



**Total Hospital Information System (THIS)** is an enterprise version, which is conceived, designed and developed to increase clinical outcomes, operational efficiency, and improve financial outcomes from any healthcare provider. THIS is a secured, reliable and seamlessly integrated web based information system that allows Health Care Provider to record, share the clinical and other patient related information between healthcare providers and other entities.

**THIS** keeps track of the patient records from registration to discharge. This software helps maintaining the data of each individual patient with a unique identification for his life time. **THIS** enables the concept of longitudinal medical record.

Total Hospital Information System (**THIS**) is a comprehensive and most effective solution for healthcare providers with **Twenty five Modules** seamlessly integrated and **Six Specialties**. **THIS** is designed to focus on the integration of clinical, operational and financial departments of the healthcare provider.

This application enables the healthcare entity to utilize **Total Hospital Information System** and manage information across the entire enterprise, regardless of source application or system. Thus, output, virtually from any system in the healthcare enterprise can be collected and organized for secure storage and online retrieval.

Output produced by **THIS** for Financial, Clinical, EMR and other common healthcare systems can be logically classified, indexed, and secured in an enterprise information repository.

Healthcare organizations worldwide, face enormous challenges when it comes to confidentiality, information management and report distribution. **THIS** has taken all these challenges into consideration and recognized issues associated with achieving **HIPAA** compliance. **THIS** provides an effective information delivery solution for medical and business documents. The main objective of this solution is to help the healthcare entity in meeting stringent HIPAA requirements for privacy, security and administrative simplification.

Total Hospital information system (**THIS**) provides key information across the continuum of patient care for hospitals, outpatient clinics, and any other extended care facilities. Patient accounting; patient scheduling/tracking; pharmacy and electronic medical records including critical lab LIS (Lab Information System), PACS (Picture Archiving Communication System) and RIS (Radiology Information System), which are essential elements to a healthcare delivery system have been effectively tracked by **THIS**. **THIS** integrates the complete gamut of hospital services with patient care, payment services, and other related programs.

#### **Modules**

1. Queue Management
2. Appointments
3. RADT, (Registration, Admission, Discharge & Transfer)
4. Master Patient Index
5. Trauma and Emergency
6. Specialties
7. Ward Management
8. Order Management
9. LIS
10. PACS Interface
11. RIS(Radiology Information System)
12. CCU
13. Operation Theatre
14. CSSU

15. Blood Management System
16. Patient Billing
17. EMMM
18. House Keeping
19. Inventory
20. Dietary
21. Pharmacy
22. HR Management
23. Laundry Management
24. Data Warehousing.
25. Electronic Medical Recording

**Specialties:**

1. General Medicine
2. Cardiology
3. Gastrointestinal
4. Orthopedics
5. Dermatology
6. Respiratory System

**More Specialties:**

Addiction Psychiatry, Adolescent Medicine, Allergy & Asthma, Anesthesiology, Arthritis & Rheumatology, Blood Banking & Transfusion Medicine, Cancer, Cardiology, Chemical Pathology, Clinical Cardiac Electrophysiology, Clinical Immunology, Clinical Pathology, Colon & Rectal Surgery, Critical Care Medicine, Dermatology, Urology Diabetes, Emergency Medicine, Neurology, Neuro-ophthalmology, Gynecologic Oncology, Hematology, Neo-natal & Perinatal Medicine, Orthopaedics, Otolaryngology, Otolaryngology, Otolaryngology, Pediatric Emergency Medicine, Pediatric Rehabilitation Medicine, Pediatric Subspecialties, Palliative Medicine, General Pathology, Clinical Chemistry, Genetics, Microbiology, Psychiatry, Public Health Medicine, Diagnostic Radiology, Diagnostic, Ultrasound, Radiation Oncology, Rehabilitation Medicine, Surgery, Cardiothoracic Surgery, Neurosurgery, Plastic and Reconstructive Surgery, Orthopedic Surgery, Otolaryngology - head and neck surgery, Vascular Surgery.

**A Brief Description on THIS Module functionality**

**1. APPOINTMENTS**

Appointments module helps keep track of appointment scheduling for physicians Resources Operation Theaters and generates a calendar schedule for the same (Weekly Monthly Daily).

**Features:**

- Provides concise and accurate information on patients' appointment
- Accessible to Hospital staff based on log in permissions
- Provides scheduling of appointments for users to view the list of patients
- Individual appointment books for each physician with respect to the specialty
- Decentralized appointment booking
- Cancellation and Rescheduling of appointments
- View, track and print appointments

**2. QUEUE MANAGEMENT**

Queue Management module maintains the data related to tellers and their functional system for the proposed appointments.

**Features**

- Manages the queuing numbers automatically and allows the user to track the flow of patients
- Accessible to wards, clinics, labs, radiology, pharmacy and other authorized departments
- System is a PC based monitoring and reporting software, which can be accessed in real time as well as offline from the system computer or from anywhere on computer's network
- Generate and print reports for indicating waiting time at different levels of services

### **3. RADT**

Registration, Admission, Discharge and Transfer (RADT) module administers the data related to patients right from their registration to the level of discharge.

#### **Features:**

- Manages Registration, admission, transfer and discharge of patients and bed management according to admissions and discharges
- Accessible to Hospital staff based on log in permissions
- Able to carry out direct admission from different departments and locations
- Dynamic display for bed status (availabilityvacantoccupiedetc..)
- Newborn admissions will be carried out, based on mother-baby linkage

### **4. MASTER PATIENT INDEX**

**Master Patient Index module maintains the detailed data related to patient**

#### **Features:**

- Provides for a record of registered patient with the help of a unique patient identification number
- Facilitates querying of patients on an unlimited number of search criteria
- Detects duplication of patient registration

### **5. ORDER MANAGEMENT**

- Addresses the order entry, order review and/or validation, interdepartmental communication, order inquiry, and reporting requirements of the hospital
- Allows placing both clinical and non-clinical orders
- Alerts system until confirmation of the receipt/delivery handles new drug orders
- Handles new blood / blood components order
- Manages diet orders

### **6. MEDICAL RECORD TRACKING**

Medical Record Tracking module maintains the detailed data (medical records – in paper hard copies) for each patient. The data stored in the paper record includes referral letters, treatment notes, medical reports or any other document that the patient may bring with him when referred to the hospital.

#### **Features:**

- Assists the Medical Records department in maintaining and tracking the paper medical record for each patient
- Bar code labels will be generated for each of the paper folders that are currently maintained and needed to be created.
- System complies with the EDMS (enterprise document management system)
- Flexible analysis tool allows reporting on the activities undertaken by the hospital

## **7. ELECTRONIC MEDICAL RECORDING**

- Provides an integrated patient viewer, which in turn provides a cross-disciplinary, patient-focused view of clinical information resident in Clinical Data Repository
- EMR for Pediatrics have special data representation
- Manages data related to medical records at all clinical work stations

## **8. HUMAN RESOURCE MANAGEMENT**

Human Resource Management module maintains the information on man power system and resources

### **Features:**

- Handles Human Resource Management aspects of Recruitment, promotions, transfers, resignations, retirements & terminations
- Performance Appraisals, benefits and claims leave administration, organizational management and training
- Career development, time management, pay roll processing and administration, allowances, deductions and Taxation

## **9. INVENTORY MANAGEMENT**

Inventory Management module regulates the data related to procurement of materials, stocks maintenance, distribution, reorders etc.

### **Features:**

- Maintains Total Inventory Management of the hospital
- Manages Material Resource Planning (MRP) Management
- Regulates Material forecast, Reservation management
- Material issues management, reporting and enquiry

## **10. ENGINEERING MAINTENANCE AND MATERIALS MANAGEMENT**

Engineering Maintenance and Materials Management module regulates the data related to maintenance of medical equipment, biomedical equipment, electronic equipments etc.

### **Features:**

- Supports electronic procurement for the supply of goods and services
- Maintains data for electricity related capital works, Projects, inventory, non -inventory, maintenance and customers.
- Regulates Maintenance Management, In-House Maintenance, Bio-medical Equipments
- Maintains requisitions, quotations, contracts, and purchase orders, receipt of goods, material records, and vendor records
- General software maintenance Work orders management Master Data management

## **11. HOUSE KEEPING**

House keeping module regulates the data related to maintenance of in house cleaning and maintenance.

### **Features:**

- Handles all the housekeeping transactions
- Interoperability between Main house and sub stores

## **12. LAUNDRY MANAGEMENT**

Laundry management module records patient's utilization of housekeeping services

### **Features:**

- Handles entire laundry transactions
- Interoperability between Main house and sub stores
- Interfaced with central sterile supplies division

## **13. BLOOD MANAGEMENT SYSTEM**

Blood Management System module regulates the data right from donations and donors to the level of final distribution of blood.

### **Features:**

- Manages the donor information and blood transfusion
- Administers donor management, Component Processing, Donation Testing, labeling, Release and distribution
- Maintains data related to blood transfusion.

## **14. LABORATORY INFORMATION SYSTEM**

Laboratory Information System (LIS) is a part of the application, which is able:

- To increase laboratory productivity and improve accuracy via instrument interfacing and automated reporting
- To implement laboratory order and result retrieval functionality for all the labs.
- To provide integration with medical equipment and information systems.

### **Features:**

- Complete interface related to laboratory solutions
- Interfaced with Master Patient Index (MPI) and Order Management to provide complete test order from the wards and clinics including patient demographic, test, profile, or battery name (mnemonic code)
- SpecimenSample management, worksheet work list generation, sample tracking and inventory, results reporting and billing

## **15. RADIOLOGY INFORMATION SYSTEM**

RIS constitutes the following major functional areas:

- Ordering of examination
- Scheduling of appointment
- Patient Tracking
- Result Reporting
- Film Tracking and Management

## **16. INTERFACE TO PICTURE ARCHIVING COMMUNICATING SYSTEM**

- Allows radiological image distribution to all the wards and clinics as well the adjacent speciality facilities in the hospital
- Provides work list level integration with high level System configuration with any PACS system
- Allows maintaining of Image management – storage, archiving and accessibility, Pre-fetching and routing
- Can interface with VRS (Voice recognition System)

## **17. TRAUMA & EMERGENCY SYSTEM**

- Manages patient tracking, Status Board Display, Visual Analogue, Prescription writing, Nurse Care Documentation, Physician Charting, Triage, Discharge Planning
- Facilitates improved quality of care, productivity, reducing operating costs, decreasing inefficiency and redundancy
- Decreasing errors of omission and commission, and increasing the availability of essential information necessary for effective decision making under emergency

## **18. OPERATION THEATRE**

Operation theatre module maintains the data related to surgery scheduling, arrangements, surgical equipment organization, and anesthesia arrangements etc.

### **Features:**

- Handles entire (OT) Management
- Scheduling, preference cards, documentation and charging

## **19. CRITICAL CARE & OPERATING**

- Enables critical care providers to plan, deliver, assess and document patient care across the acute care continuum
- Manages the info related to ICU, CIC, CCU, PICU, Neurosurgery and Burns Care Unit

## **20. CENTRAL STERILE SUPPLIES UNIT (CSSU)**

- Maintains information related to production cycle, supply to clients and return of used-products for recycling and inventory of CSSU
- Interfaced with Patient Billing enabling automatic charging based on items used by the patient

## **21. WARD MANAGEMENT**

Ward Management module maintains the data related to nursing services, scheduling, ward shifts, OT arrangements, diet supply, drug monitoring etc.

### **Features:**

- Provides for analysis of nursing load patterns and schedules
- Interfaced with order and dietary management, which enables the sharing of information on materials supply and diet prescription to patients

## **22. PHARMACY**

Pharmacy module maintains the data related to Pharmacy Department servicing inpatient and outpatient. Pharmacy keeps track of drug prescribing, dispensing and administration process safer with improving accuracy, speed and decision-making.

### **Features:**

- Maintains data related to stock requisition, maintenance and distribution
- Manages data related to Hospital, Formulary, E-prescribing, out patientInpatient dispensing

## **23. DIETARY MANAGEMENT**

Dietary Management module maintains the data related to hospital kitchen in providing appropriate meal to inpatients. This system maintains a range of user definable menu and diet types. The meal request (diet orders) is entered directly from ward terminal, and is automatically received at the dietary section. Work lists are generated indicating meal requirements including nutritional supplement.

**Features:**

- Maintains data related to hospital kitchen
- Manages the data related to diet meal orders, cancellations and reorders
- Regulates data related to kitchen and its inventory

**24. PATIENT BILLING**

- Provides information on billed and unbilled patient accounts
- Facilitates tracking of changes in services and materials from the point of registration to the level of discharge
- Manages group and class wise billing, account receivables and payables and taxation

**25. DATA WAREHOUSING**

- Repository of integrated information is available for queries and analysis
- Data and information are extracted from heterogeneous sources as they get generated

**Benefits**

- Complete integrated solution of clinical, financial and administrative applications
- Utilize and manage entire hospital information across the enterprise, regardless of source application or system
- Output from virtually any system in the healthcare enterprise can be collected and organized for secure storage and online retrieval
- Output from Financial, Clinical, EMR and other common healthcare systems can be automatically
- Logically classified, indexed, and secured in an enterprise information repository
- Meets the challenges when it comes to confidentiality, information management and report distribution
- THIS meets the challenges and the issues associated with achieving HIPAA Compliance
- Provides an effective information delivery solution for medical and business documents that can assist in meeting stringent HIPAA requirements for privacy, security and administrative simplification
- Provides key information across the continuum of patient care for hospitals, clinics, and other extended care facilities - Patient accounting; Queue Management, patient scheduling/tracking; pharmacy etc
- Electronic medical records and generation of various reports that include the following
  - LIS (Lab Information System),
  - PACS (Picture Archiving Communication System) and
  - RIS (Radiology Information System)
  - Blood Information System
- Maintains OT, Critical care, Emergency, Nursing, and Dietary
- Administers Human Resource, Inventory, House Keeping, and Kitchen
- Our Queue Management and Appointments tracking system are very constructive and proved to be time productive, which in turn would be beneficial to stream line the entire operations of the hospital management system
- As a whole application, with all most all the specialties being administered effectively and the data related to all the departments and specialties being efficiently integrated, THIS claims the credibility for its cost effectiveness