

SUMMER INTERNSHIP PROGRAM
at
ETERNAL HOSPITAL, SANGANER

From 12th May 2025 to 21st July 2025

A REPORT BY

Kasturi Vijayprakash Sawarkar

Master of Business Administration

(Pharmaceutical Management)

Roll No: - 0704

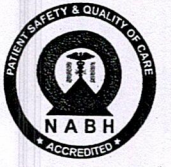
2024-2026

under the Mentorship of
Dr. Hemant Mishra (Assistant Professor)





ETERNAL HOSPITAL *Sanganer*



TO WHOMSOEVER IT MAY CONCERN

Date: 10th May-2025

This is to confirm that **Sawarkar Kasturi Vijayprakash** student at **IIHMR, Jaipur** has been offered internship from **12th May 2025 to 21st Jul-2025** in the department of Medical Administration at "Eternal Hospital Sanganer (A Unit of Eternal Care Foundation)" for Summer Training purpose.

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


Ashish Chakrawarti
Manager- Human Resources

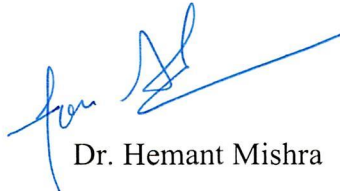
IIHMR University Faculty Mentor Approval

This is to certify that **Ms. KASTURI VIJAYPRAKASH SAWARKAR** 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. Her poster is approved for presentation.

Date:

29/7/25

A handwritten signature in blue ink, appearing to read 'for Dr. Hemant Mishra'.

Dr. Hemant Mishra

Assistant Professor

IIHMR University, Jaipur

Faculty Mentor- Dr. Hemant Kumar Mishra
Industry Mentor- Dr. Vartika Jain

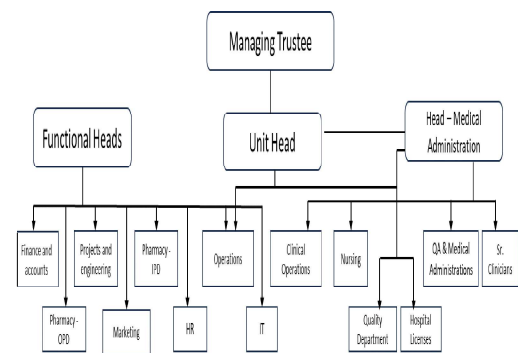
Presented by
Kasturi Sawarkar, Roll No:- 0704
Stream- MBA- PM (Batch 16)

HISTORY: Eternal Hospital, a unit of eternal heart care center and research institute (EHCC) , is a tertiary care facility located in Sanganer, Jaipur founded by renowned interventional cardiologist Dr. Samin K. Sharma, EHCC began in 2013, with its Sanganer branch launching in October 2019, it is the only hospital in Rajasthan accredited by both JCI and NABH.

VISION: To provide high quality care and to touch the lives of the people through excellence in clinical care at an affordable cost.

MISSION: To provide compassionate, accessible, high quality, patient centered, cost effective healthcare to one and all through best-in-class medical practice, technology and to work continuously to improve & sustain clinical outcomes, patient safety and satisfaction.

ORGANIZATION STRUCTURE



SWOT ANALYSIS

Strength:

- Special Expertise
- Reputation
- Cost Advantage
- Technology Advantage

Weakness:

- Limited Staff
- Weak inter-departmental communication.
- Marketing deficiencies

Opportunity:

- New Government Health schemes and affiliation with government institution.
- New technological advancement.

Threats:

- Insurance plan changes.
- Changes in government health schemes.
- Economic Slowdown.

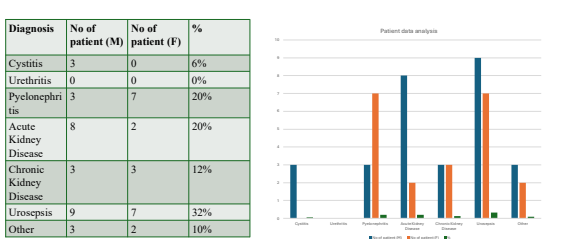
OBJECTIVE AND METHODOLOGY

Objectives: To comprehensively evaluate the diagnosis, Prescribing pattern, Antimicrobial resistance and treatment strategies of urinary tract infection (UTIs), Including their association with hospital stay duration and adherence to WHO AWARe antibiotic classification.

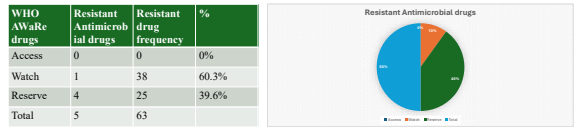
Methodology:

- Observational, prospective study over 3 month (May – July)
- Sample size:- 50 patients diagnosis with UTI.
- Data collected from patient files using a structured checklist

DATA ANALYSIS AND INTERPRETATION



Conclusion: The most common diagnosis among the patients was Urosepsis (32%), followed by Pyelonephritis and Acute Kidney Disease (20% each)



Conclusion: The highest antimicrobial resistance was observed in the Watch group drugs (60.3)

PRACTICAL AND THEORETICAL EXPOSURE

Gained knowledge on WHO AWARe classification (Access, Watch, Reserve) theory at IHHMR ; Practically evaluated patient files to categorize prescribed antibiotics into Access, Watch and Reserve groups.

RECOMMENDATIONS:

- Promote Access group antibiotic use.
- Implement regular audits and AMR tracking.
- Train staff on NABH and rational prescribing.

CHALLENGES:

- Difficulty in accessing culture reports for some patients due to documentation gaps.
- Coordination with multiple department (ICU, IPD, LAB) required consistent follow-up and communication.

LEARNINGS:

- Gained experience in data collection and analysis from IPD records using a checklist tool.
- Improved knowledge about antimicrobial resistance (AMR) and its clinical implications.
- Became familiar with NABH guideline related to prescription practice and documentation.

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

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

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

Week no: 1 **From:** 12/05/2025 to 17/05/2025

Activity Done	1. Introductory Briefing with Dr Priyanka Maan Ma'am and Jaimeen Sir regarding the hospital and the roles and Expectations. 2. Orientation with different department of the hospital such as, Quality, CSSD, OT, ER, PHC, ICU, NICU, MICU, Housekeeping, Security, Engineering, BME, HR, Marketing, MRD, Credit Cell, OPD, Radiology, Pathology and Dialysis Department.
Linking theory (Classroom learning) with practice at your organisation	In the initial days no job role has been assigned yet as general orientation program at Eternal Hospital, we were given detailed briefings about various departments and their roles in hospital operations. The departments we covered included: Quality, CSSD (Central Sterile Services Department), Operation Theatre (OT), Emergency Room (ER), PHC (Primary Health Centre), ICU (Intensive Care Unit), NICU (Neonatal Intensive Care Unit), MICU (Medical Intensive Care Unit), Housekeeping, Security, Engineering, BME (Biomedical Engineering), Human Resources (HR), Marketing, Medical Records Department (MRD), Credit Cell, Outpatient Department (OPD), Radiology, Pathology, and Dialysis. This orientation helped us understand the workflow, responsibilities, and interdependence of each department, providing us with a comprehensive overview of how the hospital functions as a whole.
Gaps identified on the working area.	Not assigned to any specific department; only given a basic introduction to each area.
Suggestions for improvement	No suggestions as of now,
Plan for the next week	After completing the hospital orientation, we will be allotted a specific department starting from next week, on 18th May 2025. We will then be required to gain in-depth knowledge about that particular department.

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

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

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

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

Activity Done	"I worked in the Clinical Pharmacology Department. Ma'am taught me about Prescription Audit both IPD Prescription Audit and OPD Prescription Audit. A prescription audit is a systematic review and evaluation of medical prescriptions written by doctors. Its goal is to ensure correct safe, and rational use of medicines, reduce medication errors, promote adherence to treatment guidelines, improve patient care. 1. IPD Prescription Audit (In-Patient Department) IPD Prescription Audit means checking the prescription written for admitted patients to ensure correct drug, dose, route, and duration and prevent drug interactions and adverse drug reactions, monitor antibiotic usage, check if prescription follow hospital or national guidelines. 2. OPD Prescription Audit (Out-Patient Department) OPD Prescription Audit involves evaluating prescriptions given to these walk in patient to check if the diagnosis matches the prescribed drugs, avoid overprescription, assess rationality in drug selection, ensure legibility and completeness of prescriptions. • Key Points Checked in Both Audits: • Patient details (name, age, ID, etc) • Diagnosis mentioned • Drug name (preferably generic) • Dose, route, and frequency • Duration of therapy • Legibility and signature of prescriber
Linking theory (Classroom learning) with practice at your organisation	No specific project work or job role has been assigned yet.
Gaps identified on the working area.	No specific working area has been assigned until now and only basic introduction is being carried on.
Suggestions for improvement	None
Plan for the next week	Specific working departments will be allotted in the next week and project work will be assigned.

Signature of the Student

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Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

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

Activity Done	Specific working department and mentor was allotted. Department assigned to me is the clinical pharmacology department and will be working under Varnika Pundir ma'am. Ma'am taught me about Restricted Antibiotic Form Audit and Surgical Profile Asses. 1. Surgical Profile Asses A Surgical Profile Assessment is a preoperative evaluation process used to assess a patient's readiness for surgery. It helps identify risks and guide perioperative care. • Components of a Surgical Profile Assessment • Medical History • Physical Examination • Laboratory tests • Imaging • Risk stratification Tools • Anaesthesia Evaluation • Informed Consent 2. Restricted Antibiotic Form Audit Restricted antibiotics are broad-spectrum, high-cost, or last-resort antibiotics that are at high risk of resistance or misuse. Hospitals implement restriction policies to: • Prevent antimicrobial resistance (AMR) • Preserve the efficacy of critical drugs • Reduce unnecessary costs and side effects
Linking theory (Classroom learning) with practice at your organisation	At the hospital level clinical pharmacology team collaborates with ID specialists to enforce restricted antibiotic policies. Use of restricted antibiotic forms for drugs like meropenem, colistin, linezolid, etc • These forms require: • Clinical indication • Culture • Dose and route justification • Approval signature from ID or pharmacologist
Gaps identified on the working area.	Gaps identified in the working area of restricted antibiotic form audit like missing clinical justification, incomplete patient data, absence of microbiological data, inadequate documentation of dose. Example: Meropenem prescribed empirically without any documented infection site or culture sent.

Suggestions for improvement	Clear and practical suggestions to improve the Restricted Antibiotic Form and the overall workflow around it. These enhancements focus on improving compliance, documentation quality, clinical decision-making, and patient safety. Redesign the form for clarity make critical fields mandatory, use structured fields, include patient-specific data.
Plan for the next week	"Next week, we will learn how to audit surgical profile assessments."

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

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

Activity Done	Specific working department and mentor was allotted. Department assigned to me is the clinical pharmacology department and will be working under Varnika Pundir ma'am. Ma'am taught me about Surgical Profile Assessment audit. A Surgical Profile Assessment Audit is a detailed review of how surgeries are being performed in a hospital. It looks at the performance of surgeons, the types of surgeries done, and how safe and effective those surgeries are. The main goal is to improve the quality of surgical care and ensure patient safety. Hospitals conduct this kind of audit to find out what is going well and what needs to be improved in their surgical services. This audit helps the hospital: • Make sure patients receive safe and high-quality surgical care • Identify and fix any problems or risks • Improve how surgery teams work together • Provide better training for doctors and nurses • Meet standards set by health authorities or accreditation bodies
Linking theory (Classroom learning) with practice at your organisation	Surgical Profile Assessment involves evaluating surgical procedures, outcomes, and compliance with safety standards. In our organization, we actively link theoretical knowledge gained in the classroom with practical applications during surgical audits and evaluations. This approach ensures healthcare professionals are well-prepared to deliver high-quality and safe surgical care.
Gaps identified on the working area.	A Surgical Profile Assessment Audit often reveals important areas that need improvement in the surgical process. These gaps can be related to safety, documentation, communication, or resource utilization. • Incomplete Documentation • Non-Compliance with safety protocols • Poor infection control • Operating room delays • Staff training gaps
Suggestions for improvement	To improve the surgical profile assessment process, hospitals should focus on better documentation by using standardized formats and ensuring timely, complete entries. Strict adherence to safety protocols like the WHO Surgical Safety Checklist must be enforced, along with regular training to strengthen infection control practices. Operating

	room efficiency can be enhanced through proper scheduling and equipment readiness.
Plan for the next week	"Next week, we have to submit the project topic and start working on the project."

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

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Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

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

Activity Done	"I worked on my project this week. The topic of my project is 'Assessment of Antimicrobial Drug Prescribing and Usage Patterns among UTI Patients.' This week, I collected data and conducted an audit of restricted antibiotic prescriptions. During the prescription audit, I also checked whether the patient was suffering from a urinary tract infection (UTI) or not."
Linking theory (Classroom learning) with practice at your organisation	At the hospital level clinical pharmacology team collaborates with ID specialists to enforce restricted antibiotic policies. Use of restricted antibiotic forms for drugs like meropenem, colistin, linezolid, etc • These forms require: • Clinical indication • Culture • Dose and route justification • Approval signature from ID or pharmacologist
Gaps identified on the working area.	"The gap I identified is that even if the patient is suffering from a UTI, proper and timely culture tests are not being conducted. Restricted antibiotics are being prescribed without sending a culture sample, and the medication chart is not being properly filled out with the generic name, dose, route, and frequency."
Suggestions for improvement	"My suggestion to the hospital is that clinical pharmacologists should properly educate doctors about correctly filling out the medication chart as per NABH guidelines. Additionally, if a restricted antibiotic is being prescribed to a patient, a proper culture test should be sent."
Plan for the next week	"My plan for next week is to collect data related to my project and, at the same time, learn about other audits in clinical pharmacology with Varnika ma'am."

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch16)

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

Activity Done	I have been working on my project titled "Assessment of Antimicrobial Drug Prescribing and Usage Patterns among UTI Patients." This week, I collected data related to my project. I conducted a retrospective data audit for the month of April. I created a checklist for assessing the pattern of antimicrobial drug use among UTI patients, based on NABH guidelines. In this checklist, I audit UTI patients by recording the following parameters: • UHID (Unique Hospital Identification Number) • Patient Demographics: Includes age and gender. • Clinical Characteristics: Includes the diagnosis of UTI, which can be categorized into: ○ Cystitis ○ Urethritis ○ Pyelonephritis ○ Uncomplicated UTI ○ Complicated UTI ○ Urosepsis • Comorbidities: Includes conditions such as: ○ Hypertension ○ Diabetes ○ Chronic renal failure ○ Recurrent UTI • Antimicrobial Prescription Pattern: ○ Type of antimicrobial prescribed ○ Antimicrobial spectrum usage ○ Line of antimicrobial therapy
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	○ WHO AWaRe (Access, Watch, Reserve) drug classification ○ Use of restricted antimicrobial drugs ○ Duration of antimicrobial therapy • Antimicrobial Resistance Pattern: ○ Whether a culture test was conducted or not ○ Sensitivity and resistance patterns of the isolated organism • Outcome Parameter: ○ Length of hospital stay of the patient Based on these parameters, I have prepared a checklist, and I am conducting audits of UTI patients accordingly.
Linking theory (Classroom learning) with practice at your organisation	In this project, I was able to bridge the gap between classroom learning and real-world clinical practice. The knowledge I gained in pharmacology and microbiology classes—especially about different types of antimicrobial drugs, their mechanisms of action, their classification according to the WHO AWaRe system, and the difference between broad and narrow-spectrum antibiotics—proved to be highly relevant. While working on the project, I applied this understanding to assess how these drugs are being prescribed to UTI patients in actual clinical settings, and whether those prescriptions followed standard treatment guidelines. My familiarity with NABH standards, gained through academic training, was equally important. In the classroom, I learned about the significance of following protocols, using audit tools, and maintaining quality in healthcare delivery. I used that theoretical foundation to design a detailed checklist for auditing antimicrobial use among UTI patients ensuring it aligned with NABH indicators for antimicrobial stewardship and patient safety. Additionally, the case study approach we practiced in class helped me effectively interpret patient records. I applied these skills during my retrospective data audit, carefully reviewing clinical notes and prescriptions to extract relevant data. My training in research methodology also came into play, especially in how I collected, organized, and analyzed the data for patterns and trends. Most importantly, I saw the value of classroom discussions around infection control and antimicrobial resistance. I was able to observe firsthand how culture sensitivity testing and rational prescribing influence treatment outcomes. Understanding these concepts in theory helped me evaluate their application in a hospital environment, especially in terms of adherence to antimicrobial stewardship programs. Overall, this project allowed me to meaningfully connect academic knowledge with clinical practice, deepening my understanding of both.

Gaps identified on the working area.	Based on the data audit and real-time observations, several gaps were identified in the working area that highlight the need for improved clinical practices. One major issue was incomplete or inconsistent documentation in patient records. Important details like the specific type of UTI—such as cystitis or pyelonephritis—or the rationale behind choosing a particular antimicrobial were often missing, making it difficult to evaluate the appropriateness of treatment. Additionally, there was a lack of culture sensitivity testing in many cases. A large number of patients were started on antibiotics without a urine culture, leading to empirical treatments instead of evidence-based decisions. This was closely linked to inappropriate antimicrobial use, where broad-spectrum or higher-line antibiotics were sometimes used unnecessarily for simple, uncomplicated UTIs—potentially contributing to rising antimicrobial resistance. Another critical gap was the non-compliance with WHO AWaRe classification guidelines. Some prescriptions included Watch or Reserve category antibiotics without a clear clinical indication. Moreover, there was inadequate adherence to the restricted antimicrobial usage policy. In some cases, restricted antibiotics were prescribed without proper documentation or consultation with the infectious disease team, which goes against antimicrobial stewardship protocols. The duration of antimicrobial therapy also lacked standardization, with some patients receiving prolonged courses that were not reviewed or justified. It was also evident that awareness about NABH audit parameters among healthcare staff was limited. This gap pointed to the need for regular training and sensitization regarding quality protocols. Lastly, even when culture reports were available, resistance patterns were not always considered while adjusting the treatment, indicating lapses in clinical follow-up and decision-making. These gaps underscore the importance of strengthening documentation, promoting rational prescribing, and enhancing awareness of national and global guidelines in routine hospital practice.
Suggestions for improvement	"My suggestion to the hospital is that clinical pharmacologists should properly educate doctors about correctly filling out the medication chart as per NABH guidelines. Additionally, if a restricted antibiotic is being prescribed to a patient, a proper culture test should be sent."
Plan for the next week	"My plan for next week is to collect data related to my project and, at the same time, learn about other audits in clinical pharmacology with Varnika ma'am."

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

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

Activity Done	The topic of my project is "Assessment of Antimicrobial Drug Prescribing and Usage Pattern Among UTI Patients." This week, I worked on auditing patient records from April and May related to urinary tract infections (UTIs), based on the checklist I had prepared for the audit. The checklist includes the following parameters: • UHID (Unique Hospital Identification Number) • Patient Demographics: Age and gender • Clinical Characteristics: Diagnosis of UTI, categorized as: ○ Cystitis ○ Urethritis ○ Pyelonephritis ○ Uncomplicated UTI ○ Complicated UTI ○ Urosepsis • Comorbidities: Including conditions like: ○ Hypertension ○ Diabetes ○ Chronic renal failure ○ Recurrent UTI • Antimicrobial Prescription Pattern: ○ Type of antimicrobial prescribed ○ Antimicrobial spectrum (narrow/broad) ○ Line of therapy (first-line, second-line, etc.) ○ WHO AWaRe classification (Access, Watch, Reserve) ○ Use of restricted antimicrobial agents
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	○ Duration of therapy • Antimicrobial Resistance Pattern: ○ Whether a culture test was done ○ Sensitivity and resistance pattern of the isolated organism • Outcome Parameter: ○ Length of hospital stay I collected the April data from the Medical Records Department (MRD). My hospital uses <i>Akhil</i> software for maintaining patient records. I learned how to use the Akhil software this week, which is helpful when patient details are missing from physical records, as we can retrieve them from the software. I am currently working on organizing and analyzing the collected data, which will be included in my final project report.
Linking theory (Classroom learning) with practice at your organisation	Through my project on "Assessment of Antimicrobial Drug Prescribing and Usage Pattern Among UTI Patients," I was able to put into practice the concepts I had learned in the classroom. My understanding of pharmacology helped me evaluate whether the prescribed antibiotics were appropriate in terms of drug choice, spectrum of activity, and treatment line. Lessons from microbiology came into play when reviewing culture and sensitivity reports to check for resistance patterns. The WHO AWaRe classification, which I studied as part of antimicrobial stewardship, was useful in assessing whether prescribed antibiotics belonged to the Access, Watch, or Reserve categories. My background in clinical pharmacy guided me in designing an audit checklist that examined rational prescribing based on the type of UTI and any comorbidities present. Additionally, my training in research methods and data analysis supported my efforts in organizing patient data and drawing meaningful conclusions. Learning to use Akhil software further enhanced my ability to retrieve and verify records efficiently. This hands-on experience not only deepened my understanding of theoretical concepts but also highlighted the importance of applying evidence-based practices to improve patient outcomes and support antimicrobial stewardship.
Gaps identified on the working area.	While working on my project, I identified several gaps in the current practices related to antimicrobial prescribing and documentation for UTI patients. One of the main issues was incomplete or missing data in the physical records, especially regarding antimicrobial prescriptions and culture test results. In many cases, important details such as the duration of therapy, line of treatment, or the specific reason for choosing a particular antibiotic were not clearly documented. Although the Akhil software helped retrieve some missing information, there were still instances where even the digital records lacked clarity or consistency. Another gap observed was the irregular practice of conducting culture and sensitivity tests before starting antibiotic treatment. This makes it difficult to determine whether the prescribed antimicrobial was appropriate based on the organism's resistance pattern. Additionally, the use of broad-spectrum antibiotics appeared frequent, even in uncomplicated cases, raising concerns about antibiotic overuse and the potential for resistance development.

	Documentation on whether the antibiotic prescribed belonged to the Access, Watch, or Reserve category was not readily available or explicitly noted. Lastly, I noticed that comorbidities were sometimes underreported or not clearly linked to the choice of treatment, which is important for ensuring safe and effective care. These gaps highlight the need for better documentation practices, adherence to treatment guidelines, and stronger antimicrobial stewardship efforts within the hospital setting.
Suggestions for improvement	Based on my experience so far with auditing patient records for UTI cases, a few key suggestions can help improve the overall quality of antimicrobial prescribing and documentation. First, it would be beneficial to implement a standardized format for recording antimicrobial prescriptions in both physical and digital records, ensuring that critical details such as drug name, dose, duration, spectrum, and line of therapy are consistently noted. Encouraging doctors to document the rationale behind antibiotic choices—especially for second-line or broad-spectrum drugs can support better clinical decision-making and facilitate future audits. Routine culture and sensitivity testing before initiating antibiotic therapy should be emphasized to promote targeted treatment and minimize unnecessary antibiotic use. Additionally, including the WHO AWaRe classification in prescription records can raise awareness and help monitor the use of high-risk antibiotic categories. Better integration and training on electronic record systems like Akhil would also enhance data accuracy and retrieval. Finally, regular audits and feedback sessions can support continuous improvement and strengthen antimicrobial stewardship efforts within the hospital.
Plan for the next week	In the upcoming week, my primary focus will be on completing the data collection for June so that I have a comprehensive dataset covering both April and May UTI cases. I will continue auditing patient records using the same checklist to ensure consistency and completeness.

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

Week no: 8 **From:** 30/06/2025 to 05/07/2025

Activity Done	This week, I worked on my project titled "Assessment of Antimicrobial Drug Prescribing and Usage Pattern Among UTI Patients." Alongside this, I also learned how to prepare a formulary under the guidance of Ms. Varnika Ma'am. I was taught how to create a master list that includes important details such as the item name, generic name, dose, therapeutic class, manufacturer/company name, and analysis. In addition, I learned how to assess surgical antibiotic profiles, which involves evaluating whether the antibiotic used is appropriate, and ensuring it is administered within the correct timeframe 15 to 60 minutes before the surgical incision. I also understood the appropriate duration for antibiotic use post-surgery: • 72 hours for CTVS (Cardiothoracic and Vascular Surgery) • 48 hours for normal surgeries Moreover, I contributed to preparing a high-risk medicines list following the ISMP (Institute for Safe Medication Practices) guidelines, which plays a key role in ensuring medication safety.
Linking theory (Classroom learning) with practice at your organisation	During my academic coursework, I learned about rational drug use, antimicrobial stewardship, formulary management, and high-risk medication safety, primarily through theoretical lectures and case-based discussions. These concepts helped me understand the importance of using antibiotics judiciously to prevent resistance, reduce adverse effects, and improve patient outcomes. At the organization, I was able to practically apply this theoretical knowledge while working on the project titled "Assessment of Antimicrobial Drug Prescribing and Usage Pattern Among UTI Patients." I observed how antimicrobial drugs are prescribed in real clinical settings and compared this with standard treatment guidelines, which helped me critically analyze prescribing trends. Similarly, the formulary preparation training under Ms. Varnika Ma'am gave me hands-on experience in creating a master drug list. This reinforced what I had learned about therapeutic classifications, generic names, dosage forms, and pharmaceutical companies, making the learning more meaningful and application oriented. In the classroom, I was taught the principles of surgical prophylaxis especially the timing and selection of antibiotics. At the organization, I saw these principles being implemented in real-time: antibiotics being administered 15–60 minutes before incision and monitored for appropriate duration (72 hours for CTVS, 48 hours for general surgery), which validated and deepened my understanding. Lastly, my knowledge of high-risk medications and ISMP guidelines, previously learned in pharmacovigilance and patient safety modules,

	was applied when I assisted in preparing a high-risk medicine list, directly contributing to the improvement of medication safety practices at the institution.
Gaps identified on the working area.	While working on the project and participating in formulary development and surgical profile assessments, several gaps were identified in the current practices related to antimicrobial prescribing and medication safety. One of the major issues observed was the inconsistent documentation of antibiotic administration timing. In many cases, the exact time of administration ideally 15 to 60 minutes before surgical incision was not recorded accurately, making it difficult to evaluate adherence to surgical prophylaxis guidelines. Another key gap was the lack of standardized prescribing practices. There was noticeable variation in how antibiotics were prescribed, particularly for UTI cases. In several instances, broad-spectrum antibiotics were used empirically without proper culture sensitivity testing, increasing the risk of antimicrobial resistance. Additionally, the formulary or master drug list was found to be outdated or incomplete, often missing critical details such as therapeutic classification and manufacturer information, which can hinder both clinical and procurement decisions. It was also noted that there is limited awareness among healthcare professionals about the ISMP high-risk medication list and its implementation, which can compromise medication safety. Furthermore, monitoring the duration of antibiotic use post-surgery was found to be inadequate. Despite having defined timelines (72 hours for CTVS and 48 hours for general surgeries), these standards were not consistently followed, potentially leading to extended and unnecessary antibiotic exposure. The absence of a formal Antimicrobial Stewardship Program (AMSP) was another critical gap, resulting in a lack of coordinated oversight on antibiotic prescribing and usage. Finally, there was limited use of data analytics to assess trends in antimicrobial consumption, resistance, or formulary compliance. The lack of data-driven evaluation restricts the ability to make informed, evidence-based decisions for improving antibiotic practices within the organization.
Suggestions for improvement	To enhance antimicrobial prescribing practices and medication safety, several improvements can be implemented. Firstly, standardized documentation practices should be adopted to ensure that the exact timing of antibiotic administration, particularly before surgical procedures, is consistently recorded in patient records. This can be achieved through the use of standardized checklists or electronic prompts within the hospital information system, improving both accuracy and accountability. Furthermore, promoting culture-based antibiotic prescribing is essential prescribers should be encouraged to perform urine culture and sensitivity testing prior to initiating therapy in UTI patients, thereby reducing empirical use of broad-spectrum antibiotics and minimizing the risk of antimicrobial resistance. Another key area for improvement is the regular updating of the hospital formulary. A dedicated formulary committee should be assigned to periodically review and maintain accurate records, including drug details, therapeutic classifications, and manufacturer information. In addition, training healthcare professionals on ISMP guidelines and the safe management of high-risk medications is vital. Conducting regular workshops can significantly reduce medication errors and

	improve patient safety outcomes. Monitoring the duration of antibiotic use post-surgery also needs to be strengthened by implementing protocols or automated alerts to ensure adherence to standard durations 72 hours for CTVS and 48 hours for general surgeries thereby preventing unnecessary exposure. Establishing a formal Antimicrobial Stewardship Program (AMSP) involving pharmacists, microbiologists, and clinicians would further support rational antibiotic use across departments through audits, feedback, and policy development. Finally, leveraging data analytics for drug utilization reviews (DUE) can help track prescribing patterns, resistance trends, and formulary compliance. Utilizing such data-driven tools will support continuous quality improvement in antimicrobial management and promote safer, more effective clinical practices.
Plan for the next week	"Next week, I will be working on the presentation (PPT) for my project and will also carry out data analysis."

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

Week no: 9 **From:** 07/07/2025 to 12/07/2025

Activity Done	This week, I worked on my project titled “Assessment of Antimicrobial Drug Prescribing and Usage Pattern among UTI (Urinary Tract Infection) Patients” While working on this, I also learned several important things from the organization. 1. Medication Errors: I learned that medication errors are mistakes that can happen at different stages of the medication process. There are Five main types of medication errors • Transcription Error: Mistakes while writing down the doctor’s prescription into the patient file or system. • Administration Error: Giving the wrong drug, wrong dose, at the wrong time, or by the wrong route to the patient. • Indenting Error: Mistakes while requesting or ordering the medicine from the pharmacy. • Dispensing Error: Errors that occur while preparing and giving out the medication from the pharmacy. • Prescription Error: Mistakes made by the doctor while writing the prescription (e.g., wrong drug, wrong dose, missing information). 2. Crash Cart Policy: A Crash Cart (also called an emergency trolley) is a specially organized cart or trolley used in hospitals for emergency situations, especially for cardiac arrest or code blue scenarios. It contains all the essential life-saving medicines, equipment, and supplies needed to provide immediate care. The Crash Cart Policy defines the standards and protocols for managing the crash cart, ensuring that it is always ready, organized, and fully equipped during emergencies.
Linking theory (Classroom learning) with practice at your organisation	During my time at the organization, I was able to apply several concepts learned in the classroom to real-life hospital practices. For instance, I had studied the rational use of antibiotics, and in practice, I observed how doctors prescribed antimicrobials specifically based on UTI symptoms and lab investigations. From pharmacology, I learned about the different types of medication errors, and I witnessed how these errors can occur in actual hospital workflows and how healthcare staff actively work to prevent them. In class, I also learned about emergency care protocols, including crash carts, and at the hospital, I saw the Crash Cart Policy in action including daily checks, organized setup, and emergency preparedness. Additionally, my understanding

	of healthcare accreditation and NABH standards was deepened by observing how the hospital follows NABH guidelines, especially in medication management. Finally, the pharmacy and dispensing procedures I studied in class were reflected in the real-world dispensing, labelling, and documentation practices within the hospital pharmacy.
Gaps identified on the working area.	During my observation, I noticed the following gaps in the working area: 1. Incomplete Documentation: Some medication records were not filled properly, which can lead to errors or confusion. 2. Expired Medicines in Stock: A few medications in the crash cart or pharmacy storage were found near or past expiry and needed replacement. 3. Lack of Staff Awareness on Medication Errors: Not all staff were fully aware of the types of medication errors or the reporting process. 4. Irregular Crash Cart Checks: In some shifts, the crash cart checklist was not updated regularly. 5. Poor Labelling on Dispensed Medicines: Some dispensed medicines lacked clear labelling (like patient name, dose, time).
Suggestions for improvement	During my observation, I identified several gaps in the working area that could impact patient safety and operational efficiency. One major issue was incomplete documentation, which can lead to dosing errors and delay in care. To address this, the organization should implement a “Golden Rules” cheat sheet for medication charting at each nursing station, introduce electronic medication administration records (e-MAR) with mandatory fields, and conduct weekly documentation audits led by the night supervisor. Secondly, the presence of expired medicines in stock, especially in crash carts, poses a direct NABH non-conformance risk. Solutions include implementing a First Expiry-First-Out (FEFO) system using color-coded stickers, configuring the pharmacy software for automated expiry alerts, and assigning one staff member per shift for crash cart and expiry checks. Another key gap was limited staff awareness about medication errors, which can prevent effective error reporting and system improvements. This can be improved through monthly micro-learning sessions using real cases, visible flowcharts for error reporting, and a non-punitive recognition system like the “Good Catch” award for early error identification. Additionally, irregular crash cart checks were observed, risking unavailability of critical items during emergencies. To fix this, a tamper-evident seal system, digital check reminders, and inclusion of crash cart compliance in the monthly NABH audit should be established. Lastly, poor labelling on dispensed medicines increases the risk of wrong-patient or wrong-time administration. This can be prevented by adopting barcode labelling systems, providing backup labelling kits on drug trolleys, and introducing a 5-second read-back step during high-alert drug administration. These improvements should be led by nursing, pharmacy, IT, and quality assurance teams

	working collaboratively to strengthen patient safety practices.
Plan for the next week	"Next week, I will be giving a PowerPoint presentation at the organization on the project I worked on. During the presentation, I will explain the work I have done and how this project has benefited the organization."

Signature of the Student

Approved by the IIHMR University's Mentor

Reporting Format (Weekly)

Name of the Organisation: ETERNAL HOSPITAL, SANGANER

Area/ Department/ Project of Summer Internship Program: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA – PM (Batch 16)

Week no: 10 **From:** 14/07/2025 to 19/07/2025

Activity Done	• During the last week all the final changes and correction in the project were done and the final presentation was prepared. • A formal presentation was conducted with the general manager- medical administration of the organization Dr Priyanka Maan Ma'am along with other mentor including Dr Vartika Ma'am. • I submitted the data I had collected for the project to the organization and explained the usefulness of the project that I had completed in your organization.
Linking theory (Classroom learning) with practice at your organisation	No new linking theories were identified as final presentation was conducted during this week and completion of project was done.
Gaps identified on the working area.	Lack of communication within the personnel was observed in rare situation.
Suggestions for improvement	No new suggestion for improvement were there during last week.
Plan for the next week	None

Signature of the Student

Approved by the IIHMR University's Mentor

Compiled Reporting Format

Name of the Organization: Eternal Hospital, Sanganer

Area/ Department/ Project of Summer Internship: Clinical Pharmacology

Name of the Student: Kasturi Vijayprakash Sawarkar

Roll no: 0704

Stream: MBA-PM (Batch 16)

Activity Done	At the beginning of the internship, a comprehensive briefing session was conducted with Dr. Priyanka Maan Ma'am and Mr. Jaimeen, where we were introduced to the organization and briefed about our roles and expectations. A short induction into various departments helped us understand their contribution to the organization's overall functioning. I was then assigned to the Clinical Pharmacology department, where my project focused on assessing the prescribing and usage patterns of antimicrobial drugs among patients with urinary tract infections (UTIs). During the project, I learned how to perform inpatient (IPD) prescription audits and restricted antibiotic audits. Using a self-developed checklist tool, I audited IPD patients suspected of UTIs and recorded the data in an Excel spreadsheet. The key objectives of my project included examining the frequency of common UTI diagnoses, evaluating antimicrobial prescribing patterns and resistance, assessing the lines of therapy used, and analyzing antibiotic use based on the WHO AWaRe classification.
Linking theory (Classroom learning) with practice at your organization	Throughout my tenure at the organisation, I acquired significant knowledge and practical experience in performing audits for restricted antibiotics and assessing inpatient (IPD) prescription audits. Additionally, I learnt how to access and analyse surgery profiles, which are crucial for comprehending drug consumption and patient treatment histories. The World Health Organisation created the WHO AWaRe classification of antibiotics as a framework to encourage responsible antibiotic use and fight antimicrobial resistance, and it was one of the most important ideas I learnt. Three groups of antibiotics are distinguished by this classification: • Access: These are first- and second-choice antibiotics that should be widely available and affordable, with a lower potential for resistance. • Watch: These antibiotics have a higher potential to cause resistance and should be used with caution. • Reserve: These are last-resort antibiotics used for treating multidrug-resistant infections and should be preserved for specific cases. Along with this, I became knowledgeable about the treatment options for UTIs. As a first-line treatment for UTIs, Fosfomycin sachets were commonly utilised throughout the organisation. As a single-dose oral medication, Fosfomycin is a convenient and patient-friendly antibiotic that works well against a variety of bacteria that are frequently the cause of UTIs. Its widespread use indicates adherence to treatment guidelines that suggest first-line treatment with narrow-spectrum, effective antibiotics that have a low risk of resistance.

	My knowledge of antibiotic stewardship, rational antimicrobial prescribing, and the significance of harmonising clinical procedures with international standards like the WHO AWaRe classification has all improved as a result of this experience.
Gaps identified on the working area.	• Incomplete or inconsistent patient records, making data collection time-consuming. • Difficulty in accessing culture reports for some patients due to documentation gaps. • Coordination with multiple departments (ICU, IPD, lab) required consistent follow-up and communication. • Lack of awareness or adherence to WHO AWaRe classification among some prescribers. • Manual data analysis posed a risk of human error and required repeated validation.
Suggestions for improvement	• Promote Access group antibiotic use. • Restrict Reserve group use to avoid resistance. • Implement regular audits and AMR tracking. • Train staff on NABH and rational prescribing.
Key Learnings	• Understood the pattern of antimicrobial prescriptions in hospitalized UTI patients. • Gained experience in data collection and analysis from IPD records using a checklist tool. • Learned about WHO AWaRe classification and its relevance in antimicrobial stewardship. • Improved knowledge about antimicrobial resistance (AMR) and its clinical implications. • Developed skills in conducting clinical audits, interpreting culture sensitivity reports, and correlating them with treatment outcomes. • Became familiar with NABH guidelines related to prescription practices and documentation.

Signature of the Student

Approved by the IIHMR University's Mentor

CONCLUSION:

1. Hands-On Experience in Clinical Pharmacology Audits:

- The internship offered practical exposure in performing inpatient (IPD) prescription audits and restricted antibiotic audits.
- A self-developed checklist was effectively used for auditing patients suspected of urinary tract infections (UTIs).

2. Focused Study on Antimicrobial Prescribing Patterns:

- The core project involved evaluating the prescription and usage trends of antimicrobials in UTI cases.
- It emphasized the frequency of UTI diagnoses, therapeutic lines followed, and resistance trends.

3. Integration of WHO AWaRe Classification in Analysis:

- The WHO AWaRe classification framework (Access, Watch, Reserve) was used to assess the appropriateness of antibiotic prescriptions.
- Emphasis was placed on promoting Access category antibiotics while restricting Reserve drugs to minimize resistance.

4. Improved Understanding of UTI Treatment Protocols:

- Fosfomycin sachets, a first-line treatment for UTIs, were commonly used and aligned with global treatment guidelines.
- This indicates rational prescribing practices within the organization for UTI cases.

5. Real-world Application of Theoretical Concepts:

- The internship bridged classroom learning with hospital practices, especially in areas like drug resistance, antimicrobial stewardship, and NABH documentation standards.

6. Gaps in Existing Clinical Practices Identified:

- Patient record inconsistencies and difficulty in accessing culture reports slowed down data collection.
- Lack of uniform awareness about the AWaRe framework among clinicians and the need for better interdepartmental coordination were key issues.
- Manual data analysis increased the chance of human error.

7. Constructive Recommendations Provided:

- Recommendations included regular AMR audits, training on rational antibiotic use, and promoting Access-category antibiotics.
- Encouraging adherence to NABH standards and global prescribing guidelines was

highlighted as a long-term improvement strategy.

8. Skill Development and Professional Growth:

- The student developed competencies in clinical audits, culture sensitivity analysis, data documentation, and correlating pharmacological data with treatment outcomes.
- Enhanced awareness of antibiotic resistance and its broader implications on patient care and public health.