

ROGI KALYAN

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PROJECT : ROGI KALYAN

PROJECT TITLE : ROGI KALYAN

DOCTORS MANAGEMENT

THE BEGINNING

In most development countries, provision of basic primary health care services is a major concern of the govt. and decision-makers. With growing population and scarcity of resources, primary health care has often not been up to the expectation of the people at large. While there are many initiatives that have contributed towards augmenting the primary health care initiatives of the govt., there have not been any that have had a sustained impact over a large area, for a large enough periods and affecting the lives of a large part of the populace. The public health care system, which became somewhat non-functioning, has in general lost the confidence of the people. Ironically decades old decaying public hospitals are still the only hope for huge majority of the populace in the tribal and rural areas, inhabited by people who are most needy but least provided with adequate primary health care. It was ironically the plague epidemic towards the end of 1994 in the western India town of Surat that provided the impetus for this innovative project to improve the public health delivery system in the city of Indore. As the panic of an impending plague epidemic spread through most of north India, the district collector of Indore, S.R. Mohanty combined with the people of the district initiated effective steps to prevent a breakout of the epidemic in the district. One of the first places where attention was sought to be focused was the huge public hospital located in the city of Indore itself called the Maharaja Yaswantrao Hospital Popularly referred to as MYH).

THE OBJECTIVE

- » Improve the hospital, upgrade the equipment and modernize the health services.
- » Ensure discipline in the institution and supervise the staff.
- » Ensure optimal use of hospital land as per govt. guidelines.
- » Ensure scientific disposal of hospital waste.
- » Establish affiliations with private institutions to upgrade services.
- » Undertake construction and expansion in the hospital building.
- » Improve participation of the committee in the running of the hospital.
- » Ensure subsidized food, medicines and drinking water to the patients and their attendants.
- » Ensure proper training for doctors and staff.
- » Ensure proper implementation of National Health Programmes.
- » Ensure proper use, timely maintenance and repair of hospital equipment and machinery.

THE COMPOSITION

Under the overall supervision, superintendence and control of the above body, the district level Executive Committee is to function. The EC at the district level is headed by the Collector of the district and is constituted as below :

MEMBERS

District Collector
EO Municipal Body
EO District Panchayat
Executive Engineer PWD
Chief Medical Officer
One Senior Doctor
One donor nominated by the RKS
Civil Surgeon

POST

Chairman
Member
Member
Member
Member
Member
Member
Secretary

Similarly, for hospitals at the PHC and CHC level, the RKS and their respective EC have members and relatively junior officials as notified by the govt.

ACTIVITY RKS

Ensuring regular maintenance, repairs and necessary construction/expansion of the physical facilities in the hospitals.

Ensuring cleaning, security, hospital waste management, MIS and other services of the hospital through private agencies.

Providing improved facilities by addition or upgradation of OT complexes; Monography, burn unit; ICCU; pediatric (ICU); CAT-scan units; centralized pathological set up etc.

Purchase of equipment, chemicals, furniture and other necessities for efficient running of the hospitals.

Providing improved medical facilities through purchase of modern equipment through the donation received and if required through loans from financial institutions.

Providing a better atmosphere, facilities for attendants and ensuring improved medical facilities in general.

Introduction of appropriate methods of disposal of medical waste.

To provide medical care to the poor and needy free of cost or highly subsidized rates as compared to private hospitals.

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RKS GOALS

the state of Madhya Pradesh, it has been the endeavor of the govt. to ensure increasing role for people's participation in governance especially in the social sectors. With the appalling state of the hospital and paucity of funds, this project was evolved on the lines of the functional policy of the state govt. to meet goal and ensure provision of services in health infrastructure through public participation.

To this end, a simple yet unique management structure was proposed. This called the **ROGI KALYAN SAMITI**, simply translated as a **PATIENT FARE COMMITTEE**. This committee was to act as a group of Trustees for hospital while an executive committee constituted for the purpose was expected manage the affairs of the hospital. The RKS was to be registered as an NGO given complete control over the functioning of the hospital. It had the late to take all policy decisions regarding the running of the hospital.

RKS GOALS

As mentioned above, the initial objective of the project was to ensure cleaning and shining of the hospital. Having achieved that, and enthused by the public that the need was felt to put a system in place that would not allow the institution to back into the old state of decadence. Thus as the next step, user charges were introduced to create a strong resource base and a management structure in place that could fulfill the objective of efficient administration through community participation. The aim of the project now was to create a model of management of public institutions for the people with active participation of the community and with minimal expense to the state exchequer. The objective of the project was to ensure cleaning and shining of the hospital. Having achieved that, and enthused by the public support that was felt to put a system in place that would not allow the institution to lapse to the old state of decadence. Thus as the next step, user charges were sought to be introduced to create a strong resource base and a management structure put in place that could fulfill the objective of efficient administration through community participation. The aim of the project now was to create a model of management of public institutions for the people with active participation of the community and with minimal recourse to the state

SRS

As we have seen, on site observation of Jay Prakash Hospital and the interviews held with the management authorities of Rogi Kalyan Samiti, and doctors, staffs of the JP Hospital we have found the following system of J.P.Hospital

J.P.Hospital is a government organization; it provides treatment to the patients of several diseases very economically or in very reasonable charges.

The hospital is equipped with lots of machines, and valuable equipments in order to provide effective treatment to the patient of several diseases, the patient has to pay a very reasonable amount for treatment, the medicines are given to the patients free of cost.

There are several specialist, doctors are employed in the hospital in order to attend patients of several diseases and to give effective treatment. The doctors analyze the patient and write for some pathology tests if necessary. The patients have to pay a very reasonable amount for pathology tests, after taking complete checkup of patients and analysis of pathology report they give some prescription.

The patients are given free medicine from the hospital store. The store department of the hospital has to manage a complete inventory of the medicines; they also provide a list of medicine to the doctors whatever is available in the store. Patient does not needed to pay for medicines, these medicine are available at hospital store on free of cost. The patient may purchase medicines from the market if it is available at the hospital store. The storekeeper has to report to the management of the hospital about the status of the store.

The role of the management is to control all these activities in such a way that patient can be benefited by the organization, and does not requires to pay high

amount. The management needed complete report regarding doctors, patients, and store of the organization.

In reference to the doctors the management must be aware for current status of the doctors, that what are the doctors in several faculties are available in the hospital? What are there duties schedule and timings? Patient attended by the doctors and there conditions etc.

As for the patients the management requires the complete summary of patients. That how many OPT, and IPT patients come for treatment monthly? What are there diseases? How many patients had taken complete treatment in a month? How many gets satisfied with treatment in the hospital etc.

The management also watches the store department of the hospital, they want to know the status of the medicines that what are the medicines are available in the store? What are the medicines distributed to the patients by the storekeeper? What are the medicines are requires? Etc.

The management keeps control on fund of the hospital granted by the government, and collected by the patients. It spent fund for the hospital as requires for very necessary items, like purchasing new equipments etc.

After the complete study of the system we, have designed the following computerized system for the hospital in order to perform these entire activities smoothly and reliably, and keep control on the doctors, patients, and store of the hospital.

When any patient come to hospital first it went to the reception first it gets registered, the complete information's of the patient are collected by the receptionist and to be store into the computer, the receptionist will give a doctors name and its room

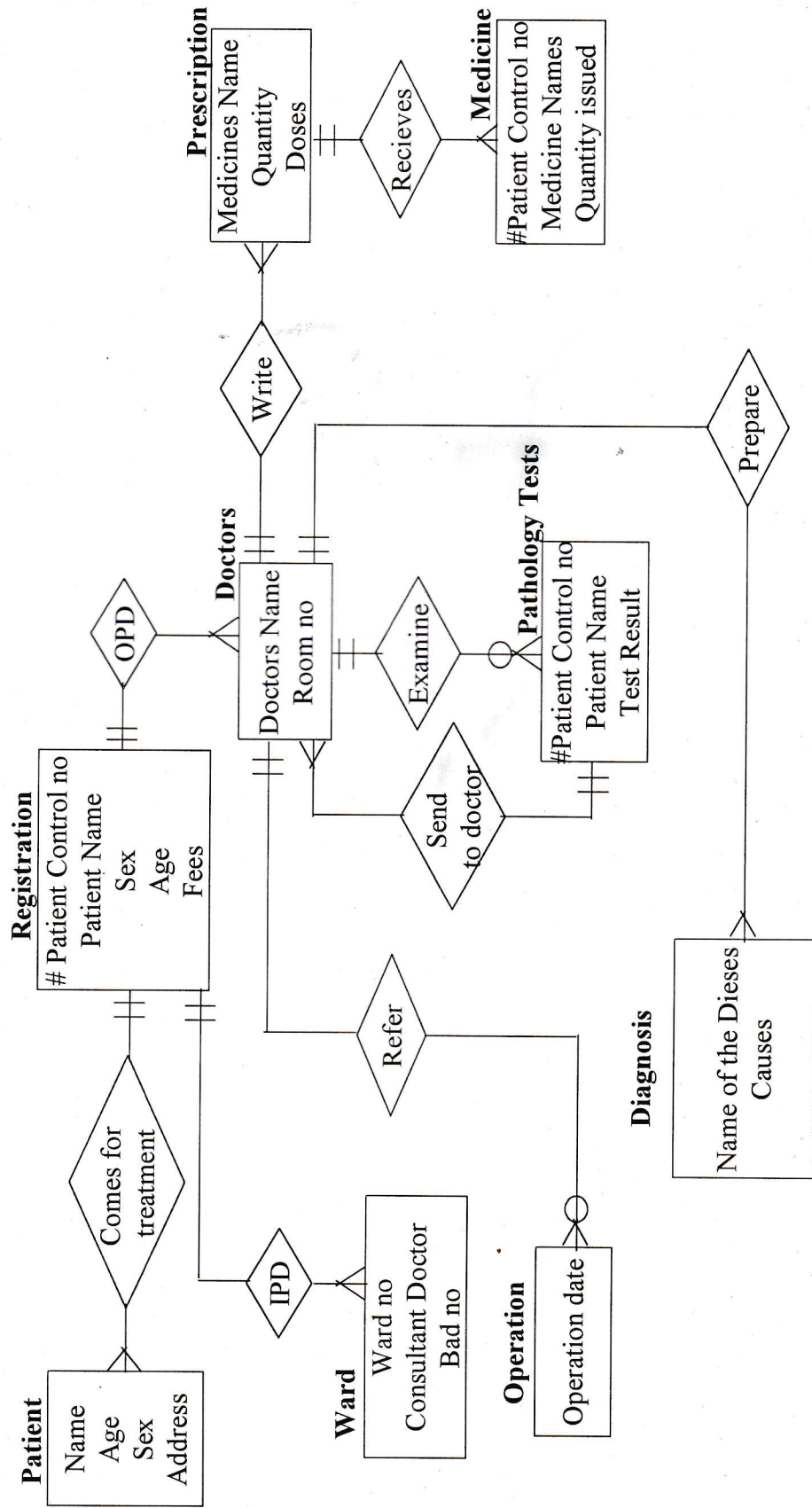
number to whom the patient has to go for treatment. On the registration counter, patient has just to pay a sum of Rs. 5/- for the fund of Rogi Kalyan Samiti.

When the patient went near the doctors, the doctors first analyze the patient and ask for the problem with the patient then they write for some pathology test if necessary, and prepare the diagnosis of the patient than they give prescription to the patient. All these information's are stored into the computer, that what are the patients attend by the doctors? What are the pathology tests are given? What are diagnoses prepared for the patient? What are the prescriptions given to the patient? Etc. So that management keeps control on the doctors, and may be aware with the effectiveness of the facilities given by the organization.

If the patient has to go for some pathology test they have to pay very reasonable amount for some pathology tests. The report of pathology is stored into the computer and sent to the doctors for analysis. The patient gives the amount and result of the pathology test is recorded into the computer, and can be sent to the doctors for their perusal. Management can also be aware with the pathology test.

After taking the prescription from the doctors the patient goes to the store for taking medicine, storekeeper issue the medicines if it is available in the store and manage complete inventory of the medicine store. All these information are saved into the computer by the storekeeper, that what are medicines issued to patients? What is the current status of the store? What are the medicines are required? When the order should be placed for medicines etc. All these information may help the management to keep control on the store, and to avoid any corruption into the store.

Entity Relationship Diagram for Doctors Management



Entity Relationship Diagram

Entity Relationship Diagram: the primary purpose of the ERD is to represent data objects and their relationships. Data objects are represented by labeled rectangles. Relationships are indicated with a labeled line connecting objects; the connecting line contains a diamond that is labeled with the relationship. Entity Relationship Diagram of the Doctors Management representing data objects and the relations between data objects. There are nine data objects displayed in the Entity Relationship Diagram of Doctors Management. They are as follows:

- 1) Patients
- 2) Registration
- 3) Doctors
- 4) Ward
- 5) Pathology Lab Test
- 6) Operation
- 7) Diagnosis
- 8) Prescription
- 9) Medicines

1) **Patient**: this object contains the information about the patients like Patients Name, Age, Sex etc. This data object is related with Registration, the diamond between the patient and Registration is representing relationship between them.

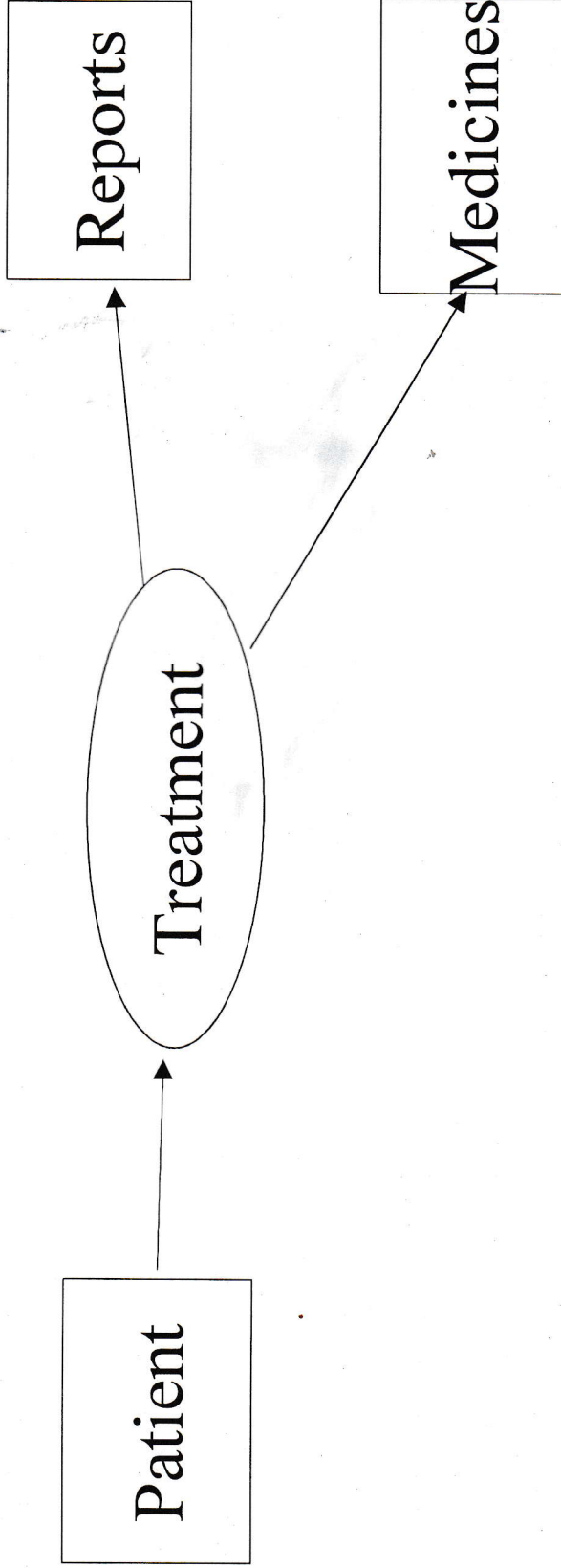
2) **Registration**: This data object contains the registration information of the patients, like Patient control no given by the Registration, Patient name, Age, Sex, and fees charged by the patient. This data object is related with two other objects of the ERD they are **Doctors** and **Ward**

3) **Doctors**: Doctors contains the information of the doctors, like doctors name, and room no, etc. this data object is related with four different data objects, they are Diagnosis, Prescription, Operation, and Pathology

tests. When the patient comes near the doctor, the doctor first examines the patients and writes for some pathology tests if necessary. Pathology is modality related with doctors because it is not necessary that patient write pathology tests to every patient. When the pathology test reports come near the doctors, then doctor examine the reports and prepare diagnosis, and write prescription. If the patient is required some operation then it refer for admitting the patient in the hospital and gives a date for operation.

- 4) **Ward**: Ward contain information about the patient admitted into the ward like Ward no Consultant Doctors Name, Bad no etc.
- 5) **Pathology Lab Test**: Pathology lab tests contain the information about test of the patients.
- 6) **Operation**: If the patient is referred for some operation it. Its operated into OT and result stored into the computer. This object contains the information of the operation.
- 7) **Diagnosis**: The doctor examines the patient, and its pathology test reports and then prepares diagnosis. This object contains the information of the diagnosis prepared by the doctors.
- 8) **Prescription**: After making the diagnosis and fully examining the patient, the doctor gives some prescription, this data object consist of the details of the prescription given by the doctors like Medicine name, Quantity, Doses, etc.
- 9) **Medicine**: After taking the prescription the patient moves towards the Medicine store and take medicines. Medicines are distributed to the patient as per availability. This data object contains the information of medicine distributed to the patients like Medicines name, Quantity, Date etc.

0 Level Data Flow Diagram of Doctors Management Services



0 Level Data Flow Diagram of Doctors Management

0 Level Data Flow Diagram: 0 Level Data Flow Diagram displayed the fundamental system model of Doctors Management as a single bubble with the primary input and output of the data. Data Flow Diagram shows the flow of the data between the processes of the doctor's management. The fundamental system model of the Doctors management is to attend patient, analyze, write Pathology Test or Operation if necessary, and then gives prescription, and display reports.

1 Level Data Flow Diagram of Doctors Management

1 Level Data Flow: Level 0 DFD is now expanded into a level 1 DFD. It is representing the additional process and information flow paths of the Doctors Management. 1 Level DFD of the Doctors Management is containing seven bubbles representing process and five rectangles representing external entities and two one sided open rectangles showing the data store. They are as follows:

Process

- 1) Registration
- 2) Doctors
- 3) Pathology Test
- 4) Operation Report
- 5) Diagnosis
- 6) Prescription
- 7) Reports

External Entities

- 1) Patient
- 2) Patient status
- 3) Pathology tests
- 4) Diagnosis and Prescription
- 5) Medicines

One Sided Open Rectangle

- 1) Patient Registration Register
- 2) Patient Record Database

The processes are displayed in the bubbles and arrows are representing information flow between the processes.

Modules Logic and Description

Doctors Management may have seven main modules. They are as follows:

- 1) Patient Registration,
- 2) Doctors main Module
- 3) Pathology test
- 4) Operation Report
- 5) Diagnosis
- 6) Prescription
- 7) Patients Report

1) **Patient Registration:** This module let the Registration clerk to make an entry of the patient and collect data regarding patient like their name, age, Sex, address, and allot a control no. whatever the information collected by this module will stored into the database.

2) **Doctor:** This is the Doctors main module, which will offer, doctor's services. It may contain sub modules to make diagnosis, prescriptions etc. Whatever diagnosis, and prescription prepared by the doctors it will be stored into the computer by this module.

3) **Pathology tests:** This module will let the pathology lab technician to store the pathology test reports into the computer.

4) **Diagnosis:** When the doctor analyze the patient this will prepare some diagnosis, and the report of the diagnosis will stored into the computer by this module.

5) **Prescription:** This module enables the doctor to store prescription into the computer. The module will read Medicine Name, Quantity, Doses, and store all these information into the database.

6) **Operation Report**: If the patient has given some operation, its result stored into the computer. The module will let the operator to store all information regarding operation into the database.

7) **Patients Report**: The Report module is used to display reports of the Doctors and patients. This module will let the management to know the status of the doctors, patients etc. This module may have some sub modules to display different types of reports such as pathology test reports, diagnosis and prescription given by the doctor, patients status etc.