

SUMMER INTERNSHIP PROGRAM

at

Rukmani Birla Hospital

1st May 2024 to 15th July 2024

A REPORT BY

Riya Gupta

Master of Business Administration

Hospital and Healthcare Management

2023-25

under the Mentorship of

Dr. Mahender Kumar

Professor

IIHMR University Jaipur



TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Riya Gupta** has successfully completed her training in Information Technology Department from 01 May 2024 to 15 Jul 2024.

We found her sincere, punctual & hardworking. We wish her every success in her future and career.

For CK Birla Hospital - RBH

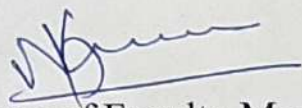

Raju Kumar
Unit Head - HR

IIHMR University Faculty Mentor Approval

This is to certify that **Ms. Riya Gupta** of academic year 2023-2025 of **INSTITUTE OF HEALTH MANAGEMENT RESEARCH** has prepared a poster with respect to her summer internship held during May – June 2024.

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

Date-23/07/2024

A handwritten signature in blue ink, appearing to be 'Dr. Mahender Kumar', written over a horizontal line.

(Signature of Faculty Mentor)

Dr. Mahender Kumar

Professor

IIHMR University, Jaipur

IMPLEMENTATION OF MYHEALTHCARE IN CK BIRLA HOSPITALS -RBH



Usefulness of Internship

- Enhanced Patient Care and Communication: Streamlined data management ensures efficient and accurate care delivery. Improved inter-department communication facilitates better coordination in patient treatment.
- Operational Efficiency and Cost Reduction: Automated processes reduce administrative burdens and enhance workflow management. Cost savings from decreased paper usage and minimized errors contribute to operational efficiency.
- Improved Data Management & Security: Centralized Data Management enables easier tracking and analysis, supporting better decision-making. Enhanced compliance with regulatory standards and strengthened data security ensure patient privacy protection.

Learning During Internship

- Through hands-on learning, I mastered software and hospital Workflows by combining technical expertise with Healthcare insights.
- Gained proficiency in new software & hospital workflow.
- Developed crucial data management skills.
- Enhanced abilities in training medical professionals, problem-solving, & project management.
- Improved communication and stress management skills.
- Fostered continuous improvement and adaptability.
- Gained insights into hospital operations and healthcare regulations.
- Equipped with a well-rounded skill set for future healthcare IT projects and roles.



About the Organization

RBH is A 230-bed Multi-Specialty Hospital in Jaipur, offering comprehensive Inpatient and Outpatient services based on clinical excellence, ethical practices, and a patient-centric approach. The Hospital features 24 specialized Healthcare Departments equipped with state-of-the-art Medical Technology and staffed by highly trained professionals. RBH is committed to achieve High standards in Healthcare with A modern outlook, aiming to lead the wellness industry and set new benchmarks in Hospital Management.

History: It was the first private hospital of the city and the foundation stone was laid by late BM Birla along with YB Chavan, then defence minister of India. Integration of research into clinical practice and provision of quality medical care to all section of the society was the guiding principle of the hospital.

Vision

To provide best of Patient Service & Clinical Excellence.

Mission

To create Clinical Center of Excellence on a strong backbone of research, academics and evidence-based medicine for best clinical and patient Outcome.



Strength

- A complete healthcare ecosystem around a patient or their families across doctor consultation, In-patient care (Medical Management/Surgical care), Emergency care.
- Bridge the Healthcare gap using the latest advancements in Digital Technology and data driven Patient care process.
- Building structured repository of a patient's clinical data across all interventions (OP, IP & ER)
- Adaptability & problem-solving skills of team
- Implementation of multiple modules
- Ability to manage complex tasks.

Weakness

- Initial user unfamiliarity with the new system, particularly among doctors
- Inaccurate Data migration in application became hurdle.
- Incorrect master Mapping and minor bugs implementation
- Temporary system downtime due to early-stage maintenance affects critical operations
- Heavy reliance on manual processes during system failures
- High workload and extended hours for support staff, potentially leading to

SWOT Analysis

Opportunity

- Improved efficiency of End users in patient care.
- Enhanced Patient Data Management and Analysis capabilities
- Develop more robust learning and Development Programs based on implementation experience.
- Possibility of becoming a model for other Healthcare Facilities Implementing Digital Healthcare Systems

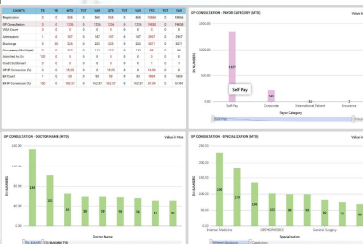
Threat

- Risk of data loss or inaccuracies during system transitions or downtime.
- Potential for reduced patient satisfaction if system issues impact Care Delivery
- Cyber security Risks associated with Digitizing Healthcare Information System
- Dependency on technical support for system Maintenance & troubleshooting Potential resistance to change from staff members uncomfortable with new technology.
- Unavailability of Resources may lead to Improper Care.

Aim

- Train and orient clinical and non-clinical users on various modules of the MyHealthcare Enterprise Application
- Ensure smooth transition and adoption of the new EMR system at all hospital staff.
- Utilize MHC to enhance the patient experience by reducing wait time & provide convenient access to medical records.
- Ensure that all doctors and staff can use EMR to improve the quality of patient care.

Analyzing Growth Factors using MHEA



Organization structure



Objectives

- To manage Patient Data, Billing, inventory & other critical functions Efficiently.
- To Automate routine tasks to reduce manual effort and errors.
- To Provide real-time data and analytics to support decision-making
- To enhance patient experience by offering an efficient system for accessing their health reports and prescriptions digitally.
- To Make it easier for patient to have access of his Clinical Data.

Methodology

- Data Creation & Management in MS-Excel.
- Microsoft Teams & Google Meet for Online Training of users
- VNC, Anydesk and Team Viewer for User support
- Manual testing Approach for testing the uploaded master in the application and to perform sanity.
- Created comprehensive Master Data for LIS
- Trained nurses on MHEA and doctors on EMR software.

Challenges Faced

- Balanced multiple responsibilities such as training, issue resolution, and system management
- The master data was not accurate, leading to significant issues.
- Worked Day & Night shifts, including extended periods of night duty
- Two days before Go-Live, LIS data found incorrect, our team worked tirelessly day and night to rectify and update the data, ensuring readiness for the system launch.

Suggestion

- Consider ongoing training and support programs to maintain staff proficiency.
- Implement regular system audits to prevent future issues & ensure improvement.
- Expand interoperability with external systems for enhanced data exchange and efficiency.
- Patient's Clinical Data should never be compromised that is the irrelevant user shouldn't have access to the patient's Clinical Data.

THEORY ▲ ▼ PRACTICAL

- HIS, adapting to Hospital Needs & constraints.
- Quick thinking, Problem-solving in high-pressure situations, such as system downtime or software bugs.

(Week – 1)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: **Department-** Information Technology (IT)

Name of the Student: Riya Gupta

Project- My healthcare Implementation of RBH

Roll no: 1799

Stream: MBA in Hospital and Health Management

Week no: 1

From: 1st May 2024 **to** 4th May 2024

Activity Done	• Groomed the nurses about the functioning of MHEA • Performed collation and tabulation of lab data in synchronized manner • Learned about Employees ID generation & Roles and Responsibility
Linking theory (Classroom learning) with practice at your organization	Able to relate that how EMR functions and How this MYHEATHCAREAPP is going to function in same way.
Gaps identified in the working area.	• Lack of Awareness • Lack of knowledge about digitalization of the patient related data
Suggestions for improvement	Proper Training should be done in well coordinated manner. More trainers should be employed.
Plan for the next week	• Mentor the staff nurses from next week • Data matching & record all the data in new software.

Signature of the Student



(Week – 2)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Department- Information Technology (IT)

Name of the Student: Riya Gupta

Project- My healthcare Implementation of RBH

Roll no: 1799

Stream: MBA in Hospital and Health Management

Week no: 2

From: 6th May 2024 **to** 11th May 2024

Activity Done	- I examined the services provided by the lab in conjunction with the existing HIS (Hospital Information System) software. This involved analyzing parameters and service codes associated with each service. - I trained Doctors how to use of upcoming software for OPD EMR (Outpatient Department Electronic Medical Records) and IPD EMR (Inpatient Department Electronic Medical Records). They are learning how to navigate and utilize the software effectively.
Linking theory (Classroom learning) with practice at your organization	Able to relate that the flow of the OPD (Outpatient Department) process.
Gaps identified in the working area.	Some people are hesitant to work as friendly in the new software as they are not accustomed to certain features being tracked.
Suggestions for improvement	Regularly dedicating at least one hour per day to work in the software could prove beneficial for them. Practicing daily in this software may also enhance their familiarity and proficiency.
Plan for the next week	We are planning to provide training to the head of the staff.

Signature of the Student



(Week –3)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Department- Information Technology (IT)

Name of the Student: Riya Gupta

Project- My healthcare Implementation of RBH

Roll no: 1799

Stream: MBA in Hospital and Health Management

From: 13th May 2024 to 18th May 2024

Activity Done	• will provide training for the head of each department. • Prepare a Google Sheet with columns for each module, detailing the organizational needs and the changes required in the upcoming software. • One day, I went on rounds with the patient experience team to gather feedback on the inpatient department (IPD) and interacted with the Patients.
Linking theory (Classroom learning) with practice at your organization	Able to relate that the flow of HIS in Digital Health.
Gaps identified in the working area.	I found a gap: trainers are available, but the staff is not attending the training sessions.
Suggestions for improvement	If the staff dedicate their time and receive proper training, it will be beneficial.
Plan for the next week	We are planning to provide training to the entire doctor's

Signature of the Student



(Week – 4)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Department- Information Technology (IT)

Name of the Student: Riya Gupta

Project- My healthcare Implementation of RBH

Roll no: 1799

Stream: MBA in Hospital and Health Management

Week no: 4

From: 20th May 2024 to 25th May 2024

Activity Done	1. Prepare a Master Data of LIS: Gather and compile all necessary data required for the Laboratory Information System (LIS) into a master data sheet. 2. Work on Master Data in UAT Environment: Utilize the UAT (User Acceptance Testing) environment to update and validate the master data within the dummy software. Ensure all updates are accurately reflected in the master sheet. 3. Update Services in Production: On the next day, work in the production environment to update services. This includes updating the service name, decimal points, reference ranges for male and female, units of measurement (UOM), and test methods. 4. Pre-Live Testing with Dummy Patients: On the last day before going live, order tests in the production environment using three dummy patients. Follow the workflow: order the test, collect and dispatch samples to the lab, receive and acknowledge the samples, enter the results, and have the doctor approve and print the test results. During this process, address any challenges such as issues with decimals, missing digits, and alignment problems.
Linking theory (Classroom learning) with practice at your organization	Able to relate subject- Essential of hospital services .
Gaps identified in the working area.	1. Laboratory personnel are not providing proper data and information, hindering the ability to work efficiently. 2. Staff are not willing to take on additional duties necessary for the successful implementation and testing of the LIS system.
Suggestions for improvement	Proposal for Increased Efficiency through Overtime in the LIS Department. To enhance the efficiency and productivity of our Laboratory Information Systems (LIS) department, we propose the implementation of structured overtime work for employees. This strategic approach aims to achieve faster project completion and improve overall departmental performance.

Signature of the Student



(Week – 5th,6th,7th)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Department- Information Technology (IT)

Name of the Student: Riya Gupta

Project- My healthcare Implementation of RBH

Roll no: 1799

Stream: MBA in Hospital and Health Management

From: 27th May 2024 to 23rd June 2024

Activity Done	1. We finally went live on May 2nd at 11 am with our My Healthcare team and IT team. I was assigned to handle discharges with the new HIS on the 3rd floor, where there were eight discharges to manage. I worked alone with a doctor who was unfamiliar with the new HIS discharge process. The doctor dictated the discharge information to me, and I prepared each discharge within two hours. After completing the discharges on the 3rd floor, I moved to the next floor to do the same. On that day, only the IP EMR and discharge processes started, and the doctors managed the MAR. 2. The next day, I was on call, handling issues from the entire hospital through a designated number. I resolved these issues using VNC. During this busy period, my HOD, Mr. Narendra, instructed me to provide training to doctors in the OT, which was a challenging task since we were already live. Despite the ongoing live operations, we continued to offer training. Additionally, I had night duty from June 3rd to June 8th, during which I worked both day and night. 3. During the week of June 9th to 15th, we launched the OP EMR system, but many doctors were unable to use it due to software issues and a high volume of patients. Despite this, some doctors started using the EMR on the same day. I was also assigned night duty during this period. The following day, I spent the entire day in the OT and Cath lab, where I resolved all user issues and addressed their doubts. 4. At one point, we encountered a bug that was resolved by the developer on the backend. One morning, the software was down for 30 minutes, causing all billing processes to halt. During this downtime, we manually processed bills until the software was back online, at which point we updated all the bills in the system. 5. During the week of June 16th to June 23rd, we faced numerous issues that required urgent attention and resolution. On one of those days, I worked a full day and night shift to address significant software malfunctions that halted operations entirely. Nurses were unable to process medicine indents, forms couldn't be saved, doctors couldn't prescribe medication through MAR, and emergency billing was impossible. Additionally, lab machines' interfaces were down, forcing us to manually process results all night. By morning, we managed to
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	resolve these issues and restore functionality. Now, the situation has stabilized, most problems have been fixed, and we are focusing on improving the quality of our work. As a result, the volume of support calls has significantly decreased.
Linking theory (Classroom learning) with practice at your organization	Able to relate subject- Essential of hospital services , Digital health and Health policy and Health care delivery ,Principles of Management , Organization Behavior .
Gaps identified in the working area.	1. The doctor I worked with on the 3rd floor was unfamiliar with the new HIS discharge process. 2. I was on call, handling issues from the entire hospital through a designated number and also providing training to doctors in the OT while managing ongoing live operations. 3. Many doctors were unable to use the OP EMR system due to software issues during its launch. 4. The software experienced a 30-minute downtime, halting all billing processes. 5. Significant software malfunctions halted critical operations, including medicine indents, form saving, medication prescriptions through MAR, and emergency billing. 6. Lab machines' interfaces were down, necessitating manual processing of results.
Suggestions for improvement	1. This lack of training led to delays and required real-time instruction, which was inefficient and increased the risk of errors. 2. This dual responsibility placed a significant strain on resources, making it challenging to provide adequate support and training simultaneously, potentially compromising both tasks. 3. This caused disruptions in the workflow and hindered the adoption of the new system, leading to delays and inefficiencies in patient care. 4. This interruption caused significant delays and necessitated manual processing of bills, which increased the workload and risk of errors. The lack of a robust contingency plan for such downtimes further compounded the issue. 5. This caused widespread operational disruptions and forced staff to rely on manual processes, leading to increased workload, delays, and a higher risk of errors. The lack of system reliability and redundancy mechanisms highlighted a critical gap in ensuring continuous operations. 6. This interruption in automated processes increased the potential for errors and delayed lab results, affecting patient care. The instability of interfaces and integrations with lab equipment revealed a need for more robust and resilient system design and testing.
Plan for the next week	I have been assigned the next plan to implement the OP EMR system for each specialist doctor. The organization expects me to ensure that every doctor successfully adopts and utilizes the OP EMR system in their practice.



(Week -8)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Department- Information Technology (IT)

Project- My Healthcare HIS Implementation of RBH

Name of the Student: Riya Gupta

Roll no:1799

Stream: MBA in Hospital and Health Management

Week no: 8TH

From: 24 June 2024 to 30 June 2024

Activity Done	1. I am currently addressing some issues with the EMR (Electronic Medical Record) software that doctors are using. One specific problem relates to the process following an advised admission. The software currently provides two options: medical management and surgery. When surgery is chosen, doctors need to fill in the surgery details. However, in many cases, the doctor's consultation may only involve planning for potential surgery rather than confirming it. 2. To resolve this, I have introduced a custom field labelled "Surgery Advised" where doctors can write down their planned surgery notes. This way, the management team can see that a surgery has been requested and understand that it is part of a planned course of action rather than an immediate decision. 3. Additionally, for those doctors who are hesitant to adopt the EMR system, I am creating personalized solutions to make their workflow easier. This includes setting up favorite medicines, tests, preparing protocols, and creating order sets based on their preferences. This way, doctors can quickly select these options without having to write them out each time.
Linking theory (Classroom learning) with practice at your organization	Able to relate subject Digital Health (EMR)
Gaps identified in the working area.	1. The system requires doctors to fill in surgery details even if the surgery is only in the planning stage. 2. Some doctors are reluctant to use the EMR system.
Suggestions for improvement	1. Expand the customization features to cover more aspects of the doctors' workflow. For example, allow customization of templates for common diagnoses or treatment plans. 2. Continuously improve the user interface based on feedback to ensure it is intuitive and easy to navigate. Consider involving doctors in the design process.
Plan for the next week	Plan to Ensure All Doctors Can Effectively Use the EMR System.



Signature of the Student

(Week -9)

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Department- Information Technology (IT)

Project- My Healthcare HIS Implementation of RBH

Name of the Student: Riya Gupta

Roll no:1799

Stream: MBA in Hospital and Health Management

Week -9

From: 01July,2024 to 6 July 2024

Activity Done	1. Daily meetings with all doctors have been instituted to promote and support the adoption of EMR. 2. We've noticed an uptick in EMR usage compared to last week, indicating progress among doctors in integrating EMR into their routines. 3. Adoption is not yet at 100%, but we're actively resolving EMR-related issues to enhance usability and improve the overall user experience. 4. Additionally, we're focused on optimizing payor plans and streamlining the processes for outsourced tests.
Linking theory (Classroom learning) with practice at your organization	Able to relate subject Digital Health (EMR)
Gaps identified in the working area.	The difference should be whether doctors will do EMR for all patients, but they don't want to do that because they are using Health Plix, they are very compatible with Health Plix and they are comparing Health Plix to my Health Care .
Suggestions for improvement	If management is able to block the site and speak with the doctor on a higher level to use existing software for doing EMR
Plan for the next week	Our next week plan is to achieve 100% EMR adoption among all doctors, reflecting our commitment to modernizing healthcare practices.



Signature of the Student

Compiled Report

Name of the Organisation: CK Birla Hospital , Jaipur

Area/ Department/ Project of Summer Internship Program: Information Technology (IT)

Name of the Student: Riya Gupta

Roll no:1799

Stream: MBA-HHM

Activity Done	Application Readiness: 1. Training and Orientation of Clinical (Doctors & Nurses) and Non-Clinical users on various Modules of the Application 2. Preparation and restructuring the Master Data, Master Data uploading and validation, first in UAT and then in Production Environment. 3. Testing the Application flows in UAT and Post Go-Live Sanity. 4. Master Data Management: Employee creation, Role & Right management, Service Master, Payor and tariff Management, Inventory Data Management, Clinical Form Creation etc. 5. Data maintenance for User Training and Feedbacks etc. Go-Live and Initial Support: 1. Application Go-Live on 02/May/2024. 2. Provided Post-go Live Support (in day and Night shifts) to end users (Clinical and Non-Clinical). Initial support through telephone, VNC and wherever required went on user's Desk to resolve the issues. 3. Ensured smooth transaction in the application starting from patient's Acknowledgement, Medicine & Consumable Delivery, Investigation execution, to the final Discharges. 4. Parallel Training to doctors on OP & IP EMR, OT Surgery booking and completion, Blood Requisition, Discharge Summary Preparation etc. Post Go-Live Support: 1. Worked extended hours (day and night) to address and resolve the issues faced by the users. 2. Coordinated with the application development team to resolve the issues; wherever required. 3. Ensuring timely resolution of the critical Issues in patient's indent, Clinical Form Saving, Medicine Administration Record, Emergency EMR and ER Billing 4. Wherever the issues were not getting resolved, managed and handled the situation with manual efforts. 5. Ensuring the stabilization of the System and maintain the compliance with respect to OP and IP EMR. 6. Significantly reduced the volume of support calls.
Linking theory (Classroom learning) with practice at your organisation	• EMR Functions: EMRs provide a digital version of a patient's paper chart, allowing for real-time, patient-centred records that make information available instantly and securely to authorized users. This improves patient care by enabling quick access to patient records, reducing errors, and facilitating better decision-making. • MyHealthcare App Functions: Similarly, the MyHealthcare app can facilitate various aspects of the OPD process, such as appointment scheduling, patient registration, and access to medical records. This enhances the patient experience by providing convenience and reducing wait times.

	• Flow of OPD Process: From the moment a patient books an appointment via the MyHealthcare app to their consultation and follow-up, the integration of EMR ensures a seamless flow of information. This improves the efficiency of healthcare delivery and patient satisfaction.
Gaps identified on the working area.	Laboratory Data Issues: Laboratory personnel are not providing proper data and information, which significantly hinders the ability to work efficiently and impacts the quality of patient care. Resistance to Additional Duties: Staff members are often unwilling to take on the additional duties necessary for the successful implementation and testing of the Laboratory Information System (LIS). This reluctance slows down the adoption process and reduces the system's effectiveness. On-Call Training Challenges: While handling issues hospital-wide through a designated number, I was also responsible for providing training to doctors in the Operating Theatre (OT) during live operations. This dual responsibility is challenging and can affect the quality of both support and training. Software Downtime: The software experienced a 30-minute downtime, halting all billing processes. This downtime significantly disrupted hospital operations and patient care.
Suggestions for improvement	1. Dedicated Data Entry Staff: Assign dedicated staff for data entry to ensure accuracy and consistency in laboratory information. 2. Training for Lab Personnel: Provide specific training for laboratory personnel on the importance of accurate data entry and how it impacts overall patient care. 3. Simulation-Based Training: Use simulation-based training to allow doctors to practice new processes in a controlled environment before applying them in real situations. 4. Peer Learning Groups: Establish peer learning groups where staff can share experiences and tips for using the new systems effectively.

Signature of the Student



