Dissertation Title

"GAP ANALYSIS for OPD, IPD & Emergency Department" Based on Indian Public Health Standards of District Hospital, Kishanganj"

A dissertation Proposal for

Post Graduate Diploma in Health and Hospital Management

By

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New Delhi

Certificate from Dissertation Advisory Committee

This is to certify that Dr. Sanjay Yadav, a participant of the Post- Graduate Diploma in Health and Hospital Management, has worked under our guidance and supervision. He is submitting this dissertation titled ""GAP ANALYSIS for OPD, IPD & Emergency" Based on IPHS Standards of District Hospital, Kishanganj" in partial fulfillment of the requirements for the award of the Post- Graduate Diploma in Health and Hospital Management.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Faculty Mentor
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Kishanganj

Letter No. 434 Date. 29/4/2013.

TO WHOM IT MAY CONCERN

This is to certify that Dr. Sanjay Yadav has successfully completed his dissertation project period in our organization from February 16, 2013 to till date as HM at Sadar Hospital, Kishanganj. During this intern he has worked on the project "GAP ANALYSIS for OPD, IPD & Emergency" Based on IPHS Standards of District Hospital, Kishanganj" under my guidance at Sadar Hospital, Kishanganj.

I hereby appreciate his efforts and wish him best of luck for his future assignments.

29/4/13

Dr. R.P. Singh
Deputy Superintendent
Sadar Hospital, Kishanganj.

Certificate of Approval

The following dissertation titled **"Gap analysis for OPD, IPD and Emergency based on IPHS standards of Sadar Hospital Kishanganj"** is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of **Post- Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation

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FEEDBACK FORM

Nameof the Student: Dr. Sanjay YAdav

Dissertation Organisation: Sadar Hospital, Kishanganj

Area of Dissertation:

"GAP ANALYSIS for OPD, IPD & Emergency Department" Based on Indian Public Health Standards of District Hospital, Kishanganj"

Attendance: Complete

Objective Achieved:

Operational objectives met during internship period

Deliverables:

Manage hospital's day to day activities very efficiently along with specific project deliverables

Strengths:

Committed, consistent, diligent and hard working

Suggestions for Improvement:

Need improvement in latter drafting (Hindi)

Date: 30-04-2012

Place: Kishanganj

Signature of officer in charge/
organizational mentor(Dissertation)

Acknowledgement

At the completion of my dissertation report I would like to show my sincere gratitude to the Sadar Hospital – Kishanganj, Especially to **Civil Surgeon Dr Affaq Ahmed Lari** for providing me such an opportunity. Without his constant support and guidance it would never be a success. My sincere thanks to all the respected faculties and consultants at Sadar Hospital Kishanganj, Bihar.

I wish to express my deep sense of gratitude to my mentor **Dr. R. P. Singh -Deputy Superintendent** for constant help, able guidance, valuable suggestions and inspiration. he was kind enough to give his valuable time when required.

Words are inadequate to offer my thanks to **Mr S. Das -DPM – Kishanganj** for his able guidance and invaluable suggestions throughout the training period.

Needless to mention that **Dr. Vinay Tripathi, Assistant Professor at IIHMR Delhi**, my mentor was always supportive to me and gave his valuable feedbacks if and when required. At this note i would like to thank all the respected faculty members and staffs of IIHMR Delhi for being kind to me.

Finally, yet most importantly, I would like to express my heartfelt thanks to my beloved parents for their blessings, my friends/classmates for their help and wishes for the successful completion of this project.

Dr.Sanjay Yadav

Table of content

NRHM

Access to public health services has witnessed tremendous improvement since the inception of national rural health mission. But many health facilities are not implementing the evidence based approach.

NRHM approach: -The National Rural Health Mission (NRHM) aims to provide for an accessible, affordable, acceptable and accountable health care through a functional public health system.

It is designed to galvanize the various components of primary health system, like preventive, promotive and curative care, human resource management, diagnostic services, logistics management, disease management and surveillance, and data management systems etc. for improved service delivery.

GOALS:

- Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR)
- Universal access to public health services such as Women's health, child health, water, sanitation & hygiene, immunization, and Nutrition.
- Prevention and control of communicable and non-communicable diseases, including locally endemic diseases.
- Access to integrated comprehensive primary healthcare.
- Population stabilization, gender and demographic balance.
- Revitalize local health traditions and mainstream AYUSH.
- Promotion of healthy life styles.

Abbreviations

ANS/DNS	Assistant Nursing Superintendent /Deputy Nursing Superintendent
BDO	Block Development Officer
BHT	Bed Head Ticket
CHC	Community Health Center
CMO	Chief Medical Officer
CMS	Chief Medical Superintendent
CSSD	Central Stores and Supply Depot
CT	Computerised Tomography
CUG	Close User Group
DM Cycle	Disaster Management Cycle
DPM	District Programme Manager
DS	Deputy Superintended
ED	Emergency Department
EOC	Emergency Operations Center
F & B	Food and Beverage
HAZMAT	Hazardous Material
HDU	High Dependency Unit
ICU	Intensive Care Unit
IC	Incident Commander
ICS	Incidence Command System
I/C	In-Charge
ICDS	Integrated Child Development Services
HEICS	Hospital Emergency Incident Command system
HOD	Head of Department
HSC	Hospital Surgical Capacity
HTC	Hospital Treatment Capacity
MCI	Mass Casualty Incident

MICU	Medical Intensive Care unit
MLC	Medico Legal Case
MO	Medical Officer
MO I/C	Medical Officer In Charge
MRD	Medical Records Department
NGO	Non Governmental Organization
OPD	Out Patient Department
OT	Operation Theater
PHC	Primary Health Center
PWD	Public Works Department
PRO	Public Relations Officer
QRMTs	Quick Response Medical Teams
VCTC	Voluntary Counselling and Testing Centre

1. INTRODUCTION

Now a days healthcare is an important concern in India, which is second most populous country in the world .Healthcare is a big concern in India, the land of nearly 1.12 billion people (census 2011) and the second most populous country in the world. India is divided into a number of States, so the State government has the responsibility to take care of the wellbeing of the people in every state. in view of the fact that India is a developing country where a huge section of population is below the poverty line, health and hygiene are not up to the mark. It is reported that in India, annually 22 lakh infants and children die from avoidable illnesses, 1 lakh mothers die during the child birth and 5 lakh people die of tuberculosis and also around 5 million people suffer from HIV/AIDS and many others die due to diarrhea and malaria (2-Idbi). The dilemma of the least advantaged has been increasing because of *the poor public health systems*. It is unfortunate that the government hospitals and health care centers do not address entirely to the needs of the poor population. Inspite of govt sector the private health care institutions charge very high amount of money, which automatically renders them beyond the reach of many. on the other hand, the private health care sector in India is flourishing at the cost of the public.

According to a World Bank study the per capita spending on health in India is around Rs. 320 per year with a significant input of 75% from private households. The State Governments contribute 15.2%, the Central Government 5.2%, third party employers 3.3% and the municipal government and foreign donors provide about 1.3% to the total spending, of which 58.7% goes to primary health care (curative, preventive and promotional) and 38.8% is spent on the secondary and tertiary ones(2).

According to the economic sector and marginal policy attention for education & health results it should be on the priority for improvement. Social scarcity mainly in the fields like education and health finally eclipse economic growth and ultimately the quality of life. There must be placed a balanced strategy of allocating resources between economic and social sectors, as a result, it is awfully essential policy decision for a developing country like India. priority assignments should be given to social sectors. It is in this backdrop of growing importance of health service that the present paper has been initiated.

To provide quality services to the poor and needy people of the state Bihar Government is committed to perk up the quality being provided at its facilities in order to achieve better health outcomes for people mainly those from poor sections The spirit of the commitment is the provision of quality services to women and children. Quality management system is an approach which encourages organizations to analyze the requirement of service user, define the processes that helps in achieving the level of services which are acceptable to them and keep the processes under control for consistency. It ensures that services provided are evidence based and as per technical quality protocols. It is a continuous process that has to be sustained for continual improvement.

To facilitate the above goals, comprehensive study of District (Sadar) Hospital, Kishanganj was carried out on the current processes, practices and existing infrastructure with other available resources to identify the major gaps based on Indian public health standards as applicable to Sadar hospital.

2. AIM:

The aim of this study is to identify areas of the current and target quality management (TQM) system for which provision has not been made in the technical architecture. This is required in order to identify projects to be undertaken as part of the implementation of the target quality management system for achieving FFHI (Family Friendly Hospital Initiative) or certification.

3. PROBLEM STATEMENT:

The rationale behind it was certainly the identification of the actual need and gaps in context with the health facilities and its determinants.

Reason behind problem statement

The National Rural Health Mission (NRHM) is an innovative vision and strategy aimed to fulfill mounting health expectations of people into accountable, accessible and affordable manner. The government of India is committed and responsible to provide equity, equality, quality and satisfaction based subsidized treatment to Indian citizens.

4. REVIEW OF LITERATURE:

Evans & Lindsay (1996) (3) defined the quality of healthcare service as *"all characteristics of the service related to its ability to satisfy the given needs of its customers".* Both are closely related. Service is an attitude formed by a long term overall evaluation of a hospital's performance.

Nowadays, patients' satisfaction is an essential part of hospital management across the world. The health care industry in recent years has restructured its service delivery system. The restructuring has focused on finding effective ways to satisfy the needs and desires of the patients. Patients' satisfaction is a basic requirement for healthcare provider because, the satisfaction related to quality of healthcare is provided by hospitals. The main focus of the study is to measure the *patients' satisfaction* in healthcare service provided by the two hospitals(4).

In these two hospitals(public hospital-Mohan Kumarmanglam Govt.hospital and private hospital-Sri Goculan Hospital),a sample of 400 in- patients were selected to collect the primary data through SERVQUAL (5) model and also Donabedian's framework was used to measure the patients' satisfaction. The finding of the study shows that the private hospital is performing better in providing service quality and give satisfaction according to the needs of the patients (6)

Concept of patient satisfaction in NRHM is not only psychosocial phenomenon at the same time, it's related to various outlook and upbringing of service delivery point on one hand. On other hand, expectations are also associated to selfsocial interactions, quality of services, patient understanding and facilities. (7). Though, the rapid economic development has not been accompanied by social development particularly in the health sector development. Health sector is on very low priority in terms of allocation of resources. It is pittyable that Public expenditure

on health is less than 1 per cent of GDP in India. It has further noticed decline during the post economic liberalization period. The insufficient resource allocation to health sector has unfavorabe affect both access and quality of health services. The unequal access to health services is reported across strata, gender and location (i.e. urban and rural areas). With a view to improve access and quality of health services, government should augment public expenditure on health sector in the vicinity of 3 per cent of GDP (8)

5. OBJECTIVES

General Objective: "GAP ANALYSIS for OPD, IPD & Emergency Department" Based on IPHS of District Hospital, Kishanganj.

Specific Objectives of the study are:

1. To assess the process flow of respective departments in the hospital with the identification of process Owners(it means the person who has the ultimate responsibility for the performance of the process), Input(s), Outputs (s) and process flow of each process occurring at each section of the hospital with the relevant records.

2. To identify the significant gaps observed on all the processes in each section and explanation of the gap statement with document evidences and photographs. The gaps are analyzed based on IPHS.

3. To prepare Time Bound Action Plan to fulfill the gaps, if any.

6. RESEARCH DESIGN AND METHODOLOGY :

The study has been completed in 3 stages.

STAGE I: IPHS Checklist was used for a total survey of the departments in terms of services provided, Manpower, Physical infrastructure, Equipments, drugs and Lab services.

STAGE II: Observation and personal interview were used to map the various processes of the hospital and to know the functioning of the each department.

STAGE III: Extensive analysis based on data collected from stage I and Stage II. Based on this Gap analysis was prepared reflecting the processes, Infrastructure, Equipments, Manpower. The report reflects strengths of the departments and various gaps observed in the processes and other parameters.

Area of Study: The study was under taken in Sadar Hospital, Kishanganj, Bihar.

Study Design**:** Observational study to analyse the gaps within the facility by using IPHS standards.

Data Collection Tool: Checklist

Duration of the Study: February to April, 2013

7. OPERATIONAL DEFINITIONS:

Service Quality: Service Quality means "Meeting or exceeding the expectations of customers" (5) Service Quality in the Australian Advertising Industry: A Methodological Study", *The Journal of Services Marketing"* 11(3), pp.180-192.) . The concept "Service Quality" means perceptions of any individual / patient about the technical outcome or service provided, the process by which the service is delivered and the quality of surrounding where the service is delivered. The quality of service provided in the hospital is based on the factors / dimensions such as Tangibles, Reliability, Responsiveness, Assurance and Empathy. These five dimensions represent how patients organize information about service quality in their minds.

Patient Satisfaction: When expectations of service quality are exceeded, patient satisfaction is realized.

Expectation: What patients feel or desire the service provider (hospital) should offer.

Gap: Discrepancies between patient expectations and performance of hospital.

8. **District/Sadar Hospital Kishanganj (Bihar) - Place of Internship.**

District Hospital, Kishanganj caters to the people living in urban and rural people in the district. District hospital system is required to work not only as a curative centre but at the same time should be able to build interface with the institutions external to it including those controlled by non-government and private voluntary health organization. This hospital is situated in Kishanganj (Bihar). It is Referral hospital for Primary Health centre & Sub-centers. It covers the 7 PHCs. It Covers approximately17, 50,000 populations. The number of beds available in the Hospital is 100. The Hospital compound is good and enough area for patients cares. Environment is good surrounding of the hospital. Availability of all Doctor and staff is the positive point of the Transporting facility is good and the road is very good in condition. Patient comes easily in the hospital.

Table 1: Fact sheet of Sadar Hospital, Kishanganj.

s. no	Area	Number
1	Total Population covered	17,50,000
2	Total area of hospital	1 acers
3	Total beds	100
4	Total functional bed	100
5	Total doctors	9
6	Total nurses	14 – A grade, 4- ANM
7	Total pharmacists	0
8	Average Indore patients/month	2000
9	Average outdoor patients/month	12,000
10	Average fee collected/month	8000
11	Average emergency patients/month	900
12	Average referred patients/month	24
13	Average operations family planning/month	50
14	Average cases of N.S.V/ month	0
15	Average general opr. (major)/month	28
16	Average general opr. (minor)/month	600
17	Average still birth/month	12
18	Average normal delivery /month	400
19	Average immunization mother/month	300
20	Average immunization child/month	2000
21	Average TB positive cases/month	12
22	Average kala-azar cases/month	0
23	Average dog bite(ARV)/month	05
24	Average snake bite cases/month	4

The department and services available in the hospital are:

Specialist services available in the hospital

- General Medicine
- General Surgery
- Obstetrics & Gynecology: Family Planning, Antenatal checkup, Intra natal care 24 hour Delivery services and Post Natal Care
- Emergency (Accident & other emergency/ Casualty)
- Anesthesia
- Ophthalmology
- ENT
- RTI / STI
- Orthopedics
- Radiology
- Dental Care
- Public Health Management
- School Health Services

Para Clinical Services

- Laboratory services
- Blood Bank
- Drugs and Pharmacy

Support Services

- Medico-Legal/ Post -Mortem
- Ambulance Services
- Dietary Services
- Laundry Services
- Security Services
- Nursing Services
- Sterilization and Disinfection

National Health program

- Universal Immunization Program
- Janani Bal Suraksha Yojana
- Revised National Tuberculosis Control Program
- National AIDS Control Program
- National Leprosy Eradication Progr am
- National Program for Control of Blindness
- Integrated Disease Surveillance Project (IDSP)
- National Vector Borne Disease Control Programme (NVBDCP)
- National Programme for Prevention and Control of Deafness (NPPCD)
- National Cancer Control Progr amme (NCCP)
- National Mental Health Programme (NMHP)

- National Programme on Prevention and Control of Diabetes, CVD and Stroke (NPDCS)
- National Iodine Deficiency Disorders Control Programme (NIDDCP)
- National Tobacco Control Programme (NTCP)
- National Program for Health Care of Elderly

- **Fig.no 1-**
- **Observation during Internship period (SWOT)**

STRENGTHS	**WEAKNESSES**
• The hospital is located in the centre of the town and easily amicable. The hospital is in close propinquity to railway station and bus stand. • The hospital serves as a referral center for the district and caters a large population. . • The Rogi Kalyan Samiti is very effective in this hospital. • Involvement of private sector in the hospital functioning is working very efficiently and effectively. • The physical infrastructure is in good conditions.	• Centralized decision making at state level leads to impediment in approval and execution. • Doctors' necessities (Means requirement of Doctors' as Human resourse, more doctors should be appointed in govt hospitals. are not filled as per Patient load and IPHS standard • Weak peripheral health care system needs to increase patient load and hence departments have not been developed as per the district hospital standards. • Shortage of Manpower.
OPPORTUNITIES	**THREATS**
• Devolution of powers at local level for smooth functioning. Involvement of Local Population in Developing. • Suitable scheduling and dexterity with DHS, NRHM and RKS can lead to the development of services and better delivery of health care in an integrated way. • Availability of area for the development of hospital. • The center can be developed to serve as a training center for junior doctors and paramedical staff.	• Political influence • Epidemic • Kishanganj is siuated near two international borders hence War can be a threat for the hospital.

LIST OF ALLEGED CHALLENGES BY LEADERSHIP TEAM

- At the level of hospital's rules and regulation all decisions shuld be taken with mutual understanding and agreement of all departments
- To fulfill the requirements by proper follow-ups and should be done by laws.By following all legal requirements such as AERB, BARC, etc.
- Obedience to Biomedical Waste Management rules 1998.
- By following infection control practices.
- Upkeep and Sanitation of Hospital building and environment.
- The Rearrangement of the various facilities as per the flow of the patient.

The main tasks performed as a management trainee are

- Process Mapping & Gap Analysis
- Preparation of Action Plan:
- Training Need Assessment of the employee of the Hospital.
- Collection of Forms and Format of the Hospital

Learning by Training

- To understand the IPHS guidelines
- To understand of the fund flow from state level
- Detailed Process mapping and process flow of all departments of the Hospital.
- The identification of Gaps & Gap analysis of all departments of the hospital for quality improvement.
- Implementation of the quality process in hospitals.
- Preparation of the action plan.

Table 2: People Interviewed for study

List of People Interviewed for study

Designation	Department
Doctor	Medicine
Doctor	Dental
Doctor	Emergency
Clerk	RKS
Clerk	Administration
Pharmacist	Medical store
NGO (Housekeeping Incharge)	Housekeeping
MWA	

- Store Keeper
- Lab Tech
- X-ray Tech
- Dresser
- Grade A
- ANM

9. Observations:

9.1 OUTPATIENT DEPARTMENT

The OPD department is situated in the new building of OPD which provide facilities like Medicine, Surgery, Pediatrics, Obstetrics and Gynecology, Orthopedics, Dental, Ophthalmology. There are total 6 OPD rooms and additionally attached with ECG room, X-ray room, VCTC room, HIV test room.The total no. of Medical officers is 09. The OPD attendants are 24 in the OPD department. Every department has their own OPD register where department's staff record the patient's name, age, sex, registration no. and diagnosis and medicines prescribed to the patients.

Functionalities of OPD: It covers the patients who visit the OPD facility for new and follow up visits.

Registration

Consultation

Examination

Prescription

Investigation Requisition

Pharmacy Requisition

Admission to IPD

Referral

Responsibility

The **Registration Clerk** is responsible for issuing Registration slip and providing consultation appointments.

The **OPD Nursing In-charge** is responsible for monitoring the OPD unit functioning, maintaining necessary records and assisting the doctors/ Consultants.

The **Doctors** shall be responsible for examination of the patients and for determining the line of management of the ailment / case thereof.

Flow Chart of the Registration Process and OPD consultation

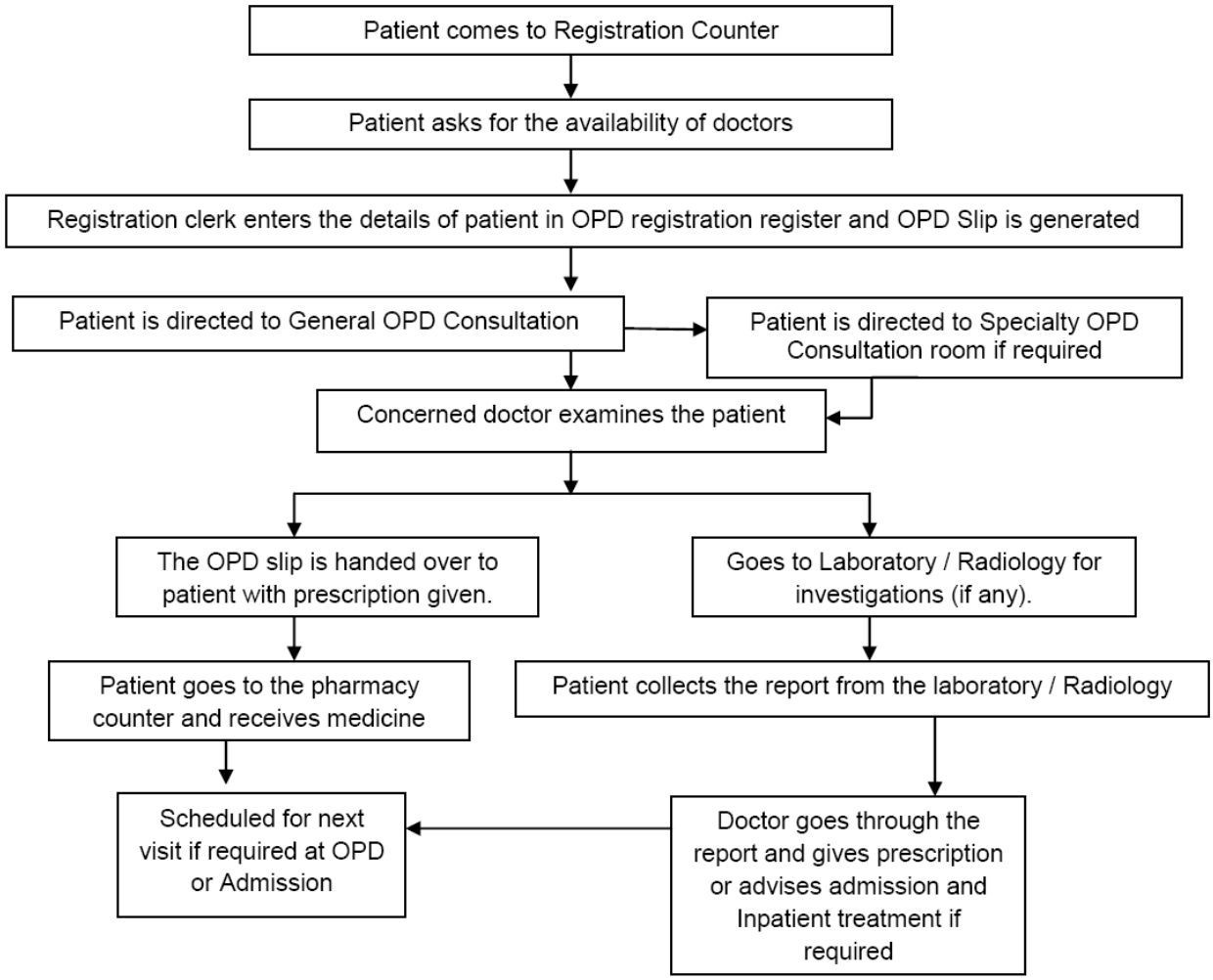

Figure 2: Process Flow chart for OPD

9.1.1 OUTPATIENT DEPARTMENT

For Process Flow:

Process Group	OPD	**Sub-Process**	OPD Registration
Process Location	Registration counter	**Process Owner**	Registration clerk/iv grade staff
Input	Patient coming to the hospital	**Output**	No. of OPD registration per day

Process Flow/Process Description:

- OPD patient's registration takes place from 8:00am to 11:30 am and evening 3:30 pm to 5:30 pm.
- There are separate registration counters for male and female patients.
- The registration clerk/iv grade staff at the registration counter allocates a number to him/her on first cum first serve basis and writes the patient name, age, sex & address in a register.
- After registration patient waits for his/her turn to be called by security personnel for consultation with medical officers.
- Registration fee is one rupee which is valid for one month.
- Old registration holder patients directly go to the OPD.

Patients Records	Outpatient Register, Registration Slip.

Gap Analysis:

9.1.1 OPD Consultation

Process Group	OPD	**Sub-Process**	Consultation
Process Location	Consultation Chamber	**Process Owner**	Medical Officer
Input(s)	Patients with OPD Registration Slip	**Output(s)**	**(a)** 450/day of OPD consultations. **(b)** 25-30/day of investigation prescribed. **(c)** 35(aprox.) types of medicine prescribed. **(d)** 300 of patients advised for follow up. **(e)** 20 of patients

			referred to medical college for super-specialty. **(f)** 400/month of patients advised for admission.

Process Flow/Process Description:

- Medical Officer examines the patients as per their turn.
- Assess vitals and prescribe medication/investigations/admission/refer to higher centers on OPD Registration form.
- Medical Officer maintains the register and writes the patient's serial number, registration number, patient's name, age, sex, address and treatment. MO gives the information about dose, time and site of medication and also educate on diet if required.

Patient Records	OPD Register.

Gap Analysis:

Gap ID No.	**OPD-2**
Gap Statement: Citizen charter is not displayed in the OPD waiting area.	
Rationale/Explanation: • Citizen Charter is not displayed. • Posters imparting health education are not displayed in adequate number and all places. • Booklets/Leaflets are not available. • User Fee details and list of members of Hospital management committee are not displayed.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1(i),**
Supporting Annexure	

Gap ID No.	**OPD-3**
Gap Statement: Basic facilities are not available in the OPD	
Rationale/Explanation: • The doorway leading to the entrance (OPD) not has a ramp facility easy access for handicapped patients; wheelchairs and stretchers are also not available. • Toilets with adequate water supply separate for males and females are not available.. • There are in-adequate chairs for patients and attendant in waiting area.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1(i) b, d**
Supporting Annexure	

Gap ID No.	**OPD-4**
Gap Statement: Patient privacy is not maintained during examination.	
Rationale/Explanation: • Curtains are not available in OP consultation room. • During consultation time, a number of patients are present in consultation room.	
Gap Classification Structure	***Gap Severity Rating** High
Gap Reference	**IPHS 7.8.1(i) e**
Supporting Annexure	

9.1.3 Dispensing of Medicines- process flow

Process Group	OPD	**Sub-Process**	Dispensing of Medicines
Process Location	OP Pharmacy	**Process Owner**	Pharmacist/A grade nursing staff
Input(s)	OPD Registration Ticket	**Output(s)**	• No. of Medicines dispensed per day • No. of stock out per day
Process Flow/ Process Description: • Patients come pharmacy after the consultation and go directly to pharmacy and shows the prescription			

• Pharmacist/A grade nurse check the availability of drugs and if it is not available then advice some drugs is not available in the pharmacy, then patients are bound to purchase drugs outside the campus. • Pharmacist/ A grade nurse enter the name of the medicine in Medicine Dispensing Register; in register mention the reg. no. and quantity given to the patients.	
Patient Records	Medicine Dispensing Register

Gap Analysis:

Gap ID No.	**OPD-5**
Gap Statement: Dispensing of medicine is not as per standard dispensing practices.	
Rationale/ Explanation: • Racks for storage of medicines are not available. • Medicines are kept on floor and during dispensing are laid down on a table which is too small. • All patients are not described briefly about the intake of medicine. • Medicines dispensed are not handed over to the patients in packets. • Dosages and timing of medication is not written.	

Gap Classification Process	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1**
Supporting Annexure	

9.1.4 Dressing of Wound

Process Flow

Process Group	OPD	**Sub-Process**	Dresser
Process Location	Dressing Room	**Process Owner**	Dressing of wound
Input(s)	Patient	**Output(s)**	Wound dressing done

Process Flow/ Process Description:

- Patients come to dressing room prescribed by MO.
- Dresser/ ANM staff washes the wound with antiseptic solution.
- During dressing the wound dresser uses the medicated cream, cotton and gauze. Patient comes to next visit after two days.
- Dresser maintains the register and writes the OPD registration no., name of patients and what is done and what medicine has given.

Patients Records	Dressing Register

Gap Analysis:

Gap ID No.	**OPD-6**
Gap Statement: Cluttering of junk in the dressing room.	
Rationale/ Explanation: • Do not follow the Biomedical Management process (Color coded bins available). • Cotton, bandages and all the waste are thrown everywhere. • Floor is not cleaned frequently (at last once in each shift) and hence is dirty.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1**
Supporting Annexure	

Gap ID No.	**OPD-7**
Gap Statement: Dressing is not done as per standard practices.	
Rationale/ Explanation: • Sterile gauze and dressing pad is not available. Hence uunsterile gauze and pad are used for dressing. • Dresser does not use PPE such as gloves, mask etc at the time of dressing. • Patient's privacy is not maintained at the time of dressing as more than one patient enters the room at the same time and there is no curtain available.	

Gap Classification Process	***Gap Severity Rating** Medium
Gap Reference	**IPHS 6.5.5**

9.2 IN PATIENT DEPARTMENT

The Inpatient department of the hospital has two building one for male ward and another for female ward. One another ward which is situated far away from the female building ward i.e. Labour ward. The total no. of IPD beds is 100 which are functional. The total no. of nurses are present in the hospital is 20. The nursing station in male building is situated in the centre of the male medical and male surgical ward and in female building it is situated at the one end of the department. The registers present in the IPD are report book, diet register, admission register, injection expenditure and medicine expenditure register and dhobi book register.

Functionalities of IPD: It covers all indoor patients admitted and receiving treatment at the Hospital.

This includes:

- Admission of the patient
- Assessment of patient by doctors/ nurses
- Medication by doctors
- Administration of drugs
- Monitoring of patient's condition
- General hygiene and upkeep of ward
- Consent for procedures
- Complaint handling
- Discharge of patients
- Death of patients

Responsibility:

Doctor, Matron, Nursing In-charge and Housekeeping supervisor.

Process Flow chart for IPD

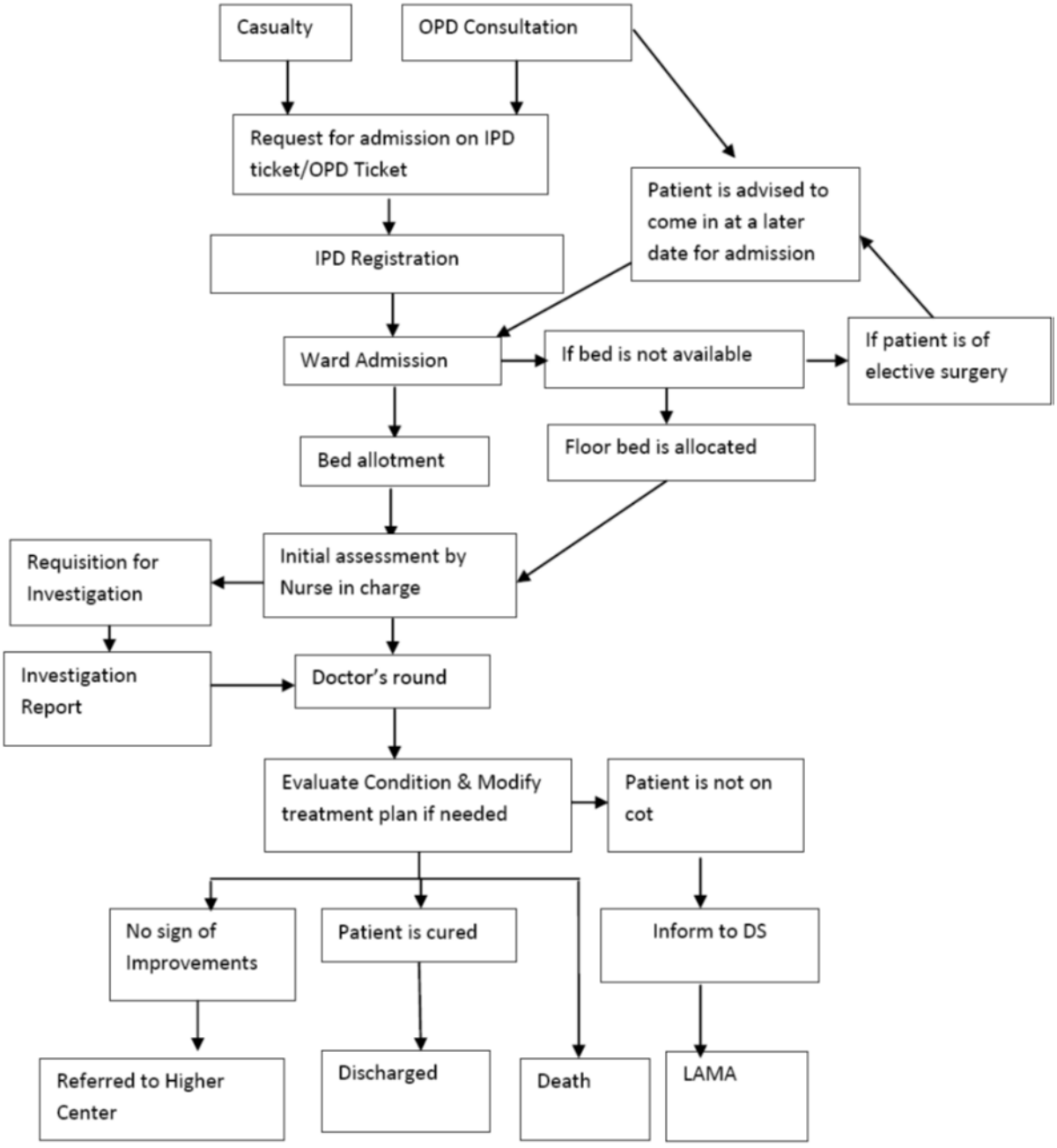

Figure 3: Process Flow chart for IPD

9.2.1 IN-PATIENT DEPARTMENT

For Process Flow:

Process Group	IPD	**Sub-Process**	Registration
Process Location	Registration Counter	**Process Owner**	Registration Clerk
Input(s)	Registration Form	**Output(s)**	70 (avg.) IPD Registrations per day

Process Flow/ Process Description:

- In case the patients needs admission the doctor writes down the instruction in the OPD ticket/Emergency ticket.
- The patient is advised to report the staff nurse in the inpatient ward.
- The staff nurse collects the OPD ticket and admits the patient and allots the bed according to the severity of the patient condition.
- After admitting the patient, nurse enters the detail of the patients in the case sheet register.

Patient Records	Registration Form

For Gap Analysis:

Gap ID No.	**IPD-1**
Gap Statement: Wards are not fully equipped for patients care.	
Rationale/ Explanation: • Bed side lockers are not provided to keep medicines in all wards. • Bed railings are not available in the wards. • Pillow and blanket not provided to patient. • Waste segregation practices are not followed by hospital staff. • Drinking water facility is not available in ward area. • Waiting area for patient's attendant is not available in front of wards. • The cots and mattresses are not in good condition and need immediate repair. • All the drugs are not available in the hospital and some have to bought from outside. • No washing area is designated for washing of badly soiled linen.	
Gap Classification Structural	***Gap Severity Rating** High
Gap Reference	**IPHS 7.8.1(V)**
Supporting Annexure	

9.2.2 Patients Care

Process Flow:

Process Group	In patients Services	**Sub-Process**	Patients care
Process Location	Wards	**Process Owner**	Staff Nurse, Ward Boy, Medical Officer
Input(s)	Patients	**Output(s)**	Patients Care

Process Flow/ Process Description:

- Nursing staff check the vitals of the patient and monitor the condition of patient at fixed intervals according to condition of patient.
- Nursing staff administrate medication to the patients as per doctor's order.
- Medical Officer explains the condition of the patient to Nursing Staff and patients relatives.
- Medical Officer changes the medication according the condition of the patient. In any emergency Nursing Staff communicate verbally with medical officer. If any investigation required according to the condition of the patient Nursing Staff call the technician.
- If the patient's condition satisfactory, the MO discharges the patient.
- If there is no improvement in the health condition of the patient, then the Medical Officer refers the patient to Medical College.

Patient Records	Case Sheet/ Bed Head Ticket

Gap Analysis:

Gap ID No.	**IPD-2**
Gap Statement: Infection control not being practiced in the ward.	

Rationale/ Explanation:.

- There is no separate area to keep the sterile and unsterile equipments.
- The Biomedical waste segregation is not as per guidelines.
- Needle cutter is available in the ward but not utilized by the staff nurse/ANM .
- Unsterile instruments are used by staff nurse/ ANM.
- Cleaning and mopping schedule is not proper and disinfectants are not used.
- There is no pest control in the ward or in the hospital for flies, rodent and mosquitoes.

Gap Classification Process	***Gap Severity Rating** High
Gap Reference	**IPHS 6.5.5/6.4.7/H(i)**
Supporting Annexure	

Dressing room

Gap analysis-

Gap ID No.	**IPD-3**
Gap Statement: Overcrowding of the patient care areas.	
Rationale/ Explanation: • There is no particular timing for visitors to see the patients. • Security personnel are not posted in all the areas to control the traffic. • There is no policy regarding the number of attendants who can stay with patient	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1(v)**
Supporting Annexure	

Discharge
Process Flow:

Process Group	In Patient Services	**Sub-Process**	Discharge of Inpatients
Process Location	Wards	**Process Owner**	MO & Staff Nurse
Input(s)	Recovered Patient	**Output(s)**	Patient discharged

Process Flow/ Process Description:

- The MO suggests the patients to get discharged after accessing the condition at the time of discharge.
- Discharge note is made by MO in the case sheet and signed which is executed by staff nurse.
- Patient's discharged slip is issued.
- Patient's discharge summary contains name of patient, age, reg. no, date of admission, date of discharge, disease, summary of investigation done, advice given at the time of discharge, treatment given.
- Patients are given discharge slip after signed by MO/MOIC.

• Staff nurse educates the patients for next visit, nutrition, precaution and medication. • The patients, who have undergone normal delivery advised on baby care, immunization of baby, home advice, next visit, nutrition and hygiene.	
Patient Records	Case Sheet/ Bed Head Ticket, Discharge Register/ Discharge Slip.

Gap Analysis:

Gap ID No.	**IPD-4**
Gap Statement: Standardized format for Medical Records do not exist.	
Rationale/ Explanation: • Only bed head ticket generated which does not reflect the continuity of care. • Standard formats such as History Sheet, Consultant Notes, Nursing Notes, TPR chart, investigation chart & Consent form not available. • Comprehensive Discharge Summary is not given to the patient; only Discharge Slip with investigation is given to the patient.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS-7.8.2(XV)**
Supporting Annexure	

9.3 EMERGENCY DEPARTMENT

The Emergency dept. is working round the clock. The emergency department has one entrance zone and one exit zone and one consultation chamber area with waiting area of the patients. In emergency department one medical officer present all the time. But the emergency equipments are not present in emergency department according to the IPHS .

Functionalities of Emergency: Scope of services of the Emergency range from providing Episodic, Primary, Acute (comprehensive) care to referrals.

This includes:

- Providing immediate care and stabilizing the patient
- Admission to IPD

- Referral of patients to higher medical Institutions
- Accepting referred patients from other hospitals
- Providing immediate medical and surgical intervention.

Overall Responsibility:

Emergency: Emergency

Disaster: DS/Senior Medical Officer, supported by all hospital staff and doctors

9.3.1 Emergency Services:
Process Flow:

Process Group	Emergency Services	**Sub-Process**	Emergency Treatment
Process Location	MOIC Cabin/ Labour Room	**Process Owner**	ANM/ MO
Input(s)	Patient transfer to the ward after delivery	**Output(s)**	Number of cases seen in Emergency
Process Flow/ Process Description: • Patients requiring Emergency Care during OPD hours are seen in the OPD or Labour Room. • After OPD hours, one staff nurse posted on Labour Room and one doctor is available round the clock. • In case of Delivery, the patient is admitted in Labour Room by the emergency doctor and if needed the gynaecologist is informed who comes to examine the patient. • In cases requiring minor dressing and treatment, the patients are examined and sent home after treatment and those requiring admission are admitted in the ward. • The service/ care that is not available in Sadar Hospital, those patients are referred to Medical College in Ambulance.			
Patient Records	Case Sheet/ Bed Head Ticket		

Gap Analysis:

Gap ID No.	**ED-1**
Gap Statement: Nursing stations are not located properly for patient monitoring.	
Rationale/ Explanation: • In female and male ward nursing station is not located at centre for monitoring of the patients. • Basic equipments are not present in the wards. • There is no janitors closet for housekeeping materials.	
Gap Classification Structure	***Gap Severity Rating** **High**
Gap Reference	**IPHS (7.8.1) v**
Supporting Annexure	**-**

Gap ID No.	**ED-2**
Gap Statement: Emergency Ward is not fully equipped for patients care.	
Rationale/ Explanation: • Defibrillator is not available in the department. • Disaster cupboard is not available in the department. • There is no resuscitation room in the department. • Resuscitation equipments are also not available in the department.	
Gap Classification Structural	***Gap Severity Rating** High
Gap Reference	**IPHS 7.8.1(IX)**
Supporting Annexure	

Gap ID No.	**ED-3**
Gap Statement: Department is not designed as per the requirement of the department.	
Rationale/ Explanation: • The department is not organized as per the work flow. • Area for Triage in case of disaster is not earmarked. • Dirty utility has not been provided. • Waiting area for the attendants has not been provided.	
Gap Classification Structural	***Gap Severity Rating** High
Gap Reference	**IPHS 7.8.1(IX)**
Supporting Annexure	

10 CONCLUSION AND RECOMMENDATIONS

Conclusion

The study revealed and find out the gaps which need to be full filled for the quality improvement of the district hospital, Kishanganj. By achieving the quality care services District Hospital is able get FFHI or ISO 9001:2008 certification. Gaps of all the departments are mainly process gaps, some of those gaps are infrastructure, equipment and manpower gaps. Study also revealed that what specific and general action to be taken for full filling those gaps. What kind of trainings is required and will be given to the staff including nurses, housekeepers, ward boys and medical officers. Special consideration on gaps of the department is given and action plan is prepared and need to be monitored by internal experts who include Matron, Resident Medical Officer, Civil surgeon and Nursing In Charge.

Recommendations

Action Plan suggested OPD:

Drinking water facility/water cooler to be installed near OPD waiting area. Ramp with side rails, Disable friendly toilets to be provided in the Hospital. Sitting arrangements to be made for waiting patients. No of chairs to be increased. Trash bins to be installed in proper places in adequate quantity. Also near water cooler and in toilets.

- Arrangement of BP apparatus in the OPD chamber.
- Patient privacy should be maintained in the OPD chambers.
- All patient care equipments and instruments to be provided in all patient care areas as per IPHS guidelines
- Adequate number of Tube lights to be provided.
- Uniform signage system to be developed and displayed throughout the hospital
- Rights of the patients / Patients Charter to be displayed in area where it is fully visible and readable by public.
- Posters imparting health education and awareness to be posted in prominent places in vicinity.

- Bilingual format for information dispersal to be implemented.
- Suggestion box should be available in the OPD and IPD area.
- Separate rooms for consultation have to be made available.
- Curtains to be provided for doors of consultation rooms and in all patient care areas.
- Security personnel have to be employed to help in control crowd.

Action Plan suggested IPD:

Ramps, Handrails in various patient care areas, bathrooms has to be installed to avoid patient fall. Disabled friendly toilet has to be made available. The wards to be rearranged so as to provide adequate space for smooth movement.

- Crash Cart in IPD.(emergency medicine tray)
- Proper locker for keeping the medicines in the IPD.
- Water Supply to be made available in the IPD.
- Visiting time to be fixed for patient's attendants.
- The ward need to be provided with adequate equipments, Instruments, patient furniture for proper patient care activities such as IV Stands, Crash carts, Lockers. Equipment such as ECG machine, Suction machine has to be made available in the ward.
- Wheel chair and trolleys to be provided for each patient care area
- Repair work of doors and windows has to be done at the earliest.
- Bed railings to be made available in the wards.
- BMW segregation practices should be implemented in the wards.
- Nursing station has to be located centrally for the direct observation and monitoring.
- Nursing station has to be equipped with essential patient care equipments such as Crash carts, Dressing trolleys, sets, BP apparatus, Stethoscope, Suction apparatus, oxygen cylinders, Medicines etc.

- Washing areas to be ear marked for washing of badly soiled linen.
- Hand washing facility to be provided in all patient care areas.
- A medical Records department to be created and Staff appointed for the same.
- Forms and Formats for documentation of Patient care to be standardized. Such as history sheet, consultant notes, Nursing notes, Medication chart, TPR chart, Investigation chart, consent form, discharge summery etc.
- Documents related to patient care have to be complete.
- The department to be integrated with Registration and Admission & Discharge units.
- Training of staff in BMW handling will be done.
- Periodical pest control measures to be taken in the ward or in the hospital.
- Timing for visitors to see the patients has to be decided and strictly imposed.
- Hospital policy to be devised and implemented regarding the no. of attendants who can stay with patients.
- Soiled linen collection trolley has to be made available. .

Action Plan suggested Emergency:

- Availability of driver has to be insured.
- Staff to be appointed and positioned according to work pattern.
- Crash Cart with all essential drugs have to be available.(emergency medicine tray)
- Patient monitoring equipment to be available in the Emergency.
- Disaster cupboard to be made available in the department.
- Arrangement for resuscitation room has to be done.
- Signages of emergency department should be made available.
- The department to be organized as per the workflow.
- There has to be separate observation, treatment and consultation areas.
- Triage Area needs to be earmarked.
- Waiting area for the attendants has to be provided.

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Anexxure- IPHS checklist

	Physical Infrastructure	Current Availability in the Hospital
2.1	Size (Area) of the Hospital acres	2 acres
2.2	Number of indoor beds available	100
	Location	
2.3	Is the hospital located near residential area? (Yes / No)	Yes
2.4	Is the hospital building free from danger of flooding? (Yes / No)	Yes
2.5	Is the hospital located in an area free from pollution of any kind including air, noice, water and land pollution? (Yes /No)	No
2.6	Is necessary environmental clearance obtained? (Yes / No)	No
2.7	Whether hospital building is disabled friendly as per provisions of disability act?	No
	Building Status	
2.8	What is the present stage of construction of the building?	Good
2.9	Compound Wall / Fencing (1-All around; 2-Partial; 3-None) partial	2
2.10	Condition of plaster on walls (1- Well plastered, 2-Plaster coming off in some places, 3- Plaster coming off many places)	2
2.11	Condition of floor (1- Floor in good condition; 2- Floor coming off in some places, 3- Floor coming off in many places)	1
	Building Requirement(recorded in yes /no)	
2.12	Administrative Block	Yes
2.13	Circulation Area	Yes

2.14	Entrance Area	Yes
2.15	Ambulatory Care Area (OPD)	Yes
2.16	Waiting Spaces adjacent to consultation area	Good
2.17	Registration Counter	Yes
2.18	Assistance and Enquiry Counter	No
2.19	**Departments / Clinics**	
A	General	Yes
B	Medical	Yes
C	Surgical	Yes
D	Ophthalmic	Yes
E	ENT	No
F	Dental	Yes
G	Obstetrics & Gynecology	Yes
H	Pediatrics	No
I	Dermatology & Venereology	No
J	Psychiatry	No
K	Neonatology	No
L	Orthopedic	Yes
M	Social Service	Yes
N	Infectious & Communication Diseases	Yes
O	National Health Programmes	Yes
2.20	Nursing Stations	Yes
2.21	**Diagnostic Services**	

A	X-Ray Room	Yes
B	Dark Room for X-Ray film developing and processing	Yes
C	X-Ray Reporting Room for Doctor	No
D	Is X-Ray room accessible to OPD, Wards and Operation theatre	Yes
E	Ultrasound Room	No
F	Is Ultrasound room accessible to OPD, Wards and Operation theatre	
G	Ultrasound Reporting room for Doctors	
2.22	**Clinical Laboratory**	
A	Fully equipped laboratory	No
B	Sample Collection Room with facility for quick reporting	Some cases
2.23	**Blood Bank**	
A	Fully equipped Blood Bank	No
B	Is the blood bank located in close proximity to Operation Theatre, Emergency and Accident department?	No
2.24	**Intermediate Care Area (Inpatient Nursing Units)**	
A	General Wards- Male , Female	Yes
B	Private Wards	Yes
C	Wards for Specialties	Yes
D	Nursing Stations	Yes
E	Doctors' Duty Room	Yes
F	Pantry	Not within the premises
G	Isolation Room	Yes
H	Treatment Room	Yes

I	Nursing Store	Yes
J	Toilets	Yes
2.25	**Pharmacy (Dispensary)**	
A	Medical Store facility for indoor patients	Yes
B	Separate pharmacy with accessibility for OPD patients	Yes
2.26	**Intensive Care Unit (ICU) & High Dependency Wards**	No ICU
2.27	**Critical Care Area (Emergency Services)**	
A	Critical Care Area with independent entry	No
B	Adequate space for free passage of vehicles	Yes
C	Covered area for alighting patients	Yes
2.28	**Operation Theatre**	
A	Fully equipped Operation Theatre	No
B	Location of OT in close relation to ICU, Radiology, Pathology	No
C	Blood Bank	Yes
D	Specialized Services in OT	No
E	Piped suction and medical gases	Yes
F	Uninterrupted Electric Supply	Yes
G	Heating	Yes
H	Air conditioning	Yes
I	Ventilation	Yes
J	Preparation Room	Yes
K	Pre- Operative room	Yes

L	Post-Operative room	No
M	Scrub- up room for washing	Yes
N	Sub- sterilizing room	No
2.29	**Delivery Suit Unit**	
A	Fully equipped Delivery Suit Unit located near OT yes	No
B	Facilities in Delivery Suit Unit	Yes
C	Reception and admission	Yes
D	Examination and Preparation Room	Yes
E	Labour Room (clean and aseptic room)	Yes
F	Delivery Room	Yes
G	Neo-natal Room	Yes
H	Sterilizing Rooms	No
I	Sterile Store Room	No
J	Scrubbing Room	No
K	Dirty Utility	No
2.30	**Hospital Services**	
A	Hospital Kitchen (Dietary Service)	Yes
B	Central Sterile and Supply Department (CSSD)	No CSSD
C	Provision of hot water supply	Yes
D	Hospital Laundry	Yes(out sourced)
E	Medical and General Stores	Yes
F	Mortuary	No
2.31	**Engineering Services**	

A	Electric Sub Station and standby generator room	Yes
B	Emergency Lighting (shadow less light in OT and Delivery room and portable light units in wards and departments	Yes
C	Call Bells	No
D	Ventilation (Natural or mechanical exhaust)	Yes
E	**Mechanical Engineering**	
F	AC and Room Heating in OT and Neo-natal units	Yes (For OT)
G	Air coolers or hot air convectors	No
H	Water coolers and Refrigerators	Yes
I	**Public Health Engineering**	
Water Supply	Round the clock piped water supply	Yes
	Overhead water storage tank with pumping and boosting arrangements	Yes
	Separate provision for firefighting and water softening plants	No
Drainage and Sanitation	Proper drainage and sanitation system for waste water, surface water, sub soil water and sewerage	Yes
Waste Disposal System	Proper waste disposal system as per National Guidelines	No
Trauma Centre	Fire Protection	Yes, No specific trauma Centre
	Telephone and Intercom	No
	Medical Gas	Yes
	Cooking Gas	No
	Laboratory Gas	Yes
	Office-cum-store for maintenance work	Yes
	Parking place	Yes

Administrative Services	Medical Records Section	No
	Committee Room	Yes
	Residential Quarters for all medical and Para medical staff	No