The LSTM – RCOG LSS – EOC and NC training package

Maternal and Newborn Mortality and Morbidity
Each year more than 536,000 women worldwide die from complications of pregnancy and childbirth – that is one every minute. Many more survive but will suffer ill health and disability as a result of these complications. In addition an estimated 4 million neonatal deaths occur each year accounting for almost 40% of all deaths under 5 years. More than three quarters of all these deaths occur in Asia and sub-Saharan Africa.

The health of the neonate is closely related to that of the mother and majority of deaths in the first month of life could also be prevented if interventions were in place to ensure good maternal health.

 Provision of Skilled Birth Attendance (SBA) and availability of Essential (or Emergency) Obstetric Care (EOC) coupled with Newborn Care (NC) are key strategies that if implemented will reduce maternal and neonatal mortality and morbidity. A Skilled Birth Attendant is defined as a health provider who has at least the minimum knowledge and skills to manage normal childbirth and provide basic (first line) emergency obstetric care.

The courses are initially facilitated by a team of highly motivated and experienced external UK-based volunteers (i.e. non-paid) including midwives, obstetricians and anaesthetists employed in the NHS or retired. Each 3-day training in LSS-EOC and NC is complemented by a 1 or 2 - day Training of Trainers Course (TOT) for local participants. The TOT participants jointly facilitate subsequent courses and over time the training is delivered completely by in-country facilitators with external Quality Assurance only. This policy of training local trainers and providing a complete set of training equipment (which is left behind in the relevant country) ensures that the training model is sustained.

Monitoring and Evaluation
The LSS-EOC&NC course has a Monitoring and Evaluation framework for evaluation of effect of training. Since February 2007 the courses have been delivered and evaluated in 9 African, 4 Asian and 2 European countries with over 4550 participants and 583 local facilitators trained.

Working in Partnership
For each country delivery of LSS-EOC and NC courses is in collaboration with and through the Ministry of Health, WHO Country (or Regional) Office and Professional Medical Associations (e.g. Obstetrics and Gynaecology, Midwifery, Clinical Officers and others).

There is a well established secretariat and infrastructure to attend to the logistics of course provision based at LSTM.

Contact
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At least 80% of all maternal deaths result from five complications that are well understood and can be readily treated: haemorrhage, sepsis, eclampsia, complications of abortion and obstructed labour. We know how to prevent these deaths – there are existing effective medical and surgical interventions that are relatively inexpensive.

To reduce maternal mortality it is important that all women have access to maternal health care services, particularly skilled attendance at birth and timely access to Essential (or Emergency) Obstetric Care (EOC) when an obstetric complication occurs. Two levels of EOC can be distinguished: Basic Essential Obstetric Care (BEOC) with 7 ‘signal functions’ and Comprehensive Essential Obstetric Care (CEOC) with 9 ‘signal functions’:

- Parenteral anti-convulsants
- Parenteral oxytocics
- Manual removal of retained placenta
- Parenteral antibiotics

BEOC:
- All 7 BEOC functions, plus:
- Caesarean Section
- Blood Transfusion

CEOC:
- All 7 BEOC functions, plus:
- Resuscitation of mother and newborn
- Caesarean Section
- Blood Transfusion

The LSTM-RCOG LSS EOC and NC Course

In 2007 the Liverpool School of Tropical Medicine (LSTM) and the Royal College of Obstetricians and Gynaecologists (RCOG) developed a standardised 3-day “skills and drills” training package in Life Saving Skills- Essential Obstetric Care and early Newborn Care (LSS EOC & NC). The training package is based on the WHO Manual: Integrated Management for Pregnancy and Childbirth and has been developed in collaboration with the Department of Making Pregnancy Safer, WHO and in consultation with a wide group of experts from a multidisciplinary background (including midwives, obstetricians, paediatricians, public health specialists and anaesthetists) with extensive practical experience of maternal and newborn health in resource poor areas as well as educational methods.

The training package was piloted extensively in 2007 and is now used in a variety of settings in both Africa and Asia.

In addition there are sections on specific surgical skills including on how to deal with a difficult Caesarean Section, conduct a perineal repair, Manual Vacuum Aspiration, venous cut down and the B-Lynch suture.

A generic timetable which can be adapted to accommodate individual groups’ needs has been developed. In order to encourage adult learning and make the training interesting and exciting the training is delivered using a mixture of interactive continuing medical education techniques which include lectures, scenario teaching, skills teaching, demonstrations, and workshops. The structure and method of delivery strongly encourages evidence-based practice through sharing of good clinical practice and dialogue between participants and facilitators.

Course content

The course is designed to cover the five major causes of maternal death (haemorrhage, sepsis, eclampsia, complications of obstructed labour and abortion) as well as Newborn Resuscitation and Early Newborn Care. It focuses on the signal functions of CEOC (9) and BEOC (7).

There are a number of core modules which include the following:
- Communication, triage and referral
- Resuscitation of mother and newborn
- Shock and the unconscious patient
- Severe pre-Eclampsia and Eclampsia
- Haemorrhage
- Obstructed labour
- Sepsis
- Assisted Delivery
- Other Common Obstetric Emergencies
-Complications of Abortion
-Early Newborn Care

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Course materials

The course is supported by a course manual; Life Saving Skills Manual - Essential Obstetric Care, RCOG Press (which won the BMA prize in 2007), a Facilitator Manual, standardised lectures, posters, skill demonstration DVDs (includes material from the WHO Reproductive Health Library) and a set of teaching equipment which includes mannequins and models for demonstration and hands on skills training.

Both the manuals and course content were designed with an awareness of the very real barriers to accessing care that women in resource poor countries have, as well as with the realisation that many health care providers trying to provide Skilled Attendance at Birth and Essential (or Emergency) Obstetric Care for women with complications, work in difficult circumstances with limited resources. All case scenarios are based on actual every-day scenarios that would be encountered in a BEOC or CEOC facility in sub-Saharan Africa or Asia.