## **ABSTRACT**

**Background:** The relevance of intensive care has gradually increased over the past 100 years, with exponential increase noted over the previous five years. This follows increase in the incidence of non-communicable diseases and recently advent of COVID-19 infection. Whereas the contribution of intensive care to mortality reduction is substantial, endotracheal tube insertion and appropriate suction for its maintenance is very necessary to reduce the risks associated with these mortalities. The difference between mortality and survival among the ventilated patients is determined by the level of knowledge and practice about the guidelines.

**Objective:** The purpose of the study was to assess the knowledge and practice about Endo Tracheal Suction guidelines among the intensive care unit nurses in Mulago, Jinja and Mbarara referral hospitals.

**Methods:** Cross sectional study design that included 89 intensive care unit nurses at Mulago (60), Jinja (15) and Mbarara Referral Hospitals (14). The nurses were conveniently selected, and Self-administered questionnaire used to collect data. SPSS version 25 using descriptive and inferential statistical tools were used for analysis and presentation of data.

**Results:** Almost half 40(45%) of the ICU nurses at Mulago, Jinja, and Mbarara referral hospitals had knowledge about the guidelines for endotracheal suctioning.

The knowledge and practice was twice as high among nurses who had worked in ICU for less than five years (aPR = 2.641 [1.167 - 5.978], p = 0.002), higher by 40% among nurses who had received any special training in ETS (aPR = 1.408 [CI = 1.083 - 1.832, P = 0.011)), higher by 90% among ICU nurses who had worked for less than five years (aPR = 1.896 [1.078 - 3.333], P = 0.026). However, less by 48% among ICU nurse who reported that a Y-catheter should be used for suctioning a patient in the absence of a catheter with subglottic suctioning capacity (aPR = 0.525 [CI = 0.299 - 0.920], p = 0.024).

The knowledge and practice about the ETS guidelines was thrice as high among those reported hospital management audits work practice and give feedback accordingly (aPR = 3.661 [1.603 - 8.360], P = 0.002), higher by 92% among nurses whose hospital management or the in charge of the unit provides training on ETS suctioning or updates on the guidelines (aPR = 1.922 [CI = 1.150 - 3.212), P = 0.013) and twice as high among ICU nurses whose hospital management provided

them with all the support needed for successful conduction of ETS guidelines (aPR = 2.017 [1.141 - 3.567], p 0.016).

**Conclusion:** Knowledge and practice about the ETS guidelines and its associated factors among intensive care unit nurses at Mulago, Jinja and Mbarara referral hospitals is sub optimal. Only 4 in every 10 of them have the knowledge with adequate ETS practice and that behavior is almost equally associated with their intrapersonal characteristics and those at their workplace, although the former take slightly more precedence.