Optimizing Inventory Management in Multi-Specialty Hospital

IIHMR UNIVERSITY

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Narayana Health

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ABOUT THE ORGANISATION

- Narayana Health Jaipur is a 330 bedded multispecialty tertiary care hospital, located at Pratap Nagar in the Southern part of Jaipur.
- Narayana Multispecialty Hospital, Jaipur offers comprehensive care across 37 specialties which include its six Centres of Excellence - Cardiology & Cardio-vascular surgery, Medical & Surgical Gastroenterology, Orthopaedics & Joint Replacement, Renal Sciences & Kidney Transplant, Medical & Surgical Oncology (Cancer) and Critical Care Medicine.
- 7, 00,000+ patients treated in the last 7 years

VISION AND MISSION

- **Vision:**

To evolve as the most preferred destinations for quality healthcare that provides a comprehensive range of services and is trusted for personalized care with compassion.

- **Mission:**

Committed to deliver quality & personalized care to improve the well-being of patients and communities we serve.

- **Key Principles:**
  - Compassion
  - Quality
  - Affordability

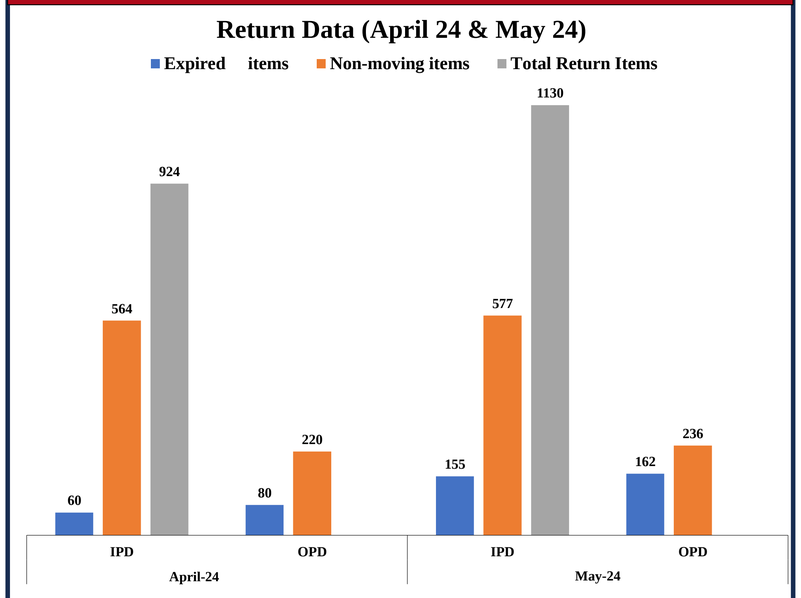
AIM AND OBJECTIVE

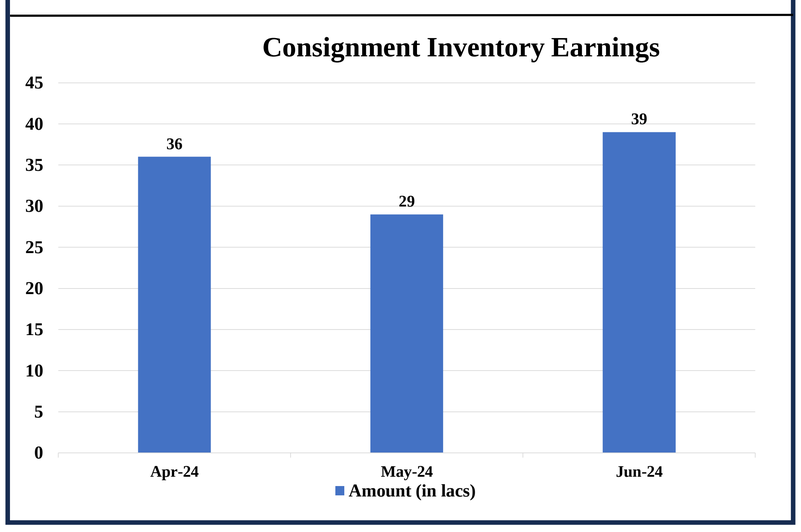
- **Aim:**
  - To study and analyze Inventory Management process in a Multispecialty Hospital.
- **Objectives:**
  - To analyze optimal stock levels to meet patient needs.
  - To minimize costs associated with inventory storage and wastage.
  - To check the accuracy and efficiency of the inventory management process.
  - To practice the techniques used in Inventory Management.
  - To study the gap and give appropriate suggestions.

STUDY METHODOLOGY

- Study Area: Narayana Health Multispecialty Hospital, Jaipur
- Study Type: Observational Study
- Study period: 6 weeks
- Primary Source of Data: 1.Through interaction with SCM employees, 2. Through Direct observation.
- Secondary Source of Data: Through record of return order.

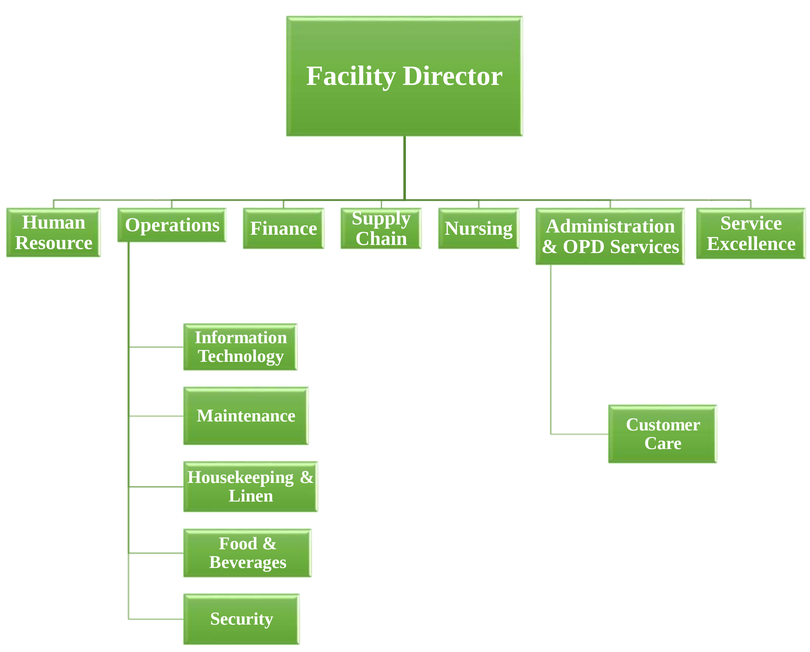
FINDINGS



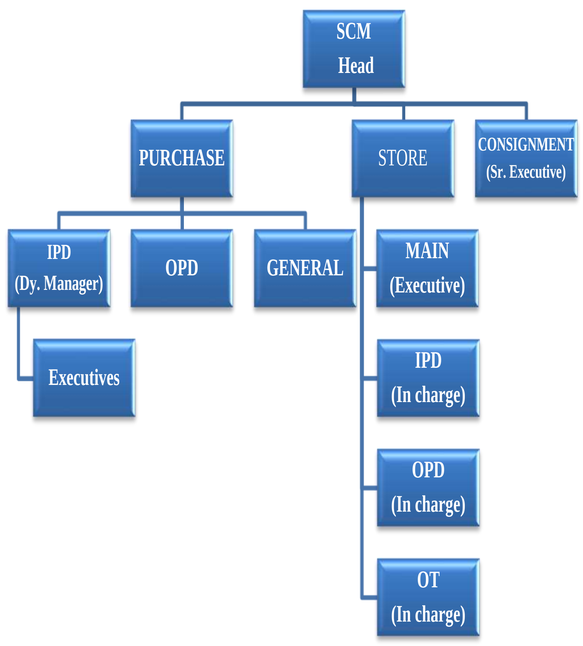


ORGANISATION STRUCTURE

HOSPITAL ORGANOGRAM



SCM ORGANOGRAM



STUDY RESULTS

- In April, there were 924 expired items and 564 non-moving items returned, for a total of 1488 items. This number increased in May to 1130 expired items and 577 non-moving items returned, for a total of 1707 items.
- The graph shows the average consignment inventory earnings per month from April to June 2024. The earnings appear to fluctuate over the three months, with the highest earnings in June (around 39 lacs) and the lowest in May (around 29 lacs).

THEORETICAL UNDERSTANDING

- Observing real-time inventory tracking and control mechanisms.
- Hands-on experience with hospital inventory management software.
- Interaction with supply chain staff to understand operational challenges.
- Participation in inventory audits and reconciliation processes.

PRACTICAL EXPOSURE

- Knowledge of inventory management techniques.
- Understanding of supply chain management principles in a healthcare context.
- Familiarity with healthcare regulations and standards affecting inventory management.
- Study of case studies on successful inventory control in hospitals.

SUGGESTIONS

- **Use RFID and Barcode Scanning**: Implement RFID tags and barcode scanners to automate the tracking of inventory items as they move through the hospital, ensuring accurate and up-to-date inventory records.
- **Enhance Quality Control**: Develop a fast-track returns process for defective or incorrect items, minimizing delays in inventory restocking. Set up dedicated areas and workflows for handling returns, ensuring they are processed quickly and efficiently.
- **Reduce waste & Explore Cost-saving Opportunities**: Reduce supply chain costs through bulk purchasing, inventory optimization, and waste reduction. Partner with group purchasing organizations (GPOs) for discounted pricing on medications and supplies.
- **Expiry Management Systems**: Implement systems that track the expiry dates of inventory items and provide automated alerts and reports on items approaching their expiry, allowing for proactive management.
- **Strengthen FIFO Compliance with Training and Technology**: - Implementing inventory rotation practices, such as FIFO (First In, First Out), to minimize the risk of expiry and obsolescence. Using inventory management software that tracks expiration dates and provides alerts for timely action.

SWOT ANALYSIS

STRENGTH

- Strong vendor relationships ensuring timely delivery.
- Well experienced and skilled staff.

WEAKNESS

- Inaccurate demand forecasting
- Inefficiencies in manual inventory processes.

OPPERTUNITY

- Partnerships with suppliers for consignment inventory models.
- Integration of real-time data analytics for better decision-making.

THREATS

- Expired or non-moving inventory incurring financial losses.

LEARNING AND VALUE ADDITION

- Importance of flexibility and adaptability in inventory control processes.
- The critical role of data accuracy and timely information in inventory management.
- The benefits of leveraging technology for real-time inventory tracking and decision-making.
- Effective communication and collaboration among departments to ensure smooth inventory flow.

CHALLENGES FACED

- Connecting theoretical knowledge with practical application.
- Insufficient data availability.