SYNOPSIS

On

Assessment of Intensive Care Unit (ICU) Utilization and Quality Indicators Monitoring in the ICU

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TITLE

Assessment of Intensive Care Unit (ICU) Utilization and Quality Indicators Monitoring in the ICU.

INTRODUCTION

An Intensive Care Unit (ICU) is an organized system for the provision of care to critically ill patients that provides intensive and specialized medical and nursing care, an enhanced capacity for monitoring, and multiple modalities of physiologic organ support to sustain life during a period of acute organ system insufficiency. Although an ICU is based in a defined geographic area of a hospital, its activities often extend beyond the physical space to include the emergency department, hospital wards, and follow-up clinics.

The factors that form a critical area and make it different from other clinical areas include physical space, support and monitoring technology, human resources, critical area services provided, research education, and quality improvement [1].

According to WHO, Quality of care is defined as the extent to which health care services provided to individuals and patient populations improve desired health outcomes [2].

Quality improvement in healthcare depends on the measurement of relevant quality measures and indicators. Quality indicators are the tools used to identify potential areas of improvement in the quality of care. In hospital settings as well as in the ICU, these indicators can be classified into three categories based on the Donabedian concept, that is, Structure, Process, and Outcome. Some of the Indicators include ICU occupancy, Mortality, ICU readmission within 48 hours, Length of stay, and Hand hygiene, among others [3].

RATIONALE

The present study aims to investigate ICU Utilization and Quality indicators monitoring in the ICU for critically ill patients. Various studies have retrospectively focused on these variables, and little attention has been given to collecting real-time data, that is, formulating a prospective study to develop insights based on utilization metrics, clinical outcomes, and real-time experiences. The present study is being carried out to review the ICU utilization and to examine the relationship between ICU Utilization and Quality Indicators in the ICU.

OBJECTIVES

- To measure Intensive Care Unit utilization parameters, including bed occupancy, length of stay, ventilator use, and readmission rates etc.
- To assess key quality indicators, including mortality rates, bundle care, that is, CAUTI, CLABSI, and VAP, nurse patient ratio, hand hygiene, etc.
- To explore the relationship between Intensive Care Unit utilization and Quality indicators in the ICU.

MATERIALS AND METHODS

Study Design – This will be a prospective observational and correlational study, that is, a quantitative study.

Setting – ICU of a multi-speciality hospital.

Study population – All the critically ill patients who have either been transferred, referred, or shifted and admitted to the ICU during the study period.

Duration of Study – 2 months

Sampling Size - The sampling size would be data of 10 months, i.e., N=10

Sampling Technique – Purposive sampling, which is a type of non – non-probability sampling, since I need to focus and get information specifically from critically ill patients in the ICU.

Data Collection Tools – ICU record forms, infection control reports, electronic health records of patients, and other data maintained in the ICU such as Inventory register, Census register, etc.

DATA ANALYSIS PLAN

The study includes two variables, namely ICU Utilization and Quality Indicators. I will be using Statistical Package for Social Sciences (SPSS) to evaluate these variables using descriptive statistics and Pearson's r Correlational test to study the relationship between ICU Utilization and Quality Indicators in the ICU.

ETHICAL CONSIDERATIONS

- Confidentiality and privacy of the data will be maintained.
- Approval from the Quality head, nursing head, and the senior consultants of the ICU will be taken for observing the ICU settings and the staff.

IMPLICATIONS OF RESEARCH

- Identify and gain knowledge about inefficiency and challenges in the ICU.
- Enumeration of key patterns of ICU Utilization and Quality indicators.
- It will promote patient safety and clinical outcomes.
- The study supports the improvement of Quality Indicators in the ICU, including mortality rate, Bundle care, and readmissions in the ICU.

REFERENCES

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