

TITLE:

Time Efficiency and Functional Outcome Improvements in Radiology department performance. A Comparative study of two Radiology Information System Models

INTRODUCTION:

Hospital Management Information System (HMIS)-This is a software system used by hospitals to manage all aspects of their operations, including patient care, administration, and finances. It often includes features for appointment scheduling, billing, lab results, pharmacy dispensing, and more. An HMIS helps hospitals streamline operations, improve efficiency, and provide better service to patients.

HIS-The rise of HIS- Hospital Information System represents a digital revolution in healthcare. These systems have transformed from basic administrative tools into secure central platforms for managing a patient's entire medical journey. This digital transformation empowers healthcare professionals with a unified view of patient data, leading to improved communication and ultimately, better patient care. HIS extends beyond the hospital walls, allowing for communication with external providers and offering patients online access, creating a more collaborative and efficient healthcare ecosystem.

RESEARCH QUESTION:

1. Is there a difference in the average time taken from patient registration to the completion of specified radiology procedures when comparing model A and M.
2. Does implementation of Model A lead to improvement in efficiency within various functions of the radiology department?

OBJECTIVES:

Objective 1: To compare time taken from patient registration to the completion of radiology procedures of two RIS Models-Model M and Model A.

Objective 2: Determine the improvement outcomes across different functions of radiology Department after adoption of Model A.

MATERIAL AND METHODS:

STUDY DESIGN: Qualitative and quantitative study.

SETTING: Narayana Health City, Bangalore.

STUDY POPULATION: Doctors, technical staff, Hospital staff, and other relevant stakeholders involved in Narayana Health city.

DURATION OF STUDY: 3 months

SAMPLE SIZE: yet to be decided.

SAMPLING TECHNIQUE: ye to be decided.

DATA COLLECTION PROCEDURE:

1. Surveys/questionnaires
2. Analysis of historical RIS data.

ETHICAL CONSIDERATIONS:

- Patient Privacy and Confidentiality
- The research will adhere to ethical guidelines and regulations.

IMPLICATIONS OF RESEARCH:

The implications of this research include:

1. *Enhanced Workflow Efficiency:* Understanding how RIS improves workflow efficiency compared to paper-based systems, potentially leading to faster patient processing and reduced turnaround times.

2. *Quality of Patient Care:* Evaluating how RIS can enhance the accuracy and accessibility of patient records, thereby improving the quality of patient care and diagnosis accuracy.
3. *Cost-Benefit Analysis:* Providing insights into the cost savings associated with transitioning from paper-based systems to RIS, including reductions in administrative costs and errors.
4. *Technological Integration:* Highlighting the benefits and challenges of integrating RIS with existing radiology modalities, which can inform future technological upgrades and investments.
5. *Data Management:* Assessing how RIS impacts data management practices, including

Overall, this research can guide healthcare facilities in making informed decisions about adopting RIS, ultimately leading to enhanced efficiency, cost savings, and better patient outcomes.