

## Abstract

**Background:** Best practice standards by Royal College of Anaesthetists are conversion rates of <1% and <3% for elective and emergency caesarean section respectively. Faced with rising caesarean section rates, the magnitude of incidence of conversion of spinal anaesthesia to general anaesthesia in Moi Teaching and Referral Hospital (MTRH) remains unknown.

**Objective:** To determine incidence of conversion of spinal anaesthesia to general anaesthesia during caesarean section at Moi Teaching and Referral Hospital, Kenya.

**Materials and Methods:** A cross-sectional observational study, where 518 pregnant mothers scheduled for caesarean section under spinal anaesthesia were recruited through systematic sampling. Demographic, obstetric and anaesthesia-related data were collected using a structured interviewer-administered questionnaire. The primary outcome of interest was conversion of spinal anaesthesia to general anaesthesia. Continuous variables were summarized as means and medians; categorical variables by percentages and frequencies.

**Results:** The response rate was 100%. Mean maternal age was  $28.1 \pm 5.3$  years with mean gestational age of  $38.6 \pm 1.4$  weeks. Emergency cases were 80.1% (n=415). All participants (n=518) had spinal anaesthesia performed in sitting position. Anaesthesia trainees performed 53.9% (n=279) of the spinal blocks. Incidence of conversion of spinal anaesthesia to general anaesthesia was 3.9% (95% CI: 2.5 – 5.9). One percent (1%) (95% CI: 0.13 – 6.71) among the elective and 4.6% (95% CI: 2.94 – 7.07) in the emergency category. Conversion time ranged from 9 to 17 minutes with a mean of  $13 \pm 3.6$  minutes.

**Conclusions:** The incidence of conversion of spinal anaesthesia to general anaesthesia at MTRH is higher than the recommended rate by Royal College of Anaesthetists.