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CASE STUDY

Organizing for obstetric emergencies: How Kabarole Hospital in Western Uganda is saving mothers' lives

With support from the United States Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Kabarole Hospital in Midwestern Uganda is saving mothers' lives by implementing evidence-based practices for the management of obstetric emergencies like eclampsia, a condition where the woman's blood pressure rises to life-threatening levels. Using quality improvement (QI) methods to examine how they organized care for obstetric emergencies, the QI team at this private, faith-based hospital has made sustainable changes to ensure the availability of life-saving interventions and skilled care whenever they are needed.

Kabarole Hospital is a private, not-for-profit general hospital found in Kabarole District, Midwestern Uganda. The hospital handles approximately 80 deliveries each month. A baseline assessment conducted by USAID ASSIST in April 2013 identified that there were no improvement activities in the maternity department; improvement activities were limited to the HIV clinic. A training was organized in May 2013 where 3 maternity staff were trained in the basics of quality improvement.

After the training, the staff formed a QI team in June 2013 and started analysing their processes of care using data. The team recognised it was facing a challenge of handling cases of mothers with eclampsia, which was among the leading causes of maternal deaths in the hospital. From January to June 2013, the hospital delivered 650 mothers, of which 3 resulted in maternal deaths, 2 of these from eclampsia.

The hospital lacked a functional blood pressure machine and as such was not monitoring blood pressure for all the mothers coming in labor. Urine dipstick testing was only conducted in the laboratory for mothers where blood pressure is taken and found to be elevated. Hypertensive drugs could not be easily accessed in the labour suite for use when they were needed, hence the hospital was not well prepared to handle eclamptic cases when they came in as emergencies. The hospital maternal health QI team acknowledged they needed to change how care was organized to be able to prevent such a tragedy as losing a mother to obstetric complications.

In July 2013, the hospital was invited to send a team from its Maternal and Child Health (MCH) Department to a learning session with QI teams from 19 other health units from four districts that was convened by the USAID ASSIST Project in collaboration with the District Health Management Teams and other U.S. Government-funded implementing partners. At the meeting, teams learned how to use quality improvement methods to look critically at how they were providing care for women with eclampsia and other obstetric complications to see what things they could change to make care better. The learning session also provided teams the opportunity to learn about changes that other teams had already tried out to improve their obstetric complications care.

What did the Kabarole QI team do?

After the July QI learning session, the QI team at the hospital decided to try a number of changes to solve this problem. First, in early August, they instituted **daily review meetings** in the maternity department,

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conducted every morning from 8:00-9:00am attended by the night and day shift midwives, medical officers, and representatives of the administration. This meeting provided the whole maternity team the opportunity to discuss what transpired in the last 24 hours on the ward, with a focus on the management of any complicated cases on ward. They also looked at data from the maternity register to assess performance and address existing gaps.

By mid August, the team had identified skills gaps among certain maternal and child health staff in emergency management and response. The team decided to conduct **on-the-job training** for MCH Department staff on how to care for a patient with eclamptic fits, especially when a doctor is not available on ward, on preparing an emergency pack and the contents that should be in the pack, and the importance of having the emergency pack ready and available all the time. In the 3rd week of August, the labour ward received 2 mothers in a period of one week who had eclampsia, Both mothers received hands-on care from the trained health workers and were managed successfully.

However, by the end of August, they realised this had not completely addressed the hospital's emergency response. The team decided to make a complete **eclampsia pack** which contained: Magnesium sulphate, Hydralazine, Nifedine, sterile water for injection, syringes, cannulae, strapping, infusion-giving sets, naso-gastric tubes, gauze, cotton, urethral catheter, IV normal saline, urine bag, surgical gloves, injectable diazepam, and specimen bottles for lab tests. This pack is well-labelled and placed in the emergency area ready to handle eclamptic cases. The pack is replenished as soon as it is used up by the midwife who handled the eclamptic case.



Left: Eclamptic pack kept in the labor suite at Kabarole Hospital, ready for use. Right: Contents of an eclamptic pack. Photos by Dr. Paul Isabirye, URC.

By early September 2013, the hospital had seen improvements in how obstetric complication cases were being managed, but the QI team found that there was still low involvement of some MCH staff in the improvement effort. They decided there was a need to **engage the facility administration** in quality improvement activities. The MCH QI team met with the Hospital Administrator to orient her on the value of the quality improvement work and brief her on which changes the team was working on to address the existing challenges. The team received full support of the administration in terms of encouragement to hold meetings and mobilize staff and resources to implement their changes. The team has since seen full involvement of all staff, including medical officers, early reporting of all staff on duty, and handling of complications as a team.

During the period of July- December 2013, the hospital delivered 519 mothers; 15 mothers had pregnancy-induced hypertension, and all were managed successfully with no fatalities. Sr. Monica reports, "The Kabarole MNCH QI team is currently institutionalizing routine assessment and appropriate management of these hypertensive disorders using emergency packs. The monthly coaching visits and quarterly learning sessions by the USAID ASSIST Project have helped us to attain faster improvements in a period of only six months."

Savings Mothers, Giving Life is an initiative of the Ministry of Health, with support from USAID and PEPFAR implementing partners, to reduce maternal and newborn mortality in four priority districts in mid-western Uganda: Kyenjojo, Kamwenge, Kibaale and Kabarole districts. The role of USAID ASSIST is to supplement the efforts of other implementing partners to address gaps in processes and systems of care through quality improvement methods.