SUMMER INTERNSHIP PROGRAM
IIHMR UNIVERSITY, JAIPUR

IIHMR UNIVERSITY®
Celebrating 35 Years of Institutional Excellence

HCG™ The Specialist in Cancer Care
adding life to years

ANALYSIS OF DISCHARGE TURNAROUND TIME (TAT) FOR CHEMOTHERAPY PATIENTS IN DAYCARE

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Brief History

Founded in 1989 by Dr. B.S. Ajai Kumar as the Curie Centre of Oncology in Bengaluru, HCG (Healthcare Global Enterprises Ltd.) pioneered advanced cancer care in India, becoming the first private center to introduce cutting-edge technologies like Cyclotrons, PET-CT, Tomotherapy, and CyberKnife. Over three decades, it expanded to 20+ comprehensive cancer centers across India and Africa (including Kenya), diversified into fertility services (Milann Fertility Centres) and diagnostics (Triesta Sciences), and achieved a major milestone with its NSE/SSE listing in 2016. Core-focused on oncology—spanning prevention, diagnosis, treatment, and palliative care—HCG leverages its technology-driven approach (e.g., early adoption of TrueBeam™ and Elekta Harmony Pro), multidisciplinary care teams, and NABH-accredited facilities to deliver personalized treatment while attracting international medical tourism.

Learning and Value Additions

Difference Between Practical Exposure and Theoretical Knowledge

Theoretical Insights: Classroom education focused on ideal Standard Operating Procedures (SOPs), lean management principles, and the utilization of Hospital Information Systems (HIS) for patient admissions.

Practical Observations: In practice, processes were largely manual, experiencing delays due to documentation issues, reliance on staff, and a deficiency of digital tools.

Identified Gap: While theory advocates for streamlined processes, the reality on the ground reveals resistance to change, limitations among staff, and insufficient IT adoption

Major learning

Understood the direct correlation between discharge processes and its effects on patient satisfaction and hospital efficiency.

Gained hands-on experience in real-time process observation, data collection, and fundamental time-motion study techniques related to discharge.

Cultivated essential soft skills, including communication, adaptability, and initiative, while managing discharge-related tasks.

SWOT Analysis

STRENGTHS

1. Technology Leadership
   - First in North India with Elekta Harmony Pro, TrueBeam™, PET-CT.
2. Multidisciplinary Care Model
   - Integrated teams oncology/surgery/radiology) enabling personalized treatment.
3. Brand Reputation
   - NABH accreditation, awards (e.g., Asia Pacific Quality Gold Award 2018).
4. Scale & Network
   - Backed by HCG's 20+ pan-India/Africa centers and corporate resources.

WEAKNESSES

1. Operational Bottlenecks
   - Pharmacy delays (39% of discharge TAT), mixing protocol gaps (32%).
2. Staffing Gaps
   - Shortages during peak hours (9 AM–2 PM), especially in pharmacy/nursing.
3. Billing Inefficiencies
   - Manual processes causing 14% delays + next-day billing errors.
4. Documentation Lapses
   - Missing doctor notes/unsigned protocols disrupting workflows.

OPPORTUNITIES

1. Medical Tourism Growth
   - Rising global demand for cost-effective cancer care in India.
2. Digital Transformation
   - AI-driven TAT optimization (e.g., real-time billing, predictive staffing)
3. Preventive Care Expansion
   - Leverage community outreach (e.g., JKLU collab) for early screening programs.
4. PPP Models
   - Government initiatives (Ayushman Bharat) for infrastructure funding.

THREATS

1. Competitive Pressure
   - Rival chains (Apollo, Fortis) investing in similar tech.
2. Regulatory Changes
   - Stricter pricing controls (e.g., NPPA drug price caps).
3. Talent Drain
   - Shortage of specialized oncology nurses/technicians.
4. Economic Volatility
   - Reduced health insurance uptake affecting patient affordability.

Vision & Mission

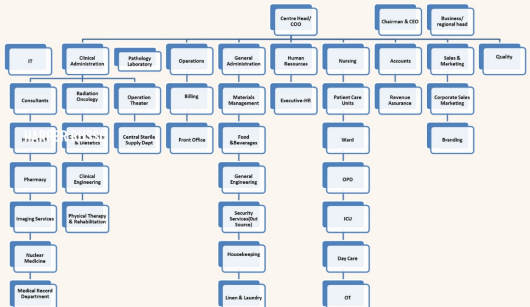
MISSION

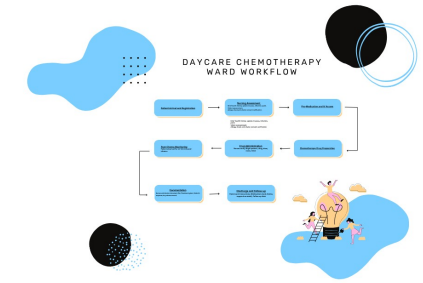
To be an acclaimed healthcare institution in pursuit of medical excellence through value-based medicine

VISION

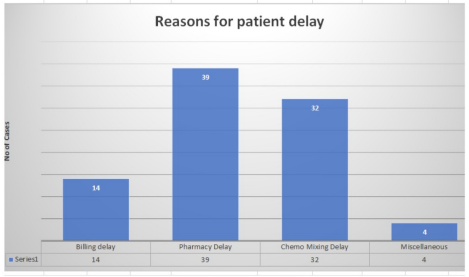
Adding life to years by redefining healthcare through global innovation

Organisation Structure





Distribution of Delay Reasons



USEFULNESS OF INTERNSHIP

- **Operational Insight:** See how policies (e.g., insurance protocols) impact patient flow.
- **Patient-Centric Focus:** Experience frontline challenges in care coordination.
- **Compliance Awareness:** Navigate regulatory demands (e.g., documentation audits).

CHALLENGES FACED

Coordinating with multiple departments (pharmacy, nursing, billing) for data collection.

Managing data during peak hours (09:00-14:00) when delays are most frequent.

Adapting to dynamic hospital workflows and unexpected patient volumes.

SUGGESTIONS FOR IMPROVEMENT

I. MID-TERM STRATEGIES (3–6 Months)

- Peak-Hour Management:
  - Stagger patient appointments (e.g., 20% slots pre-9 AM/post-2 PM).
  - Cross-train ward nurses for chemo-daycare support during rush hours.
- Staff Training:
  - Monthly workshops on protocol adherence + digital tool usage.
- Tech Integration:
  - IoT sensors for chemo-equipment auto-logging (reduces manual time tracking).

III. LONG-TERM TRANSFORMATIONS (6–12 Months)

- AI-Powered Forecasting:
  - Predictive analytics for patient inflow + resource allocation (e.g., pharmacy staff rosters).
- Centralized Command Center:
  - Live monitoring of TAT metrics across departments with automated alerts.
- Patient App:
  - Real-time discharge status updates + feedback portal.

Key Findings

Top Delay: Pharmacy & Mixing Peaks
Pharmacy delays (39% of records) peaked late morning (10 AM-12 PM), adding 1.5 hours on average. Chemo mixing bottlenecks (32%) peaked midday (12 PM-2 PM), adding 1.2 hours. These represent the most frequent delays.

Highest Impact: Billing Approvals
Though less frequent (14%), delays from RGHS/MAAY billing approvals had the largest average impact (+3.1 hours per delay) and occurred consistently throughout the day.

Afternoon Documentation Gaps
Documentation issues caused delays in 15% of records, primarily in the afternoon, adding an average of 0.8 hours per incident.

Conclusion

HCG Jaipur's excellence in clinical innovation must extend to operations. By digitizing workflows, reallocating staff dynamically, and enforcing SLAs, HCG can:

- **Reduce discharge delays by ≥40%,**
- **Enhance patient throughput,**
- **Strengthen its reputation as a technology-driven, patient-centric oncology leader.**

"Efficiency in healthcare isn't just cutting minutes—it's adding moments of relief for patients."