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TRANSFORMING HEALTHCARE THROUGH INTEGRATION OF CLINICAL PHARMACY SERVICES IN AN INDIAN HOSPITAL

Introduction

In 2008, India introduced the Doctor of Pharmacy (Pharm.D) program, and since the graduation of the first regular 6-year batch in 2014, some progress has been made in the integration of Pharm.D's as clinical pharmacists in various hospitals. However, the full potential of Pharm.D remains untapped due to factors - such as limited awareness, lack of clinical training opportunities in affiliated hospitals, and insufficient collaboration with physicians. To address these challenges and set an exemplary model, the College of Pharmaceutical Sciences (COPS) at Dayananda Sagar University (DSU) and Avenida Innovations have embarked on a groundbreaking initiative. They have established a department of clinical pharmacy at the Chandramma Dayananda Sagar Institute of Medical Education and Research (CDSIMER) tertiary care hospital to provide pharmaceutical care services and enhance patient outcomes. This unique endeavor aims to integrate clinical pharmacists into the core healthcare team, starting from their internship days.

Launch and Orientation

On December 19, 2022, following a series of productive online meetings with Dr. Pushpa Sarkar, Dean Health Sciences, Dayananda Sagar University, the visionary behind this concept, the department was soft launched. A formal memorandum of understanding (MOU) was signed among College of Pharmaceutical Sciences, Dayananda Sagar University, and Avenida Innovations, granting official status to the department. All stakeholders, including university and hospital leadership, students, and faculty, were provided with comprehensive orientation sessions to familiarize them with the department's goals and objectives. Under the guidance of Principal Dr. N. M. Raghavendra, a team-building exercise was conducted by Drs. Dhar and Rakam. Subsequently, Rakam held individual meetings with all the interns to understand their internship goals, overall professional aspirations, and their perspectives on the department's success. In addition, Drs. L. Mahadevamma, Head, Department of Pharmacy Practice, and the faculty Mudigubba Manoj Kumar, Anju Jose, Chinju Susan Chacko, Archana, Vaishnavi, Prukruthi, Lita Susan Thomas were given the responsibilities of accelerating the clinical pharmacy services and execute them effectively at CDSIMER.

Current State Analysis (CSA)

The department's first major activity was to perform a comprehensive current state analysis (CSA) to establish a baseline understanding. The interns were divided into ten teams, each assigned a specific area of focus for the CSA. These teams developed strategies to execute their assigned tasks and subsequently presented their findings. Constructive feedback and inputs were provided by other teams. After finalizing the strategies, the interns executed the tasks and submitted detailed reports.



Fig -1 At the signing of MOU between Avenida and CDSIMER

Training and Key Performance Indices

To ensure effective task execution, the interns received training on interpreting evidence-based guidelines and thoroughly understanding the prescribing information of drugs. They were provided with a comprehensive checklist to facilitate their tasks. Additionally, Clinical Pharmacy Key Performance Indices were developed and integrated into the Avenida portal, enabling the tracking of metrics and the assessment of intern performance.

Prioritized Tasks and Services

Based on the findings of the current state analysis report, the department identified several priority tasks for execution. These tasks aim to improve patient care and outcomes by working collaboratively with the healthcare team. The key tasks include:

1. Providing pharmaceutical care through the design, implementation, and monitoring of therapeutic plans to achieve specific outcomes.
2. Conducting medication history interviews.
3. Performing medication reconciliation at various stages: admission, transition/transfer, and discharge.
4. Identifying, preventing, and resolving medication-related problems.

5. Tracking the medication journey from ordering by physicians/prescribing to administration and monitoring.
6. Providing patient education and medication information during hospital stays.
7. Educating nurses, pharmacists, and other healthcare professionals.
8. Reviewing and developing protocols.
9. Conducting research and publishing scholarly work.
10. Performing discharge medication audits and providing patient education during the discharge process.

Physician Engagement and Testimonials

To introduce the department and its services, an official presentation was made by the department of clinical pharmacy to the physicians at the hospital. This presentation highlighted the scope of services, the CSA findings, the plan of action, and the tasks identified for execution. The support and guidance of the physicians were sought - leading to a focused discussion with the internal medicine department, the largest department at the hospital. This collaboration aimed to initiate medication reconciliation in one of their units, ensuring comprehensive patient care.



Fig 2 – PharmD students with Drs Rakam and Dhar