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Dr. Heemelaar worked together with a team of Tanzanian and Dutch gynaecologists to audit the indications of caesarean sections in women who died or nearly died.

Caesarean sections, indications and complications in a rural Tanzanian hospital

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Introduction

Improving reproductive health has been a priority for many years. Worldwide it has arrived at the top of world leaders' agenda's, partly thanks to Millennium Development Goal (MDG) 4 and 5. Maternal mortality is declining, but in Sub Saharan Africa the maternal mortality ratio will not have been reduced by three-quarters in 2015, as was the target of MDG 5. To reach this target, WHO stated that countries should improve the availability, accessibility, and use of comprehensive Emergency Obstetric Care (EmOC), which comprises the provision of antibiotics, oxytocine and anticonvulsives, manual removal of the placenta, removal of retained products of conception, assisted vaginal delivery and caesarean section (CS) and blood transfusion. The WHO uses the CS rate as proxy indicator to monitor the implementation of EmOC.

Several studies from Sub Saharan African countries have shown that CSs are often performed on disputable indications or too late, therefore unnecessarily imposing women to peri-operative complications or complications in future pregnancies like uterine rupture, placenta praevia and abnormal placentation with massive haemorrhage. On the other hand, there are women who should have a CS, but do not have access to this potential life saving intervention. To improve maternal outcome, assessment of the quality of EmOC is more important than monitoring the CS rate as this does not say anything about the indication of the cesarean section.

From Nov 2009 to Nov 2011, a prospective cross-sectional study analyzing cases of maternal near miss (MNM) and maternal death (MD) was performed in Haydom Lutheran Hospital (HLH), a rural hospital in Northern Tanzania. An audit was performed to study the indication of CS in all cases of MD and MNM.

Methods

To establish evidence-based audit criteria for indications of CS, a literature search in PubMed was performed and findings were compared to available National guidelines. This resulted in a list of CS indications.

During the study period 216 MNMs and 32 MDs were identified. Of these women, 90 women delivered by CS and were included in this audit. Eight cases were excluded because the CS was performed at a different health facility and these women were admitted to HLH after delivery. The case notes and partographs were reviewed thoroughly by three independent assessors (two Dutch medical doctors, trained in Tropical Medicine and International Health and a Tanzanian gynaecologist) using a structured data abstraction form. Differences between the assessors were discussed with an expert panel (two Dutch gynaecologists and one Tanzanian gynaecologist) to reach consensus.

Outcome: Primary outcome was the incidence of unnecessary performed caesarean sections in cases with severe maternal outcome. Secondary outcome was the prevalence of missed opportunities or a delay to use available key evidence-based interventions which might have prevented delivery by CS.

Results: preliminary audit results will be presented at the symposium.