SYNOPSIS

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TITLE: Intra-Hospital Patient Transport: Analysis and Optimization.

Objectives:

• To analyse the current patient transport system within the hospital.

• To identify the most common challenges and delays in intra-hospital patient transport.

• To suggest improvements for optimizing the patient transport system and enhancing patient care.

1. INTRODUCTION:

Intra-hospital patient transport refers to the movement of patients between different departments, ICU, MICU, wards, diagnostic areas, and operating theatres within a hospital. This process is essential to the efficient functioning of healthcare services and significantly impacts patient outcomes. Proper patient transport is critical to ensuring timely medical intervention, reducing wait times, and improving overall hospital efficiency.

The effectiveness of the intra-hospital transport system is essential in reducing delays in patient care, preventing complications, and improving the workflow of healthcare professionals. However, poor coordination, inefficient transport systems, and inadequate resources may result in delays, which can adversely affect patient care.

This study aims to examine the various factors affecting the intra-hospital patient transport system, identify key causes of inefficiencies, and propose solutions to optimize the process.

2. RESEARCH QUESTION:

How can the intra-hospital patient transport system be optimized, and what are the common causes of delays in transporting patients within the hospital environment?

3. HYPOTHESIS:

Improving the scheduling and coordination of transport services, ensuring proper staffing, and integrating advanced tracking systems will reduce delays and improve the overall efficiency of intra-hospital patient transport.

4. Literature review:

Incidence of patient safety events and process-related human failures during intra-hospital

transportation of patients: retrospective exploration from the institutional incident

reporting system

• A comprehensive method to develop a checklist to increase safety of intra hospital

transport of critically ill patient.

• Analysis of "Intra-hospital Transport of Brain-Injured Patients: A Prospective, Observational Study"

• Analysis of "Intrahospital transport of patients on invasive ventilation: cardiorespiratory repercussions and adverse events"

• Analysis of "Adverse events during intrahospital transport of critically ill patients in a large hospital"

• Status of knowledge, attitude and practice of clinical nurses towards the intrahospital transport of critically ill patients: A cross-sectional study

• Complications and benefits of intrahospital transport of adult Intensive Care Unit patients

• Risk factors for intra-hospital transport of newborn patients: A new solution to an old problem

• Intrahospital Transport to the Radiology Department: Risk for Adverse Events, Nursing Surveillance, Utilization of a MET, and Practice Implications.

5. DESIGN OF THE STUDY:

The study will be an Observational Prospective Study conducted at FORTIS HOSPITAL JAIPUR. Data will be collected through direct observation and tracking of patient transport events.

6. STUDIED POPULATION:

The study will focus on the intra-hospital transport of patients within the hospital on weekdays (Monday to Saturday) from 10:00 AM to 6:00 PM, excluding Sundays. A random sampling method will be used to select transport events.

7. LENGTH OF STUDY:

The study will last for 3 months.

8. SAMPLE SIZE:

The sample size will range from 200 patient transport events.

9. DATA ANALYSIS:

Data analysis will be carried out using Microsoft Excel. The focus will be on identifying patterns in delays, transport efficiency, and potential bottlenecks.

10. ETHICAL CONSIDERATIONS:

• Obtain permission from the Hospital Ethics Committee

• Ensure informed consent from all participants involved in the study

• Maintain the confidentiality of patient and hospital data throughout the research process

11. IMPLICATIONS OF THE RESEARCH:

• Improving operational efficiency: Streamlining patient transport services to enhance hospital workflow

• Better resource allocation: Ensuring timely transport by optimizing staff schedules and equipment usage

• Training and development: Identifying training needs for staff to improve transport coordination and response times

• Technological integration: Implementing advanced tracking or scheduling systems to minimize delays

• Patient satisfaction and trust: Faster, more reliable transport will contribute to better patient experiences and outcomes.