



Functional Overview
Hospital Information Management System

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Introduction

Hospital Information Management (HIMS) System is designed for a small to mid sized hospitals, which covers the wide range of hospital administration and management processes. It provides relevant information across the hospital to support effective decision making for patient care, scheduling and billing, in a seamless flow.

Objective

This document serves to describe in brief, salient features of Hospital Information Management System.

Scope

- The base product is an integrated system for storing, visualizing, querying and retrieving patient medical records, cost of treatment and hospital inventory
- The system caters to various departments in a hospital setup
- The system has facility to register patients with a unique ID
- The System features a Knowledge Repository that includes Standard Protocols and Drug Information
- Appointment scheduling is an integral part of the system
- The system provides facility to generate customized Reports/Discharge summary
- The system has facility to export data that can be customized

Salient Features

The base product has the following functionalities:

- Registration
- Billing
- Electronic Medical Records (EMR)
- Reports
- Resources
- Scheduling
- Knowledge Repository



Features Overview

Patient Registration (Admission)

This feature will enable the user to capture information about the Out/ In Patient. Patient Registration includes essential details such as 'Name', 'Surname', 'Sex', 'Phone Number', 'Date of Birth', 'Age' etc. A unique ID is generated by the application for each registered patient. In addition, there is a provision to capture a unique identifier for each patient, which can be his/her 'Passport', 'PAN issued by Income Tax Department of India', 'Driving License', 'Voter's ID issued by EC of India', etc. A combination of the Patient ID and the identifier will be unique and would help in distinguishing patients sharing the same name, surname or date of birth.

Patient Registration also includes facility to capture more details such as 'Marital Status', 'Contact Address' of the patient and place of registration. Additionally, facility to capture details of person to be contacted in case of emergency, like 'Name', 'Relationship', 'Contact Number', 'Address' etc, has been provided.

If the patient is covered under Medical Insurance, then there is provision to capture information regarding the same including 'Policy No.', 'Sum Insured', 'Insurer', 'TPA', etc.

Billing

This feature will allow user(s) with appropriate privileges to generate, store and retrieve information of billing and keep track of individual payments for the following categories:

- **Consultation** – General, Health Check-up, Specialist, etc.
- **In-Patient** – Ward/Bed Charges, Surgical, etc.
- **Laboratory** – Diagnostics like Blood Sugar test, Biopsy, ECG etc.
- **Pharmacy** – Medicines, Consumables, etc.
- **Miscellaneous** – Anesthetist Charges, Dressing, Accommodation, etc.

Look-up Tables

This feature will contain reference information about fees/charges for the following:

- Consultation – General, Health Check-up, Specialist, etc.
- In-Patient – Ward/Bed Charges, Surgical, etc.
- Laboratory – Diagnostics like Blood Sugar test, Biopsy, ECG etc.
- Pharmacy – Medicines, Consumables, etc.
- Miscellaneous – Dressing, Accommodation, Anesthetist Charges, etc



Electronic Medical Record (EMR)

This feature will help users (usually Doctors, Nurses or any authorized person) to capture information of the patient in an electronic format. Following are few typical categories:

- **Medical Data** - Examination, Operation (Surgical) Procedure, Observation, Diagnosis, Prescription, Diet Instruction, etc.
- **Radiology Data** - USG, ECG, X-ray, etc.
- **Wet Lab Data** - Information of the analyzed sample obtained from the patient for investigations like Biochemistry, Hematology, etc.
- **Time Series Data** - Time-dependent parameters of the patient such as Partogram, Temperature Chart, Nurse's Bedside Report, Diabetes management, Blood pressure monitoring (PIH), Drug administration, etc.

Reports

The following types of reports can be generated for In/Out Patients:

- Investigation Reports
- Discharge Summary

Depending upon the specialization of a department, report formats can be customized and/or templates can be provided.

Resources

This feature will contain information regarding:

- Organization structure – Divisions, Departments, Labs, People, etc.
 - People – Affiliation of human resources such as Doctors, Nurses, etc. to various divisions, departments.
- Inventory – will have information regarding inventory items in labs and pharmacy. Inventory will be categorized as:
 - **Consumable** - Any resource that will be used up and not generate immediate hazardous remnant. Ex: Injectables, Medicines, food supplements, etc.
 - **Disposable** - Any resource that will be used up and generate disposable remnant. Ex: Syringes, gloves etc.
 - **Reusable** - Any resource that will be reused over a period of time, but servicing/refilling will be needed after every cycle of use. Ex: Linen, Oxygen cylinders, etc.
 - **Durable** - Any resource that will be used over a period of time, but servicing/refilling may not be required after each cycle of use. Ex: Refrigerators, Beds, ICU equipments, Instruments, Apparatus, Computers, Printers etc



- **Biosample** - Any resource that is collected from the patients as a part of medical examination, Ex: Bio-fluids, Tissues etc.

Scheduling

This feature will facilitate

- Doctor Scheduling
- Appointment Scheduling for Patients
- Operation Theatre Scheduling
- Duty Roster

Knowledge Repository

This feature will help to capture information on the following:

- Drug Information - Description, Clinical Pharmacology, Indications & Dosage, Side effects & Drug interactions, Warnings & Precautions and Overdose & Contraindications about relevant drugs.
- Standard Protocols - Medical procedures undertaken at predefined conditions.

