Empowering healthcare
66% of doctors uses social media for professional use

Sources: Xcubelabs, teletech, ibm, rxtimes etc.
Key Challenges in Healthcare

01. Poor Information management (Information accessibility)
Information sharing among the doctors, department, and patient to doctors, need to improve.

02. Lack of analysis
Lack of information for an analysis. Measures like Operative efficiency, Patient safety, Parameters, patient care, and resources utilizations Unable judge.

03. Lack of process definition
Each Process of the origination should be design, documented, and followed by proper control. Which is not in place.

04. Patient centeredness
Patient care is lower priority in most of the health origination.

05. Resource planning
No or poor planning for resources, which result in poor utilization of resources, and high cost to serve the patient.

06. Patient care & Safety
Due to large no. of patient, patient management and safety parameters suffered heavily.

07. Poor I.T system, with administrative focused only.
I.T. system is used only for the purpose of administration. Which can be used for improvement in patient care, information sharing, and increase resources utilization.

08. Knowledge sharing
Poor knowledge sharing information sharing within organization.

09. Cost for serving the patient
Cost of serving patient is huge, which can be reduce with proper system, and Planned approaches.
Areas to focus

We help you bring synergy to your every operation of every department with better integration keeping patient and doctor at the center of it.
Xpertnest would consult to improve overall administration and develop strategic roadmap for implementation of software solution. Areas would cover resource planning and utilizations, processes improvement, evaluating existing KPIs and defining new KPIs, identifying latest technologies which could support organisation’s objectives and improve information management.

**30-40% Time, 50% Paper and 20-30% Money can be saved with the help of well designed ERP for healthcare administration.**
Analysis

- Patient and medical data analytics to get insight about various trends
- Key performance indicator for senior management and administrative team.

**Healthcare Data Analytics**

- iCare provides powerful analysis on patient data. For e.g., number of patients were diagnosed with heart disease in FY: 2013-14 or how many number of patients had particular addiction.
- Key Performance Indicators (KPIs) can be defined by columns for a visual alert to negative or positive conditions
- Data export feature

**Operational Monitoring**

- Centralized data supports all modules, which allows authorized users to access real-time data, and promotes proactive decision-making and trend analysis
- Clean and clutter free UI for senior management for better decision making.
- Senior management get reports on human resource utilization, revenue generated from each department, etc.
i-Care is designed focusing on the patient-doctor relationship.

- Every details of patient can be viewed just by entering patient id or by a barcode scan.
- More effective decision-making and care planning, for e.g. Doctors can enter comments or information to patient’s continuation or can upload an image for the same.
- The patients appointment scheduling to maximize the use of working hours of doctors and optimize daily patient flow.
- Patient can schedule appointment for himself/herself by checking the availability of particular doctor.
- At time of registration, patient can be classified based on different categories that will consider different charges applicable for particular category.
- Generate statics reports for New Registration, Follow-ups, Financial schemes for different time period.
OPD-Out Patient Department

• Configurable protocols based on Health Parameters
• Continuous monitoring and comparison with past results of different medical parameters.
• Pre-configured prescriptions for doctors to quickly provide list of medicines with just a click.
• Pre-configured protocols such as list of tests to be performed before an operation or list of items to be purchased from pharmacy before operation.
• Statistics of general OPD, Dental, Gynecology and Head & Neck.
Pathology

• Configurable report templates list out parameters, User is required to feed in the values only. Built-in templates for common parameters for particular Test Reports
• Prompts users for any invalid, missing or unusual information.
• Enable queuing with bird-eye view of patients waiting at different stage of process.
• Formula based parameter calculations.
• Real time flag-in for unusual values/results for any parameter.
• Collect statistics based on report, Parameter and time-period as per status of report (Sample collected, Communicated, Completed by Technician/Saved)
Pharmacy

- Verification of medications and dosages for accurate dispensing based on pre-defined protocols.
- Ability to configure custom protocols for chemo or for other medical treatments.

**Basic Details**

- Item ID
- Item Name
- Generic Name
- Manufacturer
- Power
- Unit
- Physical Form
- Category
- Medicine Group
- Administration Mode
- Description

**Tax & Profit Margin**

- Purchase VAT
- Sales VAT
- Profit Margin (%)
- Cost Level
- Sales Unit
- Conversion

**Packing**

- Purchase Unit
- Packing

**Other**

- Show in purchase

**Medicine Management**

**Generic Medicine**

- ID
- Generic Name

- Following details will not be shown in prescription(s) if left blank.

**Contradictory Medical Conditions**

- Available Conditions:
  - **Avoid this medicine with**
    - Precaution
    - **Contraindication**
    - **Medication**

**Contradictory Generic Medicines**

- **Action**
  - **ID**
  - **Generic Name**
Pharmacy

- Cost and time efficiencies – Pre-listed drugs and medicines based on prescription, requisition or pre-defined precautionary criteria while billing.
- Automatic alerts for potentially dangerous drug interactions.
- Compliance with all federal, state, and local regulations while purchasing and selling.

Pharmacy Reports

Pharmacy Sales
- Configurable bed and ward management.
- At any given point of time, status and availability of a Bed in a particular ward is accessed and assigned accordingly. Advance duty scheduling with in-built day-care facility for particular Patient and manage noting charts as well.
- Key Patient Care Parameters:
  - Medication times
  - Flags, Alerts, Precautions
  - Level of care
  - Observation notes
  - Drug-Allergy interaction checking
  - Drug-Drug integration checking
  - Alerts for giving medications off schedule
  - “Single-Click” Administration for scheduled medications
  - Overdue medication alerts
  - Automatic sorting of PRN medications
Seamless integration across departments

- All the departments communicate with each other very easily. For example:
- A prescription or pathology requisition written in OPD is directly reflected in the pharmacy or pathology; or an indent created in pathology is reflected at the central store for the item requested at the pathology.
- Digital prescription ensuring the highest level of accuracy, privacy, and security.
• Cashless Transaction facility available.
• Automatically apply charges based on patient’s category selected at time of Registration.
• Anytime user can incorporate and manage different prices for financial schemes/third party pricelist or insurance/MAA Yojna pricelist.
• Easily generate reports for incomes and cash expenditures and net cash collection for any given time period.
• Organization wide financial reporting
• Revenue Management & Reimbursement
• Patient and Donor account management for cash deposit, payables, transactions and refund.
• Detailed funding information tracking for multiple third-party (schemes) and private-pay sources
User access rights management - Defined functionalities for particular position or role
Human Resource management - Shift arrangement/Scheduling Duties, access control
Analyze crowded/traffic and decision making
Single day operation summary
Master data Configurations: Basic details for different modules can be easily incorporated.
Approval Configuration: Decision making process default approval process can be customized.

Staff Management

Approval Config

Master Data Config
Multi-language support
• iCare supports multiple languages and can be changed with just one click.
• It supports two languages at present; English and Gujarati.

Omnipresent system
• Remote access solution - iCare can be accessed anytime, anywhere and on any device with web connectivity.
• Its UI is designed such that it adjusts on any device whether it be a desktop or a laptop or a tablet or even a mobile phone.

Keyboard-less screen for doctors
• With just mouse clicks doctors can enter the details of the patient or prescribe medicines to patients.
Implementing paperless cloud ERP solution for leading hospital in India

**Business Requirement & Challenges**

- To create a paperless environment as far as possible with improving staff efficiency and patient care.
- Too many manual processes which can be automated easily
- Isolated IT system for individual department
- Isolated payment process across department
- No centralised data available for reporting and analysis
- Manual file handling causing patient back and forth movement and dissatisfaction

**Solution**

- We have provided E2E consultancy at this leading healthcare facility which enabled operation efficiency and cost saving across department.
- Xpertnest consultants have analysed overall eco system with “AS-IS” scenarios for all departments and provided suggestion for improvement in the areas of People, Process, System and Data.
- Xpertnest now working with this institute hand in hand to make sure this suggestions are implemented.
- Provided over 100 improvement suggestions for 12 healthcare departments.

**Process followed**

- Introduced cash-less transactions.
- Introduced help desk for filling registration forms
- Removal of hard-copies forms
- Introduced digital reports.
- Introduced digital medical notes for doctors and nurses.
- Digital queuing system to manage patient queue in every department.
- Deployed on web to view patient details anywhere, anytime.
- Introduced digital medical history of patients.
- Digitalized patient information.

**Business Benefit**

- Reduced almost 35% of manual activities by using technology, saved >50% of doctors time for certain departments
- 40% cost reduction by introducing technology and process improvement
- Process re-engineered to make it more patient centric rather than management centric.
- Optimum utilisation of resource cost of treatment and providing basic service reduced significantly.
- Far better resource planning, and execution process from the past. We have enabled hospital to plan all the process with analytical data, which lead to better service to the patient.
Global health care chain: A Case Study

Business Requirement & Challenges

- Patient information sharing across health centres located in different locations across the world is not possible. Information sharing was not possible.
- Single point reporting/analytics for all health centres located around the world is not possible.
- To create a paperless environment as far as possible with improving staff efficiency and patient care.
- Integration of multiple departments within a single health unit.
- For different courses of treatment, organisations have to maintain many forms, procedures, records for schedules and treatment charts.

Solution

- We have provided a cloud solution for integration of all chain health care providers.
- Cloud-based solution includes support for a paperless environment with cost effectiveness.
- Multiple department integration for smooth functioning.
- System consultation for process improvement.
- Cashless organisation.
- Protocol configuration for different treatments. So, organisations can configure the treatment in protocols and standardise all procedures.

Business Benefit

- Integration of different healthcare providers across India to improve connectivity, information exchange.
- Enabled system to provide service to any single client from any healthcare provider.
- Process re-engineered to make it more patient-centric rather than management-centric.
- Optimum utilisation of resource cost of treatment and providing basic service reduced significantly.
- Far better resource planning and execution process from the past. We have enabled management to plan all the processes with analytical data, which lead to better service to the patient.
Digitalization of Healthcare documents

**Business Requirement & Challenges**

- Years old Document *(Since 1980)* handling
- Confidential information management
- Document arrangement & image capturing of all files
- Categorization of medical documents into different categories (Medical categories like chemo card, radiation planning details, IMRT Details, Different observation notes, Operation notes, pre-operative details, under observation details & Many more)
- Limited time with complete accuracy in all processes.

**Solution**

- Preparing the team of experienced medical & Non medical staff.
- Classification of old documents, stamping & arranging the documents in the data of document prepared sequence.
- Testing for quality of Document digitalization
- Categorization of document based on relevant medical category
- Upload documents to relevant server
- Make an entry into ERP system for document to appear in application

**Business Benefit**

- More than *1 million documents, 20k patients files, 12 departments* are digitalized
- Allows Remote Data Access of documents through Hospital ERP system.
- Digitalized data storage. Paperless system. Saving in cost.
- Long time record keeping without losing any key information

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**Process followed**

- Numbering Documents
- Detaching Documents
- Arranging Documents
- Removing clips, brads, staples
- Unfolding & flattening documents
- Remove sticky notes & flags

![Digitalization Process Flowchart](Image)

**Digitization Project**

- Digitize Document
- Scan/Photograph
- Quality Control
- Importing & Indexing
- Categorize Images
- Images to file management

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*xpertnest*

Empowering your business
About Us

We provide professional services in data analysis/management, cloud solution development, implementation services on COTS products and Network services in information technology domain. Our vision and focus is to provide customized solutions with quality and cost effective service. A strong client focus approach and constant quest for top class quality services have enabled us to attain and sustain leadership position. We are bunch of individuals who has years of industry experience working for some of the leading MNCs and with global major customers.

Hands-on involvement of seniors in all-important tasks, regular internal & external reviews, ability to comprehend the critical requirements of a client, as also the ability and expertise to respond to a clients’ queries outside the formally defined scope of work. From engineering to application development, knowledge management and business process management, we help our clients find the right problems to solve, and to solve these effectively. We focus on bringing to life great ideas and enterprise solutions that drive progress for our clients. Our goal is to gain growth through superior customer service, innovation, quality.