

Abstract

Objective: To compare the patient outcomes among planned and unplanned post-operative Intensive Care Unit (ICU) admitted patients at Moi Teaching and Referral Hospital (MTRH).

Methods: A prospective observational study was carried out in MTRH ICU from October 2021 to September 2022. 352 participants, 176 participants in both planned and unplanned post-operative ICU admission type, who underwent surgery at MTRH and were admitted to MTRH ICU post-operatively were recruited through consecutive sampling. Patient treatment records and interviews with the participant or their next of kin were used to collect patient and surgery-related data. Participants were followed up while in ICU and up to 28 days after admission to ICU in case they were discharged from ICU in less than 28 days to determine patient outcome.

Results: The median patient age was 35(IQR 19.5, 52) years with 205(58.2%) of admissions being male. Majority of admissions were American Society of Anesthesiologist (ASA) class III, 177(50.1%), with a 27.3% overall comorbidity incidence. The median ICU length of stay was 3(IQR 2,5) days, with a 23.3% in-ICU mortality and a 29.3% 28-day mortality. Unplanned admission was associated with mechanical ventilation, in-ICU and 28-day mortality, $P < 0.001$. Advanced age, emergency surgery and low pre-operative Glasgow coma scale (GCS) were predictors of 28-day mortality (aOR>1).

Conclusion: Unplanned post-operative ICU admission trend to poor patient outcomes.