



مركز الحسين للسرطان

KING HUSSEIN CANCER CENTER

Infection Control Training

INTRODUCTION

Health care-associated infections increase suffering for the patients and keep them in hospital longer. Many suffer permanent disability and a significant number die. This alarming rate has led to increased attention by stake holders as clinicians, managers, institutions and governments to preventing infection which is a major public health problem for patients, their families, and society also has an enormous impact on patients' quality of life and contributes substantially to the financial cost of patient care. It increases the mortality, morbidity, costs and length of stay beyond what is expected based on underlying disease state in both adults and children.

Infection Prevention and Control are essential components of quality healthcare and patient safety. Accordingly, the development of the program specialist in infection prevention and control necessitates for qualified professionals who are guided by sound principles and current information. This program is developed based on best practice care synchronized with national and international quality standard.

TARGET AUDIENCE

This training will be of interest to anyone working in healthcare who would like to know about the prevention and control of infections, particularly nursing, infection control practitioners, public health, etc. It may also be of interest to those with a science background, e.g., epidemiology, integrated sciences, nutritionist, or medical microbiology, or those who wish to further their knowledge in infection control & work experience in health care setting with preferable one year experience in clinical setting.

OBJECTIVE:

At the end of this course, the participant will be able to:

1. Outline the role of infection preventions in various health care settings.
2. Describe essential research and education principles utilized in infection control practices, and to identify and explain the essential elements of an infection control program.
3. Compare and contrast infectious disease prevention strategies, surveillance and control of infectious disease in developed vs. developing countries.
4. Design programs for the surveillance and control of communicable diseases.
5. Interpret the natural history of disease causing parasites, bacteria, viruses, fungi, and other organisms of major public health concern, as well as the disease processes and clinical manifestations caused by those infectious organisms.
6. Identify the appropriate diagnosis, epidemiology, surveillance, control, treatment, and prevention of communicable diseases
7. Describe the natural human defenses, the appropriate use of diagnostic techniques and serological surveillance, and the role of preventive interventions and treatments such as isolation/precautions, vaccines, antibiotics and post exposure prophylaxis against communicable disease.
8. Identify the cultural, social and economic and environmental factors that may contribute to the incidence and prevalence, as well as the transmission, control, treatment and prevention of communicable diseases.

Training Outline

Modules	Section Number	Topics	Total Hours
Essential Elements	Section 1	<ol style="list-style-type: none"> 1. Infection Prevention and Control Programs. 2. General Principles of Epidemiology. 3. Surveillance. 4. Outbreak Investigation. 5. Use of Statistics. 6. Statistical Process Control. 7. Risk-Adjusted Comparisons. 8. Quality Concepts. 9. Performance Measures. 	
	Section 2	<ol style="list-style-type: none"> 1. Accrediting and Regulatory Agencies. 2. Education and Training. 	
	Section 3	<ol style="list-style-type: none"> 1. Patient Safety. 2. Risk Factors Facilitating Infection Transmission. 3. Microbial Pathogenicity and Host Response. 4. The Immunocompromised Host. 5. Microbiology Basics. 6. Laboratory Testing and Diagnostics. 	
	Section 4	<ol style="list-style-type: none"> 1. Isolation Precautions. 2. Hand Hygiene. 3. Aseptic Technique. 4. Cleaning, Disinfection, and Sterilization 	
	Section 5	<ol style="list-style-type: none"> 1. Pneumonia. 2. Surgical Site Infection. 3. Intravascular Device Infections. 4. Urinary Tract Infection. 	
Advanced Elements	Section 1	<ol style="list-style-type: none"> 1. Orienting the New Infection Preventionist. 2. Infection Prevention and Behavioral Interventions. 	
	Section 2	<ol style="list-style-type: none"> 1. Methods of Analysis. 2. Research Study design. 	
	Section 3	<ol style="list-style-type: none"> 1. Informational Technology. 	
	Section 4	<ol style="list-style-type: none"> 1. Product Evaluation. 2. Legal Issues. 	
	Section 5	<ol style="list-style-type: none"> 1. Staffing 2. Infection Preventionist consultant. 	
Practice Elements	Section 1	<ol style="list-style-type: none"> 1. Perinatal Care 2. Neonates. 3. Pediatrics. 4. Geriatrics. 5. Hospice and Palliative Care. 	

		<ul style="list-style-type: none"> 6. Infection Prevention in Indwelling Medical Device. 7. Infection Prevention in Ophthalmology. 	
	Section 2	<ul style="list-style-type: none"> 1. Infection Prevention Measures for Immunocompromised Populations. 2. Solid Organ Transplantation. 3. Hematopoietic Stem Cell Transplantation. 4. Xenotransplantation. 	
	Section 3	<ul style="list-style-type: none"> 1. Burns. 2. Intensive Care. 3. Surgical Services. 4. Cardiac Catheterization and Electrophysiology. 5. Endoscopy. 6. Dialysis. 7. Ambulatory Care. 8. Dental Services. 	
	Section 4	<ul style="list-style-type: none"> 1. CSSD. 2. Reprocessing Single-use Devices. 	
	Section 5	<ul style="list-style-type: none"> 1. Nutrition Services. 2. Nutrition and Immune Function. 3. Laboratory Safety. 	
	Section 6	<ul style="list-style-type: none"> 1. Pharmacy Services. 2. Antimicrobials and Resistance. 	
	Section 7	<ul style="list-style-type: none"> 1. Respiratory Care Services. 2. Imaging Services and Radiation Oncology. 3. Interventional Radiology. 4. Rehabilitation Services. 5. Volunteers and Other Nonemployees Who Interact With Patients. 	
Infectious Diseases		<ul style="list-style-type: none"> 1. Staphylococci . 2. Streptococci. 3. Enterococci. 4. Environmental Gram-negative Bacilli 5. Enterobacteriaceae. 6. Neisseria Meningitidis. 7. Clostridium Difficile Infection and Pseudomembranous Colitis. 8. Legionella Pneumophila. 	
		<ul style="list-style-type: none"> 9. Fungi 	
		<ul style="list-style-type: none"> 10. Bordetella pertussis. 11. Central Nervous System Infection. 	
		<ul style="list-style-type: none"> 12. HIV/AIDS. HIV/AIDS. 	
		<ul style="list-style-type: none"> 13. Mycobacteria. 	
		<ul style="list-style-type: none"> 14. Measles, Mumps, Rubella. 15. Parvovirus. 16. Influenza. 17. Respiratory Syncytial Virus. 18. Herpesviruses. 	

		19. Viral Hepatitis.	
		1. Creutzfeldt-Jakob Disease and Other Prion Diseases. 2. Biofilms. 3. Parasites	
		1. Foodborne Illnesses. 2. Diarrheal Diseases: Viral. 3. Diarrheal Diseases: Bacterial. 4. Diarrheal Diseases: Parasitic.	
Environmental Elements		1. Environmental Services. 2. Laundry, Patient Linens, Textiles, and Uniforms. 3. Waste Management.	
		4. Water Systems Issues and Prevention of Waterborne Infectious. Diseases in Healthcare Facilities.	
		5. Maintenance and Engineering. 6. Heating, Ventilation, and Air Conditioning. 7. Construction and Renovation.	
Immunization in Health Care		1. Immunization of Healthcare Worker. 2. The Pregnant Healthcare Worker. 3. Minimizing Exposure to Blood and Body Fluids. 4. Public Health.	
Emergency and Disaster Elements		1. Emergency Management 2. Infectious Disease Disasters: Bioterrorism, Emerging Infections, and Pandemics.	

DURATION

Theoretical Contact Hours;

- Practical Seession Hours

TEACHING STRATEGIES:

Teaching learning methods utilized to assist the participants in achieving course objectives include:

- Independent study (reading, thinking);
 - Lectures
 - Role play
 - Class room presentation
 - Discussion (seminar approach)
 - Audiovisuals.
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TEACHING MATERIALS

The materials used will include but not limited to the following

1. Handouts
2. Articles.
3. Internet and computer search
4. Power point presentations.

Teaching material

The materials used will include but not limited to the following

- APIC Text of Infection Control and Epidemiology, 4th & 3rd ed. By: Patti Grotta, PhD, RN, CNS-M-S, CIC (ed.), et al.
- Presentation Handouts
- Research articles
- CDC ; Central of disease control web site.
- APIC web site.
- SHEA, ASM, WHO, FDA.

EVALUATION STRATGIES

- Exams.
- Reflective discussion.
- Class work and activities.
- Home assignments.

SUCCESSFUL PROGRAM COMPLETION

To successfully complete this course, the participants have to:

- Actively participate in training activities.
- Share in the group work

EXPECTED LEARNING OUTCOMES

At the end of this course, the participant will be able to:

- The fundamental principles of epidemiology , communicable diseases, body substance precautions, standard precautions, isolation requirements and appropriate barrier protection.
- Recognition of common communicable diseases and their management.
- Use of best evidence to support practice decisions.
- The approach to outbreak identification, investigation and management.
- Research skills in the area of online searches and biostatistical analysis.
- Experience with the use of case-based learning to direct individual learning.

PREPARED BY

Course Coordinators:

REVIEWED BY

Sawsan Mubarak ; Manager of Infection Control

APPROVED BY