

Interactive session on basic influenza issues

Time allotted: from 30 minutes to 1.5 hours depending on the number of questions asked and time taken to answer all questions and issues raised

Objective: At the end of the session the participants should be able to explain the difference between seasonal/pandemic and avian influenza

Introduction slide: 2 min

In the introduction explain the students

- What we will discuss

- That it will be an interactive session/ "lecture"

- Objectives of the session

Explain to the group that they will need to form groups of three.

Ask them to write down what they know, think they know or would like to know about influenza,

(There are no wrongs!!)

Ask them to write with big letters on the post-its.

While they form the groups hand out post-its and markers to all participants

Group work (Groups of 3 with post its) 5 min

While the students are writing, prepare/hang up your flip charts.

Ensure you have three flipcharts, and write

on the first one *Seasonal influenza*

on the second one *Avian Influenza*

and on third *Pandemic Influenza*

When the students are done invite them to post their post-its on the flipcharts.

Their questions/issues on seasonal influenza should be stuck on the seasonal influenza flipchart, etc.

When done, invite the group to stand around the seasonal influenza flip-chart and discuss the different questions, taking one, reading it out loud, answer the question or address the issue. Or ask one of the participants to take a question, read it, etc.

Discuss all three flipcharts.

When done ask students to take their seat again and quickly show the remainder of the slides from the presentation.

If further explanation necessary slides are in the background for:

Some slides will be prepared

- Antigenetic drift/shift

- The influenza virus

- HA/NA

Expected results

Seasonal influenza

Vaccination

Influenza A ,B and C

Epidemics each year

Public health importance

Surveillance done in countries of high income

Antigenetic drift

- Minor change in HA/NA
- Point mutations during replications but subtype remains the same
- Partial immunity may exist to changed viruses
- Need to update vaccines annually

Avian influenza

A-subtypes

Contagious in birds

Wild birds are asymptomatic carriers

Domesticated population become infected by contact with wild birds

Low and high pathogenic avian influenza

H5N1

Global epi-zootic

Cases asymptomatic, high and low pathogenic forms of disease

Has infected other species and humans, but no sustained human to human transmission yet

Pandemic influenza

Global epidemic

Novel influenza

Transmissible from human to human

Ability to cause significant morbidity and mortality

Antigenetic shift

- Non-human virus can shift to be infective for humans
- Can use another animal e.g. a pig to reassort when animal is infected with human and non-human virus
- A shift means major change in HA/NA
- Introduces a new subtype to humans

3 Pandemics have occurred in the last century

Additional potential information that might be of interest

Different Influenza types

Influenza A

Can infect many species (birds human, pigs, horses)

Wild aquatic and shore birds are the natural reservoir

Causes epidemics and pandemic

Is divided in subtypes NA and HA

Influenza B and C

Not sub typed

Influenza B

Can cause epidemics but less severe

Is responsible for epidemics every two- three years,

Has not caused pandemics

Influenza C

Causes mild illness in humans does not cause epidemics or pandemics

HA and NA to classify viruses

Are responsible for the immunity to influenza

Classifies Influenza A in subtypes

HA = Haemagglutinin - Helps virus to infect the cell

NA = Neuramidase - Helps the replicated virus to get out of the cell
and into the body

Haemagglutinin (HA) 16 types

Neuramidase (NA) 9 types

All sub-types circulate in birds

Only H1N1, N2N2 and H3N2 circulate in humans