



Ministry of Human Resource Development
Government of India



ALIGARH MUSLIM UNIVERSITY



GLOBAL INITIATIVE OF ACADEMIC NETWORKS
(GIAN)

Critical Care in Obstetrics: Being Prepared is Half the Battle Won!

Though maternal mortality has decreased considerably on a global basis from 1990s to 2010 there is gross inequity globally. MMR in some countries (Scandinavian countries) may be as low as 10 or more than 1000 in some parts of Africa like Sierra Leone (1,360). The saddest part of the story of maternal mortality is that majority of maternal deaths are preventable. We know that 15% of women will face complications in pregnancy and majority of complications will occur suddenly, without warning. These can neither be predicted or prevented but mothers can be saved if they receive effective treatment in time.

Specific, targeted, individualized approaches developed on the basis of the stage of 'obstetric transition' for a particular region could decrease MMR in a more effective way. The process of maternal mortality reduction is dynamic and requires multipronged strategies and informed policies at the national level. Currently India is in 'obstetric transition' Stage III when MMR is between 299–50 maternal deaths per 100 000 live births. Direct causes of maternal mortality still predominate. Strategies required at this stage are complex. We need to focus on lack of access to appropriate, respectful and timely comprehensive maternal care, delayed referrals and institutional delay --- that of not receiving timely care even after reaching a facility due to failure to recognize the critical patient, failure to initiate timely therapy, inappropriately equipped overcrowded facility (JSSK), or lack of expertise in managing critical obstetric patients on the other hand.

Therefore, we need primary, secondary as well as tertiary prevention at the same time in order to reach our MDGs. It is imperative that we deliver quality critical care and address delays within health systems. Providing appropriate critical care needs teamwork and multi-disciplinary training in the early recognition of critical illness, protected time for education and training in critical care skills for all obstetricians, nurses and midwives, infrastructure and equipment. Hence the need for developing HDU-ICUs in all tertiary care hospitals with adequately trained staff. This would at the same time help in being prepared for the next obstetric transition – that of stage 4 when MMR reduces to less than 50 maternal deaths per 100,000 live births which is our aspirational target for 2035.

The Department of OBG, JNMC, Aligarh, is a tertiary care center in western Uttar Pradesh. The state is in 'obstetric transition' stage 3. We cater poorest of the poor with some of India's worst health parameters. The department submitted a proposal for sanction of a hybrid obstetric HDU-ICU to the National Health Mission and received a generous grant for the same in 2018 which is now functional. Other medical colleges in the state are also in the stage of developing obstetric critical care units.

The broad aim of this course is to develop a MOOC course on critical care in obstetrics based on local needs and applicable to our low resource setting which can be used for in service training of all healthcare workers involved in taking care of the obstetric patient. Our international faculty Professor Sajid Shahul has worked and trained in the best center in the world (Harvard) and has grassroots experience of medical care in India having started his medical career in India. His experience in training others in critical care and development of e-resources will help in developing the course content. He has an MPH, Harvard School of Public Health, Boston in addition. At the same time our National faculty includes Professor Sanjay Bedi a person with vast experience in e-learning and is an expert in Medical informatics and trained at the prestigious FAIMER Institute, Philadelphia, USA who will provide the expertise to convert this course into a MOOC.

Primary Objectives: The objective of the course is that by the end of the course the participants will be able to:

1. Explain physiologic changes during pregnancy and identify high-risk and critically ill women who need care escalation, treatment or stabilization
2. Demonstrate optimum maternal CPR and airway management in the care of critically ill pregnant patients
3. Describe and demonstrate a systematic, evidence-based approach to the clinical assessment and management of maternal obstetric and medical conditions requiring critical care.
4. Describe appropriate steps for fetal assessment, resuscitation, delivery, and neonatal management in the critically ill obstetric patient
5. Participate, discuss, deliberate and conclude on the course content and design of a MOOC course on critical care in obstetrics.

Secondary Objectives:

1. Develop evidence based, culturally acceptable management protocols applicable in low resource settings for the critically ill obstetric patient.
2. Sensitize and update the knowledge of health professionals involved in the care of the critically ill obstetric patient, from disciplines other than obstetrics
3. Develop International Collaborations for Research in our knowledge gaps.

Who should attend?

1. Faculty from Medical Colleges from the Departments of OBG, Anesthesia, General Medicine, Cardiology and Neonatology who work in collaboration to manage these patients.
2. Physicians of first contact like General Practitioners, Medical Officers working at PHCs and CHCs who directly come in contact with such the patients
3. Obstetrics and Gynecology Senior Residents and Junior Residents at all levels from the above-mentioned departments

4. AYUSH physicians involved in the care of pregnant women, paramedical staff, nursing staff and peripheral health workers involved in the care of pregnant women.
5. Researchers intrigued by the knowledge gaps related to critical care in obstetrics.
6. Social workers, NGOs in pursuit of strategies to decrease maternal morbidity and mortality.

Know your Faculty:



Dr Sajid Shahul M.D., M.P.H., Professor Department of Anaesthesia and Critical Care & Vice Chair Research, Department of Anaesthesia and Critical Care, University of Chicago. He has American Board of Anaesthesiology Certification in Anaesthesiology & American Board of Critical Care Medicine Certification in Critical Care. Trained in India and the USA he did his Fellowship in Critical Care Medicine, and Fellowship in Cardiac Anaesthesia from University of Chicago, Chicago, IL. He is an invited speaker at various International conferences with more than 65 publications in reputed journals and has co-edited and contributed chapters to books. He is also M.P.H., Clinical Effectiveness, Harvard School of Public Health, Boston, MA and has many patents in his name. He is passionate teacher with many Best Teacher awards to his credit from Beth Israel Deaconess Medical Centre and University of Chicago.



Dr Sanjay Bedi, M.B.B.S., D.C.H., M.D. (Pathology), Diploma in Energy-Cybernetics, FAIMER Fellows and Diploma in Health Professional Education, University of Keele University, England is a Professor of Pathology at Adesh Institute of Medical Sciences, Adesh University, India. He is the Founder Editor of Indian Journal of Medical Informatics, Member Core Committee Indian Society of Telemedicine. He has many publications to his credit, contributed to book chapters and is an invited speaker at many conferences besides being on the editorial board of many journals. He has vast experience in designing e-learning courses and running MOOCs.



Dr Tamkin Khan, MS, DNB, MNAMS, FAIMER Fellow is working as Professor at JNMC, AMU, Aligarh. She has more than 25 years of clinical, research and teaching experience. Her areas of interest include High Risk Pregnancy and Fetal Medicine, Gynecological Oncology, and Medical Education. She is a master trainer for EMoC. She has published in national and international journals and is a reviewer of many journals including BMJ Case Reports. She works passionately both at professional and social level to decrease maternal mortality in her area. She is a FAIMER Fellow.

Registration Fee: Does not include food and lodging but includes all instructional materials and high tea. No TA/ DA will be paid to the participants. Accommodation on payment can be arranged if requested.

Foreign Delegates	US \$ 100
Indian Delegates	INR 2000
Paramedics, Nurses	Free

Mode of Payment:

Money to be transferred in the name of the account "Gian Critical Care" to Allahabad Bank, AMU Branch, Aligarh

Account number: 50515123175

Branch Code: 210134

IFSC code: ALLA0210134

MICR code: 202010002

Scientific Programme: April 13th to 17th, 2020

10 hours lectures + 10 hours tutorials = 20 hours in 5 days

13th April,
2020

Lecture Schedule:

Day 1: 1 hour lecture, 2 hours tutorial/ hands on skills development

Session 1 [Didactic Lecture]: 1 hour SS

1. Normal physiology in pregnancy and identifying the critically ill woman
2. Meows protocol

14th April,
2020

Session 2, 3 [Tutorial]: 2 hours SS

3. Maternal CPR and airway management in the care of critically ill: how is it different from the non-pregnant.

15th April,
2020

Day 2: 3 hours lectures, 1 hour tutorial/ interactive session

Session 4 [Didactic Lecture]:1hour, SS

1. Noninvasive and invasive monitoring of the critically ill and assessment of volume status
2. Blood gas analysis
3. Acute renal injury
4. Indications of intubation and ventilatory support

16th April,
2020

Session 5 [Didactic Lecture]: 1hour TK

1. Placenta accreta
2. Accidental hemorrhage
3. Hypertensive emergency
4. Convulsions

17th April,
2020

Session 6 [Didactic Lecture]: 1 hour, SS

1. Shock
2. Massive blood transfusion

3. DIC

Day 3: 3 hours lectures, 2 hours tutorial

Session 7 [Didactic lecture]: 2 hours, TK

1. Anemia
2. Malaria
3. Dengue
4. Resuscitative hysterotomy and perimortem c/s

Session 8 [Didactic Lecture]: 1 hour, SS

1. Post-partum collapse
2. Pulmonary embolism
3. ARDS

Session 9 [Tutorial]: 1 hour, SS

1. Sepsis and septic shock
2. Cardiac dysfunction in PIH and rrescue TEE for hemodynamic instability and cardiac dysfunction in pre-eclampsia

Session 10 [Tutorial]: 1 hour, SS

1. Development and discussion on antibiotic policy for the ICU-HDU at JNMC, AMU, Aligarh based on local antibiograms of our HDU-ICU

Day 4: 2 hours lectures, 2 hours tutorial

Session 11 [Didactic Lecture] :1 hour, SS

1. DKA
2. Electrolyte imbalance
3. Amniotic fluid embolism

Session 12 [Didactic Lecture]: 1 hour, SS

1. Heart failure and right ventricular failure in pregnancy
2. Cardiomyopathy
3. Role of Echocardiography and lung ultrasound in the critically ill obstetric patient

Session 13 [Tutorial]: 1 hour, TK

1. Clinical, ethical and medicolegal issues in the critically ill patient
2. Team work and communication and respectful maternal care in the critical care setting

Session 14, 15 [Tutorial]: 1hour TK

1. Fetal assessment, resuscitation, delivery, and neonatal management in the critically ill obstetric patient
2. Perimortem caesarean section

Day 5: 3 hours lectures, 1hour tutorial

Session 16 [Didactic Lecture]: 1 hour, SB

1. Development of a module for critical care in obstetrics—the Four Quadrant approach to designing a MOOC

Session 17, 18, 19 [Tutorial/interactive session with hands on training to participants]: 2 SB, 1hour SS

Discussion, planning and finalization of MOOC content of a course on critical care in obstetrics under following headings:

1. Quadrant-I / e-Tutorial: Video Content, Animation, Simulations, Video Demonstrations, Virtual Labs, etc.
2. Quadrant-II/ e-Content: what to include as course content and course material in form of PDF, Text, e-Books, illustrations, video demonstrations, documents and Interactive simulations wherever required.
3. Quadrant-III/ Web Resources: which related links, open sources, case studies, books/ e-books, research papers & journals, anecdotal information, historical development of the subject, articles, etc. to be used
4. Quadrant-IV / Self-Assessment: format for assessment to be discussed MCQs, quizzes, home assignments, discussion forum topics etc.

Session 20: Feedback and Assessment: 1 hour, SS

Date of Assessment: Day 5

Method: MCQs, Feedback Questionnaire

Time: 30 minutes each

Principal Coordinator:

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