



# **MGM INSTITUTE OF HEALTH SCIENCES**

(Deemed to be University u/s 3 of UGC Act, 1956)

**Grade 'A++' Accredited by NAAC**

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## **Curriculum for Fellowship in Health Care Associated Infections**

**(with effect from 2022-23 Batches)**

Approved as per BOM -44/2022, Dated 09/12/2022

## **Amended History**

1. Approved as per BOM -44/2022 [Resolution No.5.24], Dated 09/12/2022.

## Annexure-27A of AC-44/2022

### Annexure 7

#### **Proposed Syllabus for Fellowship course in health care associated infections by department of Microbiology, (Aurangabad and Navi Mumbai)**

- 1) TITLE OF THE COURSE: Fellowship course in health care associated infections
- 2) OBJECTIVES: The fellowship program in Health Care Associated Infections is organized to provide adequate training and experience in health care associated infections, as this particular topic is very important and is not covered in depth during PG course & it is need of the hour.
- 3) DURATION OF FELLOWSHIP: 1 year (12 months)
- 4) ELIGIBILITY CRITERIA FOR ADMISSION: MD, MSc Medical Microbiology / PhD Medical microbiology.  
Selection by interview
- 5) COMMENCEMENT OF COURSE: Twice yearly. From August -September /February -March
- 6) INTAKE CAPACITY IN EACH BATCH: 04 per batch. Twice yearly.
- 7) FEES : Rs 1,00,000
- 8) COURSE –COORDINATOR : Dr Shraddha Naik (Aurangabad), Dr Deepashri Naik ( Navi Mumbai)
- 9) PROGRAM GUIDE: Dr Manjushree Mulay, Dr Anupama Wyawahare- Aurangabad  
Dr Anahita V Bhesania Hodiwala, Dr H kar- Navi Mumbai.

#### 10) COURSE OVERVIEW:

Sr. No	TOPICS
1	Organization of Infection Control programme.
2	Standard Precautions I Hand Hygiene
3	Standard Precautions II Personal Protective Equipments
4	Transmission Based Precautions
5	Needle stick injury/Post Exposure Prophylaxis/staff health issues
6	HAI surveillance (common terminologies)
7	Catheter Associated Urinary Tract Infection [CAUTI]
8	Ventilator Associated pneumonia [VAP]

9	Central Line Associated Blood Stream Infections [CLABSI]
10	Surgical Site Infection [SSI]
11	Data collection and analysis of microbiological surveillance
12	Environmental Surveillance
13	Screening of patients/HCWs for MDROs
14	Infection control in High risk areas /special situation
15	Disinfection Policy
16	CSSD
17	Antimicrobial stewardship programme
18	BMW Management
19	Outbreak Management
20	Infection control practices in pandemic situation

### 11) TEACHING SCHEME

- 35hrs theoretical teaching in 12 month course
- Participation in HCAI surveillance activities
- Participation in departmental academic activities

Teaching scheme (Total periods and period allotted to each topic)

Sr.No.	Name of TOPIC	Sub Topics	Hours Alloted
1	Organization of Infection Control programme.	Organization & Functions of Infection Control Committee & Infection control team. Role of infection control officer and infection control Nurses.	1
2	Standard Precautions I Hand Hygiene	Indications and technique of hand hygiene Steps of hand hygiene Hand hygiene methods	1
3	Standard Precautions II Personal Protective Equipments	Indications of use of PPE. Donning and doffing of PPE	1

4	Transmission Based Precautions	Contact precautions/Droplet precautions/Airborne precautions/Other modes of transmission	1
5	Needle stick injury/Post Exposure Prophylaxis/staff health issues	Precautions during handling needles, needle stick injury reporting proforma, post exposure management for blood born viruses. Staff health issues - work restrictions and vaccination	2
6	HAI surveillance (common terminologies)	HAI surveillance, CDC NHSN Common Terminologies - DOE (Date of Event), IWP (Infection window period), RIT (Repeat infection time frame), SBAP (Secondary blood stream infection attribution period).	1
7	Catheter Associated Urinary Tract Infection [CAUTI]	CAUTI, its diagnosis, surveillance and bundle care	2
8	Ventilator Associated pneumonia [VAP]	VAP, its diagnosis, surveillance and bundle care	2
9	Central Line Associated Blood Stream Infections [CLABSI]	CLABSI, its diagnosis, surveillance and bundle care	2
10	Surgical Site Infection [SSI]	SSI, its diagnosis, surveillance and bundle care	2
11	Data collection and analysis of microbiological surveillance	Calculation of various device associated infection rates	2
12	Environmental Surveillance	Air surveillance, water surveillance& environmental surface surveillance	2
13	Screening of patients/HCWs for MDROs	Definitions of MDRO, XDRO, PDRO (emerging & endemic MDROs) MRSA ESBL, AmpC, VRE, CREdetection Screening of health care workers for MDROs Infection control measuresfor MDROs	2
14	Infection control in High risk areas /special situation	Infection control in Dialysis Units, Infection control in Transplant Units, Infection control in Intensive care Units, Infection control in Operation Theater, Infection control in TB ward etc.	3
15	Disinfection Policy	Commonly used disinfectants in hospital, Disinfection of various instruments, OT,	2

		floor, surfaces Reuse of single use instrument/ equipment	
16	CSSD	Objectives, work flow, types of sterilizers & its uses, monitoring efficacy of sterilization by physical, chemical & biological methods Recall of instruments	2
17	Antimicrobial stewardship programme	Antimicrobial stewardship programme (AMSP)- Introduction, objective & implementation of AMSP, Role of Microbiology in AMSP, Formulation of Antibiotic Policy, Monitoring AMSP.	3
18	BMW Management	Definition, segregation, treatment & disposal methods, ETP plant, BMW management rules & BMW audit	2
19	Outbreak Management	Identification of outbreak & outbreak management	1
20	Infection control practices in pandemic situation	Infection prevention & control measures at health care facility & general public, measures by government.	1

#### 10. TECHNICAL SKILLS – During departmental posting

1. Collection & Transport of specimens for infection control activity
2. Laboratory Methods for microbiological surveillance and hospital infection control
3. Identification of multidrug resistant [MDR] isolate

Fellow will undergo following posting in rotation under fellowship program

Section	Duration
Hospital infection control section of microbiology dept.	06months
Hospital infection control posting and visit to different wards ,OT ,CSSD & ICUs to see infection control practices & rational use of antibiotics.	06 months

Fellow should participate in PG activities like seminars, journal club and group discussions

Fellow should maintain logbook of all activities.

#### 11) EVALUATION

Eligibility criteria for appearing internal examination: Eighty percent attendance

FINAL EVALUATION [UNIVERSITY EXAMINATION]: in September/ March Month

#### **A] THEORY EXAMINATION**

PAPER I [100 MARKS ]

LAQS : Answer any 10 out of 11 [10X10 Marks]

#### **B] PRACTICAL EXAMINATION [100 MARKS]**

Grand viva: 50 marks

Calculation of surveillance rates (02) 50 Marks

Passing Criteria: 50 % marks in theory and practical examination separately

Fellowship will be awarded only when 50% marks are scored in examination

If fellow is not scored 50% marks then supplementary exam will be conducted 1 month later

### **12) FACILITIES AND RESOURCES**

Modern facilities to cover all aspects of educational program and Qualified staff are available in Microbiology Department Aurangabad and Navi Mumbai.

### **13) Achievements after completion of course: Student undertaking this course**

- 1) Can able to identify , control & prevent health care associated infections
- 2) Can formulate antibiotic policy
- 3) Can independently work as Infection control officer or member infection control team in any hospital setup
- 4) Can provide consultancy services in hospital infection control for hospital setups.

### **REFERENCES**

Title	Author /Editor
Essentials of Hospital Infection Control	Apurba SShastri , Deepashree R
Damani N. Nizam damani's manual of infection prevention & control, 3 <sup>rd</sup> edi. Oxford : Oxford University Press; 2011	Dr. Nizam Damani
Infection Control Manual	---
Hospital Associated Infections : Epidemiology , Prevention &Control	Nita Patawardhan, :
Ayliffe' s Control of Heath Care associated infections	Fraise & Bradley

Textbook of microbiology	Ananthnarayan
Gradwohl's clinical lab Methods and diagnosis	A.C. Sonnenwirth And Jarett
Topley and Wilson's Microbiology and Microbial infection	Topley & Wilson
Mackie & McCartney Practical medical Microbiology	Mackie McCartney
Text book of microbiology and Immunology	Subhash Chandra parija
Text book of microbiology	Surinderkumar
Medical microbiology	Jawetz, melnick&adelberg's
Medical Microbiology	Boyd Greenwood ,Micheal Barer, Richard slack, Peutherer
District laboratory practice in Tropical countries Part I & II	Monica cheesbrough
Baily &scott's Diagnostic microbiology	Patrica M fille
Hospital Infection Control Guidelines Principle and Practice.	Sanjeev Singh, Shakti Kumar Gupta Sunil Kant.
Hospital Sterilization	PremAnandNagaraja
Manual of laboratory safety (Chemical radioactive and biosafety with biocides	Mansour Ali-Zarouni (forrword), Najat Rashid, Ranniksood
Practical Medical Microbiology 14 <sup>th</sup> edition	Mackie and McCartney , Collee, Fraser, Marimion, Simmons.

<b>EXISTING FELLOWSHIP COURSE</b>	<b>PROPOSED FELLOWSHIP COURSE</b>
<b>1)COMMENCEMENT OF COURSE:</b> From 1 <sup>st</sup> June every year (1 Batch/ Year)	<b>COMMENCEMENT OF COURSE:</b> Twice yearly. From August -September February -March
<b>2)Fees :</b> As decided by MGMIHS	<b>Fees :</b> Rs 1,00,000
<b>3) COURSE –COORDINATOR :</b> Not appointed	<b>COURSE –COORDINATOR :</b> Dr Shraddha Naik
<b>4)PROGRAM GUIDE:</b> Not appointed	<b>PROGRAM GUIDE:</b> Dr Manjushree Mulay, Dr Anupama Wyawahare.



<p><b>5) TEACHING SCHEME</b></p> <ul style="list-style-type: none"> <li>• 24 hrs theoretical teaching in 12 month course</li> <li>• logbook not proposed</li> </ul>	<p>TEACHING SCHEME</p> <ul style="list-style-type: none"> <li>• 35hrs theoretical and skill oriented teaching in 12 month course</li> <li>• Participation in HCAI surveillance reporting</li> <li>• Participation in departmental academic activities</li> <li>• logbook proposed</li> </ul>
<p><b>6) EVALUATION</b></p> <p>FINAL EVALUATION [INTERNAL EXAMINATION] in first week of May</p> <p><b>A) THEORY EXAMINATION</b></p> <p>PAPER I [50 MARKS ]</p> <p>LAQS : Answer any 5 out of 6 [5X10 Marks]</p> <p><b>B) PRACTICAL EXAMINATION [50 MARKS]</b></p> <p>Grand viva: 50 marks</p>	<p><b>EVALUATION</b></p> <p>FINAL EVALUATION [UNIVERSITY EXAMINATION]: in September/ March Month</p> <p><b>A) THEORY EXAMINATION</b></p> <p>PAPER I [100 MARKS ]</p> <p>LAQS : Answer any 10 out of 11 [10X10 Marks]</p> <p><b>B) PRACTICAL EXAMINATION [100 MARKS]</b></p> <p>Grand viva: 50 marks</p> <p>Calculation of surveillance rates (02) 50 Marks</p> <ul style="list-style-type: none"> <li>• <b>For every university exam the convener should be appointed in rotation from given faculty list.</b></li> <li>• <b>For practical exam the external examiner should be appointed by university from submitted panel list.</b></li> </ul>



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