MIMSYS Hospital Information System

Note: Hospital clients names to be listed along with their testimonials.

It is the objective of MIMSYS HIS developed by MIMSYS Technologies Pvt. Ltd to create a unique value proposition through the deployment of leading-edge technologies and applications in hospitals that will enable and facilitate a superior services experience for Hospital Clients.

The main objectives of MIMSYS HIS are:
- Streamline the daily activities of patient care
- Support Multi–Clinic on line data processing system
- Improve productivity and help in increasing the efficiency of the care providers
- Support cost control and budgeting to improve the overall performance of the hospital, clinics, labs etc through extensive MIS reporting
- Generate accurate and comprehensive statistical information
- Generate comprehensive analytical queries and reports to help the management with decision making
- Maintain medical and administrative information related to patient visits both as outpatients and inpatients
- To make patient services efficient.

General & Operational Features of MIMSYS

MIMSYS is a real-time, on-line integrated information management system for clinics and hospitals, addressing all critical areas of a typical healthcare setup.

It is modular and flexible. The various modules are fully integrated.

While computerizing the various functions ranging from patient registration to clinical services, it provides immediate access to clinical and administrative data, streamlines the scheduling and management of clinic visits and admissions, improves the dispensing of medications, facilitates management of Laboratory and Radiology functions and more.

The system allows implementation in a phased manner, with flexibility for the users and the management of the Hospital/Clinic to decide and prioritize the sequence of modules to be implemented. However, when used for various aspects of Hospital/Clinic management, it forms a single robust and integrated environment offering powerful, immediate data access across the database. For example, the laboratory investigation results are accessible from a ward terminal, the pharmacy department are able to obtain patient allergy reactions, and the nursing department are be able to access laboratory reports, and so on.

The overall system is extensively parameterized thus allowing greater flexibility in terms of operating and managing the entire application vis-à-vis the overall Hospital/Clinic procedures. In addition, the system also provides module level parameters to tune the behavior of the module in accordance to the department level procedures/rules.

The system extensively provides for maintenance and usage of codes wherever possible. Where applicable, the system supports configuration for using international standard codes. The system provides for quick look-up facility for searching the required code based on flexible criteria and it is also easy to select the required code.

The Patient is the focal point of the entire system. The system maintains comprehensive details about the patient – demographic details, visit details across different episodes both as outpatients and inpatients, etc. Each patient is identifiable by a unique patient Number, the format and structure of which is user-definable.

A patient's encounter with the hospital could be either as an inpatient, day care or an outpatient sub-classified as a normal outpatient/inpatient or accident and emergency patient. Each visit is identifiable by a unique reference number along with the Hospital/Clinic where it occurred. The services provided to the patient whether clinical care (laboratory tests, X-ray investigations, pharmacy prescriptions etc.) or supportive in nature (allocation or transfer of bed, type of meal, etc.) are associated with respective unique visit reference number.

List of General Features of the system
- World Class Architecture
- Modular and Integrated
- Tuned to the international standards
- Flexible Design
- Phased Implementation
- MIS Reporting Capabilities
- Ease of Customization
- Maintainability
- Web-enabled applications
- System built to match your work flow
- Compatible with international standards such as HL 7, ICD & CPT codes
- Easily integrates with a host of systems
- Access anytime from anywhere

List of Operational Features of the system
- Graphical User Interface
- Ad-hoc Queries
- User-definable codes
- On-line search capabilities for Entry Codes

- User Profile Driven Function Menus
- Ease-of-use
- Customizable Messages
- System-wide standard user interface
- Switching between Functions
- Parameterized Reporting
- Hard Copy Outputs
- Free-format Text Entry
- Automation of Data Capture

1. MIMSYS System Manager

The MIMSYS System Manager parameterizes the billing codes setup, master setup, medical business setup, patient master index, and reports. The System Manager provides maintenance and usage of codes where ever possible and applicable, the system supports configuration for International Standard Codes.

This patient master index has sub-modules for Patient Registration and current visit/encounters. The Registration system is capable of capturing a comprehensive set of demographic and personal details of all the patients. Total patient demographics stored on all patients are available throughout the system for authorized users ensuring single entry and multiple usage of same record.

2. Patient Appointment

This module is linked with patient registration system and assists receptionists in tracing doctor's availability and scheduling patient's appointment accordingly. Further, it helps tracking the appointment and available slots. Scheduling the Patients can be done over the provided calendar.

Module supports a "waiting list" concept for effective slot management. In case, a patient doesn't show-up after being allotted a slot, a patient in the waiting list accommodates that slot. The system ably shuffles the patients and constantly displays information on the slot status. Also, the waiting list patient is eligible for a slot if the appointments end up before the expected time. This module also integrates with Queue management System and Doctors Desktop.

Appointment Module has the facility to define appointment types such as, New, Follow-ups etc. or non-patient appointments. Additional Functionality of SMS can be integrated for Patient Reminders.

3. Electronic Health Record (EHR)

MIMSYS EHR helps the physician in handling all his day to day activities like viewing the list of appointments, capturing diagnosis for patients, online ordering of investigation procedures, drugs etc. The doctors can record and view the patient medical details for both OP & IP and review Diagnostic results online.

The Comprehensive OP and IP EHR specialties help doctors to capture data at discrete element level with integrated E&M Coding. Doctors can record and view patient medical details through Mobile Apps.

The System follows the SOAP process (Subjective, Objective, Assessment, and Plan) and as part of subjective the doctor can view and record the chief complaints, family history, social history, Allergies, history of present illness with all HPI Elements captured at discrete level along with review of systems. The Physical Examination for specialty specific or general systemic can be captured and record at a discrete level.

The EHR automates and streamlines the clinician's workflow. The EHR has the ability to generate a complete record of a clinical patient encounter. EHR helps the doctors to improve the quality of care, Reduction in medical errors, fast access to information and improving work flow and productivity.

4. Admission, Transfer and Discharge

The ATD module tracks all the **Admissions, Transfers and Discharges** in a hospital. It handles the creation of beds and allotting them to patients. It also supports facilities like admitting baby to mother's bed and linking mother and baby inpatient numbers etc.

- The System has an extensive bed management capabilities including maintenance of different wards, Bed Types, Bed Classes and Beds with ability to reserve beds for patient escort.

- The system allows transferring patients from bed to bed and from one ward to another ward and track patient movement during their stay. Provision to reserve more than one bed while transferring the patients. This situation arises typically during a moment of the patient to and fro from ICU to Ward and back.

- Comprehensive discharge management process that includes discharge care plan and required necessary nursing interventions, nursing discharge check list and patient discharge check list that captures the complete discharge information including details for wounds, dressing, tubes and special equipment sent home with patients along with patient teaching requirements.

- System allows discharge instructions to be generated with link to pharmacy system for any discharge medications.

- The system has the facility to facilitate the scheduling of follow appointments at the time of discharge.

- The discharge process starts from pre-discharge where in alerts are generated notifying the care providers to plan the necessary discharge process.

5. Nursing Station & Assessment

Nursing Station Module has the provision to define multiple nursing stations and assign patients in specific rooms to care-providers. The nurses can follow clinical pathways and assist in providing patients the proper care process as per best practices.

- The Nursing station has the facility to send Discharge Request to the ADT with expected time of discharge and schedule follow-up appointments for the discharge cases.

- Ability to record patient vital signs, nurse notes and assessments.

- Nurses can view diagnostic results from a graphical nurses interface. The nurses can manage EMR based on uni-dose.

6. Nursing Protocols (Integrated Care Plan)

MIMSYS Integrated Care Plan provides a rich graphical interface for nurses to know the patient medical administration plan defined by doctors and overall care goal set to achieve on the patient.

- Automates the workflow for the patient care planning process and helps reduce the time required to create and document patient care interventions, care plan offers a holistic approach to patient care and continues to evolve until the patient is discharged.

- The care-providers based on the admitting orders, doctors diagnosis and goals set by the doctors for problems and conditions can configure expected outcomes within targeted time interval and record interventions, define expected outcome with actual outcome status.

- The care-providers can use clinical guidelines along with initial assessment forms and clinical management principals as a part of clinical pathways.

Graphical Interactive interface lists all the patients assigned to the care-provider providing them color coded icon driven status, reminders and alerts for clinical process from admission orders to discharge. Care-providers can view admitting orders from doctors, initial assessment's based on patient such as age and specific problems, integrated care plan configured, allergies and risks, record outcome for goals, record and analyze scheduled vitals, impart patient education, record pre-configured and dynamic care-provider assessment forms, view notification from doctors, perform EMAR process for medication, view diagnostic results and status, send notification to doctors, request for referrals, diet and incase of surgeries record required preoperative and inter-operative and postoperative notes and manage the discharge process from a single user friendly screen.

7. Care Provider Forms

The System can configure care provider assessment and care forms for various activities such as delivery records with specific forms for immediately new born assessment, new born feeding charts, new born examination, immediate post natal examination, new born flow sheets, artificial feeding and birth notification etc.

Other care-provider forms include delivery room admissions, adult pressure scores, risk assessment, critical care assessments, glascow comma scale, neonatal/infant Braden Q scale and S BAR form etc.

Specialty forms such as blood transfusion sheet, diabetic worksheet, wound pressure score management, pediatric humptydumpty screen, neurological observation record, dialysis nursing record, ambulatory chemotherapy record, intake output chart, nutritional assessment, conscious sedation records etc, are also available.

8. Triage & Emergency

The Triage Application prioritizes the incoming patients based on urgency of care; and identifies those who cannot wait to be seen.

The triage nurse does assessment and enters information about patient; based on the information the system assigns the patient a triage acuity level.

9. Laboratory

The laboratory module is tightly integrated with the other modules of MIMSYS and can receive requests for the tests from the modules like Provider Desktop manager, Nursing Station and Operation Room.

- Lab Information System follows 21 CFR Part 11 Compliance and adheres the CAP Check list for Laboratory Practices.

- Lab information system is built to enhance laboratory work flow to achieve turnaround time for reporting.

MIMSYS Lab Information system also interfaces with Clinical Lab Equipments bi-directionally.

10. Radiology

The Radiology module offers a comprehensive system to cater to all the requirements of the Radiology Department. It provides for scheduling of appointment for examinations, examination processing, post examination results reporting and film tracking.

Appointments can be scheduled to the various clinics for examinations to be conducted. Timetables can be set up for different clinics with details of the days and times on which the clinic operates, so that the time slots can be allotted to specific patients. Appointment cards are generated and handed over to patients along with the instructions to be followed before coming for attending the examination. Appointments can be cancelled if required. Groups of days can be blocked/unblocked for various reasons by the department.

The System has the capability to approve correctness of radiology orders. Such feature is assigned only to authorized laboratory users.

Radiology test turnaround times can be reported as the time is captured at each stage – order receipt, test performance and result entry.

11. Insurance & Claims Management

Department wise eligible services can be configured, pick co-payment percentage at sheet level or detail level, fix patient deductibles based on annual or per consultation visit basis and force preauthorization by the insurance provider when the amount exceeds a pre-defined limit for a bill or an individual item.

Discounts can be given at sheet level or at detail level. All claims related activity such as rejected, accepted or settled among others, is tracked and can be viewed on a real time basis.

Alerts given for reminder set up for patients. Patient balance as well as family balance can be tracked.

Payment can be received in multiple modes and is integrated with Banks, Accounts Receivable as well as General Ledger modules of SAGE 300.

12. Evaluation & Management

- The main purpose of evaluation & management is to justify the work done by the doctors.

- Based on the patient type, level of history, level of examination and complexity of decision making in physician-patient encounters the system translates into five digit CPT codes to facilitate billing.

- The system support both 1995 and 1997 guidelines based on the option setting.

13. Out-Patient Billing

The OP Billing module provide the hospitals/clinics with a comprehensive facility that tracks all changes and services ordered for a patient from the point of registration to discharge/completion of a visit. The system is flexible and allows patient billing process to be done at pre-defined periods or at the end of the visit.

The OP Billing module is integrated with other patient modules such as OP ordering, Nursing station and other Patient core modules so that all the billing transactions can be automatically posted to the patient's records from OP ordering, Pharmacy, Wards, Clinics, Nursing Station, Radiology and Laboratory. The OP Billing module is fully integrated with Insurance and Claims Management modules.

14. In-Patient Billing

A hospital's ability to leverage a new generation of health information technology is often hampered by the use of inappropriate system. One of the predominant areas that must be addressed is IP flow. IP flow that covers the patient journey goes through several procedures including Admission, Discharge, Transfer, Referral-out and Follow up.

MIMSYS HIS in an effort to accelerate hospital performance has enabled a better Inpatient tracking system that streamlines inpatient flow. From the registration to discharge stage, MIMSYS plays a significant role in enabling hassle free inpatient billing like accurate provisional bill, supplementary, final bills and bill settlement.

The flexible graphical interface for tracking and consolidating in-patient details, charges from the time of patient registration till the time of discharge has resulted in rolling out excellent quality care.

Besides, the system also prevents readmission of double billing and several other problems by tracking details of services provided on daily basis that includes ward/room charge, nursing care, operation charge, packages, consultant, surgeon, laboratory tests, x-rays, radiology, medicines, diet etc. and handles various billing categories such as Corporate, insurance, package extra billings that helps hospitals to estimate and decide the further plan of action. By categorizing the various billing areas hospitals can easily be able to estimate the plan and optimize their performance.

15. Inventory

Inventory module manages the hospital inventory of medical supplies, surgical supplies and lab & radiology items stocked by the hospital stores. The inventory module is integrated with all financial modules such as Accounts Payable, Accounts Receivable and General Ledger as well as relevant modules such as Nursing station, Medical Department, OR and Pharmacy.

MIMSYS Inventory has a well-defined workflow for inventory procurement and material issue. Multiple stores can be defined and facility to attach sub stores to nursing stations, OR and departments.

- Tracks the movements of individual items in the hospital. Store wise document numbering can be generated for all transactions.

- Batch and expiry date wise stock can be maintained.

- Supports multiple segments. Map to UN Medical Inventory codes.

- Cost of goods sold tracked for every issue. Supports multiple stores, multiple price lists and vendor wise item setup.

- Combination of one-to-many material requisitions to one-to-many Purchase Orders.

- Supports store wise item setup and stock. Mapping of relationship between Pharmacy item and Inventory items.

- Analysis utility.

16. Pharmacy

The Pharmacy Management system caters to the maintenance of a comprehensive drug database, dispensing and stock control functions of the pharmacy department and manages the inventory of the hospital's drugs and other medical, surgical and laboratory items. It is linked with purchasing system for replenishment of all pharmacy items.

The system maintains a centralized drug information system, covering complete drug formulary with information on the generic name and the trade name. Its supports standard dosages, contraindications, interactions, physical and chemical characteristics, different drug classifications and indexes.

The system takes into account their billing and cost aspects along with tracking of multiple batches with expiry dates in both the billing module and the pharmacy POS. It supports multiple stores and multiple pharmacies.

17. Operations Room

The Operation Room (OR) module has functionalities like OR booking, scheduling for the surgeons, assistant surgeons and anesthetist, surgery recording, interfacing the OT Equipments, ordering lab, radiology tests and consumables required for the surgery. Surgeons and anesthetists can define their own templates for capturing the pre-operative and post-operative notes.

Operations can be scheduled for a patient based on the availability of operating rooms. Schedule information includes surgeon, operation selection from available CPT4, ICD 10-CM surgical procedures and any instructions that the surgeon wishes to reach the operating theatre.

18. Quality Control

Incident reports are records of all events that are not part of routine medical care. The system helps in gathering data on all events that are not part of routine medical care in hospitals for both research and quality assurance purposes, though is of questionable quality as staff time pressures, perception of blame and other factors are thought to contribute to under-reporting.

By analyzing the data entered in the system hospitals can reduce the risk of future incidents.

19. Blood Bank

The Blood Bank is one of the major components of a hospital, concerned with various related activities including donor registration, physical examination, blood components separation and merge.

Screen the blood with set of Lab test analytes from master setup. Blood Request linked to IP and OP Patients and Blood Issue will happen on request.

20. Infection Control (Vaccination & Immunization)

- Immunization eMAR and History, Patient Clinical Assessment and Screening.

- Options and Decision Support Setup.

- Immunization Type, Medical Administration Item Location, Canned Comments, Special Instructions, Immunization Schedules, Patient Scheduled Immunization, Decision Status.

21. Central Sterile Services Department (CSSD)

- The Central Sterile Services Department's (CSSD) main function is to provide sterile items to wards and OT's.

- The CSSD receives Contaminated Pack of Items, from various wards and OT's for sterilization. Items are exchanged depending upon the requirements.

- In CSSD Work list generated for contaminated items, sterilize using different sterilization methods.

- Transfer the Sterilized items to ward/OT.

- Different Inquires like Stock, location and transaction history.

22. Image Management

- MIMSYS medical imaging module makes reading, storing, and sharing clinical images easier and more efficient than ever.

- It is sub module of EHR used to Access, Store, View and share medical images.

- Its innovative technology transforms the power of EHR imaging into tangible clinical benefits.

- To put it briefly: in terms of quality, efficiency, and patient outcomes MIMSYS enables healthcare facilities to see real results.

23. Document Manager

The Hospital Document Management System is required as almost every aspect of the medical facility will entail some short of paper trial. MIMSYS Document management system can setup document types and assign barcodes for them.

The system would be able to store automatically into folders into that particular document type placed on the scanner without manual assignment for the patient. Any number of document types such as Lab, Radiology, Dental, Gynecology, etc. can be created. The document can be stored for a visit or a case type. Document name, document type visit id, document date, visit date can be recorded along with review status and review date. Documents can be filtered and viewed based on criterion such as provider, visit id, case type or document type.

24. Dietary & Kitchen

The functionality of the Dietary module is to manage the patients' meal services.

This module depends on the In-patient module. The diet can be prescribed In-patients, Op-Patients, Visitors, Hospital Employee's and staff. It will help people choose, customize and follow their diet.

Several supported diets (Cardiac Diet, Normal Diet, Diabetic Diet, Renal Diet, etc.) with details for every one of them.

Salient Features:

- Meal Scheduling

- Meal Cancellation

- Diet Requisition Slip

- Diet Cancellation Report

- Late Admission Report

- Therapeutic Diet

- Alternative Items Ordering

- Group Ordering & Bulk Ordering

25. MIMSYS E-Prescription

- MIMSYS E-Prescription module will send insured prescription to DHPO site for approval.

- E-Prescription may be rejected/approved after checking in DHPO site.

- Status will be automatically updated in E-prescription module. If it is approved no will show otherwise rejected reason like denial code will show.

26. Claim and Reclaims

- MIMSYS claim module will allow sending bill (OP Bill, IP Bill and POS) to insurance site for approval.

- Create claim base on visit wise (All bill for a visit combined and send as a single claim)/Bill wise.

- Claim module will allow creating separate claim for OP internal Bills, OP external Bills, OP Bills, Pharmacy bills, IP Bills, Pharmacy internal and Pharmacy external.

- Attach reports to a claim (Lab, Radiology, Histopathology, Microbiology, Cytology, Patient summary, Insurance card).

- MIMSYS Re-claim screen will allow sending rejected claim again for approval.