Slide 1

Welcome to this learning module on Infection Control.

Slide 2 – Learning Objectives

At the end of this module, you should be able to:

1. Understand the chain of infection
2. Know the different modes of transmission of infection in healthcare and
3. Comprehend standard and transmission-based precautions and their role in the prevention of transmission of infection.

Hand washing technique and ‘Bare below the elbows’ are core concepts of infection control and will be presented in the Module entitled “Hand Hygiene, Aseptic and Non-touch Technique”.

Slide 3

Healthcare associated infections or HAIs are the most common complication that affects patients in hospital. They are preventable. The rate of HAIs can be reduced significantly with effective infection prevention and control strategies. Applying these strategies is everyone’s responsibility. This includes staff, students, patients, families and carers.

Slide 4 – Transmission of infection

It is helpful to understand how infections are transmitted in order to break the cycle.

Infection requires three main elements:

1. A source of the infectious agent
2. A mode of transmission, and
3. A susceptible host

This is known as the chain of infection.

Slide 5 – Contact transmission

Contact transmission can occur directly or indirectly. As the name suggests, with direct transmission microorganisms go straight from a source, for example contaminated hands, to a susceptible site such as a wound on a patient. Indirect transfer occurs via an intermediate object such as a bed rail or instruments.
Slide 6 – Droplet and Airborne transmission

Droplet transmission occurs when respiratory droplets are generated by coughing, talking or sneezing and make contact with susceptible mucosal surfaces such as the eyes, nose or mouth.

Airborne transmission involves organisms that can survive outside the body and remain suspended in the air for long periods of time.

Slide 7 – Standard Precautions

Standard precautions are recommended for the treatment and care of all patients regardless of their perceived infectious status. They offer a first-line approach to infection prevention.

Included in standard precautions are hand hygiene, personal protective equipment, and routine environmental and equipment cleaning. Many of these standard precautions are advisable in everyday life, for example respiratory hygiene and cough etiquette.

Slide 8 – Respiratory Hygiene and Cough Etiquette

Anyone with signs and symptoms of a respiratory infection, regardless of the cause, should follow or be instructed to follow respiratory hygiene and cough etiquette as follows:

- Cover the nose/mouth with disposable single-use tissues when coughing, sneezing, wiping and blowing noses.
- Use tissues to contain respiratory secretions.
- Dispose of tissues in the nearest waste receptacle or bin after use.
- If no tissues are available, cough or sneeze into the inner elbow rather than the hand.
- Practice hand hygiene after contact with respiratory secretions and contaminated objects/materials.
- Keep contaminated hands away from the mucous membranes of the eyes and nose.

Slide 9 – Transmission Based Precautions

Transmission based precautions are not separate to standard precautions. Standard precautions should always be used. It will only be in some instances that additional ‘transmission based precautions’ will be required. The additional actions required might include different aprons or masks or keeping equipment or patients contained in one area. You need to know how to identify patients with additional precautions so that you can take the necessary actions.

Slide 10

Patients with additional precautions for infection control should be identified during clinical handover.

A reminder should also be present on entry to the patients rooms or area that additional precautions apply and should provide directions to follow. For example, this poster demonstrates that as well as using standard precautions, you need to apply set contact precautions when entering the patient area. This poster may be used in the presence of MRSA or gastroenteritis.

Slide 11

Airborne precautions may be applied for example where patients have Tuberculosis.
Slide 12
This poster demonstrates droplet precautions and describes the standard and additional steps to take.

Slide 13 – Cleaning Equipment
You should clean frequently touched surfaces with detergent solution:
- at least daily,
- when visibly soiled and
- after every known contamination.

Clean general surfaces and fittings when visibly soiled and immediately after spillage.