Convulsions, Haemorrhage and Sepsis: Conquering the Three Messengers of Death in Maternity

Maternal mortality has seen considerable reduction in our country from 556 per 100 000 live births in 1990 to 130 per 100 000 live births in 2016. However our target is to achieve the Sustainable Development Goal (SDG) of an MMR below 70 by 2030. There is a wide variation and inequity from region to region within our country as the progress has not been sufficient to avert all preventable maternal deaths.

An analysis of the causes of maternal mortality finds that the three most important direct causes of maternal mortality are convulsions, sepsis and haemorrhage. The most effective strategy suggested by WHO to deal with these three messengers of death is to provide round the clock emergency obstetric services. Preeclampsia- eclampsia affects both the mother and the fetus with disastrous complications like stroke, renal failure, coagulopathy, hepato-renal shut down, convulsions, cardiac failure, fetal growth restriction, prematurity, stillbirth and neonatal loss and causes 12-20% of all maternal mortality. Haemorrhage in pregnancy is responsible for another third of maternal deaths. Early recognition, proper resuscitation, timely referral to a facility well-equipped with a blood bank can save many lives. Sepsis, the third messenger of death remains elusive to timely diagnosis and treatment not only because of lack of knowledge but because of lack of regional protocols/ bundles and ever-changing bacterial resistance.

The broad aim of this course is to use the knowledge and experience of an international faculty who has worked in extremes of conditions (India to Harvard to Haiti). She has grassroot experience of the state of medical care in India having started her medical career in India as a resident. She has also been trained in public health from Harvard School of Public Health, Boston.

**Primary Objectives:** By the end of the course the participants will be able to

1. Update their knowledge about these 3 most important causes of maternal mortality.
2. Identify the three impending emergencies – convulsions, sepsis and hemorrhage
3. Use evidence based, culturally acceptable management protocols for first response, resuscitation and timely referral
**Who should attend?**

1. Faculty from Medical Colleges from the Departments of OBG, Anesthesia, Community Medicine, General Medicine, Cardiology, Blood Bank and Paediatrics who work in collaboration to manage such patients.
2. Physicians of first contact -- General Practitioners, Medical Officers working at PHCs and CHCs & AYUSH Practitioners
3. Undergraduates and Senior and Junior Residents from the above departments.

**Scientific Programme**

**Oct 17th -21st, Monday to Friday, 2022**

**Total: 8 hour lectures + 5 hours tutorials=13 hours (8 by Dr Sarosh Rana, 5 by Host Faculty)**

**Day 1: 2 hours lectures + 1 hour tutorial = 3 hours, [3.00-6.00 PM, IST]**

- **Lecture 1:** Over view of maternal mortality HF
- **Lecture 2:** Management of PIH, SR
- **Tutorial 1:** Eclampsia Drill, SR

**Day 2: 1 hour lecture + 1 hour tutorial = 2 hours [3.00-5.00 PM, IST]**

- **Lecture 3:** Taking care of the fetus: preventing still births from PIH, SR
- **Tutorial 2:** Optimizing feto-maternal outcome in PIH, what are the challenges? SR

Case presentations on PIH, followed by discussion and presentations after participants sit in groups and work on designing eclampsia bundle.

**Day 3: 1 hour lecture + 1 hour tutorial = 2 hours [3.00-5.00 PM, IST]**

- **Lecture 4:** Antepartum Haemorrhage HF
- **Lecture 5:** Placenta Accreta Spectrum HF
- **Tutorial 3:** Case presentations on PPH, followed by discussion HF

Participants sit in groups and work on designing Evidence Based Management bundle for post partum haemorrhage applicable to our setting.

**Day 4: 2 hours lectures + 1 hour tutorial = 3 hours, [3.00-5.30 PM, IST]**

- **Lecture 6:** Chorioamnionitis and Puerperal Sepsis HF
- **Lecture 7:** Sepsis, Septic shock SR
- **Tutorial 4:** Sepsis Bundle and antibiotic protocols applicable in our setting SR

Participants work in groups followed by discussion and presentations to finalise content of sepsis bundle for our setting.

**Day 5: 1 hours lectures + 1 hour tutorial = 2 hours, [3.00- 5.30 PM, IST]**

- **Lecture 8:** Experience from Haiti, establishing Rana preeclampsia Laboratory SR
- **Tutorial 5:** Discussion, presentation and finalisation of projects related to prevention of maternal mortality SR

Feedback and Assessment : HF
Know your Faculty:

**Associate Professor of Obstetrics/Gynecology and Section Chief, Maternal-Fetal Medicine, University of Chicago**

Dr. Rana received her medical degree in India. She completed her residency in OBG at the University of Chicago in 2005 and fellowship in Maternal Fetal Medicine at Brown University, Rhode Island in 2008. Dr. Rana aims to improve maternal and fetal outcomes through research on preeclampsia and is working on several translational and clinical projects related to preeclampsia. Dr Rana is specifically involved in clinical studies to evaluate if angiogenic factors correlate with clinical diagnosis of preeclampsia and its associated adverse maternal and fetal outcomes specially in developing countries such as Haiti and India. A dedicated teacher, Dr. Rana trains residents and fellows on the use of ultrasound imaging, as well as the management of women with high risk pregnancies. She also serves as a mentor on various clinical, basic science and translational research projects; these mentored research projects have resulted in several research papers.

**Dr. Tamkin Khan**, MS, DNB, MNAMS, FAIMER Fellow is working as Professor at JNMC, AMU, Aligarh. She has more than 28 years of clinical, research and teaching experience. Her areas of interest include emergency obstetric care, gynecological oncology, high risk pregnancy 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.

### Note: The course will be held in offline mode

- **Registration Fee: Foreign Delegates**  
  - US $ 100
- **Doctors (MBBS, AYUSH)**  
  - INR 1000
- **Paramedics, Nurses**  
  - Free

**Mode of Payment:**
Money to be transferred in the name of the account **“MDM”** to Indian Bank, AMU Branch, Aligarh

- **Account Number:** 50515122886
- **MICR Code:** 202019014
- **IFSC Code:** IDIB000A565
- **Branch Code:** 4134

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Co-Coordinator  

**Prof M J Warsi**  
Local Coordinator  
AMU, Aligarh