#### MEASURES TO REDUCE MATERNAL MORTALITY IN KERALA

#### **Problem Statement**

Many health indices of Kerala are comparable to that of the developed nations. Maternal Mortality Ratio in Kerala is lowest in India compared to other states; however it is much higher than that of the developed nations. This has to be further brought down.

The confidential audit of Maternal Death has been in started in Kerala in 1990s and Kerala is the first state to implement confidential audit of Maternal Death. The format for the confidential audit has been revised in 2010. The death audit is as per the international standards and aims to reduce the Maternal Death. Guiding principles of Maternal Death audit in Kerala is to improve the standards of care by identifying correctable missing links in the health system or professional practice. Hence death audit is observed as a learning activity not a fault finding exercise or intended to take legal action. This audit is conducted by the committee constituted for the purpose and aims constructive criticism than fault-finding exercise. During the analysis all names and identities of the patient is not included and report contains observations as description of activities with possible corrective steps or alternatives. The analysis of the maternal death audit during the last few years, revealed the causes of maternal death in Kerala. Major causes of death are haemorrhage, hypertension, and sepsis, heart disease complicating pregnancy, amniotic fluid embolism and hepatitis. Major two causes are haemorrhage (19.3 %) and hypertension (12%).

### **Programme Description**

Department of Health, Government of Kerala recently took steps to reduce Maternal Mortality in Kerala. A programme has been started by NRHM and Health Services Department with the technical support from NICE international United Kingdom and Kerala Federation of Obstetrics and Gynecology. In the pilot phase, Quality Standards developed by the Health Department is being implemented in selected hospitals.

Maternal Mortality Ratio is most commonly used universally as a health indicator to make international comparisons of women deaths in reproductive period during pregnancy and delivery. World Health Organization defines "a maternal death as the death of woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or internal cause".

A Quality Standard document has been prepared for reducing the maternal death during the

antenatal period, delivery and post natal period. Quality standards that are derived from evidence-based clinical guidelines and that are agreed by relevant stakeholders provide powerful levers to drive and measure quality improvement in health care institutions. It focuses on improving the health care, mothers receive in hospitals, both public and private, and to help reduce maternal mortality, which is one of the main health priorities in Kerala. Drawing from a range of published local and international clinical guidelines the quality standard contains a set of ten concise statements and measurable indicators covering the management of post-partum haemorrhage and also hypertensive disorders of pregnancy. These ailments have been highlighted as the leading causes of maternal mortality in the Confidential Review of Maternal Deaths published by the Kerala

Federation of Obstetrics and Gynaecology. Better management of these two conditions would lead to improved outcomes and to potential decrease in maternal deaths.

The pilot project is being implemented in 8 selected hospitals in the state. These hospitals are W and C Hospital Trivandrum, District Hospital Peroorkada, THQH Chirayinkezhu, CHC Kanyakulangara, SAT Hospital, General Hospital Ernakulam, SUT Hospital and Mother Hospital Thrissur.

The disposable delivery kits are introduced in these hospitals, to improve the quality of care, reduce hospital infections and also to measure the blood loss during the delivery. The delivery kits includes sterile perinial towel, abdominal towel, masks, caps, blood lose measuring pads etc. More over the requirement of equipments for the maternity care has been collected from the hospitals. The administrative sanction has been issued to Kerala Medical Services Corporation Limited to purchase of the equipments.

Trainings were conducted by Kerala Federation of Obstetrics and Gynaecologists at Trivandrum and Ernakulum. All the Gynaecologists and other staff from selected hospitals participated in the training. The blood lose is being measured during the vaginal delivery and Caesarean section. The quality standards are being followed by all the staff in the selected hospitals.

Flow charts for the implementation of Quality Standards has been developed and made available in the selected hospitals in labour room and maternity wards. New labour room register was designed and implemented in all selected hospitals.

The Quality Standards are the product of a multi-stakeholder partnership between Government of Kerala, National Rural Health Mission, Kerala Federation of Obstetricians and Gynaecologists, Departments of Health Services, Medical education and the National Institute for Health & Clinical Excellence (NICE) International with support from the UK Department for International Development (DFID) Multi Country Partnership grant (HPS) and the Joint Learning network (JLN). The pilot project is being reviewed every month and will be up scaled to all other hospitals in the state.

## **Program Impact**

There meetings were conducted to review the progress of the implementation of Quality Standards in the pilot hospitals. It was found that all the pilot hospitals are following the prescribed Quality Standards. Preliminary reports indicate that there is a reduction of complication and referrals to higher institutions. It was also noted that, the total number of blood transfusions is reduced in the pilot hospitals.

## **Scalability**

After the pilot project, all the Government hospitals, providing the maternity services and selected private hospitals will be included in this project.

The project can be scaled up to other states to reduce the Maternal Mortality. However it may be noted that major causes of maternal death varies from state to state. Hence the Quality Standards need to be revised for other states, depending on the cause of death.

# **Conclusion**

Measures to Reduce Maternal Mortality in Kerala project is implementing successfully in the pilot selected hospitals. This project will help to reduce the Maternal Mortality in Kerala. The programme will be up-scaled to all other health care organizations which offer the maternity services to the public. It was also found that the quality of services improved in the selected hospitals. The standard guidelines are in place for the management of complications. The complications and referral to higher centers are reduced.

# For further details contact

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