

SUMMER INTERNSHIP PROGRAM

At

ETERNAL HOSPITAL, SANGANER

From 12/05/2025 to 21/07/2025

A REPORT BY

FATHIMA SHAHALA.M

Master of Business Administration

(Pharmaceutical Management)

Roll no: 0644

2024-2026

Under the Mentorship of

DR. Kajal Sitlani (Assistant Professor)





ETERNAL HOSPITAL *Sanganer*



TO WHOMSOEVER IT MAY CONCERN

Date: 21st Jul 2025

This is to certify that **Fathima Shahala. M** student of **IIHMR University, Jaipur** has completed her internship at **"Eternal Hospital Sanganer (A Unit of Eternal Care Foundation)"** from **12th May 2025** to **21st Jul 2025**.

During this period, she was inducted, oriented, and trained in the working and processes of **Medical Administration department** under the guidance of **Dr. Priyanka Maan**.

We wish her all the best for future endeavours.

For **ETERNAL HOSPITAL SANGANER**
(A UNIT OF **ETERNAL CARE FOUNDATION**)


Ashish Chakrawarti
Manager – Human Resources



IIHMR University Faculty Mentor Approval

This is to certify that **Fathima Shahala M** of academic year 2024-26 of **School of Pharmaceutical Management** has prepared a poster with respect to her summer internship held during May-July 2025.

She has carried out work as per the guidelines. His poster is approved for presentation.

Date: 29/07/25

A handwritten signature in blue ink, appearing to read 'Kajal', written over a faint circular stamp.

Dr. Kajal Sitlani

Assistant Professor

IIHMR UNIVERSITY, JAIPUR



- Gained hands-on experience in patient flow, Supply Chain Management.
- Data Analysis & Performance Metrics
- Real-World Exposure to Prescription Patterns
- Observational and Analytical Skills
- Data Entry and Sorting in Excel based on Pharmacological Classifications
- Real time Prescription Evaluation

Reporting Format (Weekly)

Name of the Organisation: ETERNAL SANGANER,JAIPUR

Area/ Department/ Project of Summer Internship Program: Not Assigned Yet

Name of the Student: FATHIMA SHAHALA.M

Roll no: 0644

Stream: MBA PM1(BATCH 16)

Week no:1 **From:**.....12/05/25.....**to**.....17/05/25.....

Activity Done	Introductory briefing with Dr. Priyanka mam & Jaimeen sir about the hospital & its various Departments. Orientation program of collecting informations from OPD, Radiology, Pathology, Blood Bank, Pharmacy , General Store, Billing, Infection Control, F &B, Quality, CSSD, OT, ER,ICU,NICU,MICU,CVTS ICU ,HR, MARKETING,Wards,Security, House Keeping, BME,MRD,Credit Cell,IPD,Dialysis.
Linking theory (Classroom learning) with practice at your organisation	It was no specific job roles or responsibilities over an assigned department is not yet given. We are doing the General Orientation Program of all the Departments & their roles in various Operations at the Eternal Hospital.The department covered included Operation Theatre(OT),Quality, CSSD(Central Sterile Supply Department),Human Resources(HR),Marketing,Pathology, Radiology,Emergency Room(ER),Medical Records Department(MRD),Blood Storage,ICU(Intensive Care Unit), NICU(Neonatal Care Unit), MICU(Medical Intensive Care Unit), Security, House Keeping, MRD,Credit Cell,Engineering, Dialysis.This Orientation has given us clear understanding of each department's Responsibilities,Workflow & how they interconnect offering a comprehensive insight into the hospital's overall functioning.
Gaps identified on the working area.	Just only Orientation now. Not assigned to any particular Department.
Suggestions for improvement	No Suggestions at all Now.. All are Good.
Plan for the next week	After finishing the Hospital Orientation will join the specific assigned department on 19/05/25 & develop our Knowledge & improve our skills on the assigned departments.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL,SANGANER

Area/ Department/ Project of Summer Internship Program: SUPPLY CHAIN MANAGEMENT

Name of the Student: FATHIMA SHAHALA.M

Roll no: 0644

Stream: MBA PM16

Week no:2 **From:**.....19/05/2025.....**to**.....24/05/2025.....

Activity Done	We are assigned to the Supply Chain Management after discussions with DR. Priyanka mam and Jemin Sir and assigned to conduct the OPD & IPD Prescription Analysis.
Linking theory (Classroom learning) with practice at your organisation	On the first day of this week, we had orientation in Housekeeping, Security, Engineering, and the BME (Biomedical Engineering) department. On the second day, the orientation was in HR, Marketing, MRD (Medical Records Department), and the Credit Cell. On the third day, we were assigned our departments. I was placed in the IPD (InPatient Department) Pharmacy. There, I learned how the IPD Pharmacy & Nursing stations works — Medication Assessment Charts which is specified for each patients are collecting and based on the informations in it the Medication Chart Audit Checklists which is given by Varnika Mam is filled. I also learned how to audit prescriptions and have audited both IPD and OPD prescriptions. I collected data for my project and discussed it with my Department Head. I also visited all Departments to gather information about their MSDS (Material Safety Data Sheets).
Gaps identified on the working area.	No specified gaps are found anywhere now.
Suggestions for improvement	No suggestions at all now. All are Good.

Plan for the next week	Have to continue the Prescription Analysis and also to conduct various Literature Reviews and to Select a specified topic to focus on for the Project.
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Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: SUPPLY CHAIN MANAGEMENT

Name of the Student: FATHIMA SHAHALA. M

Roll no: 0644

Stream: MBA PM16

Week no:3 **From:**...26/05/2025.....**to**.....31/05/2025.....

Activity Done	Begin to carry out Prescription Analysis of IPD Pharmacies , Submitted it to Varnika Mam and to enter it in the Excel sheet based on the given Formats.
Linking theory (Classroom learning) with practice at your organisation	Begin to collect informations based on the Medication Assessment charts from all the 6 floors including Cath lab, CTVS, General Ward, MICU, NICU,ICU, Nursing Stations & learned how the IPD Pharmacy & Nursing stations works — Medication Assessment Charts which is specified for each patients are collecting and based on the informations in it the Medication Chart Audit Checklists which is given by Varnika Mam is filled. I also learned how to audit prescriptions and have audited both IPD and OPD prescription and begin to enter it in MS Excel based on the Format.
Gaps identified on the working area.	As the project work is not yet assigned no gaps has been identified.
Suggestions for improvement	No suggestions at all.
Plan for the next week	Waiting for the approval of Dr. Priyanka mam for the Synopsis of Prescription Analysis of 300 IPD patients to Evaluate & to focus on the assigned Project.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: SUPPLY CHAIN MANAGEMENT

Name of the Student: FATHIMA SHAHALA.M

Roll no: 0644

Stream: MBA PM16

Week no:4 **From:**.....02/06/2025.....**to**.....07/06/2025.....

Activity Done	Continuing Prescription analysis of IPD nursins stations, CTVS, Cath lab, MICU, ICU, NICU and all the floors of the Hospital.
Linking theory (Classroom learning) with practice at your organisation	This study was conducted to evaluate the prescribing patterns and adherence to antibiotic stewardship protocols across the In-Patient Departments (IPDs) of Eternal Hospital, Sanganer. Special attention was given to the use of restricted antibiotics, which are typically reserved for severe or resistant infections and require stringent monitoring. • To audit IPD prescriptions across all departments for completeness, rationality, and compliance with hospital policy. • To analyze the usage patterns of restricted antibiotics. • To identify deviations or non-compliance in prescribing practices. • To suggest recommendations to improve antibiotic stewardship and rational prescribing.
Gaps identified on the working area.	• Low adherence to generic prescribing • Lack of microbiological confirmation in many cases of restricted antibiotic use • Inadequate documentation of dose/duration in certain departments

Suggestions for improvement	• Enhancing digital prescription systems for better documentation. • Routine audit and feedback mechanism at departmental levels. • Inclusion of a clinical pharmacist in prescription monitoring.
Plan for the next week	Waiting for the approval from Dr.Priyanka mam for our Project.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: SUPPLY CHAIN MANAGEMENT

Name of the Student: FATHIMA SHAHALA.M

Roll no: 0644

Stream: MBA PM16

Week no:5 From:.....09/06/2025.....to.....14/06/2025.....

Activity Done	Dr. Priyanka Mam advised to update the Synopsis for IPD & OPD Prescription Analysis . Continuing Prescription analysis of IPD Nursing stations, CTVS, Cath lab, MICU, ICU, NICU and all the floors of the Hospital.
Linking theory (Classroom learning) with practice at your organisation	The rational use of medications, particularly antibiotics, within hospital inpatient departments (IPDs) plays a pivotal role in optimizing therapeutic outcomes while minimizing risks associated with polypharmacy, drug interactions, and resistance emergence. This study was undertaken at Eternal Hospital, Sanganer, with the dual intent of conducting a comprehensive audit of IPD prescriptions across multiple specialties and systematically evaluating the utilization of restricted antibiotics—those typically reserved for multi-drug resistant or high-risk infections and governed by institutional stewardship protocols. The audit aims to assess adherence to prescribing guidelines, identify patterns of irrational or inappropriate drug use, and reinforce a culture of evidence-based, guideline-concordant pharmacotherapy.
Gaps identified on the working area.	• Low adherence to generic prescribing • Inadequate documentation of dose/duration in certain departments

Suggestions for improvement	• Routine audit and feedback mechanism at departmental levels. • Inclusion of a clinical pharmacist in prescription monitoring
Plan for the next week	Eagerly waiting for Dr. Priyanka Mam's approval to focus on our Project.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: SUPPLY CHAIN MANAGEMENT Name of the Student: FATHIMA SHAHALA.M

Roll no: 0644

Stream: MBA PM16

Week no:6 From:.....16/06/2025.....to.....21/06/2025.....

Activity Done	Prescription Analysis of IPD Medication assessment charts of patients in various departments including CTVS, Cath Lab, MICU & NICU. Received approval from Dr. Priyanka Mam to conduct the assigned Project work & For Collecting the necessary Datas.
Linking theory (Classroom learning) with practice at your organisation	Visited EHCC Malvia Nagar & observed how the Supply Chain Management works at the Hospital level as broad. Also its Head Mr. Siraj Sir give us a detailed information about supply chain management , Purchase of various drugs including Narcotics, High Risk & High Value Drugs & its audit & disposal of expired drugs & all our queries regarding it has been clarified well. • To systematically evaluate the completeness, accuracy, and clinical appropriateness of IPD prescriptions across all departments in alignment with WHO and institutional prescribing standards. • To identify key trends, discrepancies, or gaps in rational prescribing practices and documentation, including use of generic names, dose accuracy, treatment duration, and prescriber accountability. • To generate actionable insights and recommendations aimed at improving institutional prescribing behaviors, minimizing AMR risk, and enhancing overall clinical governance.

Gaps identified on the working area.	Low Adherence to Generic Prescribing.
Suggestions for improvement	Enhancing Digital Prescription Systems for Better Improvement.
Plan for the next week	To Collect Datas of the IPD patients from the MRD Akhil Software and to fill the Excel Format send by DR. Saurabh Kumar Sir.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: SUPPLY CHAIN MANAGEMENT **Name of the Student:** FATHIMA SHAHALA. M

Roll no: 0644

Stream: MBA PM16

Week no: 7 **From:**.....23/06/2025.....**to**.....28/06/2025.....

Activity Done	Continuing Prescription Audits at Eternal Hospital, Sanganer And begin to fill the Excel Formats.
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Linking theory (Classroom learning) with practice at your organisation	As part of clinical pharmacy training and quality assurance efforts, prescription analysis of medication assessment charts was conducted at Eternal Hospital, Sanganer. This initiative involved a combination of classroom-based theoretical learning and hands-on practical exposure within the hospital's IPD settings. • Principles of Rational Drug Use (RDU) • WHO Prescription Indicators • Interpretation of Medication Assessment Charts (MACs) • Hospital Antibiotic Stewardship Program (ASP) Guidelines • Common Prescription Errors (dose, frequency, duplication, interactions) • Standard Treatment Guidelines (STGs) followed at Eternal Hospital
Gaps identified on the working area.	No new gaps identified.
Suggestions for improvement	No more suggestions.
Plan for the next week	To do maximum Prescription audits and to fill the Excel formats on the basis of it. To get approval from IRB and Ethical committee

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program:

Name of the Student: FATHIMA SHAHALA M

Roll no: 0644

Stream: MBA PM16

Week no:8 From:.....30/6/2026.....to.....5/7/2025.....

Activity Done	Continuing Patient Data collections from IPD Nursing Stations & MRD Departments and classifying based on the Modified Excel Format of Pharmacological Classifications of Various Drugs Prescribed.
Linking theory (Classroom learning) with practice at your organisation	To analyze In-Patient Department (IPD) prescriptions by collecting, classifying, and evaluating prescribed medications based on pharmacological drug classes. This enables a better understanding of prescribing patterns, rationality of therapy, and adherence to treatment guidelines. • Drug Utilization Patterns per class • Rationality of Drug Use (WHO/INRUD indicators) • Polypharmacy prevalence • Use of high-alert / restricted antibiotics • Adherence to standard treatment guidelines (STG) • Promotes Rational Pharmacotherapy • Identifies misuse of Antibiotics / Steroids • Supports Drug Formulary Updates • Helps in training clinicians on Therapeutic choices • Facilitates Periodic Audits and Policy Decisions
Gaps identified on the working area.	No New Gaps Identified.

SUPPLY CHAIN MANAGEMENT

Suggestions for improvement	All are Good. Nothing New.
Plan for the next week	Calculated the Sample Size and continuing to Fill the Excel Format for 211 patients based on the various Pharmacological Classifications of Drugs.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program:

Name of the Student: FATHIMA SHAHALA M

Roll no: 0644

Stream: MBA PM16

Week no: 9 From: 7/7/2025.....to.....12/7/2025.....

Activity Done	Comprehensive IPD Prescription Analysis of 211 Patients and Filling the Excel sheets on the Format Based on Pharmacological Drug Classification.
Linking theory (Classroom learning) with practice at your organisation	To systematically analyze and classify medications prescribed to 211 inpatients across various departments by Pharmacological Class, enabling pattern recognition, Rational drug use assessment, and Data-driven recommendations for Hospital Formulary Management. • Prescription Charts and Medication Administration Records of 211 IPD patients from different Departments such as General Medicine, Surgery, Cardiology, Neurology, Orthopedics, etc. • Data collected from Eternal Hospital, Sangner over the Month of May & June. Categorization of Drugs Each drug was classified into its Pharmacological Class, including examples such as: • Antibiotics (Cephalosporins, Penicillins, Carbapenems, Fluoroquinolones) • Antihypertensives (Beta-blockers, ACE inhibitors, ARBs, CCBs) • Antidiabetics (Insulin analogs, Biguanides, Sulfonylureas, DPP-4 inhibitors) • NSAIDs / Analgesics • Gastroprotective Agents (PPIs) • Diuretics • Bronchodilators (AntiAsthmatics) • Anticoagulants & Antiplatelets • Vitamins & Supplements • Antipsychotics

SUPPLY CHAIN MANAGEMENT

	• Antiemetics • Others (Antispasmodics, etc.)
Gaps identified on the working area.	No New Gaps Identified.
Suggestions for improvement	No New Suggestions to Improve.
Plan for the next week	Continuing Filling of Excel sheets based on Pharmacological classification of Drugs, To Prepare Presentation and Poster based on the Project & also to fill the Summer Internship Programme Diary.

Signature of the Student

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program:

Name of the Student: FATHIMA SHAHALA.M

Roll no: 0644

Stream: MBA PM16

Week no: 10 From:.....14/7/2025.....to.....19/7/2025.....

Activity Done	• Completed collection and evaluation of 211 inpatient prescriptions. • Classified drugs pharmacologically (e.g., antibiotics, PPIs, NSAIDs, etc.). • Analyzed frequency and patterns of drug usage and repeated brand prescriptions. • Final interpretation and conclusions derived from the data trends. • Prepared presentation slides and summarized findings in Excel for final report. • Final compilation of all weekly reports. • Submission of project presentation and report to hospital and academic mentor • Reflective summary on learning outcomes and Internship experiences.
Linking theory (Classroom learning) with practice at your organisation	• Applied theoretical knowledge of pharmacology and therapeutics in real-world prescription audits. • Understood the role of rational drug use and polypharmacy in patient care. • Compared brand vs generic use, and learned practical data handling using Excel. • Experienced the practical application of pharmacovigilance and drug utilization review.
Gaps identified on the working area.	• Incomplete drug documentation in some prescriptions. • Non-standard naming practices (e.g., use of brand names instead of generics).

SUPPLY CHAIN MANAGEMENT

	• Lack of uniform protocol for pharmacological classification across departments. • Repetition of certain branded drugs without apparent pharmacological justification.
Suggestions for improvement	• Implement electronic prescription systems for better documentation. • Encourage use of generic drug names in prescriptions. • Conduct periodic audits for rational drug use. • Training staff on pharmacological classification and rational prescribing guidelines.
Plan for the next week	No the Summer Internship Program has been Over by this Week 21 st July.

Signature of the Student

COMPILED REPORT

NAME OF THE ORGANISATION: ETERNAL HOSPITAL, SANGANER

AREA/ DEPARTMENT/PROJECT OF SUMMER INTERNSHIP PROGRAM: SUPPLY CHAIN MANAGEMENT

NAME OF THE STUDENT: FATHIMA SHAHALA.M

ROLL NO: 0644
MANAGEMENT

STREAM: MBA PHARMACEUTICAL

ACTIVITY DONE

Week 1: Orientation & Data Collection Initiation

- Introduction to the hospital setup and pharmacy workflow.
- Orientation on medication charts and IPD prescription formats.
- Understood therapeutic classification and pharmacological groups.
- Started collecting data from IPD prescriptions.
- Learned how to identify and segregate prescribed drugs from charts.

Week 2: Data Compilation & Categorization

- Continued data collection (targeting 211 prescription samples).
- Categorized drugs based on:
 - Pharmacological class (e.g., antibiotics, analgesics, PPIs, etc.)
 - Dosage form and route of administration.
 - Frequency and duration of therapy.
- Began noting down brand names vs. generic names.
- Initiated Excel entry for data analysis.

Week 3: Brand-Wise & Therapeutic Class Analysis

- Counted total drugs and number of prescriptions each drug/brand appeared in.
- Identified most frequently prescribed brands in each drug class.
- Analyzed prescribing trends (brand preference, generic usage).
- Compared similar therapeutic classes for frequency and relevance.
- Prepared pie charts and bar graphs for visual data representation.

Week 4: Final Analysis & Interpretation

- Finalized dataset of 211 IPD prescriptions.
- Interpreted data in terms of:
 - Most commonly prescribed pharmacological classes.
 - Brand dominance and repetition trends.
 - Rationality of prescriptions.
- Conducted SWOT analysis for drug analysis practices at the hospital.
- Compiled key observations, practical vs. theoretical gaps, and improvement suggestions.

Key Outcomes:

- Total number of drugs per prescription: 1516 from 211 prescriptions.
- Most prescribed pharmacological classes: Antibiotics, PPIs, Analgesics, Multivitamins.
- Repetition of brands within prescriptions observed.

- Rationality in prescribing largely maintained; however, overuse of certain combinations noted.
 - Brand-based prescription was dominant over generic in many cases.
 - Gaps identified between theoretical knowledge and real-world prescription practices.
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Learnings & Takeaways:

- Hands-on experience in assessing real-time medication charts.
- Gained knowledge of commonly used hospital brands and formulations.
- Improved data handling and analytical skills using Excel and visual tools.
- Understood prescription patterns and patient-specific medication tailoring.
- Identified need for encouraging generic prescription and rational use of drugs.



Linking Theory with Practice at Eternal Hospital, Sanganer

Topic: Drug Analysis of IPD Prescriptions

1. Pharmacological Classifications •

Classroom Learning:

- Students learn drug classification based on mechanism of action, therapeutic use, and chemical nature (e.g., antihypertensives, antibiotics, NSAIDs, etc.).
- **Practical Observation:**
 - Real-world prescriptions are analyzed based on pharmacological classes.
 - Students observed the **frequency of specific classes** like PPIs, antibiotics, analgesics, and antihypertensives in actual prescriptions.

Link: Reinforced theoretical understanding by identifying how drugs are chosen based on the patient's condition and standard treatment guidelines.

2. Dosage Form & Route of Administration

- **Classroom Learning:** ○ Focus on pharmacokinetics: how route and form affect absorption and efficacy.
- **Practical Exposure:**
 - Analysis of real prescriptions helped students recognize preferences for IV, oral, or topical forms based on patient need (e.g., IV antibiotics for severe infections).

Link: Theory became tangible when students understood why parenteral forms are preferred in hospitalized patients for rapid action.

3. Rational Drug Use & Polypharmacy •

Classroom Learning:

- Rational drug use principles: prescribing right drug, in right dose, for right duration.
- Dangers of polypharmacy, especially in elderly patients.
- **Practical Observation:**
 - IPD prescriptions were analyzed for irrational use, duplicate therapies, or unnecessary fixed-dose combinations (FDCs).
 - Noted cases of polypharmacy in complex co-morbid patients.

Link: Helped students critically evaluate prescriptions using theoretical guidelines like WHO prescribing indicators.

4. Essential Drug Concept

- **Classroom Learning:**
 - Understanding of National List of Essential Medicines (NLEM) and cost-effective therapy.
- **Practical Exposure:**
 - Evaluation of how often essential medicines were prescribed vs branded, highcost alternatives. ◦ Noted preference in some cases for branded over generic.

Link: Students compared real prescriptions with NLEM, understanding gaps and financial implications for patients.

5. Drug Interactions & ADR Monitoring

- **Classroom Learning:**
 - Concepts of pharmacodynamic and pharmacokinetic interactions, adverse drug reactions (ADRs), and drug monitoring.
- **Practical Experience:**
 - Students checked prescriptions for potential drug-drug interactions (e.g., warfarin with antibiotics) and noted if monitoring parameters were documented.

Link: Reinforced vigilance in prescribing and monitoring processes; enhanced pharmacovigilance awareness.

6. Hospital Formulary and Prescribing Trends

- **Classroom Learning:**
 - Taught about formulary systems and their role in hospital inventory and prescribing patterns.
- **Practical Exposure:**
 - Students observed trends in prescription of certain brands or molecules, perhaps based on hospital formulary availability.

Link: Gained insights into how hospital policies and supply affect clinical decisions.

7. Ethical & Legal Aspects

- **Classroom Learning:**
 - Ethical prescribing, patient rights, and legal aspects of prescription writing (legible, complete, with diagnosis and sign).
- **Practical Evaluation:**
 - Identified prescriptions lacking essential details like diagnosis or physician signature.
 - Observed need for better documentation for medico-legal safety.

Link: Theoretical importance of ethical and legal compliance was confirmed during hospital exposure.

8. Data Collection, Analysis, and Interpretation •

Classroom Learning:

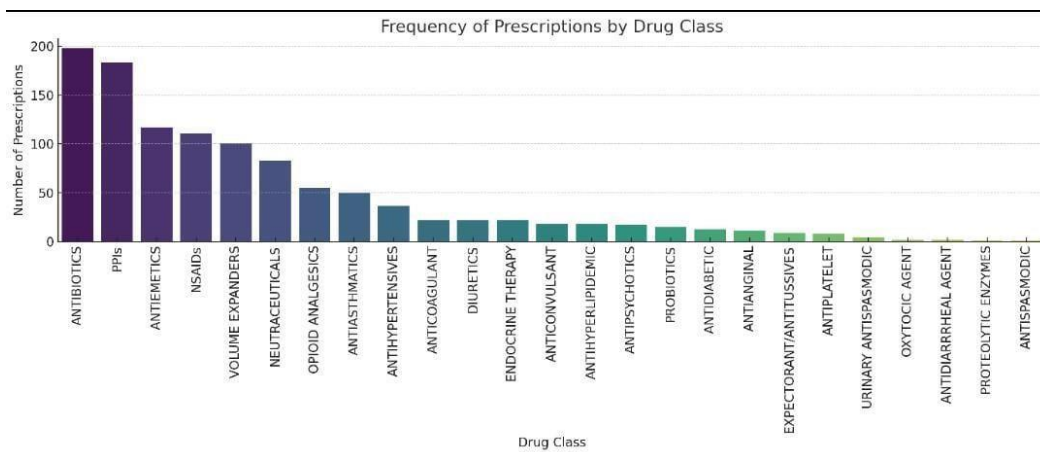
- Basics of biostatistics, sampling methods, and interpretation of prescription patterns.
- **Practical Task:**
 - Students collected data from 211 IPD prescriptions, categorized drugs by pharmacological class, calculated frequency, percentages, and visualized data through charts.

Link: Bridged research methodology theory with hands-on drug utilization study (DUS).

9. Patient-Centered Care Perspective

- **Classroom Learning:** ◦ Importance of individualized therapy based on age, gender, renal/hepatic function.
- **Practical Insight:**
 - Observed how dose adjustments were made in renal-impaired patients, elderly, or pediatric cases.

Link: Real-life prescriptions illustrated the importance of tailoring therapy as per patient profile.



Brand Name	Times Repeated
EMSET	117
PANTOP	79
MONOCEF	77
PANTOCID	65
TRAMADOL	46
PARACETAMOL	38
DYNAPAR	37
IVF NS	34
METROGYL	33
AMIKACIN	31

Pharmacological Class	Top 3 Brands
Antibiotics	Monocef (77), Metrogyl (33), Amikacin (31)
PPIs	Pantop (79), Pantocid (65), Nexpro (26)
NSAIDs	Paracetamol (38), Dynapar (37), Ecosprin (16)
Antiemetics	Emset (117), Onderomet (1), Ondansetron (1)
Opioid Analgesics	Tramadol (46), Contramol (5), Ultracet (3)
Antiasthmatics	Duolin (23), Glycoflo (15), Budecort (13)
Volume Expanders	IVF NS (34), IVF (23), IVF NS/RL (17)
Neutraceuticals	Vitabix (21), Glutamune (13), Atoz (9)
Antihypertensives	Concor (8), Telma (8), Amlodipine (5)
Anticonvulsants	Levipil (8), Gabapentin (2), Clonitril (1)

Identified Gaps in the Working Area

(During Drug Analysis of IPD Prescriptions)

1. Incomplete Prescription Documentation

- Many prescriptions were found **lacking essential details**:
 - Diagnosis or indication not mentioned.
 - Missing physician's signature or stamp.
 - Date and time of prescription not recorded consistently.
- *Gap*: Poor documentation can lead to errors in interpretation and medicolegal issues.

2. Limited Access to Digital Tools

- No or limited access to **electronic prescription databases** or **drug interaction checkers** for interns.
- *Gap*: Restricted ability to verify potential drug interactions, duplications, or inappropriate combinations.

3. Brand Name Overuse Instead of Generics

- A heavy reliance on **branded medications** rather than **generic names**.
- *Gap*: May lead to increased treatment cost and lower adherence to National List of Essential Medicines (NLEM).

4. Unavailability of Certain Essential Medicines

- Some **essential or low-cost generic alternatives** were unavailable in the hospital pharmacy stock.
- *Gap*: Forces use of higher-cost branded drugs or off-formulary prescriptions.

5. Lack of Clinical Pharmacist Involvement

- Minimal or **no direct involvement of clinical pharmacists** in daily prescription review or ward rounds.

- *Gap:* Missed opportunity for medication error detection, therapeutic substitution, and patient counseling.

6. No Systematic ADR Monitoring

- Absence of a structured system for **adverse drug reaction (ADR) reporting or monitoring**.
- *Gap:* Limits pharmacovigilance and long-term drug safety tracking.

7. Polypharmacy Not Addressed

- Several prescriptions showed signs of **polypharmacy**, especially in elderly or multimorbid patients, without clear justification.
- *Gap:* Risk of drug-drug interactions, adverse effects, and unnecessary medication burden.

8. Limited Awareness on Rational Drug Use

- Prescribers appeared to have **varying adherence** to principles of rational drug use (appropriate drug, dose, duration, etc.).
- *Gap:* May lead to overprescribing, antimicrobial resistance, and increased side effects.

9. Lack of Uniform Prescription Format

- No standard structured template used across departments.
- *Gap:* Inconsistencies in prescription writing made data collection and interpretation more difficult.

10. Insufficient Patient-Specific Considerations

- Some prescriptions did not account for:
 - **Renal/hepatic function**
 - **Weight-based dosing for pediatric patients**
- *Gap:* Potential dosing errors and adverse outcomes.

11. Improper Storage of Prescription Records

- Physical copies of prescriptions were sometimes **poorly stored** or **not easily retrievable** for analysis.
- *Gap*: Affects data accuracy and completeness during audits or research.

12. Time Constraints & Workload Pressure

- Medical staff often under **high workload**, limiting time to double-check prescriptions.
- *Gap*: Contributes to errors or oversights in drug selection and dosing.

Suggestions for Improvement

1. Standardize Prescription Format • Implement a uniform

prescription template with mandatory fields:

- Patient details, diagnosis, drug name (generic), dose, route, frequency, physician's signature.
- **Benefit**: Ensures completeness, improves clarity, and reduces interpretation errors.

2. Introduce Electronic Prescription System (e-Prescribing)

- Adopt a **Hospital Information System (HIS)** or **Electronic Medical Record (EMR)**.
- Include built-in alerts for:
 - Drug interactions
 - Allergy checks
 - Duplicate therapies
- **Benefit**: Reduces medication errors and improves legibility and data access.

3. Involve Clinical Pharmacists

- Assign **clinical pharmacists** to actively participate in:
 - Ward rounds
 - Prescription auditing
 - Drug information services
- **Benefit:** Enhances rational drug use, ADR monitoring, and patient safety.

4. Promote Use of Generic Medicines

- Conduct training and audits to encourage **generic prescribing** aligned with the **National List of Essential Medicines (NLEM)**.
- Display cost comparisons between branded and generic medicines in prescriber areas.
- **Benefit:** Reduces cost burden on patients and promotes cost-effective therapy.

5. Strengthen ADR Monitoring and Pharmacovigilance

- Set up a **Pharmacovigilance Cell** or link to the **PvPI (Pharmacovigilance Programme of India)**.
- Provide ADR reporting forms in all wards and educate healthcare staff on identifying/reporting ADRs.
- **Benefit:** Ensures early detection of drug-related issues and promotes patient safety.

6. Conduct Regular Training Programs

- Organize workshops and CMEs (Continuing Medical Education) for doctors and staff on:
 - Rational prescribing
 - Polypharmacy risks
 - Antimicrobial stewardship
- **Benefit:** Keeps staff updated with evidence-based prescribing practices.

7. Implement Prescription Auditing System

- Set up regular **prescription review and audit teams** to:
 - Evaluate rationality
 - Identify errors
 - Track compliance with guidelines

- **Benefit:** Continuous improvement and accountability in prescribing behavior.

8. Ensure Availability of Essential Medicines

- Strengthen coordination between the **pharmacy department** and **clinical teams**.
- Maintain buffer stock of **NLEM drugs** and review formulary periodically.
- **Benefit:** Reduces reliance on expensive or non-essential alternatives.

9. Improve Storage and Retrieval of Records

- Shift towards **digital record-keeping**.
- For physical records, establish **systematic filing, indexing, and backup**.
- **Benefit:** Facilitates better data analysis, audit, and medico-legal safety.

10. Address Polypharmacy Through Medication Review

- Encourage periodic **medication reconciliation**, especially for elderly and multi-morbid patients.
- Use tools like STOPP/START criteria in geriatric care.
- **Benefit:** Minimizes unnecessary medications and enhances safety.

11. Customize Therapy to Individual Patient Needs

- Include mandatory checks for:
 - Renal/hepatic dosing
 - Pediatric/geriatric adjustments
 - Pregnancy/lactation considerations
- Integrate such checks into e-prescription systems.
- **Benefit:** Personalizes care and prevents adverse outcomes.

