

Nurses' knowledge regarding intravenous fluid therapy at a County hospital in

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### **Abstract**

Increased morbidity and mortality among hospitalized patients receiving intravenous (IV) fluids is an issue of global concern. These associated negative outcomes are mainly due to inadequate knowledge of IV fluid therapy among healthcare workers leading to errors in prescribing, administration and monitoring. Notably, quality healthcare is a major pillar of the Vision 2030 national blueprint and the Big 4 agenda in Kenya, and the global Sustainable Development Goals. With the COVID-19 pandemic, the World Health Organization has provided guidelines on IV fluid therapy in COVID-19 patients with acute respiratory failure recommending cautious administration and meticulous monitoring for associated complications. Because nurses are the cornerstone of infusion therapy, their knowledge of this subject is critical in mitigating this unintentional patient injury in the course of healthcare. A cross-sectional survey of 52 staff nurses in medical and surgical wards was conducted using a validated 10-item questionnaire to measure nurses' knowledge of basic aspects of IV fluids, including classification, ionic composition, indications, administration, monitoring, and related complications. The data were analyzed using SPSS version 21. Overall, the mean knowledge score on IV fluid therapy among nurses was 57.4% ( $SD = \pm 28.55$ ), depicting moderately adequate knowledge. Adequate knowledge was present in only 12% of the participants, whereas 23% had inadequate knowledge. Knowledge deficiencies were highest regarding the ionic composition of intravenous fluids. A positive correlation was observed between nurses' knowledge and previous further training on intravenous fluids ( $p < .001$ ), level of education ( $p < .001$ ), and ward ( $p = 0.03$ ). Strategies to promote patient safety and outcomes during IV fluid therapy involve regular training of nurses, formulation of policies and standard operating procedures to guide practice, and regular assessment of knowledge and skills through written tests and direct observation, for the validation of competency.

**Key words:** nurses, intravenous fluid therapy, County hospitals