



EMERGENCY OBSTETRIC CARE (EMOC) Curriculum 2025

Professional Skill Development Centre
University of Health Sciences Lahore

EMERGENCY OBSTETRIC CARE (EMOC)

CURRICULUM 2025



UNIVERSITY OF HEALTH SCIENCES LAHORE

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SECTION 1

Message by Vice Chancellor



It gives me great satisfaction to announce that the University Syndicate, in its 82nd meeting held on November 28, 2024, has approved the induction of mandatory training in six essential life support courses for all MBBS, BDS, Nursing, Pharmacy, and Allied Health Sciences students of the University of Health Sciences (UHS), Lahore. This strategic decision reflects our unwavering commitment to producing healthcare professionals who are not only academically competent but also proficient in delivery timely, lifesaving interventions.

The inclusion of these courses ranging from Cardiac First Response to Emergency Obstetrics and Neonatal Care underscores our recognition of the vital role that rapid and effective emergency response plays in healthcare delivery. These trainings will not only enhance the clinical competence of our graduates but also ensure they are better prepared to meet international standards of emergency care.

I commend the team at the Professional Skills Development Centre for meticulously preparing comprehensive training manuals for both students and instructors. I am confident that this initiative will prove to be a milestone in the transformation of healthcare education in Pakistan.

Prof. Dr. Ahsan Waheed Rathore
MBBS, DCH, MRCP(UK), FRCP(London),
Vice Chancellor,
University of Health Sciences, Lahore.

Message by Pro-Vice Chancellor

Prof. Nadia Naseem



Healthcare professionals must be prepared to act swiftly and competently in emergency situations, where seconds can mean the difference between life and death. The University of Health Sciences has taken a significant step by mandating certified training in key life support skills for all students across our health sciences disciplines.

These manuals have been developed with careful attention to international standards and local needs, providing both students and trainers with structured, evidence-based guidance. They represent an important shift in our educational philosophy—one that prioritizes not only knowledge but also the ability to translate that knowledge into immediate, practical action.

I extend my appreciation to all those involved in the development of this initiative, and I urge our students and faculty to approach these courses with the seriousness and dedication they demand. Together, we can ensure that every UHS graduate is a confident and capable responder in any medical emergency.

Message by Director of Paramedics, National Ambulance Service College, Ireland



The National Ambulance Service College of Ireland has enjoyed a long-standing and productive partnership with the University of Health Sciences (UHS), spanning nearly two decades. Together, we have collaborated on numerous initiatives aimed at strengthening first response, emergency care, and pre-hospital services.

We are now proud to introduce our Immediate Care Trauma program, along with a suite of other life-saving short courses, for integration across the health sciences disciplines at UHS. These evidence-based programs provide a vital foundation for all healthcare professionals, equipping them with essential skills to deliver effective and timely care.

This new initiative—guided by the leadership of UHS and coordinated through the Professional Development Centre—benefits from the expertise of its distinguished faculty and a robust quality assurance framework, both internal and external. As a result, it offers a world-class educational experience designed to meet the highest standards in healthcare training.

We are confident that these programs will empower students to deliver exceptional care to the communities they serve. The Irish National Ambulance Service, together with our faculty members from both Pakistan and Ireland, is honored to continue this collaboration with UHS, and we extend our best wishes for the successful delivery and uptake of these programs.

Professor Shane Knox
Director of Paramedics,
National Ambulance Service College, Ireland

Message by Director Professional Skill Development Center

Professor Sarah Ghafoor

The Professional Skills Development Centre (PSDC) at UHS is proud to lead the implementation of this landmark initiative—mandatory life support training for all students of MBBS, BDS, Nursing, Pharmacy, and Allied Health Sciences programs. These courses have been carefully curated to address critical areas of emergency care, ranging from cardiac and trauma response to neonatal and obstetric emergencies.

Each manual developed under this program is a product of extensive research, peer consultation, and alignment with global best practices. They are designed not only to build core competencies but also to instill confidence and readiness among our future healthcare providers.

This initiative marks a paradigm shift in our clinical training model. It ensures that life-saving skills are not just taught but practiced and mastered. I encourage all trainers and students to engage with these resources with diligence and purpose. The skills you acquire here will empower you to save lives—perhaps even on your very first day in the field.

VISION & MISSION OF THE UNIVERSITY OF HEALTH SCIENCES

Vision Statement:

UHS is a leading University aiming to keep its graduates apt with the ever emerging global health challenges evolving educational methodologies and emerging technological advancements to maintain its distinguishable position as a Medical University.

Mission Statement:

UHS shall continue to strive for producing a human resource par at excellence to cater for the health needs of the people of Punjab and Pakistan.

LIST OF CONTRIBUTORS

CURRICULUM STEERING COMMITTEE

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Technical supoort

Preamble:

Emergency obstetrical care is a critical component of maternal health training for MBBS students. It refers to the care typically provided to women and newborns during pregnancy, delivery and immediately after delivery. “Complications related to pregnancy and childbirth are among the leading causes of mortality and morbidity of women of reproductive age in many parts of the developing world . . . Most of these deaths, health problems and injuries are preventable through improved access to adequate health-care services, including safe and effective family planning methods and emergency obstetric care.” Worldwide, 75% of all maternal deaths are due to five causes, all of which can be treatedI). EMOC is a critical area for improvement in Pakistan. It has one of the highest maternal mortality rates in the world. Lack of emergency drills and training is one of the causes. University of Health Sciences Lahore, under the visionary leadership of Vice Chancellor Prof Ahsan Waheed Rathore, is committed to providing basic life support training to medical students in all fields, along with EMOC.

Course Overview:

This 5-hour course provides essential knowledge and hands-on practice for managing common obstetric emergencies. The focus is on timely recognition and initial management of life-threatening conditions during pregnancy, labour, and the postpartum period. Participants will review normal labor processes as a foundation and then learn to handle complications such as shock, postpartum hemorrhage (PPH), eclampsia, and maternal sepsis. By the end of the course, students should feel more confident in stabilizing patients and initiating appropriate interventions while awaiting specialist care or transfer.

Target Audience: Final-year medical students or recent graduates (house officers) in obstetrics postings.

Course Format: Interactive lectures, skill demonstrations, simulation scenarios, and case-based discussions over five hours.

Course Outcome:

By the end of this course, the under graduate medical students will be equipped with the necessary knowledge, skills, and confidence to **recognize and manage obstetrical emergencies** – including normal and abnormal labour, hemorrhagic shock, postpartum hemorrhage, Eclampsia, and sepsis – thereby improving maternal and neonatal outcomes through prompt, appropriate care.

General Learning Outcomes:

By the end of this course, participants will be able to:

I. Identify Obstetric Emergencies:

Recognize early warning signs of obstetrical emergencies

Immediate Management:

- Initiate first-line management for major obstetric emergencies
- Demonstrate key skills in emergency assessment, resuscitation and stabilization of pregnant women.

II. Practical Skills:

Perform essential obstetric emergency skills such as conducting a normal delivery with active management of third stage, uterine fundal massage and bimanual compression for PPH, management of uterine inversion , administration of magnesium sulfate in Eclampsia, and sepsis bundle implementation, in simulated settings.

III. Team Communication:

- Demonstrate effective communication and teamwork during emergency scenarios,
- participate effectively in team-based emergency obstetric response

IV. Apply Protocols and Guidelines:

Follow evidence-based protocols and checklists (e.g. WHO or hospital guidelines) for managing PPH, Eclampsia, and sepsis and understand when to escalate care or refer to higher centers.

V. Safety and Monitoring:

Ensure maternal and fetal safety through continuous monitoring

VI. Referral

Understand referral pathways and early escalation.

Course Contents:

1. Introduction to Emergency Obstetric Care

- Course introduction,
- Objectives overview
- Maternal mortality: Global and national perspectives
- Role of medical students and junior doctors
- Signal functions of EMOC(PER W HO)

2. Rapid Maternal Assessment and Triage

- ABCDE approach in Pregnant Women
- Early warning signs (MEOWS)
- Shock Index in obstetric assessment

3. Normal Labour Management:

- Overview of normal labour stages,
- Conduct of a normal vaginal delivery, and
- Early Identification of prolong /obstructed labour
- Introduction to active management of the third stage.

4. Emergency Delivery Techniques

- Shoulder dystocia manoeuvres (McRoberts, suprapubic pressure)
- Breech delivery principles

5. Management of Obstetric Hemorrhage :

- Identification of PPH
- Identification of Antepartum Haemorrhage
- Stepwise management, including uterine massage and uterotonics, tamponade, IV access and fluid resuscitation
- Teamwork & collaboration

6. Hypertensive Emergencies (Eclampsia)

- Managing severe preeclampsia and Eclampsia –
- Seizure management
- Magnesium Sulfate Protocol, preparation and administration

7. Maternal Sepsis

- Recognition of maternal sepsis and red Flags
- Implementation of the “Sepsis 6” bundle within one hour
- Source control

8. Post-Test (20 MCQs)

- 20-item MCQ test
- Q&A SESSION

Curriculum Structure and Session Plan:

Topic	Teaching method	Time
Introduction & pre test	MCQS	10 minutes
Session 1 Introduction to Emergency Obstetric Care	Interactive lecture & Case-based learning & demonstration	30minutes
Session2 Rapid Maternal Assessment and Triage	Interactive lecture and brief video	30minutes
Session 3 Normal Labor Management	Interactive lecture and brief video	30 minutes
BREAK 10 MIN		
Session 5 Emergency Delivery Techniques	Mannequin – based hands –on – practice	30 minutes
Session 6: Management of obstetric Hemorrhage	Skill workshop using mannequins &PPH kits	1 hour
Session 7 Hypertensive Emergencies (Eclampsia)	Scenario–based simulation	30 minutes
Session 8 Sepsis in pregnancy	Small group discussion &protocol drills	30 minutes
Session 9 Post MCQ& Skill test	OSCE MCQs	30 minutes
Feed back		10

Teaching and Learning Strategies:

To maximize learning for undergraduate students, the course employs a variety of student-centered teaching methods:

- Interactive Mini-Lectures:
- Case-Based Learning:
- Skill Demonstration and Return Demonstration•
- Simulation Drills
- Visual Aids and Videos
- Discussion and Reflection:

This combination of strategies addresses various learning styles (visual, auditory, kinesthetic) and helps students not only understand the theory but also apply it in practice. The emphasis throughout the course will be on active participation, critical thinking, and building confidence in a low-stakes setting.

Assessment Methods:

Assessment is primarily formative, aimed at identifying knowledge gaps and reinforcing key points:

- **Pre-Test and Post-Test MCQs:** A 20-item multiple-choice questionnaire will be given at the start (pre-test) and end (post-test) of the course. The questions cover all five topic areas to test improvement in understanding. The MCQs are single-best-answer format appropriate for MBBS level. Students will receive the correct answers and explanations during the review.
- **Skills Assessment (OSCE Stations):** Although low-stakes, an Objective Structured Clinical Examination approach will be used informally during the course. Students will rotate through simulated stations (see OSCE Stations below) to practice critical skills. Checklists will be used to give immediate feedback by instructors. This helps ensure each participant can perform the steps of key procedures correctly (for example, the steps of Active Management of Third Stage of Labor (AMTSL)).
- **Post-Test Review and Discussion:** This serves as a reinforcement of correct knowledge and an opportunity to clarify any remaining doubts.
- **Course Feedback:** Participants will complete a feedback form about the course content and teaching methods. While not an assessment of the students, this feedback helps facilitators improve future sessions and also encourages students to reflect on what they learned.

Overall, assessment is used to enhance learning, not to penalize. By practicing test questions and hands-on skills in a safe environment, students are better prepared for real clinical situations and future formal evaluations.

Assessment Policy:

Passing marks will be 70% for posttest on Skills stations. Students from 69% -60% will be given a chance to reappear for posttest and skill test on the same day .Less than 60% will reappear with next batch .All courses held at different institution will be monitored for quality assurance.

References:

- I. WHO (2000). “Managing complications in pregnancy and childbirth: a guide for midwives and doctors.” (Geneva: WHO) <http://www.who.int/reproductive-health/impac/Introduction.ht>
- II. **Emergency Obstetrical Care – Consolidated Document (2025)** – [*Uploaded course reference*] – A compiled guideline covering normal delivery, shock, PPH, eclampsia, and sepsis (prepared by Department of OBGYN, AIMC Lahore).
- III. **Obstetrics by Ten Teachers, 20th Edition** – (Eds. Philip Baker & Louise Kenny). *CRC Press*. – Chapters on normal labour, third stage management, hypertensive disorders, and obstetric hemorrhage provide an excellent foundation with clear explanations for medical students.
- IV. **NICE Guideline [NG235] – Intrapartum Care (2023)** – *National Institute for Health and Care Excellence (UK)*. – Evidence-based guidance on managing labour, including recommendations on labour monitoring, definitions of labour stages, and active management practices.
- V. **WHO Labour Care Guide – User’s Manual (2020)** – *World Health Organization*. – A practical guide on monitoring labour using the partograph and essential interventions to ensure safe childbirth.
- VI. **RCOG Green-top Guideline No. 52: Prevention and Management of Postpartum Haemorrhage (2016)** – *Royal College of Obstetricians & Gynaecologists*. – A comprehensive guideline on PPH, including causes, medical and surgical management, which underpins many of the PPH steps taught.
- VII. **ACOG Practice Bulletin No. 222: Gestational Hypertension and Preeclampsia (2020)** – *American College of Obstetricians and Gynecologists*. – Offers detailed diagnostic criteria and management plans for preeclampsia and eclampsia, consistent with what was taught (magnesium sulfate use, blood pressure control, and timing of delivery).
- VIII. **Surviving Sepsis Campaign: International Guidelines (2021)** – While not obstetric-specific, the general sepsis management guidelines (from SCCM/ESICM) provide the basis for sepsis bundles and protocols, which are adapted in obstetric care (e.g., Sepsis-3 definitions, early goal-directed therapy).
- IX. **WHO Recommendations for Prevention and Treatment of Maternal Peripartum Infections (2015)** – Covers identification and management of maternal sepsis and includes the “Sepsis Six” concept adapted for low-resource settings.
- X. **Advanced Life Support in Obstetrics (ALSO) Manual** – A training manual that includes emergency drills for PPH, eclampsia, and maternal resuscitation (including modified CPR in pregnancy), providing another perspective and practice exercises.



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