

ABSTRACT

It is widely advocated that the decision-to-delivery interval (DDI) for emergency caesarean section should not exceed 30 minutes. The practicability, justification, anticipated benefit on neonatal outcome and medico-legal implications of the recommended 30-minute DDI for emergency caesarean section is questionable. Much needed local data on the causes of delay in emergency caesarean section and its effect on delivery outcomes are lacking.

To evaluate the determinants of emergency caesarean section decision-to-delivery interval and its effect on maternal and newborn health outcomes at UON teaching hospitals.

A hospital-based comparative cross-sectional study was carried out between June and August 2012. Kenyatta National Hospital's maternity unit and Pumwani Maternity Hospital. women who underwent emergency caesarean section. 251 women were studied. *Data* eligible women were consented, interviewed and followed up until discharge from hospital. Medical records were also used to fill a structured questionnaire. data was entered into a computer, analyzed using the SPSS software and presented in figures and tables.

The median DDIs were 178 and 290 minutes at KNH and PMH respectively. The interval between decision and delivery was within 30 minutes for < 1% of women, 31 – 60 minutes for 4% and more than 5 hours for 37%. Cervical dilatation of more than 4cm was associated with a significantly shorter DDI ($p < 0.05$). Emergency caesarean section for placenta praevia with haemorrhage returned the fastest response time of 17 minutes ($p < 0.05$). Unavailability of theatre space and lack of additional theatre staff to open a second theatre were significantly associated with delay in emergency caesarean delivery ($p < 0.001$). Wound sepsis was the commonest post-operative complication. The median duration of post-operative hospital stay was 3 days. The association between the DDI and occurrence of maternal complication, 13

prolonged post-operative hospitalization, Apgar score of the newborn at 5 minutes, admission to the NBU or its outcome was not significant.

Cervical dilatation, emergency caesarean section indicated for placenta praevia with haemorrhage, availability of theatre space and additional theatre staff to open a second theatre were significantly associated with the DDI. Prolonged DDI did not significantly increase maternal complications or prolong post-operative hospital stay. Poor Apgar score and admission to the NBU were not significantly increased due to prolonged DDI.

Standard Operating Procedures for emergency caesarean section need to be formulated and effected. The existing infrastructure desperately requires expansion and staff shortage urgently addressed to reduce delay. Unnecessary caesarean sections should be avoided