



LAB Manual

SKILLS LAB

WOMEN DENTAL COLLEGE
ABBOTTABAD



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Created by:
Dept. Medical Education & Research (DME&R)

Lab Manual

Clinical Skills Lab



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Description:

The newly developed skills lab of Women Dental College was constructed in 2019; the purpose of the skills laboratory was to support the acquisition of clinical skills through hands-on training within a non-threatening environment.

Learners commonly practice the procedural skills' psychomotor component under the trainers' instruction, who have previously demonstrated the relevant skill. Subsequently, the skills are then performed by the learners themselves under supervision.

Aims and Objectives:

The core aim of the skills lab is to

1. Help undergraduate students and health professionals learn the correct steps and sequence for performing a skill.
2. It also helps to measure students' progress in learning as they gain confidence in the skill.
3. Ensure patient safety.
4. Using high-fidelity simulation devices such as partial-task trainers or full-body mannequins to practice and acquire psychomotor skills.

The mission of the laboratory is to promote clinical competence, ensure patient safety and enhance the skills of dental students (both undergraduate and postgraduate) during their training.

Faculty Responsible for Course Conduction:

Sr. No	Faculty	Department	Designation
1.	Prof Dr Zahoor Qayum	OMFS	HOD/V.P
2.	Prof Dr Akif	OMFS	Prof
3.	Dr Mahrukh	Pediatric Dentistry	AP
4.	Prof Dr Asma Shaukat	Pharmacology	HOD
5.	Dr Sahar Amin	Pharmacology	Lecturer
6.	Dr Moazam	Cardiology	AP
7.	Dr Saad	Pediatrics	AP
8.	Dr Rohan Habib	Surgery	AP
9.	Dr Kayenat	Physiology	Lecturer
10.	Dr Arusha	Medicine	Lecturer
11.	Maam Farzana Qazi	Skills Lab	Incharge

Equipment of Skills Lab

Model 1:

**Model name: GD/F55 MATERNAL AND NEONATAL DELIVERY
EMERGENCY SIMULATOR**

System components:

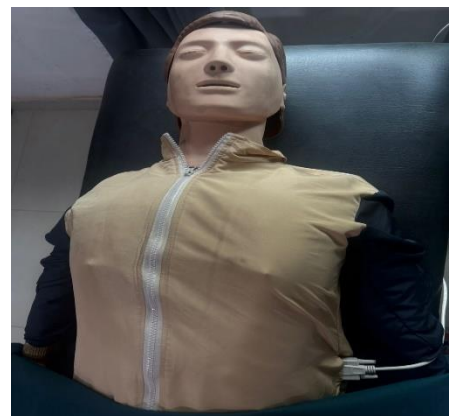
1. Gravida manikin (for delivery and adult first aid)
2. Neonatal manikin (for first aid and nursing care)
3. Fetal manikin (for delivery)
4. Another auxiliary set



Model 2:

Model name: GD/ACLS800
GD/ACLS8000C

It is the world's leading man-machine interaction ACLS training simulation system. It can simulate natural emergency scenes and all the related signs of emergency patients, such as pupil states, artery pulse, heart rhythm, heart and lung auscultation sound, etc. The system can act on all the clinical emergency measures, such as defibrillation, pacing, CPR, drug therapy, etc., and natural clinical emergency instruments. The manikin would show different vital signs change according to different rescue measures. The open case editing function allows the lecturer to edit required emergency cases according to clinical practice and teaching requirements for students' training use. Interactive internet features can implement whole student teaching; lecturers can acquire students' operation data easily and timely and give correction and



guidance.

Model 3

Model name: GD/J50 Airway Intubation Simulator

1. Accurate anatomical marks
2. Oral or nasal cavity intubation
3. It allows observing the suction position from the side face to instruct the correct method of intubation skill.
4. Wrong operation, stomach inflation or laryngoscope compressing the teeth will activate a warning prompting



Model 4

Model name: GD/Z990 Auscultation Manikin

Features:

1. Half-body male manikin
2. Rotatable, convenient for maintenance and delivery
3. Patent technology design: resonance cavity structure principle makes cardiopulmonary sound fully safe and keeps tone



Functions:

1. Over 80 kinds of Hi-fi auscultatory sounds
2. Auto-display auscultatory sound
3. Remote-controlled auscultatory sound

Model 5:

Model name: Electronic IV & IM

Training Hand

This model includes mainly veins used for IV injection, blood transfusion and other puncture practices. Alarm system included



Model 6

Children CPR Manikin

Infant **CPR Manikins** allow students to learn how to safely, and effectively perform **CPR** on a baby.

Available in single and multi-packs,



Curriculum Map for Undergraduate Medical Students:

S.No	Class	Topic	Learning Outcomes	Teaching Hours	Mode of Teaching	Assessment Tools
1	1 ST Year BDS	IV	• Use of electronic IV training hand. • Demonstrate puncture practices.	2 hrs	Demonstration	Formative Assessment
2		IM	• Use of electronic IM training arm. • Demonstrate puncture practices.	2 hrs	Demonstration	Formative Assessment
3		CPR	• Perform rescue measures on simulation. • Perform CPR on a infant manikin.	2 hrs	Demonstration/SGD	Formative Assessment

4	2 ND Year BDS	Airway Intubation Simulator	• Interpret accurate landmarks for the placement of endotracheal tube. • Demonstrate the placement of endotracheal tube in the airway intubation simulator. • Employ the technical skills for Endotracheal intubation and surgical airway access.	6 hrs	Demonstration followed by discussion	OSCE
5		Auscultation Manikin	• illustrate accurate anatomical landmarks for placing stethoscope. • Practice using stethoscope to identify an extensive range of lifelike heart, breath, bowel and bruit sounds.	4 hrs	Demonstration followed by discussion	OSCE/ Formative assessment
6		Electronic IV Training	• Interpret accurate anatomical landmarks for IV Injection. • Practice IV route administration.	4 hrs	Demonstration followed by discussion	OSCE/ Formative assessment
7		IM	• Interpret accurate anatomical landmarks for IM Injection. • Practice IM route administration.	4 hrs	Demonstration followed by discussion	OSCE/ Formative assessment

8		Infant CPR	Practice how to rescue breathing, which provides oxygen to the lungs of the infant.	6 hrs	Demonstration followed by discussion	OSCE/Formative assessment
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Curriculum Map for Health-Care Professionals:

S. No	Course	Topic	Learning Outcomes	Mode of Teaching
1	Canulation	Passing IV Canula	Demonstrate how to secure IV line in emergency situations.	Demonstration
2		Giving IM injection	Demonstrate how to inject Intramuscular drugs.	Demonstration
3		Giving Magnesium Sulphate	Perform the administration of emergency of drugs, including Magnesium Sulphate and Diazepam through IV and IM injections	Demonstration
4		Choking Relief	Demonstrate the Choking relief for conscious and unconscious adult and infant casualties	Demonstration
5		Automated external defibrillator,	Use an automated external defibrillator, AED correctly, safely and swiftly	Demonstration
6	ACLS	BLS	Perform prompt, high-quality BLS, including prioritizing early chest compressions and integrating early AED use.	Demonstration
7		Early management of cardiac arrest	Perform early management of cardiac arrest until termination of resuscitation or transfer of care.	Demonstration
8		Early management of bradyarrhythmias	Perform early management of bradyarrhythmias that may result in cardiac arrest or complicate resuscitation.	Demonstration

9		Early management of tachyarrhythmias	Perform early management of tachyarrhythmias that may result in cardiac arrest or complicate resuscitation.	Demonstration
10		Early management of cardiac arrest	Perform early management of cardiac arrest until termination of resuscitation or transfer of care, including immediate post-cardiac arrest care.	Demonstration

Frequent Workshops Conducted for Health Professionals:

S.NO	Workshops	Organizer	Total Days
1.	BLS/ACLS	Department of OMFS, RM PGDH	1 Day
2.	BLS/ACLS/BCLS	Department of OMFS, General Surgery, & General Medicine	1 Day

Standard Operating Procedures (SOPs):

The following guidelines for the smooth running of Skills and Simulation lab are presented and the users are expected to follow these.

- Students are strictly prohibited to write anything on the manikins, tables, walls etc.
- After using them in the skills lab, needles and blades should be disposed of in the closest sharps container rather than being reused.
- Doors should be firmly closed and locked while leaving the lab area, and lights should be turned off.
- It is not encouraged for students to record movies or take photos of the manikins; instead, they will respect the manikins' privacy and confidentiality when using the skills lab. All students who wish to utilize the skills lab manikins must abide by this regulation; violating it will result in disciplinary action taken against the offending student.
- Students are not to be left unattended by faculty or staff at any time.
- In case any faculty members or students get hurt, a first aid kit will always be on hand in the skills lab.
- No food and drinks will be allowed in skills lab.
- Unauthorized persons are not allowed in the labs at any time.