



**ALTAMASH INSTITUTE OF DENTAL MEDICINE
(JINNAH SINDH MEDICAL UNIVERSITY)**

**Second year –Final year BDS
Longitudinal Theme: Patient Safety & Infection Control
Study Guide**

Introduction

Patient safety encompasses the practices, protocols, and systems designed to prevent errors and adverse effects in healthcare. It involves ensuring that patients receive the right care, at the right time, in the right way, and without harm. This multidisciplinary approach addresses various factors influencing safety, including communication, medication management, infection control, and healthcare facility design. Ultimately, patient safety initiatives aim to minimize risks, enhance quality of care, and promote trust between healthcare providers and patients.

Patient Safety is one of the longitudinal courses offered in the BDS programs from 2nd year till Final year.

The rationale of integrating patient safety education into undergraduate curricula is crucial for fostering a culture of accountability and continuous improvement among future healthcare professionals. By instilling foundational knowledge early, students learn to recognize and mitigate risks, ultimately enhancing care quality and minimizing adverse events throughout their career.

Outcomes:

By the end of the course on Patient Safety & Infection control, final year BDS students will be able to identify sources of harm to patients and to health care providers in their work environment and apply principles of patient Safety & Infection Control in their own professional practice in order to improve health care delivery

Teaching and learning:

1. Interactive lectures (IL)
2. Phantom Head Demonstrations (PHD)
3. Tutorials
 - a. Case Based Discussion (CBD)
 - b. Small Group Discussion (SGD)

Assessment tools:

1. Multiple Choice Questions: (MCQs)
 - One Correct Type
 - One Best Type
2. Observed Structured Clinical Examination (OSPE/OSCE)

Departments Involved:

2nd year: Dental Material, Community Dentistry, Pharmacology

3rd year: Oral Medicine & Radiology, General Medicine (GM), General Surgery (GS), Periodontology

4th year: Hospital Management, Prosthodontics, Orthodontics, Operative Dentistry, Oral Surgery



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s.no.	Topic	Course Objectives: By the end of the course, 2 nd year students will be able to:	Teaching method	Assessment Tool
1	Introduction to Patient Safety. (Community Dentistry)	Define patient safety and clinical environment Discuss International Patient Safety Goals Explain the basic aspects of patient safety process Discuss the importance of ethical practices and their relevance to patient safety Explain the reasons of harm to patients Describe the concept of ‘burden of harm’ Discuss the role of human factors and its impact on patient safety Discuss Universal Health Coverage by WHO Discuss the factors that reduce patient safety in dental practice Discuss the principles and strategies of improving patient safety in dental practice	IL	MCQs
2	Waste Management (Dental Materials)	Define hospital or medical waste Classify waste in hospitals List the sources of waste List the adverse health outcomes associated with health care waste Name how each type of waste should be disposed Discuss how each type of waste is best disposed Describe the environmental impact of waste treatment and disposal Explain reasons for failure of waste management Describe strategies for improving health-care waste management	SGD	MCQs



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3	Drug Safety (Pharmacology)	Discuss the concept, inception and significance of drug safety Discuss the causes of drug resistance and how to minimize this List the high alert medications. Discuss the rationale for these drugs being labelled as 'high alert' Discuss how to use such medications (that are high alert)	CBL	MCQs
s.no.	PRACTICALS	By the end of the course, students of 2nd year BDS will be able to:	Teaching method	Assessment Tool
1	Pharmacology	Write prescriptions according to prescribed protocols	SGD	OSPE
2	Community Dentistry	Demonstrate hand hygiene technique	Field visit	OSPE
3	Community Dentistry &	Demonstrate handling, maintenance, and troubleshooting of dental instruments and equipment	SGD	OSPE
4	Dental Materials	Demonstrate disposing of hazardous waste according to regulatory guidelines	PHD	OSPE
5	Pre-operatives	Demonstrate rubber dam application for phantom head for patient's safety for dental procedures.	PHD	OSPE
6	Pre-prosthetic	Demonstrate the steps of disinfecting the dental impression for dental prosthesis.	PHD	OSPE
s.no.	Topic	Course Objectives: By the end of the course, 3rd year students will be able to:	Teaching method	Assessment Tool
4	Misuse of antibiotics and other medications	Describe the process of how humans become resistant to antibiotics Discuss the effects of antibiotic resistance Explain the benefits of antibiotic stewardship	IL	MCQ



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	(Oral Medicine)	Explain strategies to overcome Antimicrobial resistance		
5	Documentation (Periodontology)	Discuss the significance of complete and timely, high-quality documentation Discuss the impact of poor documentation on patient	IL	MCQ
6	Body Fluid Exposures (General Surgery)	Describe the sources of bodily fluid exposures. Discuss the appropriate evaluation methods of bodily fluid exposures. Summarise the management options available for bodily fluid exposures. Describe inter-professional team strategies for improving care coordination and communication to advance bodily fluid exposure treatment and improve outcomes.	IL	MCQ
7	Safety in the Emergency Room (General Surgery)	Describe strategies to improve patient safety in the ER	IL	MCQ
8	Safety in Outpatient Clinics or Ambulatory Care (General Surgery)	List the factors affecting safety in Ambulatory care settings Describe the types of Safety Events in Ambulatory Care Define steps for improving patient safety in ambulatory care	IL	MCQ
9	Safety in Operation Theatres (General Surgery)	Describe the five steps to safer surgery Describe the common hazards in Operation theatres	IL	MCQ
10	Infection , prevention	Define Infection Prevention and control (IPC)	IL	MCQ



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	and control (General Medicine + Periodontology)	Discuss the 10 steps for IPC in hospitals and clinics (OPDs) Describe the various aseptic techniques required commonly in clinical practice (Donning, doffing, gloving, hand hygiene, preparing the patient for surgery, interventional procedures like injections, catheterisation, suturing, wound cleaning etc.)		
11	Aseptic Techniques (General Medicine + Periodontology)	Discuss aseptic techniques that need to be followed in wards, Operation theatres, procedural rooms (including labour rooms), dental chairside and OPDs	IL	MCQ
s.no.	PRACTICALS	By the end of the course, students of 3rd year BDS will be able to:	Teaching method	Assessment Tool
7	General Surgery	Demonstrate proper aseptic technique to be followed for giving IV or IM injections, catheterisation, passing NG tube, dealing with a patient of RTA (on mannequin)	PHD	OSCE
8	General Medicine	Demonstrate accurate documentation of patient assessments, and treatment plans.	SGD	OSCE
9	Periodontology	Use proper sterilization techniques for dental instruments, equipment, and surfaces. Demonstrate donning and doffing (excluding hand hygiene)	SGD PHD	OSCE
10	Prosthetics	Demonstrate proper ergonomic techniques and positioning for both dental practitioners and patients during dental procedures.	PHD	OSCE



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11	Oral Medicine and Radiology	Demonstrate administration of local anaesthesia safely Demonstrate safe use of X-ray equipment and radiation protection measures during dental radiography procedures.	SGD PHD	OSCE
12	Oral Surgery	Write the following: referral notes, discharge notes, essential components in an incident report, patient case summary Demonstrate the steps of cleaning, disinfection, wrapping and sterilization of dental instruments Demonstrate the safe disposal of used instruments, equipment and armamentariums (for. Example: endodontic files and other sharps)	SGD	OSCE
13	Administration (Patient Safety Expert)	Practice drills for evacuating patients safely in the event of fire, natural disasters, or other emergencies in the dental clinic. (annually)		OSCE
s.no.	Topic	Course Objectives: By the end of the course, Final year students will be able to:	Teaching method	Assessment Tool
12	Errors and Risk management	Describe the major types of errors and how these types of errors can negatively impact patient care. Summarise the Joint Commission Patient Safety Goals Discuss the challenges in error accountability and the barriers to error reporting Discuss principles and steps in risk management Discuss the process and importance of patient identification, especially at-risk patients Explain the importance and process of adverse incident reporting (e.g. adverse drug reporting)	IL	MCQ



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		Identify the differences among active and latent errors, adverse, negative adverse, sentinel, and never events. Summarize the importance of collaboration and communication among inter-professional team members to mitigate preventable errors and improve outcomes for all patients.		
13	Incident reporting	Define the various types of errors in healthcare settings Differentiate between accident and negligence Define Incident reporting in healthcare Classify Patient safety incidents according to the WHO List the five main benefits of reporting according to the WHO List the primary benefits of incident reporting List the eight potential barriers to incident reporting	IL	MCQ
14	Introduction to quality improvement methods	Describe the principles of quality improvement Explain the basic methods and tools for improving the quality of health care.	IL	MCQ
15	Procedural safety	Discuss the 7 steps to patient safety. Explain the protocol of donning and doffing of PPE Explain safety aspects in instrument handling	IL	MCQ
16	Teamwork & patient safety	Define characteristics of an effective team Discuss the importance of teamwork in health care delivery Discuss the importance of various roles in an effective team Explain how teamwork impacts patient safety	IL	MCQ



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PRACTICALS	By the end of the course, students of Final year BDS will be able to:	Teaching method	Assessment Tool
All clinical departments	All the skills and practical's in BDS 2 nd and 3 rd year will be revised and practiced	Revision classes	Quiz
Administration (Patient Safety Expert)	Practice drills for evacuating patients safely in the event of fire, natural disasters, or other emergencies in the dental clinic. (annually)	Drill	Mock Drill

Reading Sources:

Reading Material: Provided by the university and its affiliates, will be uploaded on Google Drive. The link will be shared with the teaching faculty and students

Phantom head lab: used for realistically simulating all types of dental treatment as well as ergonomic working or first aid procedures but without a real patient having to be present.

Internet resources: With easy excess to digital library students will use internet resources with added time flexibility to enrich and update their knowledge and its application.

Library: It provides wealth of resources, space to study alone or in a group. It also provide world of books to discover and borrow.

Assessment Criteria:

Knowledge:

- 60 MCQs (Multiple Choice Questions) are used to assess objectives covered in each module.
- A MCQ has a statement or clinical scenario followed by four options (likely answer).
- Students after reading the statement/scenario select ONE, the most appropriate response from the given list of options.
- Correct answer carries one mark, and incorrect 'zero mark'. There is no negative marking.
- Students mark their responses on an answer sheet provided by examination department.

Skills:

- OSPE & OSCE of 20 marks : Objective Structured Practical /Clinical Examination:
- Each student will be assessed on the same content and have same time to complete the task.



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- Comprise of 1 station in each clinical subject in final year.
- Station may assess a practical tasks include practical skills and application of knowledge
- Stations are observed, interactive, application of knowledge based and rest.
- Observed and Interactive Stations will be assessed by internal or external examiners through structured viva or a task.
- Application of knowledge Stations: it will be static stations in which there will be pictures, clinical scenarios with related questions for students to answer on the provided answer copy.
- Rests: It is a station where there is no task given and in this time student can organize his/her thoughts.

AIDM Internal Assessment Policy

Students will be assessed to determine achievement of learning objectives through the following:

- Midterm Examination will be scheduled on completion of half of the course
- Mock Examination will be scheduled on completion of whole course
- The method of examination comprises theory exam which includes MCQs, practical and clinical examination by OSP/CE (Objective Structured Practical/Clinical Examination).
- Student's behaviors and attitudes will be observed during all academic activities.

Annual Examination:

- Marks of both internal assessments will constitute 20% weightage as per JSMU policy.
- University Annual examination will be based on MCQs and OSCE.

Attempts:

There are unlimited attempts in the final professional examination only.

Course Evaluation:

- Pass/fail ratio of continuous and summative assessments will be evaluated.
- 75% attendance is mandatory to be eligible for annual professional examination
- Feedback will be taken
 - Regarding course from students and faculty



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- Student feedback regarding faculty
- Faculty feedback of students

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3rd year: Oral Medicine & Radiology, Medicine & Allied, Surgery & Allied

4th year: Hospital Management, Prosthodontics, Orthodontics, Operative Dentistry, Oral Surgery

For queries:

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