

## In the Name of God

### Islamic Republic of Iran Ministry of Health and Medical Education Deputy for Education

## Prevention and Control of Nosocomial Infections Degree: Fellowship

### Program Description

Health care associated infections (HCAIs) are of special importance due to the mortality, morbidity, increased costs, increased hospitalization days and incidence of microbial resistance. Due to the increased invasive diagnostic-therapeutic procedures, increased life span and chronic underlying diseases, the need for extended hospitalization has increased, which in turn would lead to higher incidence of infections. Since the health care team is responsible for saving lives, secure and safe service provision at lower cost and in less time, the control and prevention of HCAIs has gained a high priority in the world and Islamic Republic of Iran (IRI) as well. The incidence of HCAIs is one of the main indicators of hospital evaluation. Due to the great advances in various medical fields in IRI, during recent decades, the need was felt for training the skilled competent human physicians for prevention and control of HCAIs more than ever. Therefore, after approving the need to establish the course in 2008, a committee of experts in the field was established to develop a national curriculum in 2009, which resulted in the present curriculum after the meetings. The committee welcomes the experts' valuable comments for revision of the curriculum.

### Definition of the Training Program:

Prevention and control of HCAIs Fellowship is a clinical training program, related to infectious diseases, in which the graduates are involved diagnosis, treatment, control, care, prevention of nosocomial infections and HCAIs.

**Duration of the program is 1 year.**

### Aims:

- 1- To train knowledgeable, competent, liable, sensitive to the health of individuals and society to control HCAIs, provide the society with their knowledge and skills in terms of prevention, control, research, education and therapeutic-diagnostic services.
- 2- In next 10 years, it is expected to become one of the top countries developed in region, in terms of educational standards, research products, service provision and science production in this field.

### Admission Requirements

Specialist holding formal Board certificate in one of the fields of:

- Infectious and tropical diseases
- Pediatrics
- Internal medicine
- Community medicine

## Expected Competencies at the End of the Program

### General Competencies\*

#### Specific Competencies and Skills

##### Procedural skills (diagnostic-therapeutic measures)

- Sampling of the environment
- Preparing disinfectants for different purposes
- \*\*Working with sterilizer devices
- Monitoring sterilization
- Pulse fielded gel electrophoresis (PFGE)
- Preparing direct slide, staining and culture of the specimens
- Identifying the bacteria (genotyping)\*\*\*
- PCR

##### Managerial measures to control infection

- A systematic scientific visit of infection control in medical care units
- Moderating the meetings of the infection control committee
- Criticizing or designing the surveillance system checklists
- Analyzing surveillance system data and giving feedback
- Analyzing equipment and preparing reports
- Analyzing processes and procedures and preparing reports
- Supervising hand washing (Washing/Rubbing/Scrubbing)
- Criticizing drug prescriptions containing antibiotics
- Controlling hospital events

### Educational Strategies, Methods and Techniques\*

#### Student Assessment (Methods and Types)

##### a. Assessment methods

- \* Written
- \* Oral
- \* Computer interactive test
- \* OSCE
- \* DOPS
- Logbook assessment
- \* 360° test
- \* Article assessment
- \* Portfolio assessment

##### b. Periods of assessment

- \* At the end of the first 6 months
- \* Final examination

### Ethical Considerations\*

\*Note: The related document(s) can be found at <http://hcmep.behdasht.gov.ir/>.

## The overall structure of the course:

Department, unit or setting	Contents- measures	Duration (month)
Classroom Workgroup rooms Self-learning settings	<ul style="list-style-type: none"> <li>✓ Briefing on activities in rotating wards.</li> <li>✓ Holding educational workshops such as communications, nosocomial infection management, hospital environment evaluation, surveillance, clinical governance, rational prescription of antibiotics, indicators of infection control, how to prepare checklists and graded tables, advanced methodology, SPSS, analysis of processes, analysis of equipment and control of hospital events</li> </ul>	1 month
Infectious diseases ward (ward, classroom)- the infection control unit in hospital	Participating in the hospital infection control committee supervised by attending professor (according to the ward schedules), participating in the classroom or self-learning and systematic visit of units .	Every evening during the course, Thursday morning
Pathobiology laboratory	Introduction to microbial sampling of the environment, samples transfer and processing, interpreting the results ( tests and other practical issues of infection control, biosafety level, bacterial identification)	1 month and during the course
Environmental health laboratory	Introduction to the tests and measures related to water, air, sewage and hospital assessment, controlling insects and rodents and controlling the food in the hospital	15 days during the course
Selecting six of the surgical wards and operating rooms in the related hospital, from including: , gynecology, urology, orthopedics, neurosurgery, ear-nose-throat, and head and neck surgery, pediatric surgery, ophthalmology, plastic surgery, reconstructive surgery and burns, heart surgery, thoracic surgery, cancer surgery	<ul style="list-style-type: none"> <li>- Introduction to equipment and instruments used in each ward</li> <li>- Analysis of the role of equipment in infecting each ward</li> <li>-Introduction to common procedures and processes in each ward</li> <li>-Analysis of procedures in infection</li> <li>-Participation in treating nosocomial infections of each ward in the respective professional domain</li> <li>-Participation in establishing and promoting the care system for nosocomial infections associated with each ward</li> <li>-Participation in the preventive measures for nosocomial infections associated with each ward</li> <li>-Participation in the ward educational activities according to the plan</li> <li>-Preparation or completion of the checklists related to each ward</li> <li>-Following up the patients with nosocomial infections associated with each ward</li> <li>Determination and analysis of the microbial resistance status in each ward</li> </ul>	3 months during the course




	using the existing records -Proposing risk reducing Recommendation at the end of each rotation to the Head of ward	
Selecting 5 non-surgical wards in the related hospital, including : (pediatrics, neonates, general internal, nephrology and dialysis, burns, hematology and bone marrow transplantation, emergency radiotherapy, gastroenterology, endoscopy of lung and bronchoscopy cardiovascular, CCU, angiography, rheumatology, endocrinology, dermatology, infectious diseases wards	- Introduction to equipment used in each ward - Analysis of the role of equipment in infecting each ward -Familiarity with common procedures and processes in each ward -Analysis of procedures in infection -Participation in treating nosocomial infections of each ward in the respective professional domain -Participation in establishing and promoting the care system for nosocomial infections associated with each ward -Participation in the preventive measures for nosocomial infections associated with each ward -Participation in the ward educational activities according to the plan -Preparation or completion of the checklists related to each ward -Following up the patients with nosocomial infections associated with each ward Determination and analysis of the microbial resistance status in each ward using the existing records - Proposing risk reducing Recommendation at the end of each rotation to the Head of ward	2.5 months
ICU, NICU, PICU, ICU, CCU, medical and surgical wards	- Introduction to equipment used in each ward - Analysis of the role of equipment in infecting each ward -Introduction to common procedures and processes in each ward -Analysis of procedural and equipment related infection production -Participation in treating nosocomial infections -Participation in establishing and promoting the care system for nosocomial infections associated with each ward -Participation in the preventive measures for nosocomial infections associated in each ward -Participation in the ward educational activities according to the plan -Preparation or completion of the checklists related to each ward -Follow up of the patients with nosocomial infections in each ward Determination and analysis of the	2months

	microbial resistance status in each ward using the existing records - Proposing risk reducing Recommendation at the end of each rotation to the Head of ward	
Specific wards and units, including pathology, radiology, laboratory, health centers, CSR and laundry, dentistry, environmental health unit (hospital and kitchen waste management)	-Introduction to equipment used in each ward - Analysis of procedural/Equipment infections producing -Introduction to common procedures and processes in each ward -Participation in treating nosocomial infections in each ward -Participation in establishing and promoting the care system for nosocomial infections -Participation in the preventive measures for nosocomial infections -Participation in the ward educational activities according to schedule -Preparation or completion of the checklists related to each ward -Follow up of the patients with nosocomial infections Determination and analysis of the microbial resistance status in each ward using the existing records - Proposing risk reducing Recommendation at the end of each rotation to the Head of ward	2 months

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