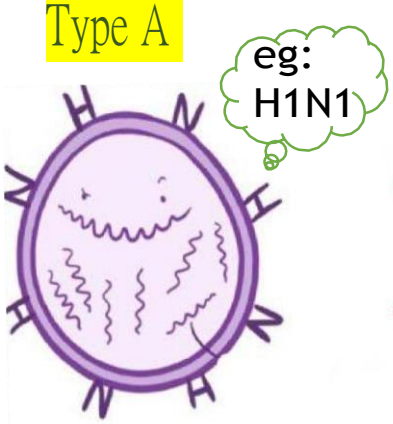
By: Muhammad Aiman Bin Razali

What is *Influenza?*

- Influenza is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and sometimes the lungs.
- It can cause mild to severe illness, and at times can lead to death.

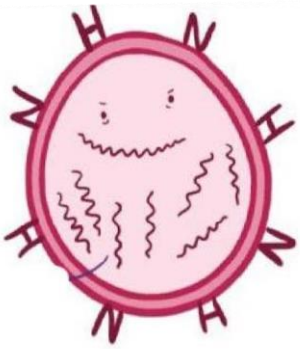
What are the types of *Influenza?*

Type A



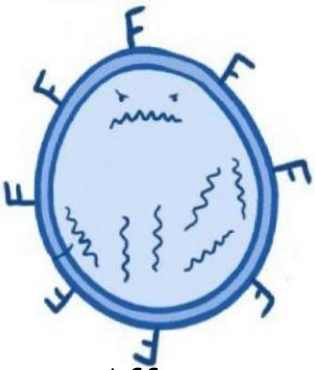
- Affects animal and human
- The only type that can cause a pandemic

Type B



- Affects human only
- Cause seasonal outbreak

Type C



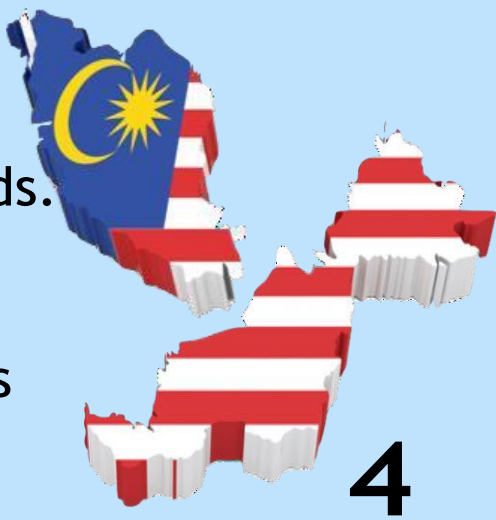
- Affects human only
- Causes mild infection

Type D

- Newly recognized species
- First isolated in 2011 from a pig
- Mainly affect cattle (do not seem to affect human)

Influenza in Malaysia

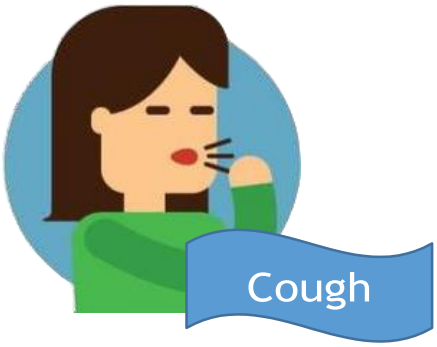
- Influenza is generally seen year-round in Malaysia, with no clear seasonal trends.
- Influenza A is usually detected more frequently than influenza B.
- The first pandemic case in Malaysia was reported in May 2009 which was H1N1.

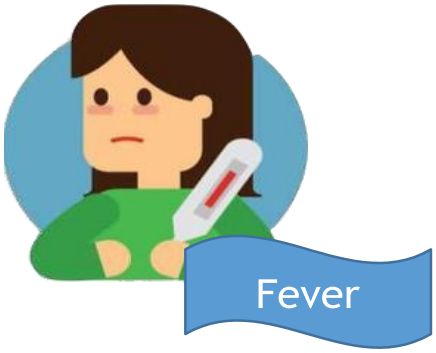


How *Influenza* is being spread?

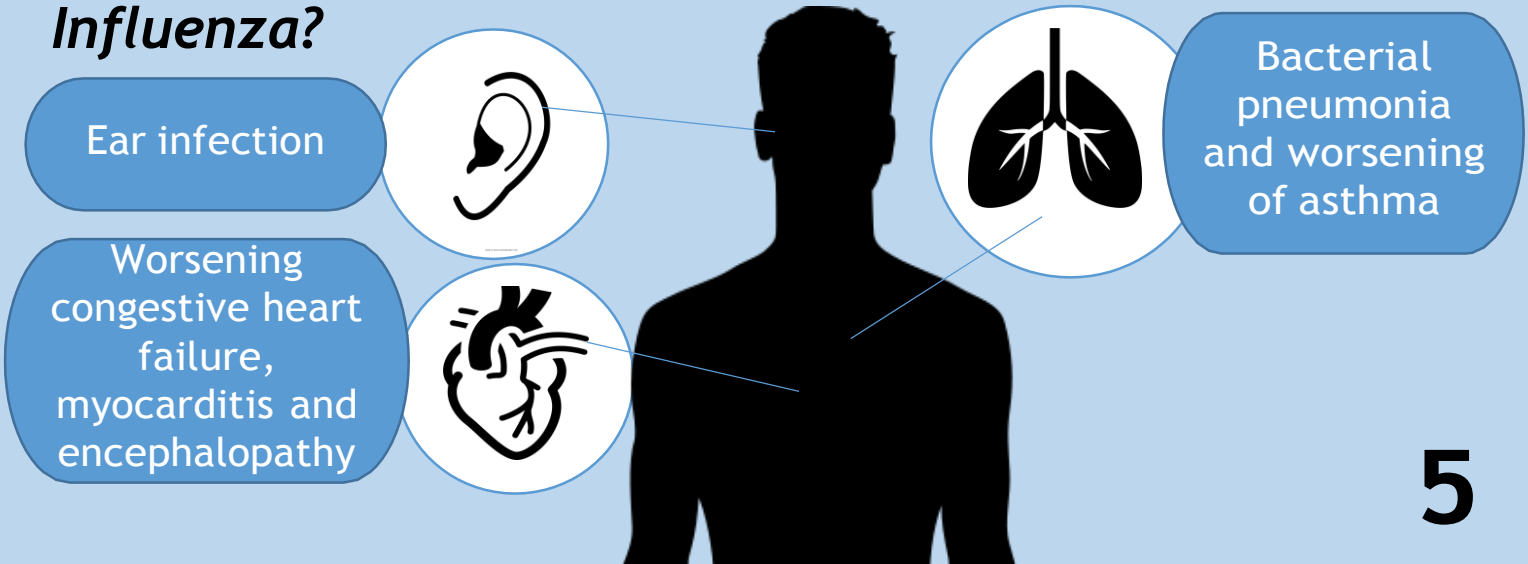
Influenza viruses spread mainly by **tiny droplets** made when people with flu cough, sneeze or talk. These droplets can land in the mouths or noses of people who are nearby.

What are the symptoms of *Influenza?*





What are the complications of *Influenza?*



What are treatments available?

Antiviral (eg: Oseltamivir)

Treatment with antiviral drugs should be started as soon as possible after symptom onset.

Oseltamivir

Dose:

1) Patients ≥13 years of age and body weight>40 kg: **75mg BD x 5 days**
2) Adult patients with CrCl 10-30ml/min: **75mg OD x 5 days**
3) Dialysis patients and adult patients with CrCl<10ml/min: **Not recommended**

Inactivated Influenza Vaccine

Vaccine

Healthcare workers should be vaccinated every year as recommended by WHO.

Dose:

1) Adult and child ≥ 9 years: **Single dose of 0.5ml IM**
2) Child 3-8 years: **1-2 doses of 0.5ml IM**
3) Child 6-35 months: **Single dose of 0.5ml IM or deep S/C**

How to prevent the spread of *Influenza?*

1 Avoid contact with sick people

2 Cover your mouth with tissue when coughing

3 Stay home from work, school and errands if you have flu-like symptoms. This will help prevent spreading your illness to others.

4 Avoid touching your eyes, nose and mouth

5 Wash your hands with soap or water often

REFERENCE:

1. https://www.cdc.gov/flu/prevent/actions-prevent-flu.htm
2. https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal)
3. MOH Drug Formulary (Blue Book) Bil. 3/2019
4. I-Ching, J., 2015. The Burden of Human Influenza in Malaysia. *Med J Malaysia*, 70(3).
5. ROYCE Osmivir Capsule 75mg Product Leaflet