

Netaji Subhas Medical College & Hospital Amhara, Bihta, Patna

25/10/22

Pandamnic module for MBBS course phasewise

Phase I(pre clinical)

I year MBBS

Period	Module	Broad areas	No. of hours	Major department(s) to coordinate
Foundation Course	F.1	History of Outbreaks, Epidemics & Pandemics	2	Communnity medicine (Pre-Clinical)

Competencies addressed:

The student should demonstrate the ability to:	Level
Define pandemic and differentiate it from outbreak/epidemic.	K
Identify the reasons and /or events that lead to pandemics in the past.	KH
Describe key strategies (by the State/Central Government, Non Government Organization and society at large) that were adopted in prevention and control of these pandemics.	KH
Discuss the role which will be played by National and International bodies like WHO and ICMR, if these events take place	KH

Period	Module	Broad areas	No. of hours	Major department(s) to coordinat
Phase I	1.1	Infection Control: Part - I Infection Control Practices – Hand washing, Decontamination Use of PPEs	4	Microbiology

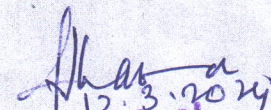
Competencies addressed

The student should be able to:	Level
Demonstrate proper hand washing	SH
Demonstrate Donning and Doffing of PPE	SH

Assessment

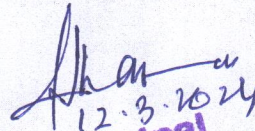
Formative: Viva can be used. This could be done immediately after the module and/or later with internal assessment.

The technique of hand washing and donning & doffing of gloves can be randomly observed during conduct of practical sessions in first MBBS particularly in **dissection halls**. Peer feedback can also be incorporated.


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Phase II(Para clinical)

Period	Module	Broad areas	No. of hours	Major department(s) to coordinate	Assesment
Phase II	2.1	Infection Control: Part II Air borne precautions Contact Precautions Infection Control Committee	4	Microbiology	Formative: OSCE, Viva, MCQ can be used. Summative: OSCE, Viva, MCQ
	2.2	Emerging and Re-emerging infections, early identification and control of new infections	6	Community Medicine	Formative: Required, SAQ, MCQ, Viva Voce Summative: Required
	2.3	Sample Collection, Microbial diagnosis, Serologic tests and their performance parameters	6	Microbiology	Formative: Required by assignments, OSPE, viva Summative: Required by OSPE, SAQ, MCQ
	2.4	Vaccination strategies including vaccine development & Implementation	6	Community Medicine, Biochemistry	Formative: Required-assignment, MCQ, SAQ Summative: Short Answers, Short Notes
	2.5	Therapeutic strategies including new drug development	6	Pharmacology, General Medicine	Formative: SAQ, Viva Summative: SAQ, Viva


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2.1 - Infection Control: Part II

Air borne precautions
Contact Precautions
Infection Control Committee

Competencies addressed

The student should be able to:	Level
Describe and discuss the implementation of airborne and contact precautions in a specific clinical situation	KH
Describe and discuss the functioning of institutional Infection Control Committee	KH

2.2 - Emerging and Re-emerging infections, early identification and control of new infections

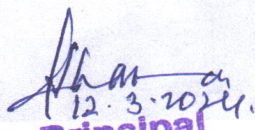
Competencies addressed:

The student should be able to:	Level
Define emerging and re-emerging infections. Explain reasons or Identify factors responsible for emergence and re-emergence of these infectious diseases.	K
Discuss strategies for early identification, prevention and control of emerging and re-emerging infectious diseases.	K
Discuss the challenges faced in control/ prevention of these infections	KH

2.3- Sample Collection, Microbial diagnosis, Serologic tests and their performance parameters

Competencies addressed:

The student should be able to:	Level
Describe specimen selection, collection, transportation & storage requirement during a pandemic.	KH
Choose and collect the most appropriate clinical sample in a suitable container at the most appropriate time from a suspected case during pandemic (or in a simulated environment).	SH
Demonstrate appropriate safety measures in handling and processing of clinical specimens (use of PPE etc.)	SH
Discuss various diagnostic modalities available for an infectious disease. Explain sensitivity, specificity, positive predictive value & negative predictive value of each of the diagnostic test/modality.	KH
Chose the most appropriate diagnostic test keeping in mind sensitivity, specificity, positive & negative predictive value of the diagnostic	SH


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test/modality available.

2.4- Vaccination strategies including vaccine development & Implementation

Competencies addressed:

The student should be able to:	Level
Describe the process of vaccine development.	KH
Describe the role of vaccines in disease control and eradication.	KH
Describe the steps to prepare a micro plan for vaccination activity at PHC level.	KH
Describe the importance of routine vaccination during pandemics.	KH
Describe the role of communities in vaccination programmes.	KH
Describe the cold chain for vaccine storage and delivery.	KH

Suggested Topics for discussion: Vaccines in Disease Control, Vaccine Development Process, Routine Vaccination during Pandemic & Pandemic Influenza Vaccines -WHO

2.5 - Therapeutic strategies including new drug development

Competencies addressed:

The student should be able to:	Level
Describe and discuss the various phases of drug trials	KH
Prepare a plan for evaluation of off label use of a drug	SH
Organise pharmaco-vigilance activities	SH
Discuss ethical aspects of clinical trials in pandemics	SH

Suggested Topics for discussion- New Drug Development – Challenges and Solutions – Urgency in procedures – Need for monitoring

Learning Points

- Various phases of clinical trials
- Compliance with regulatory authorities
- Exploration of off label uses and new molecules for therapy
- Pharmaco-vigilance measures.

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Phase III: Part 1

Period	Module	Broad areas	No. of hours	Major department(s) to coordinate
Phase III Part 1	3.1	Outbreak Management including Quarantine, Isolation, Contact Tracing	5	Community Medicine
	3.2	Interdisciplinary Collaboration, Principles of Public Health Administration, Health Economics, International Health	5	
	3.3	Operational Research, Field work, Surveillance	8	
	Electives	Epidemiology and research Components		Community Medicine

Assessment

- 1. Formative:** theory examination –as short questions /practical – viva voce
- 2. Summative–** modified essay/ short question on role of operational research in epidemic management, Public Health Surveillance, practical – viva voce.

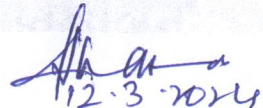
3.1 - Outbreak Management including Quarantine, Isolation, Contact Tracing

Competency addressed

The student should be able to:	Level
Demonstrate the ability to conduct various epidemiological investigation related to pandemics - Level (or in a simulated environment)	SH

Learning Points

- Define terms: outbreak, epidemic, pandemic.
- How to detect / recognise an outbreak- warning signs of an impending outbreak - Steps of outbreak investigation
- Describing the event in terms of time, place and person and importance of epidemic curve, spot map and attack rate.
- Responses at different levels – general and specific measures include reservoir control, breaking the chain of transmission and protecting the at-risk group.
- Differentiate between isolation and quarantine.


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- f. Role of contact tracing in outbreak control.
- g. If it is a new disease, gaps will be there, so to fill the gap research activity is required

Assessment

1. **Formative:** conducting clinic-social discussion based on a scenario, short answer questions, OSPE response station.
2. **Summative:** modified essay/ short question on steps of outbreak investigation, OSPE response in practical.

3.2 - Interdisciplinary Collaboration,
Principles of Public Health
Administration, Health Economics,
International Health

Competency addressed

The student should be able to:	Level
Demonstrate the ability to conduct various epidemiological investigation related to pandemics (need clarity on simulated environment).	SH

Learning objectives

The learners should be able to:

1. List the four principles of primary healthcare,
2. Describe the scope of inter-sectoral coordination in outbreak control,
3. List the members of inter-sectoral team for outbreak investigation,
4. Describe the activities of inter-sectoral team in each case scenario provided,
5. Demonstrate the formation and meeting of Rapid Response Team (RRT) as role play according to the case scenarios.

Assessment

1. **Formative:** theory examination -as short questions /practical – group viva voce.
2. **Summative:** modified essay/ short question on role of inter-sectoral coordination in epidemic management, practical - viva voce.

3.3 - Operational Research, Field work,
Surveillance

Competency addressed

The student should be able to:	Level
Demonstrate the ability to conduct various epidemiological investigation related to pandemics (or in simulated environment)	SH

Assessment

1. **Formative:** theory examination –as short questions /practical – viva voce
2. **Summative**– modified essay/ short question on role of operational research in epidemic management, Public Health Surveillance, practical – viva voce.

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Phase III: Part 2

Period	Module	Broad areas	No. of hours	Major department(s) to coordinate
Phase III Part 2	4.1	Care of patients during Pandemics	6	Clinical departments (General Medicine, Pulmonary Medicine, Anaesthesiology as Integrated sessions)
	4.2	Emergency Procedures	8	
	4.3	Death related management	2	
	4.4	Communications and media management	4	
	4.5	Intensive Care Management during Pandemics	4	
	4.6	Palliative Care during Pandemics	4	

Module 4.1

Care of patients during Pandemics

Competencies addressed

The student should be able to:	Level
Describe and discuss the triage facilities required for persons during epidemics	KH
Demonstrate the role of IMG in triage and referral	SH
Demonstrate the ability to manage a suspected / confirmed case in the emergency room during a pandemic	SH

Learning Points

- Principles of Triage during epidemics,
- Precautions and care to be made while transporting a person with infections,
- Responsibility to other health care workers while a person with infection is cared.

Assessment

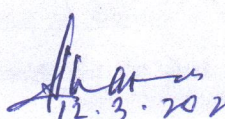
1. **Formative:** DOPS, Viva can be used. This could be done immediately after the module and/or later with internal assessment.
2. **Summative:** not required

Module 4.2

Emergency Procedures during Pandemics

Competencies addressed

The student should be able to:	Level
Demonstrate the ability to perform life-saving interventions during outbreaks, ensuring safety of HCWs	SH


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Learning points

1. The type of emergency procedures required in various emergencies,
2. The logistics and infrastructure facilities and prioritisation to be considered,
3. The aspects related to communication with the relatives,
4. The immediate, short-term and long-term care of such persons in Intensive care

Assessment

1. **Formative:** OSCE, DOPS, Viva can be used. This could be done immediately after the module and/or later with internal assessment
2. **Summative:** OSCE, Viva, SAQ, MCQ

Module 4.3

Managing Death during Pandemics

Competencies addressed

The student should be able to:	Level
Demonstrate the ability to handle death related events during outbreaks	SH

Learning points

- The emotional issues for the relatives and HCWs related to death of a person during epidemics.
- The principles of documentation and reporting and legal and ethical issues of death during epidemics.
- The aspects related to infection control practices like prophylaxis (if any), disinfection etc

Assessment

1. **Formative:** Viva can be used. This could be done immediately after the module and/or later with internal assessment.
2. **Summative:** Viva, SAQ, MCQ

Module 4.4

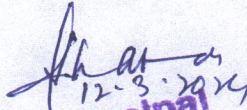
Information Management during Pandemics

Competencies addressed:

The student should be able to:	Level
Demonstrate the ability to prepare media reports, use online communication	SH
Demonstrate the ability to handle media communication and education	SH
Demonstrate the ability to recognise spam & fake messages	SH

Learning points

- The chance of even small variations in the working of hospitals getting media attention


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- The irresponsible behaviour from many corners of the society
- The need to prevent fake messages and to spread correct information.
- The proper use of Telemedicine for clinical and academic work.

Assessment

1. **Formative:** Viva can be used. This could be done immediately after the module and/or later with internal assessment
2. **Summative:** Not needed

Module 4.5

Intensive Care Management during Pandemics

Competencies addressed:

The student should be able to:	Level
Visit, enumerate and describe the functions of an Intensive Care Unit	KH
Enumerate and describe the criteria for admission and discharge of a patient to an ICU	KH
Observe and describe the management of an unconscious patient	KH
Observe and describe the basic setup process of a ventilator	KH
Observe and describe the principles of monitoring in an ICU	KH

Learning points

1. Initial assessment of patient in ICU
2. Early stabilisation of patient
3. Prognostication and management using standard protocols
4. Coordination with doctors and paramedical staff
5. Communication with the bystanders
6. Reporting to higher authorities

Assessment

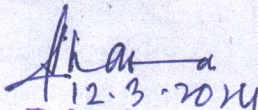
1. **Formative:** Pre-test – Post Test; Viva can be used. This could be done immediately after the module and/or later with internal assessment.
2. **Summative:** Case based short note with plan of management, MCQ

Module 4.6

Palliative Care during Pandemics

Competencies addressed:

The student should be able to:	Level
Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy.	KH

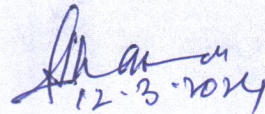

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Learning points

1. Need to assess a patient well before palliative care is suggested
2. Importance of planning palliative care
3. Communicating to the patients and relatives about the need and utility of planned palliative care

Assessment

1. **Formative:** Pre-test – Post Test; Viva can be used. This could be done immediately after the module and/or later with internal assessment
2. **Summative:** Case based short note on palliative care, MCQ


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