



Infection Prevention & Control

Patient Safety
Lecture no. 10

COLOR INDEX

- Main Text
- Important
- Male Slides
- Female Slides
- Dr's Notes
- Extra



From Blackboard!

Objectives:



Demonstrate the devastating effects of inadequate infection prevention & control in health-care settings



Show students how they as individual members of the health-care team can help minimize the risks of contamination & infection to improve patient safety

Knowledge requirement

- ◆ The extent of the problem
- ◆ The main causes & types of HCAI
- ◆ The main principles and methods for HCAI prevention and control
- ◆ The modes of infection transmission in healthcare settings

Performance requirement

- ◆ How to apply standard precautions
- ◆ Adhere to other infection prevention and control measures as required **is very important**
- ◆ Apply principles of asepsis
- ◆ Be immunized against hepatitis B **and other infectious disease**
- ◆ Use and dispose of protective clothing and equipment appropriately
- ◆ Know what to do if exposed to blood or other bodily fluids
- ◆ Use and dispose of sharps properly
- ◆ Act as a role model for other health-care staff
- ◆ Educate community members as to how they can help to prevent infections
- ◆ Encourage others to use standard precautions to prevent and control HCAI (**Health-Care Associated Infection**)
- ◆ Understand the potential social, economic and emotional burden of HCAI on patients, and act accordingly
- ◆ Be able to discuss HCAI with patients and relatives with sensitivity and clarity

◆ This lecture was presented by Dr. Fahad Alrashed

◆ For the required reading **from Blackboard** click [here](#)



What Is The Urgency?

As you know, here in infection prevention & control measures, we expect to see the spreading of infectious diseases within an organization/hospital. As a result, we need to treat the patient with the appropriate antibiotic so with time we create a species of bacteria that can not respond to treatment with this antibiotic (resistant) this leads to:

- Can no longer rely on antibiotics
- Increased rates of nosocomial infections
- Infected patients:
 - Stay longer in hospital
 - Die (develop complication lead to death)
 - Are treated with more toxic & less effective drugs
 - Are prone to surgical site infections



Global Response: campaigns to decrease infection rates

WHO “SAVE LIVES: Clean Your Hands” campaign

Centers for Disease Control and Prevention campaign to prevent antimicrobial resistance in health-care settings

Institute for Healthcare Improvement “5 million lives” campaign



Main Causes of Infection

Person-to-person via hands of health-care providers, patients and visitors

Personal equipment (e.g. stethoscopes, personal digital assistants) and clothing

Device contamination (e.g. ventilator associated pneumonia, central line associated bloodstream infection, catheter associated UTI)

Airborne transmission (sneezing & coughing)

Environmental contamination

Rare common-source outbreaks

Hospital staff carriers

Main Types of Infection

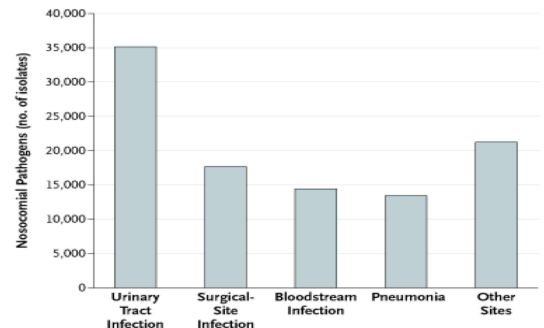
Urinary tract infections usually associated with catheters

Surgical infections

Pneumonia associated with ventilators

Blood stream infections associated with the use of an intravascular device

Other sites, include GI device and other device related infection



Environmental Cleanliness

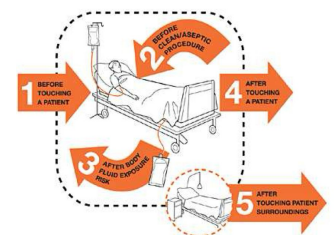
What do we need to do to reduce the chance of disease infection spreading?

The environment:

- 1 Make sure that all the surfaces are visibly clean
- 2 Increased cleaning during outbreaks
- 3 Use hypochlorite and detergents during outbreaks

Hand Hygiene to Minimize Spread of Infection

Pathogens are most often transmitted from patient to patient through the hands of healthcare provider, so hand hygiene is **single most important measure** for preventing the spread of microorganism in healthcare setting. So, when you need to adhere to hand hygiene, follow this steps:



Before touching a patient

Before clean/aseptic procedure

After body fluid exposure risk

After touching a patient

After touching a patient surrounding

Personal Protective Equipment (PPE)

1

Gloves

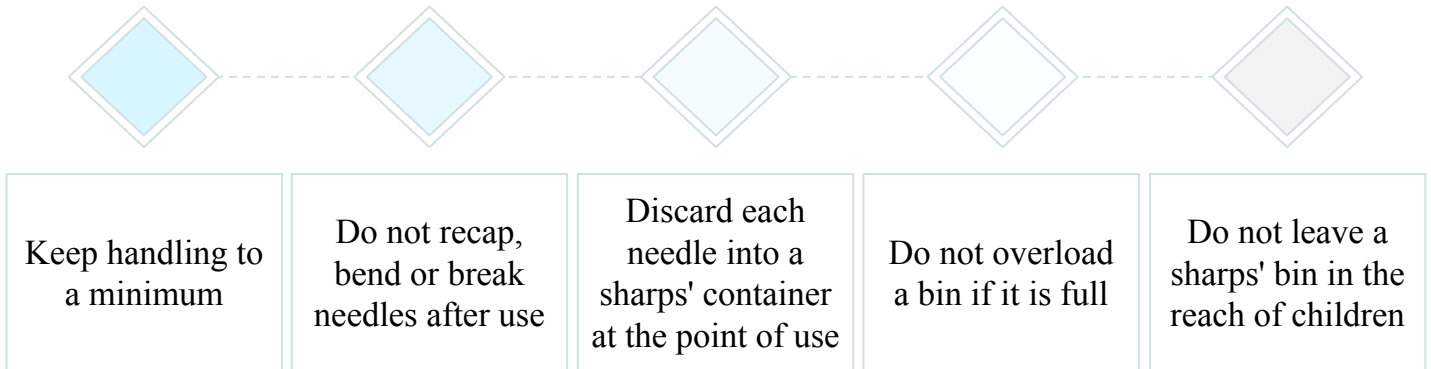
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Gowns

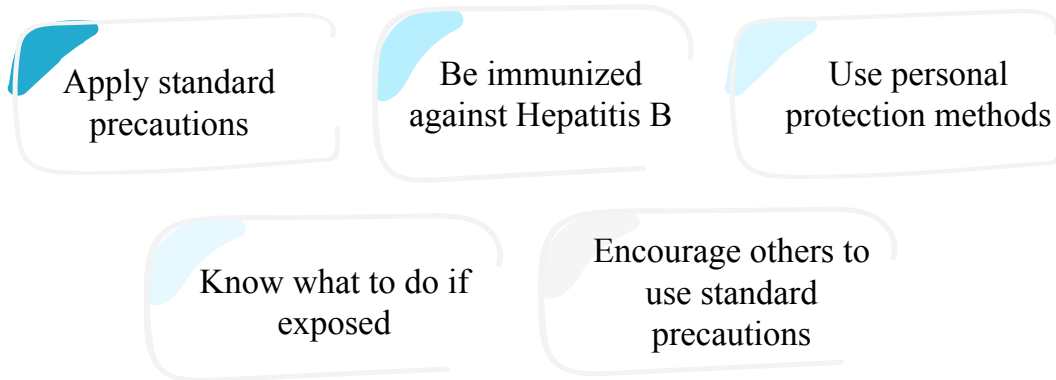
3

Face masks & shield

Safe Disposal of Sharps



What Students Need to Do



Encourage Others to Participate in Infection Control

Students may routinely observe staff who:

1. Fail to practice infection prevention and control recommendations
2. Fail to comply with hand hygiene practices



Summary

- ⦿ Know the main guidelines in each of the clinical environments in which you are working
- ⦿ Accept responsibility for minimizing opportunities for infection transmission
- ⦿ Let staff know if supplies are inadequate or depleted
- ⦿ Educate patients and families/visitors about clean hands and infection transmission
- ⦿ Ensure patients on precautions have same standard of care as others: frequency of entering the room & monitoring vital signs



Team Leaders

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