

SUMMER INTERNSHIP PROGRAM

at

**Sardar Patel Medical College & Associated Group of Hospitals
(PBM Hospital), Bikaner, Rajasthan**

From: 15 MAY 2025 to 29 JULY 2025

A REPORT BY:

Name of the student: Mohammad Danish khan

Master of Business Administration

Healthcare Analytics

Roll no: 0015

2024-26

under the Mentorship of

Dr. Sarthak Sen Gupta

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GOVERNMENT OF RAJASTHAN
OFFICE OF THE PRINCIPAL & CONTROLLER,
SARDAR PATEL MEDICAL COLLEGE & ASSOCIATED
GROUP OF P. B. M. HOSPITALS, BIKANER (RAJASTHAN) INDIA.

No:F. MBA Int.(Acad)SPMC/2025/ 3926

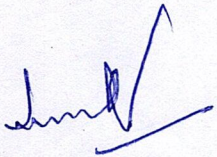
Date : 29.07.2025

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Mohammad Danish Khan, a student of MBA – Healthcare Analytics at IIHMR University, Jaipur, has successfully completed his internship at PBM Hospital, Bikaner, in the Department of Hospital Administration from 15th May 2025 to 29th July 2025.

During his internship, he remained punctual, sincere, and performed his responsibilities diligently. He demonstrated excellent enthusiasm to learn, adapt, and work collaboratively with the hospital team. His conduct was always in alignment with hospital policies and professional standards.

We commend his discipline and dedication throughout the tenure and believe he has gained valuable insights into hospital operations and healthcare systems. We wish him all the best for his future academic and professional pursuits.


Superintendent Prince
Bijay Singh Memorial
(PBM) Hospitals
Bikaner

अध्यक्ष
पी.बी.एम.
सम्बद्ध चिकित्सालय का
बीकानेर


Additional Principal &
Sr. Professor PSM &
(Internship Mentor)
S.P. Medical College,
Bikaner.

विभागाध्यक्ष
रोग विज्ञान विभाग


Principal & Controller
S.P. Medical College,
Bikaner.

प्रधानाचार्य एवं निरीक्षक
स. प. आयुर्विज्ञान महाविद्यालय
एवं सम्बद्ध चिकित्सालय का
बीकानेर

IIHMR University Faculty Mentor Approval

This is to certify that **Mr. Mohammad Danish Khan** of academic year 2024-26 **School of Digital Health** has prepared a poster with respect to his summer internship held during May-July 2025.

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

A handwritten signature in blue ink, appearing to read 'Dr. Sarthak Sen Gupta'.

Date: 30/07/2025

Dr. Sarthak Sen Gupta
Assistant Professor

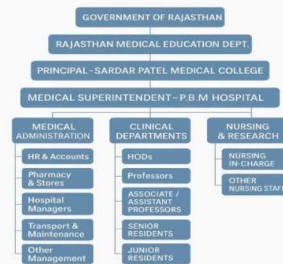
STUDENT NAME: Mohammad Danish Khan
ROLL NO: 0015

PBM Hospital, Bikaner (Under Sardar Patel Medical College)

Organisational Mentor: Dr. Rekha Acharya, Vice Principal, SPMC
University Mentor: Dr. Sarthak Sen Gupta, Assistant Professor, IIMMR

ORGANISATION PROFILE	VISION AND MISSION	THEORETICAL LEARNING	MAJOR LEARNINGS	SUGGESTIONS TO THE ORGANIZATION
PBM HOSPITAL, BIKANER Established in 1935 and named after Prince Bijay Singh, PBM is Rajasthan's first government hospital. Spread across 400 acres with nearly 4000 beds and a daily OPD footfall of 8000+ patients, it is a major tertiary care center in North India. The hospital is renowned for its advanced cancer treatment and is affiliated with Sardar Patel Medical College, Bikaner	VISION: To provide accessible, affordable, and quality healthcare to all sections of society through efficient service delivery. MISSION: To adopt innovative technologies and practices for continuous improvement in patient care and hospital operations.	- Learned healthcare IT concepts like IHMS, EHR, and data-driven hospital management. - Studied stakeholder management and change implementation strategies. - Learned healthcare IT concepts like IHMS, EHR, and data-driven hospital management.	- Gained hands-on experience in public health informatics and workflow design. - Bridged the gap between academic knowledge (like HIS, QMS, EHR concepts) and real-time hospital operations. - Project planning and cross-departmental coordination. - Understood ground-level challenges in digital adoption, especially in government hospitals. - Improved problem-solving and system thinking through multi-stakeholder collaboration.	- Introduce an administrative officer with a background in hospital management to assist the superintendent. - Conduct regular digital literacy workshops. - Implement a minimum registration fee to strengthen funding for technology infrastructure. - Establish a separate control room or help desk to guide patients through digital processes like QMS and OPD registration. - Begin QMS pilot in Block-16 (General Medicine and Surgery) to set a benchmark.

ORGANIZATIONAL STRUCTURE



बिकानेर, 18 जुलाई। बिकानेर में स्थित सरदार पटेल मेडिकल कॉलेज में एक महत्वपूर्ण कार्यक्रम आयोजित किया गया। कार्यक्रम के दिग्गज अतिथि डॉ. सुनील कुमार शर्मा के नेतृत्व में शिक्षण और प्रशिक्षण के माध्यम से स्वास्थ्य सेवाओं को बेहतर बनाने के लिए एक महत्वपूर्ण बैठक का आयोजन किया गया। इस बैठक में शिक्षण और प्रशिक्षण के माध्यम से स्वास्थ्य सेवाओं को बेहतर बनाने के लिए एक महत्वपूर्ण बैठक का आयोजन किया गया। इस बैठक में शिक्षण और प्रशिक्षण के माध्यम से स्वास्थ्य सेवाओं को बेहतर बनाने के लिए एक महत्वपूर्ण बैठक का आयोजन किया गया।



PROJECT DESCRIPTION		SWOT ANALYSIS									
Implementing the Integrated Health Management System (IHMS) in PBM Hospital DOCTOR DESK MODULE: Training doctors to generate digital prescriptions using IHMS to contribute toward electronic health records (EHR). Investigation & Billing Module: Assessing integration between diagnostics and billing to minimize errors and improve sample handling. Queue Management System (QMS): Studying successful implementations at hospitals in Jaipur and planning a pilot for PBM to enhance OPD patient flow. RGHS & MAA Yojna Claims Analysis: Conducted data cleaning and root cause analysis of claim rejections to improve financial efficiency. QMS Implementation at TB Department: Created detailed SOPs and infrastructure plans with hardware requirements.		<table><tr><th>STRENGTHS</th><th>WEAKNESSES</th><th>OPPORTUNITIES</th><th>THREATS</th></tr><tr><td> - Equipped for tertiary care - Advanced medical machinery - Large campus with individual department blocks - Strong administrative hierarchy </td><td> - Delay in hardware procurement. - Lack of administrative expertise in digital transformation. - Manual duplication still present. - Low digital literacy among staff </td><td> - Digitalization of all hospital modules (EHR, QMS, LIS). - Capacity to become a model for IHMS implementation statewide - Reduce paperwork and improve real time analytics </td><td> - Budget constrains due to free of cost services. - Resistance from staff toward technology. - Policy-practice gaps delaying execution. </td></tr></table>		STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	- Equipped for tertiary care - Advanced medical machinery - Large campus with individual department blocks - Strong administrative hierarchy	- Delay in hardware procurement. - Lack of administrative expertise in digital transformation. - Manual duplication still present. - Low digital literacy among staff	- Digitalization of all hospital modules (EHR, QMS, LIS). - Capacity to become a model for IHMS implementation statewide - Reduce paperwork and improve real time analytics	- Budget constrains due to free of cost services. - Resistance from staff toward technology. - Policy-practice gaps delaying execution.
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Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: Integrated Health Management System (IHMS), Departmental Operations, and Infrastructure Evaluation

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 01

From: 15th May to 18th May

Activity Done	• Orientation and introductory visit to PBM Hospital campus. • Observed various departments including General Medicine, General Surgery, Pediatrics, Cardiology, etc. • Visit to the central Server Room to understand the Hospital Information Management System (HIMS). • Studied how EHR and EMR data is collected and managed. • Understood the role of digital interface and data flow to Jaipur Headquarters. • Assessed patient load in OPDs, MRI services, and sanitation status.
Linking theory (Classroom learning) with practice at your organization	• Applied understanding of health information systems, data digitization, and interoperability in a real-world government healthcare setup. • Observed practical application of workflow mapping in hospital operations and patient movement. • Connected classroom discussions on resource allocation, hospital infrastructure, and healthcare analytics to real-life data gaps. • I identified how HIMS facilitates supply chain tracking, attendance monitoring, and patient record management. • Maintained records of average patient waiting time from OPD registration to doctor consultation. • Evaluated total number of beds, bed occupancy rate, and infrastructure planning. • Understood implementation of government schemes like 'Maa Yojana' and RGHS for eligible patients. • Assessed the total time taken for sample collection by laboratory staff including patient queue time.

Gaps identified on the working area.	• High patient load with insufficient staff and resources. • Lack of digital training among staff leading to underutilization of HIMS. • Only one MRI machine is available under government ownership, leading to long waiting times. • Poor sanitation in toilets, increasing risk of infections. • No internal transport, despite the large 400-acre campus. • Inadequate drinking water and food facilities. • Crowded environment with minimal crowd management. • Absence of affordable accommodation for patient attendants. • Lack of clear signage and help desks.
Suggestions for improvement	• Increase MRI capacity and appoint trained technicians. • Provide digital training to hospital staff. • Introduce internal shuttle services within hospital campus. • Improve sanitation and build Sulabh complexes. • Set up drinking water and canteen facilities for patients and attendants. • Offer low-cost accommodation nearby for long-term attendants. • Create digital kiosks for navigation and information. • Use tokens and volunteers for crowd management. • Conduct regular quality audits and satisfaction surveys.
Plan for the next week	• Observe EMR data entry accuracy and data flow. • Collect informal feedback on patient experience. • Analyze waiting time and bottlenecks in service delivery. Engage with staff on issues related to digital adoption.



Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: Integrated Health Management System (IHMS), Departmental Operations, and Infrastructure Evaluation

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 02

From: 19th May to 25th May

Activity Done	• Explored and observed OPD functioning in Orthopedics, Obstetrics & Gynecology, and ENT departments. • Visited and studied multiple departments in the Super Specialty Block including Pediatric Surgery, Gastroenterology, Pain Management, Endocrinology, Neurology, and Nephrology. • Learned about the IHMS software from the server room in-charge and discussed the unimplemented Queue Management System module. • Collected data on medicine dispensing time at Drug Distribution Center No. 05. • Attended an official meeting with the Additional Principal regarding data confidentiality and verification protocols.
Linking theory (Classroom learning) with practice at your organization	• Applied concepts of Hospital Administration and Operations Management by observing patient flow and department-level functioning. • Understood practical use of Health Information Systems (IHMS) and how patient data is captured, stored, and used for service delivery. • I identified real-world barriers in implementing Queue Management Systems and Electronic Drug Distribution Portals (e-Aushadhi). • Connected academic discussions on public healthcare schemes like RGHS and Maa Yojna with actual execution at the hospital.
Gaps identified on the working area.	• Inadequate waiting areas and seating in major OPD zones causing congestion. • Single registration counter in the Super Specialty Block leads to long queues. • Lack of implementation of the Queue Management System

	despite being available in IHMS. Limited integration between diagnostic machines and the hospital software affecting lab data management.
Suggestions for improvement	- Implement the Queue Management System to streamline patient flow and reduce crowding. - Increase the number of registration counters in high-volume areas like SSB. - Install digital signage in OPD waiting areas for patient information and token display. - Improve basic infrastructure and hygiene in OPD corridors and waiting zones. - Integrate lab equipment with IHMS for seamless lab result tracking.
Plan for the next week	- Study the drug inventory management process through the e-Aushadhi portal. - Begin department-wise analysis of bed occupancy and discharge procedures. - Continue data collection tasks assigned by Jaipur HQ. - Observe the admission and billing modules of IHMS in detail. - Follow up with the IT department implementation timelines for pending IHMS modules.

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Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: Healthcare Operations, Public Health Schemes, and IHMS Integration

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 03

From: 26th May to 1st June

Activity Done	- Met the Medical Superintendent and received guidance from Mr. Mahesh Acharya regarding a weekly task plan. - Initiated coordination with nodal officers for three major schemes: Mukhyamantri Nishulk Janch Yojana, E-Upkaran, and E-Aushadhi. - Attended detailed orientation with Mr. Deepshikhar regarding diagnostic workflow under Mukhyamantri Nishulk Janch Yojana. - Participated in an official inspection visit to SDM Government District Hospital with DME representatives. - Conducted operational assessment of General Medicine and General Surgery OPDs in Block-16 to investigate poor implementation of IHMS. - Submitted a comprehensive report with seven improvement recommendations for system integration and workflow efficiency
Linking theory (Classroom learning) with practice at your organization	- Applied concepts of Hospital Workflow Optimization, Health Information Systems, and Healthcare Scheme Implementation in real-time hospital environments. - Evaluated system performance based on IHMS architecture knowledge. - Analysed patient data management and triaging errors, linking them to curriculum topics in Hospital Operations Management and Quality in Healthcare. - Studied scheme implementation and electronic record systems aligned with public health policy modules
Gaps identified on the working area.	- Frequent server downtime and lack of digital infrastructure in consultant chambers. - Poor Queue Management, resulting in congestion and patient misrouting. - Partial or non-implementation of IHMS modules, including Pharmacy and Lab integration. - Manual registration and handwritten lab report due to staff

	limitations. • Patients with minor ailments overloading tertiary care OPDs due to absence of triaging
Suggestions for improvement	• Implement a centralized registration counter with clinically trained staff. • Activate IHMS Queue Management System (QMS) with digital token display. • Deploy system operators in consultant chambers for real-time clinical data entry. • Shift DDC operations from E-Aushadhi to IHMS pharmacy module for centralized control. • Use QR-coded lab samples integrated with IHMS investigation module. • Educate patients on appropriate healthcare facility usage. • Improve IHMS server support to ensure uptime during peak OPD hours.
Plan for the next week	• Conduct field visits to study E-Upkaran scheme with the Biomedical Engineering team. • Deep-dive into E-Aushadhi drug distribution workflows across multiple DDCs. • Observe patient management efficiency in departments with active IHMS integration. • Follow up with IT/server room team regarding QMS and pharmacy module activation. • Prepare a comparative report between IHMS and standalone system performance.



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Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: IHMS Software Implementation, Drug Supply Chain, Public Health Schemes (MAA Yojana, RGHS), OPD/IPD Process Optimization

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 04

From: 2nd June to 08th June

Activity Done	• Studied the Push and Pull drug supply models at the central drug warehouse under the guidance of Dr. Nawal Gupta. • Prepared and presented a PowerPoint presentation on IHMS software modules to the Superintendent and Principal of SPMC, proposing a pilot digitization project starting from the TB ward. • Observed workflow inefficiencies in General Medicine and General Surgery OPDs (Block 16)—identified gaps like unequal doctor workload and dual registration issues. • Collected data on IPD admissions under MAA Yojana, RGHS, and other schemes to evaluate scheme utilization and departmental participation. • Conducted a systems assessment in the TB Department, identifying the need for digitized registration, a queue token system, and improved patient seating/waiting management. • I participated in a video conference with Jaipur HQ for intern project updates.
Linking theory (Classroom learning) with practice at your organization	• Applied theoretical understanding of hospital information systems (IHMS) to evaluate module-level usage and integration gaps. • Used knowledge of healthcare workflow optimization to analyse OPD congestion, registration duplications, and referral mismanagement. • Assessed supply chain models (push vs. pull) using concepts from logistics and inventory management coursework. • Linked public health policy modules to real-time scheme-based patient admissions under MAA Yojana and RGHS.
Gaps identified on the working area.	• Only 4 out of 26 IHMS modules are operational, with poor module awareness among staff. • OPD registration processes are manual, repetitive, and not unified, causing patient delays and staff burden. • The pull model of drug supply lacks real-time automation, creating stock fluctuation risks.

	• Poor queue management and underutilization of consultation chambers in high-footfall departments. • Low awareness and inconsistent implementation of government healthcare schemes across departments. • Infrastructure for digital workflow (like power backup and system operators) is inadequate.
Suggestions for improvement	• Launch IHMS as a pilot in the TB department with a queue token system and full digital registration. • Merge OPD and departmental registration into a single-window system to avoid dual entries. • Improve internet and power backup to reduce handwritten OPD slip dependency. • Deploy trained staff and install help desks for better patient guidance. • Integrate Push model automation into E-Aushadhi and IHMS for real-time stock updates. • Encourage adoption of IHMS modules (billing, pharmacy, investigation, queue management) hospital wide. • Ensure availability of digital waiting areas with displays and seating.
Plan for the next week	• Work on integration strategies for IHMS pharmacy and lab modules. • Continue data collection for scheme-based IPD admissions. • Support the server room team in resolving IHMS module activation issues. • Draft a department-wise digitization plan with cost estimates and manpower requirements



Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: IHMS Pilot Implementation, Parking & Traffic Assessment, Clinical Workflow Study (PMR Department).

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 05

From: 9th June to 15th June

Activity Done	- Conducted field observations on parking and traffic issues across PBM's large campus. Identified lack of structure, ambulance delays, and random auto-rickshaw access. - Proposed scalable solutions for parking zones, e-rickshaws, entry gates, CCTV, and traffic regulation systems. - Prepared and submitted a report on parking reform to server room team; received feedback from Mr. Mahesh and Mr. Pankaj for further refinement. - Met with Dr. P. D. Tanwar to discuss IHMS implementation through the Doctor Desk Module. Proposed pilot rollout in PMR department. - Conducted pilot testing in PMR department with technical staff. Identified functional registration system but noted lack of IHMS usage in investigation and pharmacy departments, which disrupted interoperability. - Decided to observe departmental workflows further before launching full-scale module integration.
Linking theory (Classroom learning) with practice at your organization	- Applied hospital operations management theories in evaluating traffic, infrastructure, and emergency response readiness. - Integrated classroom learning of Health Information Systems into real-time analysis of module interoperability and workflow bottlenecks. - Linked healthcare planning and policy knowledge to public facility management and digital health adoption models.
Gaps identified on the working area.	- No structured parking plan; random vehicle flow and absence of surveillance. - Unregulated movement of autos and poor ambulance mobility. - Lack of digitization in pharmacy and lab departments prevents full IHMS utility. - Absence of any traffic monitoring personnel or digital entry gate system.

Suggestions for improvement	• Create zoned parking areas with CCTV surveillance and staff-managed entries. • Launch in-campus e-rickshaws to reduce auto congestion and support patient movement. • Install entry/exit tracking system to classify vehicle type and improve access data. • Label ambulances as private/government for easier regulation. • Assign a campus traffic controller or set up a Police Chowki for discipline enforcement. • Ensure synchronized IHMS usage across departments before rolling out clinical modules. • Improve interdepartmental coordination for digital prescription, investigation, and pharmacy linkages.
Plan for the next week	• Finalize parking system report with feedback revisions. • Continue monitoring patient workflows in PMR department. • Coordinate with lab and pharmacy departments for IHMS integration readiness. • Assist in preparing a module-wise digitization rollout plan.



Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: Digital Clinical Workflow (Doctor Desk – IHMS), Queue Management System (QMS), Data Mapping and Module Integration.

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 06

From: 16th June to 22nd June

Activity Done	- Initiated the Doctor Desk module pilot in PMR Department under supervision of Dr. Tanwar and IHMS engineers. - Studied patient consultation flow, average treatment time, and departmental coordination to align with digital workflows. - Mapped dropdown data for exercises, complaints, diagnostics, and medications; submitted list to IT team; sourced 1,550 exercises for integration. - Shifted focus to TB Department QMS implementation, surveyed infrastructure and flow of 400–500 patients daily. Drafted layout and received HOD approval. - Assisted doctors in PMR with SSO login, system familiarization, and first digital prescription generation. - Shared project status with Principal and Server Room team; coordinated with vendor for screen, dispenser, and waiting area setup. - Encouraged daily use of IHMS by doctors and SR; submitted updates to Superintendent and scheduled a review meeting.
Linking theory (Classroom learning) with practice at your organization	- Applied digital health learnings in Doctor Desk module setup and adoption support. - Used workflow mapping concepts to align patient movement with digital registration and consultation tools. - Implemented hospital planning and queue management strategies to reduce congestion and improve patient flow. - Applied public health data management and HIT concepts in mapping ICD-10, OPD procedures, and standard treatment protocols
Gaps identified on the working area.	- Low familiarity among doctors with digital systems like IHMS. - Lack of integrated lab and pharmacy modules disrupted workflow. - No pre-defined dropdown entries for PMR-specific data (exercises, complaints). - TB Department lacks queue discipline, contributing to patient

	overload at consultation chambers.
Suggestions for improvement	• Ensure basic hands-on training for doctors and residents for IHMS usage. • Populate essential dropdowns in consultation modules for rapid digital entry. • Implement QMS in TB Department with token display and entry regulation gates. • Digitize departmental workflows including referrals from PMR to physio/occupational therapy. • Monitor and analyse usage data to plan further rollouts in other departments
Plan for the next week	• Finalize and present the Doctor Desk module pilot review to the Superintendent. • Launch QMS setup in TB Department with hardware installation. • Track real-time usage of IHMS and measure patient turnaround time. • Submit follow-up recommendations for full module integration.



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Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: Digital Prescription via IHMS, Queue Management System (QMS), Health Scheme Rejection Analytics (MAA Yojana & RGHS), Drug Distribution & Infrastructure Review.

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 07

From: 23rd June to 29th June

Activity Done	- Supported PMR doctors in generating digital prescriptions through IHMS Doctor Desk module; faced hardware and staffing limitations. - Revisited and updated QMS implementation plan at TB Department; gathered feedback from staff and aligned next steps. - Inspected newly constructed General Medicine & General Surgery wing for layout and operational planning suggestions. - Collected and analysed claim rejection data for MAA Yojana and RGHS schemes from respective nodal officers. - Conducted hospital-wide survey to check ADS (Anti-Diphtheria Serum) stock; confirmed out-of-stock status with District Drug Warehouse. - Discussed E-Aushadhi to IHMS integration with nodal officers for future centralized drug management. - Presented QMS project SOP to Principal and received approval from HOD, pending final submission to ACP for hardware demand.
Linking theory (Classroom learning) with practice at your organization	- Applied clinical digitization concepts from Health IT coursework for Doctor Desk deployment. - Practiced operational planning and stakeholder coordination for QMS infrastructure rollout. - Used data analytics and health finance knowledge to interpret claim rejection patterns. - Connected pharmaceutical supply chain theory with real-world E-Aushadhi portal usage and integration planning
Gaps identified on the working area.	- No dedicated printer in PMR department delaying digital prescription adoption. - QMS hardware not yet procured due to administrative delays. - High rejection and query rates in both MAA Yojana and RGHS claim submissions. - Critical drug (ADS) out of stock, creating public health risk

Suggestions for improvement	• Provide department-level laser printers to support IHMS prescription workflow. • Expedite hardware procurement through demand letter approval for QMS project. • Implement training for staff on accurate claim documentation to reduce rejection rates. • Ensure proactive coordination with RMSCL and local vendors for essential drug supply. • Roll out IHMS integration across DDCs to replace E-Aushadhi and unify data management.
Plan for the next week	• Launch Doctor Desk in Diabetic Ward as Superintendent's suggestion. • Submit QMS hardware demand to ACP and initiate installation phase. • Continue rejection data analysis and prepare dashboards. • Coordinate E-Aushadhi to IHMS integration strategy with pharmacy staff. • Document final week-wise outcomes for internship report compilation



Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan.

Area/ Department/ Project of Summer Internship Program: IHMS Implementation in Laboratory and Billing Modules across PBM and SSB Blocks.

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 08

From: 30th June 2025 to 05th July

Activity Done	• Participated in a strategic planning meeting chaired by the Superintendent and department heads to address prior IHMS implementation challenges and map out re-implementation with a structured plan. • Conducted field inspections of high-volume labs including Lab No. 90, 84, and 02 to analyse sample load, reporting frequency, and determine manpower needs for IHMS compatibility. • Investigated OPD Lab 16 and R-OPD Lab, identifying bypassing of billing processes and incomplete data capture, leading to the recommendation of mandatory billing prior to sample collection. • Analysed sample volumes and operator requirements in Cardiology, Paediatrics, TB, and Trauma Departments, recommending minimum operator allocation for IHMS integration. • Assessed additional departments including ENT, Zanana (Women's), Neurology, and Urology, suggesting IHMS onboarding with minimum one operator per department based on workload. • Finalized with an analysis visit to the SSB Laboratory and participated in a concluding strategy meeting to present findings and recommendations.
Linking theory (Classroom learning) with practice at your organization	• Applied concepts from Health Information Systems (HIS) to evaluate lab digitization feasibility, operator workload analysis, and data entry systems. • Utilized hospital operations management theory to assess service flow, manpower utilization, and billing-reporting integration. • Engaged in workflow mapping and process redesign to suggest real-time implementation strategies for IHMS with minimal disruption.
Gaps identified on the working area.	• Manual entry systems still prevalent across labs, creating duplication and data inconsistencies. • Bypassing of billing counters resulting in missing or incomplete entries. • Lack of dedicated operators for data entry limits IHMS usage.

	Absence of a centralized help-desk for guiding patients through lab-billing-report flow.
Suggestions for improvement	- Deploy 20–25 trained operators across departments based on sample load and shift requirements. - Establish a centralized billing counter and sample reception room to eliminate redundant billing and delays. - Enforce mandatory billing before sample collection to ensure accurate data capture and process traceability. - Introduce barcode-based sample tracking for efficient test-result linkage and upload via IHMS. - Discontinue manual registers once IHMS is live to prevent duplication and mismatched records. - Set up a helpdesk near OPD entry to assist patients in navigating digital systems and billing flow.
Plan for the next week	- Coordinate with ACP and server team for initiating operator deployment. - Draft departmental IHMS implementation roadmap with manpower, hardware, and training needs. - Create SOPs for laboratory and billing integration workflow. - Begin pilot phase of IHMS module activation in select labs. - Monitor billing compliance before lab access and gather user feedback.



Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: QMS Implementation Planning, Comparative IHMS Study, Doctor Desk & Nursing Module Integration, Departmental Digital Infrastructure Mapping.

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 09

From: 7th July to 13th July

Activity Done	• Conducted benchmarking visits to Jaipuria, Kanwatia, and SMS Hospitals in Jaipur to study live QMS and IHMS module implementation. • Analysed patient flow optimization through token-based registration, barcode-enabled lab processes, centralized medication dispensing, and digital prescription systems. • Discussed technical requirements for QMS setup including token dispensers, LED displays, barcode printers, and integrated dashboards. • Prepared and submitted hospital visit report to ACP and Superintendent; presented strategy for replicating effective modules at PBM (Block-16). • Facilitated online prescription generation at PMR department; introduced the Nursing Module for smoother workflow. • Mapped Block-16 OPD infrastructure for QMS hardware positioning and overall patient flow redesign.
Linking theory (Classroom learning) with practice at your organization	• Applied digital health transformation principles to assess QMS and EHR implementation across hospitals. • Used hospital workflow mapping and process engineering to analyse resource allocation, waiting area management, and service flow redesign. • Translated Health Information System (HIS) theories into practical tools for interdepartmental integration (Doctor Desk, Billing, Investigation, Nursing Modules).
Gaps identified on the working area.	• PBM lacks implementation of integrated IHMS modules (Doctor Desk, Billing, Investigation). • Absence of QMS causes crowd mismanagement, long queues, and patient dissatisfaction. • No centralized system for scheme-specific services (unlike SMS's single-window system). • Need for infrastructure upgrades such as printers, barcode scanners, and help desks.

Suggestions for improvement	• Launch QMS in Block-16 as a pilot department with proper hardware setup and token flow logic. • Implement Doctor Desk and Nursing Modules to generate and print prescriptions seamlessly. • Integrate Investigation and Billing Modules into IHMS to ensure lab data linkage and EHR continuity. • Establish a single window registration counter for patients under government schemes like RGHS & MAA Yojana. • Install LED token screens and create patient-friendly waiting areas equipped with air conditioning and digital display.
Plan for the next week	• Submit final hardware demand for QMS implementation in Block-16. • Initiate pilot integration of nursing module in PMR and Diabetic departments. • Continue data entry and lab analysis work for MAA Yojana and RGHS schemes. • Prepare SOPs and layouts for scalable implementation of QMS across other departments.



Signature of the Student

Approved by the IIHMR University's Mentor

Weekly Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: Implementation and Expansion of Doctor Desk Module in IHMS, ABHA Registration, and Pilot Planning for Billing & Investigation Module in the Diabetic Department.

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Week no: 10

From: 14th July to 20th July 2025

Activity Done	- Supervised and optimized Doctor Desk module usage in PMR department. - Achieved 70–75% transition from manual to e-prescription within the department. - Resolved technical glitches in coordination with the IHMS engineering team. - Demonstrated e-prescription workflow and ABHA integration to the hospital superintendent. - Initiated discussions with the Dental Department for ABHA registration and software rollout. - Planned implementation of Billing and Investigation modules in Diabetic Department. - Developed a full patient flow chart for Diabetic OPD to integrate Doctor Desk and diagnostic services.
Linking theory (Classroom learning) with practice at your organization	- Applied knowledge from Health Information Systems, EHR, and Digital Health courses in real-world digitization projects. - Used Operations Management concepts to analyse and optimize patient flow. - Engaged in Stakeholder Management and change facilitation learned under Healthcare Quality Management. - Used Healthcare IT implementation frameworks to bridge the digital gap in government hospital services.
Gaps identified on the working area.	- Frequent technical interruptions due to server lag or internet fluctuations. - Limited understanding of IHMS and ABHA benefits among medical staff. - Dependency on paper-based prescription persists due to limited hardware (printers/tablets). - Lack of integration between investigation billing and EHR in departments other than PMR.

Suggestions for improvement	• Provide basic IHMS hands-on training and practice sessions for doctors and nursing staff. • Ensure availability of laser printers in all departments adopting Doctor Desk. • Create an ABHA Help Desk for registration and patient education. • Deploy Billing & Investigation modules parallel with Doctor Desk in high-volume OPDs like Diabetic and Medicine to complete the EHR loop. • Strengthening IT support and infrastructure to avoid system downtime.
Plan for the next week	• Begin pilot implementation of Billing and Investigation Module in the Diabetic Department. • Assist staff in using Doctor Desk and nursing module for smooth e-prescription and print workflow. • Collect feedback from PMR and Diabetic departments to assess satisfaction and identify improvement areas. • Visit 16 Number OPD to finalize QMS hardware installation layout and submit a demand letter to ACP. • Start groundwork to extend ABHA and Doctor Desk to Dental and Medicine OPDs.



Signature of the Student

Approved by the IIHMR University's Mentor

Compiled Report

Name of the Organization: Sardar Patel Medical College & Associated Group of Hospitals (PBM Hospital), Bikaner, Rajasthan

Area/ Department/ Project of Summer Internship Program: IHMS Implementation, Public Health Scheme Analysis, OPD/IPD Workflow Optimization, QMS Planning, and Infrastructure Evaluation.

Name of the Student: Mohammad Danish Khan

Roll no: 0015

Stream: MBA in Healthcare Analytics

Activity Done	• Conducted multi-departmental field visits across PBM and SSB Blocks. • Analysed OPD and IPD processes, scheme-based admissions, and infrastructure gaps. • Evaluated implementation status of IHMS (Doctor Desk, Lab, Billing, Pharmacy). • Facilitated training and pilot rollout of Doctor Desk module in PMR and Diabetic departments. • Monitored E-prescription generation achieving 70–80 percent e-prescriptions per day. • Designed patient flow models and QMS layouts; submitted SOPs and hardware demands. • Assessed lab sample load, manpower, and operator requirements for full digitization. • Engaged with departments on ABHA registration, scheme claim analysis, and system integration. • Attended high-level meetings with superintendents, HODs, and the IT server team.
Linking theory (Classroom learning) with practice at your organization	• Applied Health Information Systems knowledge to real-time IHMS module rollout and troubleshooting. • Used Operations Management to map patient flow, staff allocation, and turnaround times. • Implemented Healthcare Analytics for scheme rejection tracking and claim processing. • Practiced Quality Management in hospital infrastructure audits and SOP development. • Integrated Health Policy and IT Planning theories in stakeholder engagement and strategic rollout.
Gaps identified on the working area.	• Incomplete implementation of IHMS (only 4/26 modules live in early phase). • Staff lacked digital training, leading to underutilization of systems. • Absence of QMS caused OPD crowding and long wait times. • Manual data entry continued in lab and pharmacy, affecting

	data integrity. • Scheme claims (MAA Yojana, RGHS) had high rejection due to process errors. • Inadequate digital infrastructure: printers, barcode systems, and helpdesks missing.
Suggestions for improvement	• Conduct hands-on training workshops for IHMS across all departments. • Enforce mandatory billing and barcode tagging before lab investigations. • Establish centralized help desks and waiting areas with digital displays. • Deploy 20–25 trained operators for IHMS usage in labs and OPDs. • Implement QMS in Block-16 with token dispensers, LED screens, and dashboards. • Replace E-Aushadhi with IHMS pharmacy module for unified drug inventory tracking. • Ensure all departments adopt Doctor Desk, Billing, Nursing, and Investigation modules.
Key Learnings	• Gained practical insight into large-scale digital transformation in public healthcare. • Developed skills in stakeholder coordination, data collection, workflow redesign, and SOP writing. • Understood real-world challenges in healthcare IT implementation and public health policy execution. • Experienced firsthand how technology can improve hospital efficiency and patient satisfaction. • Learned to integrate theory with field practice, balancing administrative and technical demands.



Signature of the Student

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