Epidemiology

Droplet infection

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Droplet infection



Out line:-

- Introduction of Droplet infection
- Airborne diseases
- Definition of Droplet infection
- Transmission occur
- Why droplets are not considered as an airborne transmission
- Types of Airborne and droplets infectious
- Disease manifestations
- How can droplet transmission be prevented?

Introduction of Droplet infection

Many common infections can spread by droplet transmission in at least some cases, including: -

Common cold نزلة برد - -Diphtheria دفتيريا

-Influenza إنفلونزا -Meningitis التهاب السحايا

-Mycoplasma الميكوبلازما - Mumps النكاف

-Pertussis (whooping cough) السعال الديكي

-Plague الطاعون -Rubella الحصبة الالمانية

-scarlet fever الحمى قرمزية -pneumonia الالتهاب الرئوي

Airborne diseases

- Diseases caused by pathogens that small enough to be discharged from an infected person in **a form of tiny drops called aerosols** **هواء جوي**
- The pathogen remains suspended معلق in **air dust** particles, or **respiratory** and **water droplets**

Definition of Droplet infection:-

An **infection** transmitted from one individual to another by **droplets** of moisture رطوبه expelled زفر from the **upper respiratory tract** through **sneezing , coughing, laughing, talking**

Caused by ingestion ابتلاعor **aspiration** of droplets carrying pathogens.

Transmission occur

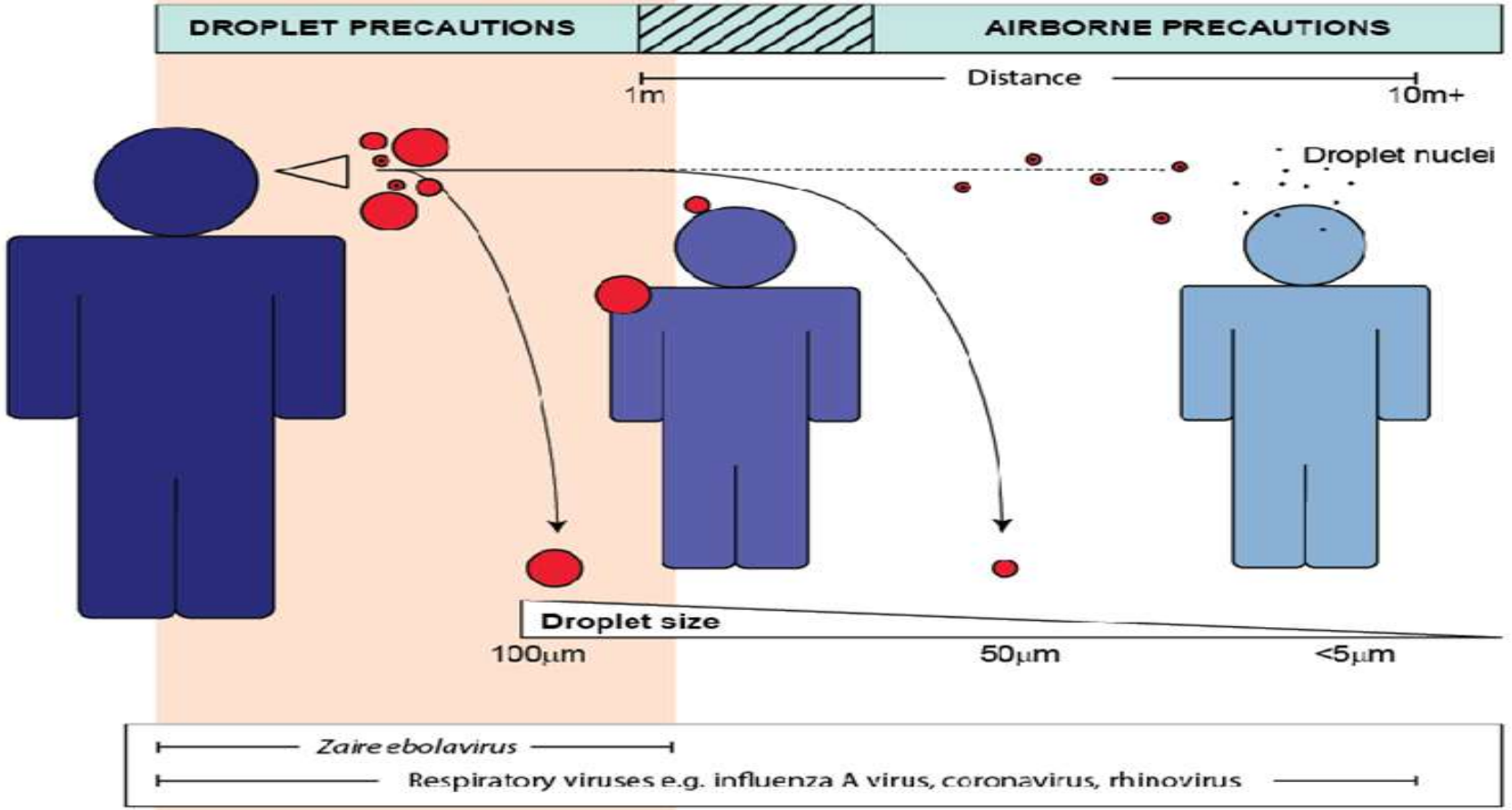
- Transmission occur when an **infected droplet** propelled مدفوع a short distance in the air and then **fall on the host's mouth** or **nasal mucosa** or **eyes.**

- **Droplet travel 1-2 meter** before drying out.

Why droplets are not considered as an airborne transmission

- Droplets are **larger** than aerosols and **don't remain airborne for long**

- They **fall into the ground** or **onto surface shortly after being expelled**



SIMPLE SKETCH OF DROPLET & AIRBORNE VIRUS AND BACTERIAL TRANSMISSION

IAN M. MACKAY, PHD
V6 15-AUG-2014
VIROLOGYDOWNUNDER.BLOGSPOT.COM.AU

Types of Airborne and droplets infectious

- **Airborne** **Droplet**

- Influenza _ both* SARS_both*
- Varicella (chickenpox) جدري الماء Pertussis سعال ديكي
- Measles Strep throat بكتريا الحلف
- Anthrax الجمره الخبيثه Ebola
- Tuberculosis Norovirus_both*

Disease manifestations

The classic symptoms:

- Fever
- Non-productive cough
- Conjunctivitis
- Malaise
- Rash

How can droplet transmission be prevented?

- Frequent *hand cleansing*, especially with *instant hand sanitizers* *مطهرات اليد الفوريه*, can help prevent droplet transmission.
- Hand cleansing is most important before eating.
- Covering the mouth or nose when coughing or sneezing decreases droplet spread
- Using disposable towels and cups reduces the risk for infection.
- Cleaning or disinfecting commonly touched *infected surfaces* (doorknobs مقابض الأبواب , faucet handles مقابض حنفية , shared toys, mats in daycare)
- Wearing a mask may help for short exposures.

THANK YOU