

INTERNSHIP REPORT

NARAYANA HEALTH- ATHMA

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RIS- In the intricate world of hospital operations, efficiency is paramount, especially within the bustling radiology department. Prior to Radiology Information Systems (RIS), managing X-rays, ultrasounds, and other scans relied heavily on paper records. This resulted in a chaotic system riddled with problems. Locating past exams became a time-consuming task, misplaced folders posed a risk of losing crucial images, and delays in diagnoses were a frequent occurrence. Furthermore, fragmented paper records often left physicians with an incomplete view of a patient's radiology history, hindering their ability to provide optimal care. Communication breakdowns were also commonplace, with reports misplaced or shuffled between departments.

The limitations of this paper-based approach became a significant roadblock in delivering efficient and effective patient care. This pressing need for a streamlined and reliable system paved the way for the invention of RIS, ushering in a new era for radiology departments.

Radiology workflow process has many steps, each one is crucial for a successful outcome. Here's what goes into a typical radiology workflow:

- **First things first:** The doctor decides you need an imaging test and sends a request to the radiology department.
- **Appointment Scheduling:** The radiology department schedules the appointment.
- **Getting ready for the test:** When patient arrive, the radiology technologist will prepare patient for the examination.
- **Taking the images:** The technologist uses specialized equipment to capture the images which doctor needs for diagnosis.
- **Radiologist review:** Once the images are taken, a radiologist, a doctor specially trained in reading these images, will carefully examine them to find any abnormalities.
- **Reporting the results:** The radiologist then writes a report describing their findings and sends it to doctor.

This study focuses on Narayana Health, a large hospital network in Bangalore, India. With over 30,000 patients visiting their radiology departments monthly, streamlining workflow is essential. Recently, Narayana Health transitioned from Model M, an external Radiology Information System (RIS), to their own in-house developed Model A. This study aims to analyze the impact of this switch on departmental

workflow efficiency, focusing on potential improvements in procedure times and overall function.

Objectives

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

Objective 2: To determine improvement in outcomes of different function after adoption of Model A.

ORGANIZATIONAL PROFILE-

Narayana Health, headquartered in Bangalore, India, is a leading healthcare service provider known for its extensive network of hospitals and primary care facilities.

Founded by Dr. Devi Shetty in 2000, Narayana Health has grown rapidly to become one of the largest healthcare conglomerates in India and has expanded its presence internationally.

Key Aspects of Narayana Health:

1. **Founding Philosophy:** Narayana Health operates under the vision of making high-quality healthcare accessible and affordable to all. This philosophy is rooted in Dr. Devi Shetty's belief that healthcare should not be a privilege but a fundamental right.
2. **Network of Hospitals:** The organization operates a vast network of hospitals and health facilities across India and in other countries like the Cayman Islands, Malaysia, and Bangladesh. Each facility is equipped with state-of-the-art medical technology and staffed by skilled healthcare professionals.
3. **Specialties and Services:** Narayana Health offers a wide range of medical specialties and services, including cardiac care, orthopaedics, neurology, oncology, nephrology, and more. They are particularly renowned for their expertise in cardiac surgeries, performing a significant number of procedures annually.
4. **Affordable Healthcare:** One of the distinguishing features of Narayana Health is its commitment to providing affordable healthcare services without compromising on quality. They have implemented innovative cost-control measures and operational efficiencies to keep treatment costs low.

5. **Education and Research:** Narayana Health is actively involved in medical education and research. They collaborate with academic institutions to train healthcare professionals and conduct research to advance medical knowledge and improve patient outcomes.
6. **Technology and Innovation:** The organization embraces technological advancements in healthcare, utilizing telemedicine, digital health records, and other innovations to enhance patient care and operational efficiency.
7. **Corporate Social Responsibility (CSR):** Narayana Health is involved in various CSR initiatives aimed at community health improvement, education, and social welfare programs. They run outreach programs to provide healthcare services to underserved populations.
8. **Accreditations and Recognition:** Narayana Health hospitals are accredited by national and international bodies for their quality standards and patient care practices. They have received recognition for their contributions to the healthcare sector in India and globally.

Overall, Narayana Health stands out for its commitment to accessible healthcare, clinical excellence, and innovation in the healthcare industry. It continues to expand its footprint both within India and internationally, aiming to make a significant impact on global healthcare delivery.

Vision: Narayana Health's vision is to "provide high-quality healthcare services at affordable costs globally."

Mission: Their mission is multi-faceted:

- To deliver compassionate and affordable medical care of international standards.
- To make healthcare accessible to all sections of society, particularly the underserved.
- To achieve clinical excellence through innovation and research.
- To train healthcare professionals and foster a culture of continuous learning.

SERVICE PROVIDED BY ORGANIZATION-

Narayana Health offers a comprehensive range of healthcare services across its network of hospitals and facilities. These services encompass various medical specialties and support functions to cater to the diverse healthcare needs of patients. Here are some of the key services provided by Narayana Health:

Clinical Specialties:

- o Cardiology: Diagnosis and treatment of heart conditions, including complex cardiac surgeries.
 - o Oncology: Comprehensive cancer care, including chemotherapy, radiation therapy, and surgical oncology.
 - o Orthopaedics: Treatment of musculoskeletal disorders and injuries, joint replacements, and sports medicine.
 - o Neurology and Neurosurgery: Management of neurological disorders, brain and spine surgeries.
 - o Nephrology and Urology: Kidney care, including dialysis, kidney transplants, and urological surgeries.
 - o Gastroenterology: Digestive system disorders, endoscopy, and advanced GI surgeries.
 - o Endocrinology: Diabetes management and treatment of hormonal disorders.
 - o Pediatrics: Specialized care for children, including pediatric surgery, neonatology, and pediatric intensive care.
2. Support Services:
- o Diagnostic Services: Advanced imaging (MRI, CT scan, etc.), pathology, and laboratory services.
 - o Emergency Care: 24/7 emergency services with trauma care and critical care support.

- o Intensive Care Units (ICUs): Specialized units for cardiac care, neurology, pediatrics, and other critical care needs.

- o Rehabilitation Services: Physiotherapy and rehabilitation programs to aid recovery after surgeries or injuries.

Specialized Programs:

- o Organ Transplantation: Kidney, liver, heart, and bone marrow transplants.
- o Robotic Surgery: Advanced robotic-assisted surgeries for precision and

minimal invasiveness.

- o Palliative Care: Supportive care for patients with serious illnesses to improve

quality of life.

Telemedicine Services:

- o Remote consultations, follow-ups, and second opinions through telemedicine platforms, enhancing accessibility to specialized care.

Health Check-up Programs:

- o Comprehensive health screening packages tailored to detect early signs of diseases and promote preventive healthcare.

Corporate Health Services:

- o Occupational health services, wellness programs, and health check-ups for

corporate employees.

Patient Support Services:

- o Counseling, patient education, and support groups for patients and families dealing with chronic illnesses.

Narayana Health's comprehensive range of services is aimed at delivering high-quality healthcare that is accessible, affordable, and patient-centered, utilizing advanced medical technologies and a team of skilled healthcare professionals.

KEY ACTIVITIES/PROJECTS UNDERTAKEN OTHER THAN DISSERTATION-

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

Duration-

- Secondary data were collected by radiology department in NICS and MSMC

Duration of Study- April 2024-June 2024

Sample Size- A sample sizes of 1637 patients were taken.

Sampling Technique- Simple random sampling

DATA ANALYSIS-

- Software: Statistical analysis will be conducted using EXCEL.
- Descriptive Statistics: Descriptive statistics will be used to summarize the characteristics of the study sample, including frequencies, percentages, means, and standard deviations.

KEY LEARNINGS FROM INTERNSHIP-

- Understanding the organizational structure of a Narayana Health- ATHMA and the roles and responsibilities of various departments, by participating in projects.
- Observed and inculcated how the things are managed by Management.
- Understanding the factors that contribute to a positive patient experience. Improved communication skills through interactions.
- Helped bridge the gap between theory and practice, letting use what learned at institute in actual situations and how it is managed.

- Effective time management helped to prioritize tasks, manage projects, maximize learning, and ensure compliance, also helped in professional growth and development.
- Attended Induction event and came to know about the hospital HR policy and its committees, Employee rights and responsibilities, Basics about ergonomics, organization structure, Facility management services and its plans etc.