Assessment of compliance on IPHS standards for District Hospital Sangrur, Punjab

Internship Training
at
Punjab Health Systems Corporation
(Feb 3-April 30, 2014)

By
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Under the guidance of
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Post Graduate Diploma in Hospital & Health Management
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This is to certify that Dr. Ishika Jharia, student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management and Research, Jaipur has undergone internship training at Punjab Health Systems Corporation, Punjab from 03 February to 30 April 2014.

The candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirement.

I wish her all the success in all her future endeavors.

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This is to certify that Dr. Ishika Jharia, student of Postgraduate Diploma in Hospital and Health Management of IIHMR Jaipur, has successfully completed three months dissertation under Punjab Health Systems Corporation, Punjab, from 03.02.2014 to 30.04.2014

During the dissertation the student's performance was found to be satisfactory.

We wish him/her success in all his/her future endeavors.

Hussan Lal I.A.S.
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled ": Assessment of compliance on IPHS standards for District Hospital Sangrur, Punjab" A facility based survey" has been successfully completed and submitted by Dr. Ishika Jharia Enrolment No. IIHMR/PGDHM/2012-14/1318 under the supervision of Maj (Retd) Vinod Kumar SV for award of Postgraduate Diploma in Health Management of the Institute carried out during the period from February 03, 2014 to April 30, 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature: Ishika J.

Date: 29th May 2014.

ABSTRACT

Title: **"Assessment of compliance on IPHS standards for District Hospital Sangrur, Punjab"**

Name of author: Dr. Ishika Jharia

Background: The performance of district hospitals can be assessed against a set of standards such as Indian Public Health Standards (IPHS) which contains the standards to bring the District Hospitals to a minimum acceptable functional grade with scope for further improvement in it. By maintaining the IPHS standards the district hospital can establish a comprehensive Quality business management system.

Objectives: The objective of the study was to assess the existing service delivery status of the hospital as per IPHS guidelines, to identify the gaps if any, as per IPHS guidelines and to provide suggestions so as to meet the requirements as per IPHS guidelines.

Methodology: IPHS Checklist and guidelines used for total survey of the hospital in terms of Services provided, Manpower, Physical Infrastructure, Equipments, drugs and Lab Services. Observation and personal Interview was used to illustrate the various processes of hospital and to know the functioning of each department with reference to IPHS guidelines. Extensive analysis was done based on data collected. After process flow and analysis of gaps, actions to be taken with respect to the laid down requirements of the IPHS guidelines were recommended.

Findings: In the Gap analysis survey for IPHS for 101-200 bedded District Hospital, the gap severity has been graded as low, medium high in all the departments of the hospital with gap reference to IPHS standards. Most of the departments lack to provide the essential services which are minimum standard services. According to the IPHS checklist there is less than 50% utilization/ provision of services.

Conclusions: The study revealed the assessment of compliance in various departments of the hospital as per IPHS norms and found out the gaps which need to be full filled for the quality improvement of the district hospital, Sangrur. By achieving the quality care services District Hospital will be able get ISO 9001:2008 certification and also achieve IPHS Standards. 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.

Key words: IPHS Standards, ISO, Gap analysis, Public Health.

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Dr. Ishika Jharia

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ACRONYMS / ABBREVIATIONS

ALOS	Average Length of Stay
ANM	Auxiliary Nurse Midwife
AMC	Annual Maintenance Contract
BMW	Bio-Medical Waste
BLS	Basic Life Support
CMO	Chief Medical Officer
CS	Civil Surgeon
CSSD	Central Sterile Supply Department
DHS	District Health Society
DMC	Deputy Medical Commissioner
ECG	Electro Cardiographer
ENT	Ear Nose & Throat
ER	Emergency Registration
HR	Human Recourses
ICTC	Integrated Counseling and Testing Centre
ICU	Intensive Care Unit
IPD	Inpatient Department
IPHS	Indian Public Health Standard
ISO	International Organization for Standardization
JBSY	Janani Bal Suraksha Yojana
MIS	Management Information System
MLC	Medico Legal Case
MO	Medical Officer
MOIC	Medical Officer In charge
MRD	Medical Record Department
NRHM	National Rural Health Mission
OPD	Out Patient Department
OT	Operation Theatre
PHSC	Punjab Health Systems Corporation
PPE	Personal Protective equipment
PT	Physiotherapy
RKS	Rogi Kalyan Samiti
SOP	Standard Operating Procedures
SMO	Senior Medical Officer

PART II:

DISSERTATION REPORT

CHAPTER 1: INTRODUCTION

Until the late 19th century hospitals were not a place where health was created, but rather a place to die. But now, there is rapid movement with development of aseptic and anti-septic techniques, more effective anaesthesia, greater surgical knowledge and skills, trauma techniques, blood transfusion, coronary artery bypass surgery, effective pharmaceuticals, transplantation techniques and minimal invasive surgery has called for quality management system in the hospitals. All organizations periodically need a companywide assessment of quality. This involves quality control program i.e. planning, control and implementing. For hospital quality control, audits are carried, internal and external audits. Some organizations which carry external audits are "ISO, NABH, JCI, JACHO and others".

The Bureau of Indian standards (BIS) has developed standards for hospitals services for 30 bedded and 100 bedded hospitals with primary emphasis on structural component. However, these standards are considered very resource intensive and lack the processes to ensure community involvement, accountability, the hospital management and citizens' charter etc. peculiar to the public hospitals. Of late NABH standards are in vogue, however they are mainly process based standards and lack the structural components. In this context a set of standards are being recommended for district hospitals called as Indian Public Health Standards (IPHS) for District Hospitals.

Most of the modern hospitals are ISO certified. Certification applicable for ISO hospitals is ISO 9001:2000. For hospitals ISO 9001 means identifying the elements in clinical and administrative practices that contribute to desirable outcomes, documenting those elements and instituting them as standard practice**.**

Ministry of Health and Family Welfare, Government of India in its bid to bring about a paradigm shift in healthcare delivery system across the country had undertaken initiative for quality improvement in the public health. Carrying forward the initiative for quality improvement Punjab Health Systems had started a project to enhance the service quality level at the District hospitals. It is time now to look at how evaluation of the hospital and subsequent improvement, go hand in hand leading to better access and quality service to all service seekers with focus on erstwhile deprived section of the society. To facilitate the above goals, comprehensive study of Civil Hospital, Sangrur was carried out on the current processes, practices and existing infrastructure with other available resources to identify the

major gaps based on ISO 9001: 2008 quality management system and Indian public health standards as applicable to hospital.

CHAPTER 2: PURPOSE OF THE STUDY:

By maintaining the IPHS standards the district hospital can establish a comprehensive Quality business management system which:

- Provides a solid bases for compliance with all imposed requirements and healthcare Quality certifications (e.g. JCAHO, AOA, Federal and State regulations).
- Makes all other healthcare quality certifications and accreditation processes easier and less costly.
- Facilitates improved understanding of roles and responsibilities among employees; and enhanced communication and coordination between departments.
- Requires the establishment of measurable improvement objectives and accountability to those objectives through monitoring, measuring, and reporting.
- Results in improves systems, processes and outcome.

CHAPTER 3: SCOPE OF WORK

Under the process of Quality Management Certification of the facility the study has:
Conducted a detailed organizational survey of the healthcare facility, based on the IPHS standards.
This included the following:

- Observation
- Review and documentation of human resource available with the healthcare facilities
- Equipment and infrastructure review
- Process mapping
- Training needs assessment for the facility
- Capacity building activities
- Services and facilities provided
- Legal compliances etc.

CHAPTER 4: REVIEW OF LITERATURE

1. **Indian Public Health Standards (IPHS) Guidelines for District Hospitals (101 to 500 Bedded) Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India, Revised 2012.**

National Rural Health Mission (NHM) was launched in year 2005 to strengthen the Rural Public Health Systems and has since met many hopes and expectations. The Mission seeks to provide effective health care to the rural populace throughout the country with special focus

on States AND union Territories (UTs), which have a weak public health indicator and/or weak infrastructure. Towards this end, the Indian Public Health Standards (IPHS) for Sub-centres, Primary Health Centres (PHCs), Community Health Centres (CHCs), Sub-District and District Hospitals were published in January/February, 2007 and have been used as the reference point for public health infrastructure planning and up-gradation in the States and UTs. IPHS are not set of uniform standards envisaged to improve the quality of health care delivery in the country. The IPHS are set of uniform standards envisaged to improve the quality of health care delivery in the country. The IPHS documents have been revised keeping in view of the changing protocols of the existing programmes and introduction of new programmes especially for Non – Communicable Diseases.(1)
IPHS guideline focus on each and every area of the hospital showing the infrastructure requirements, Instruments and equipments required, drugs required in hospital, quality assurance and quality control processes and services, statuary compliances.

2. **ISO 9001:2008 Quality Management System – Requirements** (Third Revision)

The **International Organization for Standardization** known as **ISO** is an international standard-setting body composed of representatives from various national organizations. Founded on 23 February 1947, the organization promotes worldwide proprietary, industrial and commercial standards. It is headquartered in Geneva, Switzerland

ISO 9001:2008 sets out the criteria for a quality management system and is the only standard in the family of ISO 9000 that can be certified to (although this is not a requirement). (7)

3. Indian Public Health (IPHS), NHSRC took up a pilot project for improving quality of services at one district hospital each in 8 EAG states respectively. Objectives of the reports were to facilitate quality improvement as applicable to public health facilities based on participatory management and patient's perception and to hold the quality care facility on site and toward achievements of prevailing ISO 9001 in the presence of competent personnel. With the help of technical support 6 out of 8 districts hospitals obtained ISO certification.
One more report presents the findings of an evaluation of first systematic quality management system tested and evaluated in a Yemeni hospital. Khalifa hospital was selected because it was a fairly typical 150 bedded rural regional general hospital. The objectives of the experiment was to assess whether a simple quality management system including supervision by all level of the health system could be implemented in 9 months, and any results for personnel , practices and patients outcome. The study result and evidence collected shows that a quality management system was about 70 % implemented in a rural 150 bedded hospital. And hospital has also gained considerable experience and expertise about how to improve quality with less resource.
There are actually two quality management tools which got transferred from other industries to hospitals, the ISO 9000 standards in Six Sigma. The research was performed parallel to the actual organizational change related to quality management in the Red Cross Hospital. The main body of the study based on a strategic analysis: to implement a quality management system in hospital based on ISO 9002:1994
A study on Organizational climate from view point of motivation in district hospital, India by *Bhaskar Purohit, Ashok Wadhwa* also concluded that IPHS According to literature, both the

needs/climates are dysfunctional and significantly correlated with role stress, also a need for matching the hospital standards with the stated IPHS standards.(6)

CHAPTER 5: AIMS AND OBJECTIVES:

Research Question: Does Civil Hospital Sangrur provide the minimum assured services required to comply for the IPHS standards?

The study aims at building the system leading to Quality Management Certification of District Hospital Sangrur

The objectives of the study were:

- To assess the compliance to Indian Public Health Standards in a District Hospital.
- To observe the process flow of the departments with the findings as per IPHS guidelines.
- To identify gaps of all departments of the hospital
- To prepare actions to be taken to fulfil the gaps, if any.

CHAPTER 6: RESEARCH METHODOLOGY

STUDY AREA : Civil Hospital, Sangrur

SAMPLE:

- Top management officials: Civil Surgeon, SMO, Matron, DMC.
- Patients: 10 patients from each departments (OPD, IPD, MCH, Pathology, Blood bank, OT, Radiology)
- Employees at all levels.

STUDY DESIGN: Exploratory/ descriptive study

TOOLS: IPHS Checklist, ISO guidelines, interview schedule, Observation notes

METHOD :

IPHS Checklist and guidelines used for total survey of the hospital in terms of Services provided, Manpower, Physical Infrastructure, Equipments, drugs and Lab Services. Observation and personal Interview was used to illustrate the various processes of hospital and to know the functioning of each department with reference to IPHS guidelines. Extensive analysis was done based on data collected. The findings have been listed under the process flow and gap analysis based on iphs guidelines.

After process flow and analysis of gaps, actions to be taken with respect to the laid down requirements of the IPHS guidelines were recommended.

Table 6.1 Area and Sections Analyzed in the study

AREA	SECTION
Administration	SMO Office
	Civil Surgeon Office
	DMC Office
	Account Office
	Medical Record Department
Ward	Surgical Ward
	Medical Ward
	Maternity Ward
	Ortho Ward
	Pediatric Ward
	Labour Room
	General OT
Emergency	Emergency Room
	ICU
	Trauma Ward
Other Departments	Radiology
	Laboratory
	Pharmacy
	Hospital Store
	CSSD
	Blood Bank
OPD	Consultation Room
	Data Collection Room

Table 6.2 List of people interviewed for the study

Designation	Department
Doctor	Psychiatry
Doctor	Medicine
Doctor	ENT
Doctor	Dental
Doctor	Pathology
Pharmacist	Medical Record
Supervisor(Sweepers)	Housekeeping
Clerk	Administration
Store Keeper	MRD
Radiographer	Radiology
Matron	Nursing
Staff Nurse	Nursing
Lab Tech	Laboratory
Lab Tech	Laboratory

Table 6.3 List of documents reviewed during survey

DEPARTMENTS	DOCUMENTS
Hospital Statistics	Monthly reports
Wards	Ward registers
	Doctor wise patient file
	Bed Head Tickets
Emergency	Emergency Registers
	MLC case register
Attendance	Nursing attendance sheet
	Employee attendance sheet
	Sweepers attendance sheet
Manpower	Total employee list
	Doctors roster department wise
	Doctors timing roster
	Nursing distribution ward basis
OPD	Patient registration register
	OPD tickets
	OPD statistics daily/monthly basis
	Fee collection register
Store	Drug register
	Furniture issuing register
	Inventory stock register
Operation Theater	Operation Register
	Equipment Register
Blood Bank	Drugs Distribution register
	Total blood collection register

CHAPTER 7: FINDINGS

The findings include the figures representing the process flows and gap analysis of various departments. After the process mapping and gap analysis, actions to be taken are suggested for each department.

7.1. OUTPATIENT DEPARTMENT

The OPD department is situated in the new building of OPD which provide facilities like Medicine, Surgery, Paediatrics, Obstetrics and Gynaecology, Orthopaedics, Dental, Ophthalmology, Skin and VD, Psychiatry, ENT. Total no. of OPD Room is 16 rooms and additional in this OPD building is ECG room, X-ray room, IPCTC room, Physiotherapy room, Laboratory and Plaster room is there. The total no. of Medical officers is 26. The OPD attendants are 24 in the OPD department. Every department have their own OPD register where they record the patients 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.
- **Doctors** responsible for examination of the patients and for determining the line of management of the ailment / case thereof.

Figure 7.1

Process Group	OPD	**Sub-Process**	Registration
Process Location	Registration Counter	**Process Owner**	Registration Clerk
Input(s)	Patient	**Output(s)**	No. of OPD registration per day

- **Process Flow / Process Description**
- OPD patient's registration takes place from 8:00 am to 1:00 pm.
- There are two registration counters for both female and male patients.
- The registration clerk at the Registration counter writes the patients name, age, sex, guardians name and address in a register and collects Rs 2 from the patients and allocates OPD Registration number on first cum first serve basis.
- After registration the patient waits for consultation with medical officer.

Patient Records	OPD slip.

Figure 7.2

Process Group	OPD	**Sub-Process**	Consultation
Process Location	Consultation Chamber	**Process Owner**	Medical Officer
Input(s)	OPD Ticket	**Output(s)**	• No. of OPD Consultations. • No. of investigation prescribed. • No. of medicine prescribed • No. of patients advised for follow up • No. of patients referred.

• **Process Flow / Process Description:** • Medical Officer examines the patient as per their turn. • After examination, the details are noted in the OPD ticket, and medicines/ dressing / investigations / admission / refer to higher centers/follow up is advised on OPD ticket. • The Medical Officer enters the details of the patient in OPD diagnosis and Treatment Register.	
Patient Records	• OPD slip • OPD diagnosis and Treatment Register

Figure 7.3

Process Group	OPD	**Sub-Process**	Dispensing of Medicines
Process Location	Pharmacy OPD	**Process Owner**	Pharmacist
Input(s)	OPD slip	**Output(s)**	• No. of Medicines dispensed per day. • No. of Medicines out of stock per day
Process Flow / Process Description: • Patient is directed to the drug distribution counter to collect the medicines. • Patient stands in a queue at the drug distribution counter with his OPD ticket. • Patients give their prescription to the pharmacist. • Pharmacist read it. • Pharmacist searches that particular medicine in OPD pharmacy. • Pharmacist gives medicine to the patient which is available in pharmacy/advice for purchase from outside which is not available in pharmacy. • Patients are described briefly about the intake of medicines. • Pharmacist enters the name of medicine in medicine dispensing register.			
Patient Records	OPD Ticket, Pharmacy Drug Dispensing Register		

Gap Analysis

Figure 7.4

Gap ID No	**OP01**
Gap Statement: Basic facilities are not available in the OPD waiting area for public conveniences.	
Rationale / Explanation: The following are not available • Help Desk without any staff. • Drinking Water facilities is not available inside the hospital premises, There is no water cooler in OPD Block, patient and visitor used to go for water near Civil Surgeon building which is inside the hospital premises. • There is no adequate chairs in waiting area • No availability of Wheel chairs & trolley • No availability of toilets for disabled persons	
Gap Classification Structure	***Gap Severity Rating** High
Gap Reference	**IPHS Physical Infrastuctute/Departemental Lay Out/Clinical Services(I),a,b,c ,ISO 9001: 2008 6.3.(a), 7.2.1 (b)**

Figure 7.5

Gap ID No	**OP02**
Gap Statement: Information displays provided at the Waiting area / other public areas are inadequate	
Rationale / Explanation: • Rights of the patients / Patients Charter are not displayed. • Posters imparting health education • Information is not available in bi-lingual format at various locations.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS Physical Infrastucture /Departemental Lay Out/Clinical Services(I),a, ISO 9001: 2008 7.2.3 (a)**

Figure 7.6

Gap ID No	**OP03**
Gap Statement: Patient privacy not maintained during the consultation	
Rationale / Explanation: • To many patient and its relative enter the consultation chamber at a time • Curtain is not available in each chamber during the examination of the patient.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS Physical Infrastucture/Departemental Lay Out/Clinical Services (I). e, ISO 9001: 2008 6.3(a), 7.2.1(a)**

7.2. IN PATIENT DEPARTMENT

Process Flow:

Figure 7.7

Process Group	IPD	**Sub-Process**	Admission
Process Location	Wards	**Process Owner**	Admission clerk
Input(s)	OPD slip with Doctors advice	**Output(s)**	No. of Admission
Process Flow / Process Description: • The doctor advices the patient for admission after examination and writes it on the OPD ticket. • The patient is admitted by the supportive staff of the concern OPD. • The supporting staff admits the patient and enters the detail In Indoor register and generates IPD no. and allots the bed. • The patient is escorted to the particular ward and handed over to the ward In-charge nurses along with Bed head ticket.			
Patient Records	Bed head ticket and Admission Register		

Figure 7.8

Process Group	IPD	**Sub-Process**	Patient Care
Process Location	Wards	**Process Owner**	Staff Nurse, 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 during a fix interval according to condition of patient.
- Nursing staff administrate medication of the patients.
- Medical officer make sure the condition of the patient by communicating with nursing staff and patient.
- If required, Medical officer changes the medication according the condition of patient.
- If any investigation required according to the condition of the patient nursing staff call the technician.
- If there is no improvement in the health condition of the patient, then the medical officer referred the patients to the higher centre.
- If the patient condition is satisfactory, the medical officer gives the discharge order.

Patient Records	**Bed Head Ticket,**

Figure 7.9

Process Group	IPD	**Sub-Process**	Drugs / IV fluid Administration
Process Location	Wards	**Process Owner**	Staff Nurse, Medical officer
Input(s)	Bed head ticket with doctors advice	**Output(s)**	IV fluid administration

Process Flow / Process Description:

- Nursing staff administer drugs as per the direction in Bed Head ticket by Doctor
- Medical Officer evaluates and examines the patient.
- Nursing staff maintain the details of drug administration in IP medication register.

Patient Records	**IP medication register**

Figure 7.10

Process Group	IPD	**Sub-Process**	Discharge
Process Location	All department	**Process Owner**	Nursing In charge
Input(s)	Bed head ticket with Doctors advice for discharge	**Output(s)**	Nos. of patient discharge per day,
Process Flow / Process Description: • Doctors makes the patient round in the morning • Patients who are fit to get discharge, the doctor advices for discharge on the bed head ticket. • The Nursing In-charge collects the all the patient records and gives the discharge slip to the patient prepared by doctor and advices accordingly.			
Patient Records	Nursing register and Discharge slip Discharge register.		

Gap Analysis:

Figure 7.11

Gap ID No	**IP001**
Gap Statement: Hospital does not have disabled friendly infrastructure.	
Rationale / Explanation: The following are not available • Lifts • Handrails in various patient care areas, bathrooms to avoid patient fall. • Disabled friendly toilet is not available.	
Gap Classification **Structural**	***Gap Severity Rating** **High**
Gap Reference	**IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support (VII), ISO 9001:2008 6.3, 7.2.1**

Figure 7.12

Gap ID No	**IP002**
Gap Statement: Ward are not well equipped for patient care	
Rationale / Explanation: • Beds are cluttered together. • Bed railings are not available in the wards.. • IV stands are not available in adequate number. • Wheel chairs and trolleys not available in each ward. • Crash cart, ECG machine, Suction machine are not available in the ward. • Colour coded bins for BMW segregation is not provided in the wards • Dirty Utility room not provided in each ward.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Clinical Services (V), ISO 9001:2008 6.3**

Figure 7.13

Gap ID No	**IP003**
Gap Statement: Nursing stations are not located properly for patient monitoring	
Rationale / Explanation: • In all wards nursing station is located at the one corner of the ward. • Basic requirements such as storage place for inventory, linen, drugs has not been provided • There is no janitors closet for Housekeeping materials • No washing areas are designated for washing of badly soiled linen. • No staff change room provided.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical infrastructure/Departmental Layout/ Clinical Services (V), ISO 9001:2008 6.3 (a)**

Figure 7.14

Gap ID No	IP004
Gap Statement: Infection control not being practiced in the wards.	
Rationale / Explanation: • Standardized Color coded dust bins are not provided in the wards for segregation. • Use of personal protective equipments like glove, mask etc not being used by the nursing staff. • There is no pest control in the ward or in the hospital for flies, rodents and mosquitoes.	
Gap Classification **Process**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Services/Health Care Workers Saferty(5),Services/Patient Safety and Infection Control(4),ISO 9001:2008 7.2.1.(c)**
Supporting Annexure	

Figure 7.15

Gap ID No	IP005
Gap Statement: Overcrowding of the patient care areas	
Rationale / Explanation: • There in no particular timing for visitors to see the patients. • Security personnel are not posted in hospital to control the traffic. • There is no policy regarding the no. of attendants who can stay with patients.	
Gap Classification **Process**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS Physical infrastructure/Departmental Layout/ Clinical Services (V), ISO 9001:2008 7.2.1.(b)**

Figure 7.16

Gap ID No	**IP006**
Gap Statement: Internal transfer of patient is not effective.	
Rationale / Explanation: • There is no clear policy with regard to transfer of patients within the hospital. • Internal transfer is most of the time is done by their own relatives. • Inadequate no. of wheel chair and trolleys.	
Gap Classification **Process**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS Physical infrastructure/Departmental Layout/ Clinical Services (VI), ISO 9001:2008 7.2.1(b)**
Supporting Annexure	

Figure 7.17

Gap ID No	**IP007**
Gap Statement: Facilities for collection and storage of linen are inadequate	
Rationale / Explanation: • There is no soiled linen collection trolley • Storage cabinets for clean linen are not available • No sluicing room has been provided in the wards.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Hospital Services(IV), ISO 9001:2008 6.3, 7.2.1**

7.3 EMERGENCY DEPARTMENT

The Emergency department is working round the clock. The Emergency department physical infrastructure needs some maintenance.

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: CS/DMC/Senior Medical Officer, supported by all hospital staff and doctors

Process Flow:

Figure 7.18

Process Group	Emergency	**Sub-Process**	Registration
Process Location	Registration counter	**Process Owner**	Nurse/Clerk
Input(s)	Patient	**Output(s)**	1. Total no. of patients seen in emergency per day. 2. Total no. of MLC cases 3. Total no. of patient admitted through emergency. 4. Total no. of patient referred. 5. Total no. of deaths in emergency.

Process Flow / Process Description	
• Emergency patient comes directly to emergency. • According to the nature of emergency cases doctors are called by staff that is looking after the emergency patient. • Doctors examine the patient and as per the condition of patient they either admit the patient or discharge it. • On duty staff registers the patient and inform the doctor.	
Patient Records	**Emergency register**

Figure 7.19

Process Group	Emergency	**Sub-Process**	Consultation
Process Location	Emergency room	**Process Owner**	Consultant
Input(s)	Patient slip	**Output(s)**	No of patients, Prescription, Investigation slips, free coupons for Investigation
Process Flow / Process Description: • After registration patient is examined by the doctor in emergency room. • After examination doctor writes down the treatment and investigation as required. • On duty staff/ dresser Starts the treatment as advised by the doctor. • Nursing staff is not deputed in the emergency. • Nursing activity is done by dresser or pharmacist on duty in emergency. • The patient is shifted toward / OT / referred as per the needs.			
Patient Records	Prescription, Investigation slip, referral slip, Admission register, Bed Head Ticket		

Gap Analysis

Figure 7.20

Gap ID No	EMER001
Gap Statement: Non availability of Ambulance control room for effective patient transport.	
Rationale / Explanation: • There is no one In-charge of ambulance for smooth coordination. • The patient has to call 108 ambulance service himself to avail the service. 108 services provide both ACLS and BLS ambulance. • Hospitals own ambulance is not in working condition. .	
Gap Classification **Structure**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Clinical Services (IX), ISO 9001: 2008 6.3 (c)**

Figure 7.21

Gap ID No	EMER002
Gap Statement: Emergency department is not fully Equipped.	
• Emergency Crash cart with defibrillator is not available in the department. • Only emergency tray is available in the department • Disaster cupboard is not available in the department. • There is no resuscitation room in the emergency department. • Multi Para Monitor/ Oxygen Saturation probe is not available in the casualty.	
Gap Classification Process	***Gap Severity Rating** High
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Clinical Services (IX), ISO 9001: 2008 6.3 (b)**

Equipments in emergency

Figure 7.22

Gap ID No	EMER003
Gap Statement:. Department is not designed as per requirements of the department.	
Rationale / Explanation: • The department is not organized as per the workflow. • Area for triaging in case of disaster is not provided for. • Dirty Utility has not been provided.	
Gap Classification Structure	***Gap Severity Rating** High
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Clinical Services (IX), ISO 9001: 2008 6.3 (a), 7.2.1**

7.4 LABORATORY

The laboratory is situated in OPD block of hospital. This Department comprises of Biochemistry Laboratory and Microbiology Laboratory. It has one pathologist, one microbiologist, 5 Laboratory technicians and one Laboratory attendant.

Table 7.1 Investigations Performed in hospital Laboratory

1. Hb Test	2. TLC
3. Blood Group	4. Blood Sugar
5. Blood Urea	6. Serum Creatinine

7. Serum Uric Acid	8. Serum Bilirubin
9. SGOT	10. SGPT
11. BT,CT	12. Urine
13. HBSAG	14. HCV
15. HIV	16. S.Cholestrol
17. S.Triglycerides	18. Pregnancy Test
19. VDRL	20. WIDAL
21. CBC	22. Dengue Test

Process flow

Figure 7.23

Process Group	Investigations and diagnosis	**Sub-Process**	Sample collection
Process Location	Lab	**Process Owner**	Technician
Input(s)	Doctors prescription	**Output(s)**	Sample collected

Process Flow / Process Description.

- After counseling patients are send to sample collection area for sample collection
- The technician enters the details in Master Lab register
- Specific number is generated for each patient
- Sample is collected from the patient
- In case of Inpatients the nursing staff enters the requisition in the laboratory register of ward.
- The register is sent to the Laboratory and after entering the details in the work register the technician counter signs the register.
- The technician comes to the ward and collects the sample.
- Collected sample is kept along with the slip with details of Patient Name, Reg. no. and nature of test.
- Collected sample is kept along with the slip with details of Patient Name, Reg. no. and nature of test.

Patient Records	**Lab report, pathology testing register**

Figure 7.24

Process Group	Lab Investigations	**Sub-Process**	Processing
Process Location	Lab	**Process Owner**	Doctor/ technician
Input(s)	Collected samples	**Output(s)**	Total number of samples processed /day
Process Flow / Process Description • Samples are segregated as per the prescription • Samples are forwarded to different areas such as Bio-chem, Hematology, Microbiology • Samples are processed by the technician			
Patient Records			

Figure 7.25

Process Group	Lab investigation	**Sub-Process**	Reporting
Process Location	Lab	**Process Owner**	Pathologist
Input(s)	Processed sample	**Output(s)**	Total number investigation per day
Process Flow / Process Description. • After processing the results are checked by the pathologist • The technician makes entries in the register • A hand written report is prepared by the technician and signed by pathologist. • Patients come to the department to collect their lab reports.			
Patient Records		**Lab report, pathology testing register**	

Gap analysis

Equipment Washing Area

Figure 7.26

Gap ID No	**LAB 001**
Gap Statement: Space in the laboratory is not sufficient as per the requirements of district hospital.	
Rationale / Explanation: In hospitals laboratory area. • The Laboratory area is inadequate for the requirements of the laboratory. • There is no separate haematology lab. • Proper space for washing and autoclaving of the sample collection vials is not available.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(III), ISO 9001:2008 6.3 (a)**

Figure 7.27

Gap ID No	**LAB 002**
Gap Statement: Equipments are not available as the work load	
Rationale / Explanation: • Most of the tests are done manually. • Modern Lab equipments are not available.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(III), ISO 9001:2008 6.3 (b)**

Figure 7.28

Gap ID No	**LAB 003**
Gap Statement: No designated sample collection area in the lab.	
Rationale / Explanation: • The sample collection is done in the reception area. • The entire OPD patient come to the testing room for giving samples. • There is no separate sample collection room in the OPD.	
Gap Classification **Structure**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(III), ISO 9001:2008 6.3 (a)**

Figure 7.29

Gap ID No	**LAB 004**
Gap Statement: Standard safety precautions are not been followed.	
Rationale / Explanation: • Personal protective devices such as Gloves, Apron, and Mask are not used by the technician while drawing samples and during processing and washing of test tubes. • No needle cutter available in the department.	
Gap Classification **Process**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Services/Patient Safety and Infection Control(5), ISO 9001:2008 6.3.(b), 7.2.1 (b)**

Figure 7.30

Gap ID No	**LAB 005**
Gap Statement: Maintenance of the lab equipment not carried out.	
Rationale / Explanation: • There is no record of preventive maintenance of the equipment • Equipments are not calibrated. • There is no record of calibration.	
Gap Classification **Process**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services III), ISO 9001:2008 6.3(b)**

7.5 OPERATION THEATRE (OT)

Process flow

Figure 7.31

Process Group	Hospital clinic	**Sub-Process**	OT
Process Location	1st floor	**Process Owner**	Surgeon, duty doctor
Input(s)	Instruments and items required for dressing, stitches OPD registration slip	**Output(s)**	• Treated patients • Entry in minor OT register
Process Flow / Process Description. • Attendants help doctors by preparing the patient for examining and providing treatment at dressing room. • Patient is observed until his condition is stabilized at dressing room. Patient is sent home, rehabilitatative treatment if required. • Entry is made in minor OT register regarding patient details and procedure done. • Various wastes like blood soaked cotton, gauze pieces, injection syringes are thrown in common bin.			
Patient Records		**Minor OT register, OPD Registration Slip**	

Gap analysis

Figure 7.32

Gap ID No	**OT 001**
Gap Statement: Patient care in OT is negligible	
Rationale / Explanation: • During and after operation the instrument record is not maintained • Ignorance by duty staff	
Gap Classification **Structure**	***Gap Severity Rating** **High**

Figure 7.33

Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(IX), ISO 9001:2008 7.5.1**

Gap ID No	**OT 002**
Gap Statement: Insufficient humidity and temperature controlling methods as a result infection exposure to patients.	
Rationale / Explanation: • Operations are conducted in normal room temperature. Air conditioning is not proper • Air changes regulation is not proper which should be 30-40 air changes per minute for infection control. • Temperature control mechanism does not exist.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(IX), ISO 9001:2008 7.5.1**

Figure 7.34

Gap ID No	**OT 003**
Gap Statement: Low quality equipments.	
Rationale / Explanation: • Quality of the equipments is not standardized. • Patients may face septic problems and infection.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS EQUIPMENT NORMS(IX), ISO 9001:2008 7.6**

Rust in OT Sterilization Room

Low quality instruments (rusted)

7.6 MATERNAL AND CHILD HEALTH

Process flow

Figure 7.35

Process Group	Hospital clinic	**Sub-Process**	Maternal and child health management
Process Location	1st floor beside administrative block	**Process Owner**	Gynecologist & Obstetrician
Input(s)	• Proper advice and consultation by doctor to patient requiring antenatal care • Institutional deliveries • Post natal advice • Advice on food	**Output(s)**	• Healthy baby and mother • Reduced infant and mother mortality

	and nutrition • Immunization		

Process Flow / Process Description.

- Patient requiring antenatal / postnatal care is registered at the hospital (OPD) and sent to gynecologist.
- Gynecologist examines the patient and advices on diet and nutrition, dispense with medicines.
- Doctor prescribes investigations like blood test, urine test, ultrasound, B.P., any disorders related to pregnancy and sends for immunization against tetanus.
- At the time of delivery, doctor does not instruct to adopt all measures to prevent cross infection to mother and baby.
- Post natal checkups are carried out before discharge; child is sent to immunization room.
- Immunization card is issued to patient and entry is made into immunization register. (Jachcha Bachcha Raksha Card)
- For non- institutional deliveries, enquiry about previous immunization and based on that vaccines are given.

Patient Records	**Immunization card, OPD slip, Indoor file, birth registration form.**

Gap analysis

Figure 7.36

Gap ID No	**MCH1**
Gap Statement: lack of information regarding child care to pregnant ladies (pre and post delivery)	
Rationale / Explanation: • Some patients leave the hospital immediately after delivery without MCH advice. • Due to overcrowding it is always difficult for ward staff to keep watch on patient mothers to ensure breast feed within 1 hr.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Intermediate Care(V),ISO 9001:2008 8.2.3**

Figure 7.37

Gap ID No	**MCH2**
Gap Statement: unhealthy care may cause serious infection.	
Rationale / Explanation: • Masks are not worn by staff, repetitive vaginal examination done by more than 1 staff, patient is not provided with clean gown, no disinfectants are used by staff. • Lack of SOPs to handle mothers in Labour room.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Delivery suite unit(XII), ISO 9001:2008 6.2.2 & 7.5.1**

7.7 BLOOD BANK

Process flow

Figure 7.38

Process Group	Hospital Clinic	**Sub-Process**	Blood bank management
Process Location	2nd floor new building	**Process Owner**	Blood bank technician
Input(s)	• Doctors prescription • Blood donor • Negative lab report containing test for HIV ,Hepatitis, Hb, VDRL,	**Output(s)**	Issuing of safe blood with replacement and without replacement

	MP		

Process Flow / Process Description.

- After verification with doctor's requisition form for blood transfusion, sample of donor blood is sent for lab investigation against infectious disease.
- If reports are negative patient is allowed for the process of blood donation. Blood bank technician collects the blood in blood bags and it is labeled.
- After cross matching the blood, it is kept in refrigerator.
- The required blood group is issued (with replacement or without replacement).

Patient Records	**Blood requisition form, blood issue register**

Gap Analysis:

Figure 7.39

Gap ID No	**BB1**
Gap Statement: The requisition of blood for the surgical cases is not sent in advance.	
Rationale / Explanation: • The requisition of blood for the surgical cases is not sent prior to the operation, usually sent half an hour before the case or mostly when it is required between the cases which leads to mismanagement and may lead to endangering the lives of patients.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Clinical Services (IV),ISO 9001:2008 7.3.2**

Figure 7.40

Gap ID No	**BB2**
Gap Statement: no calibration records of the instruments are present.	
Rationale / Explanation: • Calibration of the equipments in the blood bank like centrifugal machine and separator is not done.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Layout/Equipment Norms, ISO 9001:2008 7.3.6**

Figure 7.41

Gap ID No	**BB3**
Gap Statement: no important records are maintained in the blood bank.	
Rationale / Explanation: • Important records like needle stick injury record, blood transfusion record, blood wastage record, TAT is maintained.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Healthcare Workers safety (Annexure IV)**

7.8 MEDICAL RECORD DEPARTMENT

Process flow:

Figure 7.42

Process Group	Hospital Administration	**Sub-Process**	Medical record management
Process Location	GF and 1st floor	**Process Owner**	Record staff
Input(s)	OPD IPD records MLC Discharge registers	**Output(s)**	Storage of records

- **Process Flow / Process Description**
- Collection of case documents IPD file and discharge register by nurse in charge for submitting at store. (record room) weekly/monthly
- Filing and safe storage of records by in charge up to 10 yrs or more
- Records are stored year wise without wrapping them in open
- Other types of records such as OPD register, death register are also stored in the store record room.
- MLCs are kept with the doctors and are submitted to the MRD when they leave the organization.

Patient Records	Discharge copy, IPD files

Gap Analysis

Figure 7.43

Gap ID No	**MRD01**
Gap Statement: lack of defined system for storage, protection, easy retrieval, retention and disposal of medical records.	

Rationale / Explanation: • No person is nominated for maintaining medical records • No separate medical record section is available • Junior assistant maintains birth and death certificates and respective register.	
Gap Classification **Structural**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support (XIV), ISO 9001:2008 4.2.4**

MRD ROOM

Figure 7.44

Gap ID No	**MRD02**
Gap Statement: no guidelines for disposal of medical records.	
Rationale / Explanation: • The hospital person in charge for medical records is not aware of the duration and procedure to dispose of the medical records. • No medical record technician is available in the hospital as per IPHS norms.	
Gap Classification **Structural**	***Gap Severity Rating** **High**
Gap Reference	**IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support (XIV), ISO 9001:2008 4.2.4**

7.9 LAUNDRY

Process flow

Figure 7.45

Process Group	Hospital Administration	**Sub-Process**	Laundry management
Process Location	Hospital Laundry	**Process Owner**	Dhobi
Input(s)	Dirty linen	**Output(s)**	• Accounting and distribution of cleaned linen at different wards from where linen collected (decentralized distribution) • Dhobi book
• **Process Flow / Process Description** • Collection of dirty linen from different wards, entry made in the dhobi book by the nurse mentioning the no. of linen given for washing. • Dhobi maintain his own record for the no. of linen collected from different wards. • Sorting, sluicing, drying (in the sun) & ironing the linen. • Distribution of cleaned linen back to the wards.			
Patient Records		Dhobi book.	

Gap Analysis

Figure 7.46

Gap ID No	LR 01
Gap Statement: Dirty linen	
Rationale / Explanation: • In some wards bed sheets are not changed regularly. • Hygiene not maintained by patients • No system to sample check the linen received after washing • Dirty linen is kept on floor even when a separate trolley is provided in OT and wards.	
Gap Classification **Structural**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support services (IV), ISO 9001:2008 6.3, 7.5.1**

Figure 7.47

Gap ID No	LR 02
Gap Statement: lack of maintenance and safety measures	
Rationale / Explanation: • Lack of maintenance safety measures while handling dirty linen. Soiled linen is handled by ward boys without gloves and masks and other safety precautions.	
Gap Classification **Structural**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support services (IV), ISO 9001:2008 6.3, 7.5.1**

7.10 RADIOLOGY DEPARTMENT

Process flow

Figure 7.48

Process Group	Hospital Clinic	**Sub-Process**	Radiology diagnostic service
Process Location	Old building ground floor	**Process Owner**	X-ray technician
Input(s)	• Imaging equipment • X-ray technician /trained staff • Materials – reagents, films, chemicals, films and other stores. • Doctors requisition slip • UPS and film processing room	**Output(s)**	• Films and reports issued to the patients • Entry is made in radiology register • Findings based on reports.

- **Process Flow / Process Description**
- A requisition slip is issued by the doctor to the patient.
- A fee of Rs 40 is charged at the registration counter. On payment two copies of pay slips are given to the patient. One copy (white) is kept by the patient and the other one (yellow) is handed over to the technician.
- Preparation of patient for imaging
- Adjusting the dosage radiation
- Developing the film in dark room.
- Handing over of reports to the patient
- Doctor communicates the problem verbally
- MLC cases with requisition slip are imaged and reports are kept by the hospital and handed over to the police. The details are registered in the X-ray expenditure register.
- USG is done by deputation doctor. A copy of OPD slip and ration card is submitted in the department in case of pregnant women.
- Two copies of reporting format is prepared, one copy is given to the patient and the other copy is kept with the department for hospital record which is maintained for 2 yrs.

Patient Records	X-ray report, expenditure register, USG register, PHSC payment slip.

Gap Analysis

Figure 7.49

Gap ID No	**RAD01**
Gap Statement: no facility of X-ray after 2 pm	
Rationale / Explanation: • After 2 pm no facilities for conducting X-ray and lab examinations so patient has to go to private labs.	
Gap Classification **Structure**	***Gap Severity Rating** **High**

Figure 7.50

Gap ID No	**RAD02**
Gap Statement: Equipment calibration and AMC is not done.	
Rationale / Explanation: • For quality assurance no equipment calibration or AMC is done • Procedure for calibration is not established.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(II), ISO 9001:2008 6.3**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(II), ISO 9001:2008 6.3**

Figure 7.51

Gap ID No	**RAD03**
Gap Statement: no use of PPE by technicians.	
Rationale / Explanation: • Safety devices are provided but technicians never wear them. • TLD batches for technicians are procured, technicians never wear lead apron.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Safety Measures, ISO 9001:2008 7.5.2**

7.11 PHARMACY STORE

Process Flow

Figure 7.51

Process Group	Hospital Administration	**Sub-Process**	Medicine store management
Process Location	Pharmacy store	**Process Owner**	Store keeper
Input(s)	• Indent for medicines • Arrival of new medicines /equipment/furniture at district drug store	**Output(s)**	• Entry in stock book • Indent book • Drug/equipment distribution.
• **Process Flow / Process Description** • After receiving the medicine from District drug store, drugs are issued to concerned staff on verifying the indent book. • Excess stock of items / medicines received is kept in the store room. the specified medicines are stored controlled conditions (antiretroviral medicines) based on the requirement. • The issue and receipt of items are entered in stock book. • While receiving the medicines, entry is made in the receiving register and stock register by store keeper with all the details, based on this information store keeper either distributes the medicine.			
Patient Records		Stock register/book, indent book, receiving register.	

Gap analysis

Figure 7.52

Gap ID No	**PHR01**
Gap Statement: lack of well defined inventory management system in pharmacy store.	
Rationale / Explanation: • Medicines need assessment is not done .medicines are purchased without carrying out the essential, medium, low consuming drugs assessment. • Medicines are not kept at identified location. • Medicine re-orders level, max. min. level stock is not defined. • Inventory control techniques such as ABC, EOQ are not followed. • State Emergency Drug List, not all the drugs are available and no proper record is maintained.	
Gap Classification **Structure**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS Physical Infrastructure/Departmental Lay Out/Clinical Services(VI), ISO 9001:2008 6.3**

Figure 7.53

Gap ID No	**PHR02**
Gap Statement: expiry records for the drugs in stores are not regularly updated.	
Rationale / Explanation: • After receiving the medicines, entry is made in stock register with date of manufacturing and date of expiry. • No separate records are maintained.	
Gap Classification **Structure**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS Hospital Administrative and Support Services(XIV), ISO 9001:2008 8.2.3**

7.12 HOSPITAL WASTE MANAGEMENT

Process Flow

Figure 7.54

Process Group	Hospital Administration	**Sub-Process**	Hospital Waste Management
Process Location	Outside the Hospital building (separate block)	**Process Owner**	Outsourced
Input(s)	• Waste generated at different departments of the hospital. • Contract workers • Equipment required for waste collection	**Output(s)**	• Disposal of wastes as per BMW rules 1998. • Clean hospital premises
Process Flow / Process Description: • Hospital waste is collected on daily bases by outsourced staff from various locations at the point of waste generation. • The waste is collected as per the color coded system for BMW, the plastic waste collector is provided by outsourced agency. • These color coded bags are removed from the waste generated point by the Class IV during morning hours and kept at place assigned. • From the assigned place the outsourced company employee comes and takes it for further action.			
Patient Records		BMW register	

Gap Analysis

Figure 7.55

Gap ID No	BMW01
Gap Statement: no proper segregation and disposal of wastes.	
Rationale / Explanation: • Needles after destroying are put in white color plastic bag .It may result in puncture of bags and lead to injury. • Waste handler removes the destroyed needles manually without precautions. • The infectious waste (IV tube with blood) is being mixed with the general waste and there is no proper supervision. • Hypochlorite solution for needle disinfection is not prepared regularly and kept open. • Absence of basic hand hygiene practice by staff as there is no proper hand washing or use of disinfectants.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS ANNEXURE (II), ISO 9001:2008 6.3, 7.2.1**

Figure 7.56

Gap ID No	BMW02
Gap Statement: Transportation of waste is error prone	
Rationale / Explanation: Due to shortage of waste collection trolleys sometimes bags are transported manually.	
Gap Classification **Structure**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS ANNEXURE (II), ISO 9001:2008 6.3, 7.2.1**

7.13 HOSPITAL TRANSPORT

Process Flow:

Figure 7.57

Process Group	Hospital Administration	**Sub-Process**	Hospital Transport
Process Location	Demarcated outside hospital building	**Process Owner**	Driver
Input(s)	• Ambulance for transportation of patients. • Information received for transfer of patients.	**Output(s)**	• Safe transfer of patients to the hospital timely. • Entry in log book
Process Flow / Process Description: • Information is received directly from patient or hospital for transfer of patients. • Safe transfer of patients to ambulance and giving first aid resuscitation as required. • Patient is transferred to hospital for treatment. • Log book is maintained for no. of kilometers traveled. • 3 ambulances and well equipped 108 vehicles. • Daily checking of ambulance is done only for 108 vehicles for their functionality and availability of equipments.			
Patient Records		Ambulance Log Book.	

Gap Analysis

Figure 7.58

Gap ID No	AMB01
Gap Statement: non-availability of duty doctor or staff nurse in the ambulance.	
Rationale / Explanation: Due to shortage of manpower, no duty doctor or staff nurse accompanies the critical patients during patient transfer or referral procedure.	
Gap Classification **Structural**	***Gap Severity Rating** **High**
Gap Reference	**IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support (XVI), ISO 9001:2008 7.3.2**

Figure 7.59

Gap ID No	AMB02
Gap Statement: no trainings conducted for ambulance staff	
Rationale / Explanation: BLS training, training in first aid should be given to the ambulance min every 3 months there should be mock rehearsal or exercise to know the preparedness of staff in case of any emergency staff.	
Gap Classification **Structural**	***Gap Severity Rating** **High**
Gap Reference	**IPHS Capacity Building , ISO 9001:2008 7.3.2**

Figure 7.60

Gap ID No	AMB03
Gap Statement: ambulances are ill equipped.	

Rationale / Explanation:
• Equipments like Ambu bags, Defibrillator, Resuscitation kits, life saving drugs, etc are not available. • Oxygen cylinders are not checked for availability of oxygen and are not installed properly. The clamp used to hold the oxygen cylinder is loose. • No attendants or experts to look after critical equipments.

Gap Classification	*Gap Severity Rating
Structural	High

Gap Reference	IPHS /Physical Infrastructure/Departmental Layout/Hospital Administrative and support (XVI), ISO 9001:2008 7.5.1

CHAPTER 8: DISCUSSION

The part Operations (Gynae ward and OPD, Administrative block, Eye mobile, Child OPD, Vaccine room, X-ray) of hospital are running in the old building & OT is at the first floor of the new building which causes inconvenience to the patients. The existing structures are too old to become a part of the new building. The layout of OT complex does not follow the Zoning Concept.

Protocol for infection control is also not laid down due to lack of standard operating procedures for critical clinical processes .All the dressings are performed in the same OT room which increases infection rate. There is no AMC for essential and other equipments in the hospital. Even the emergency trays in the critical areas like labor room, emergency department, blood donor room, all nursing stations are not fully equipped and no checklist is maintained to ensure the timely replenishment of emergency drugs at these places. Supply of drugs from state health society is usually not meeting the demand of hospital and there is always shortage of drugs in the hospital. No proper arrangement for different types of drugs as per the IPHS standards.

Emergency department is having no defined triage area. There is insufficient availability of trolleys and wheelchairs in OPD and Emergency department. Signage's related to emergency escape routes and warnings for X-ray, electricity and restricted entry are not available in the hospital. Also, signage regarding radiation hazard and Bio medical waste is not available.

Patients' privacy during general/internal examination in OPD remains compromised due to non-availability of examination cubicle curtain and overcrowding of patients in the consulting doctors room. Nursing station is not located centrally or on one corner of ward for the direct observation and monitoring. Beds are cluttered together. Color coded bins for BMW segregation is not provided in all the wards.

There are less number of labour rooms as per the requirement. It is difficult to manage all the IPD wards due to shortage of nurses and ANMs. There is no access control of visitors/hospital staff in the wards due to non existence of security system. ICU is non-functional due to non-availability of existence equipment. All the dressings are performed in the same OT room which increases infection rate. Radiologist is not posted and ultrasound is carried out by outsourced doctors, X-ray machines are operating without AERB clearance. And there is lack of use of PPE in Radiology unit.

There is no one In-charge of ambulance for smooth coordination. The patient has to call 108 ambulance service himself to avail the service. 108 services provide both ACLS and BLS ambulance. No audits are conducted as per the IPHS norms. There is inadequate arrangement for security and safety of hospital property and patients.

CHAPTER 9: CONCLUSION AND RECCOMENDATIONS

The study revealed the assessment of compliance in various departments of the hospital as per IPHS norms and found out the gaps which need to be full filled for the quality improvement of the district hospital, Sangrur. By achieving the quality care services District Hospital will be able get ISO 9001:2008 certification and also achieve IPHS Standards. 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, Senior Medical Officer and Civil surgeon.

Action Plan suggested for 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.
- Arrangements of Wheel Chairs, stretcher and trolleys.
- Arrangement of BP apparatus in the OPD chamber.

- Arrangement of weighing machine in the OPD.
- 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.
- 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 for IPD:

- Lifts, 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.
- Phototherapy, baby warmer has to be available in the post delivery ward.
- 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.
- Colour coded bins for BMW segregation has to be provided 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.
- Basic requirements such as storage place for inventory, linen, and drugs have to be provided.
- Washing areas to be earmarked for washing of badly soiled linen.
- Hand washing facility to be provided in all patient care areas.

- 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.
- Proper channel of waste disposal to be ensured.
- 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.
- Appointment of Security personnel to be taken in all the areas to control the traffic.
- Hospital policy to be devised and implemented regarding the no. of attendants who can stay with patients.
- Hospital policy to be devised and implemented regarding transfer of patients within the hospital.
- Adequate no. of wheel chair and trolleys to be maintained.
- Soiled linen collection trolley has to be made available.
- Storage cabinets for clean linen have to be made available.
- Sluicing room has to be there in the wards.

Action Plan suggested for Emergency:

- One person has to be made coordinator for ambulance services.
- Phone no. for Ambulance to be advertised.
- Availability of driver has to be insured.
- Staff to be appointed and positioned according to work pattern.
- Observation beds to be available in the Emergency department.
- 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.
- Ramp in Emergency department to be made available.
- The department to be organized as per the workflow.
- Triage Area needs to be earmarked just next to the entrance to the ER
- Equipments in Emergency should be as per IPHS guidelines.
- Stretcher, wheel chair bay has to be made available.
- Regular change of linen and strict compliance to BMW.

Action Plan suggested for Laboratory:

- Separate lab for Haematology needs to be built.
- Demarcation of washing and sampling area to be done.
- Availability of personal protective devices such as masks, gloves and apron for all workers.
- Availability of fire extinguisher in the lab.

- Availability of equipments and instruments as per IPHS Guidelines.
- Manual for laboratory showing all the standard procedures.
- Display of standard operating procedures in laboratory.
- Availability of needle cutter and needle destroyer.
- External quality assurance tests to be done.
- Proper infection control measures to be practiced.
- Practice of proper segregation of waste material as per biomedical waste standards.
- Calibration of instruments and record for calibration to be maintained.
- Record maintenance of preventive maintenance of each equipment.

Action Plan suggested for OT:

- OT needs to follow Zoning System.
- Quality of instrument should be standardised.
- According to IPHS guidelines Central AC is a must for OT.
- Infection control protocols must be followed.
- Sterilization register should be maintained for processes like fumigation.

Action Plan suggested for Maternal and Child Health:

- Separate nurses for labour room can be made available. Proper training for the filing of partogram needs to be provided.
- Trainings for infection control and BMW should be given to ward boys and staff.
- Signage in local language should be displayed for the purpose of disposal of waste in toilets.
- Baby identification band need to be availed in the labour room and one relative is required to be available at the time of delivery.
- Use of digital baby weighing scale instead of manual weighing scale
- Hygiene training to the staff and use of mask, gloves and hand hygiene practices.

Action Plan suggested for Blood Bank:

- Separate autoclave should be provided to blood bank and after autoclaving the bags can directly be given to the contract company as general waste.
- Needle stick injury record register should be maintained.
- Calibration of instruments
- License of blood bank is under process and the blood bank is running without license

Action Plan suggested for MRD:

- Medical record technician should be assigned the duty of maintenance of records.
- Proper training and guidelines should be followed for record maintenance.

- MLC should be kept separately in lock and key system.

Action Plan suggested for Laundry:

- Training to the staff for proper handling of soiled linen.
- Training to dhobi for instructions and amount of detergent solution to be used.
- Proper maintenance of laundry machine.
- Systematic approach of receiving and issuing of linen on daily basis.

Action Plan suggested for Radiology:

- Proposal for light weighed lead apron.
- Training to the staff regarding use of PPE and safety measures.
- Proper signage system, precautions for pregnant women should be placed in front of X-ray department.

Action Plan suggested for Hospital Waste Management:

- The hospital needs to encourage the process of hand washing. Waste needs to be collected in the colour bags with biohazard symbol displayed on it.
- It is also suggested that the contract with the outsourced external waste disposal organisation needs to specify the quality needs of the hospital.
- Training about PPE to the staff.
- Trolleys need to be availed to carry dirty linen and the dirty linen handling staff needs to be motivated to wear gloves on compulsory bases.
- Hospital infection rate surveillance needs to be carried out regularly by appointing Hospital Infection Control Committee.

Action Plan suggested for Hospital Transport:

- All the required equipments in the ambulance need to be installed.
- Provision of duty doctor or staff nurse to accompany the critical patients.
- Training to staff periodically.
- Proper maintenance of ambulance with record book.

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ANNEXURE

IPHS Checklist

Physical Infrastructure

Physical Infrastructure		
		Current Availability in the Hospital
2.1.	Size (Area) of the Hospital (In Sq. Meters)	32374.9 sq metres
2.2.	Number of indoor beds available	100/100
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)	No
2.5.	Is the hospital located in an area free from pollution of any kind including air, noise, and water and land pollution? (Yes /No)	No
2.6.	Is necessary environmental clearance obtained? (Yes / No)	Yes
2.7.	Whether hospital building is disabled friendly as per provisions of Disability Act? (Yes / No)	Yes
Building Status		
2.8.	What is the present stage of construction of the building (Complete: 1; Incomplete: 0)	complete
2.9.	Compound Wall / Fencing (1-All around; 2-Partial; 3-None)	All around
2.10.	Condition of plaster on walls (1- Well plastered with plaster intact everywhere; 2- Plaster coming off in some places; 3- Plaster coming off in many places or no plaster)	plaster coming off in some places
2.11.	Condition of floor (1- Floor in good condition; 2- Floor coming off in some places; 3- Floor coming off in many places or no proper flooring)	floor in good condition
Building Requirements (Availability		

to be recorded in Yes / No)		
2.12.	Administrative Block	Yes
2.13.	Circulation Area	No
2.14.	Entrance Area	Yes
2.15.	Ambulatory Care Area (OPD)	Yes
2.16.	Waiting Spaces adjacent to each consultation and treatment room	Yes
2.17.	Registration Counter	Yes
2.18.	Assistance and Enquiry Counter	Yes
2.19.	**Departments / Clinics**	
a.	General	Yes
b.	Medical	Yes
c.	Surgical	Yes
d.	Ophthalmic	Yes
e.	ENT	Yes
f.	Dental	Yes
g.	Obstetric & Gynecologist	Yes
h.	Paediatrics	Yes
i.	Dermatology & Venereology	Yes
j.	Psychiatry	Yes
k.	Neonatology	Yes
l.	Orthopedic	Yes
m.	Social Service	No
n.	Infectious & Communicable Diseases located in remote corner with independent access	No
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	Yes
d.	Is X-Ray room accessible to OPD, Wards and Operation Theatre?(Yes / No)	Yes
e.	Ultrasound Room	Yes
f.	Is Ultrasound room accessible to OPD, Wards and Operation Theatre?(Yes / No)	Yes
g.	Ultrasound Reporting room for Doctors	Yes

2.22.	**Clinical Laboratory**	
a.	Fully equipped laboratory	No
b.	Sample Collection Room with facility for quick diagnosis of blood, urine, etc.	Yes
c.	Separate reporting room for Doctors	Yes
2.23.	**Blood Bank**	
a.	Fully equipped Blood Bank	No
b.	Is the blood bank located in close proximity to pathology department and at an accessible distance to Operation Theatre, ICU, Emergency and Accident department? (Yes / No)	Yes
c.	Separate reporting room for Doctors	Yes
2.24.	**Intermediate Care Area (Inpatient Nursing Units)**	
a.	General Wards (Number to be given)	
i.	Male	1
ii.	Female	1
iii.	Total	2
b.	Private Wards (Number to be given)	1
c.	Wards for Specialities (Number to be given)	5
d.	Nursing Stations (Number to be given)	4
e.	Doctors' Duty Room	Yes
f.	Pantry	no
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**	
a.	Number of beds available in ICU	10
b.	Number of beds available in High Dependency Wards	No
c.	Changing Room	No
d.	Is the unit located close to OT, X-Ray and Pathology department? (Yes / No)	Yes
e.	Essential Specialized Services	No
i.	Piped Suction	No
ii.	Medical Gases	No
iii.	Uninterrupted Electric Supply	No

iv.	Heating	No
v.	Ventilation	No
vi.	Central Air Conditioning	No
f.	Nurses' Station	No
g.	Clean Utility Area	No
h.	Equipment Room	No
2.27.	**Critical Care Area (Emergency Services)**	
a.	Critical Care Area with independent entry	Yes
b.	Adequate space for free passage of vehicles	No
c.	Covered area for alighting patients	No
2.28.	**Operation Theatre**	
a.	Fully equipped Operation Theatre	No
b.	Location of OT in close relation to ICU, Radiology, Pathology, Blood Bank	Yes
c.	Specialized Services in OT	No
i.	Piped suction and medical gases	No
ii.	Uninterrupted Electric Supply	No
iii.	Heating	No
iv.	Air Conditioning	Yes
v.	Ventilation	Yes
vi.	Efficient Life Service	Yes
d.	Other Rooms adjoining OT	
i.	Preparation Room	No
ii.	Pre-operative Room	No
iii.	Post-operative Room	Yes
iv.	Scrub-up Room for washing and scrubbing	Yes
v.	Sub-sterilizing Unit	Yes
2.29.	**Delivery Suit Unit**	
a.	Fully equipped Delivery Suit Unit located near OT	Yes
b.	Facilities in Delivery Suit Unit	
i.	Reception and admission	Yes
ii.	Examination and Preparation Room	Yes
iii.	Labour Room (clean and a septic room)	Yes
iv.	Delivery Room	Yes
v.	Neo-natal Room	No
vi.	Sterilizing Rooms	Yes
vii.	Sterile Store Room	No
viii.	Scrubbing Room	No
ix.	Dirty Utility	No

2.30.	**Physiotherapy**	
a.	Physiotherapy department located at a convenient access to both outdoor and indoor patients	for opd
b.	Facilities	
i.	Physical and electro-therapy rooms	No
ii.	Gymnasium	No
iii.	Office	No
iv.	Store	No
v.	Separate toilets for male and female	No
2.31.	**Hospital Services**	
a.	Hospital Kitchen (Dietary Service)	no
b.	Central Sterile and Supply Department (CSSD)	
i.	CSSD located	Yes
ii.	Easily accessible to OT	Yes
iii.	Provision of hot water supply	No
c.	Hospital Laundry	Yes
d.	Medical and General Stores	Yes
e.	Mortuary	Yes
2.32.	**Engineering Services**	
a.	**Electric Engineering**	
i.	Electric Sub Station and standby generator room	yes
ii.	Emergency Lighting (shadow less light in OT and Delivery Rooms and portable light units in Wards and Departments	yes
iii.	Call Bells	no
iv.	Ventilation (Natural or mechanical exhaust)	yes
b.	**Mechanical Engineering**	
i.	AC and Room Heating in OT and Neo-natal units	yes
ii.	Air coolers or hot air convectors	no
iii.	Water coolers and Refrigerators	no
c.	**Public Health Engineering**	
i.	**Water Supply**	
1	Round the clock piped water supply	yes
2	Overhead water storage tank with	no
	pumping and boosting arrangements	
3	Separate provision for fire fighting and	no
	water softening plants	
ii.	**Drainage and Sanitation**	
	Proper drainage and sanitation system for waste water, surface water, sub soil water and sewerage	no

iii.	**Waste Disposal System**	
	Proper waste disposal system as per National Guidelines	no
iv.	**Trauma Centre**	
d.	Fire Protection	yes
e.	Telephone and Intercom	no
f.	Medical Gas	yes
g.	Cooking Gas	No
h.	Laboratory Gas	No
i.	Office-cum-store for maintenance work	No
j.	Parking place	Yes
k.	Administrative Services	Yes
i.	General Section	yes
ii.	Medical Records Section	no
l.	Committee Room	no
m.	Residential Quarters for all medical and Para medical staff	yes

 # Manpower requirement as per workload in the Civil Hospital, Sangrur (100 bedded)

A. Doctors

S. No.	Personnel	IPHS Norm	Sanctioned posts	Proposed new posts (Required as per workload)	Current Availability at Hospital (Indicate Numbers)	Total
1	Hospital Superintendent/ S.M.O	1	1	0	1	1
2	Medical Specialist	3	3	0	3	3
3	Surgery Specialists	2	3	0	3	2
4	O&G specialist	4	1	1	3	4
5	Psychiatrist	1	1	0	1	1
6	Dermatologist / Venereologist	1	1	0	1	1
7	Paediatrician	2	2	0	2	2
8	Anesthetist (Regular / trained)	2	1	0	2	2
9	ENT Surgeon	1	2	1	2	2
10	Opthalmologist	1	1	0	1	1
11	Orthopedician	1	1	1	1	2
12	Radiologist	1	1	1	0	1
13	Microbiologist	1	1	0	1	1
14	Casualty Doctors / General Duty Doctors	6	7	0	4	7
15	Dental Surgeon	1	2	0	2	2
16	Forensic Expert	1	1	0	1	1
17	Public Health Manager[1]	1	0	0	0	1
18	AYUSH Physician[2]	2	1	0	1	1
19	Pathologists	2	1	0	1	1
	Total	**34**	**23**		**23**	**36**

[1] May be a Public Health Specialist or management specialist trained in public health

[2] Provided there is no AYUSH hospital / dispensary in the district headquarter

B. Para-Medicals

S.No.	Personnel	IPHS Norm	Sanctioned posts	Proposed new posts (Required as per workload)	Current Availability at Hospital (Indicate Numbers)	Total
1	Staff Nurse*	75 to 100	24	24	20	48
2	Hospital worker (OP/ward +OT+ blood bank)	20	10	20	10	30
3	Sanitary Worker	15	7	7	7	15
4	Ophthalmic Assistant / Refractionist	1	1	0	1	1
5	Social Worker / Counsellor	1	3	0	3	3
6	Cytotechnician	1	0	1	0	1
7	ECG Technician	1	0	0	0	1
8	ECHO Technician	1	0	1	0	1

9	Audiometrician		0	0	0	0
10	Laboratory Technician (Lab + Blood Bank)	12	10	2	10	12
11	Laboratory Attendant (Hospital Worker)	4	2	4	2	6
12	Dietician	1	0	1	0	1
13	PFT Technician	-	0	0	0	0
14	Maternity assistant (ANM)	6	8		8	6
15	Radiographer	2	4	0	4	4
16	Dark Room Assistant	1	0	1	0	1
17	Pharmacist[1]	5	3	2	3	5
18	Matron	1	1	0	1	1
19	Assistant Matron	2	0	0	0	2
20	Physiotherapist	1	1	0	0	1
21	Statistical Assistant	1	1	0	1	1
22	Medical Records Officer / Technician	1	0	1	0	1
23	Electrician	1	0	1	0	1
24	Plumber	1	0	1	0	1

[*] 1 Staff Nurse for every eight beds with 25% reserve

[1] One may be from AYUSH

C. Administrative Staff

S. No.	Personnel	IPHS Norm	Sanctioned posts	Proposed new posts (Required as per workload)	Current Availability at Hospital (Indicate Numbers)	Total
	Manager (Administration)	-	0	1	0	1
	Junior Administrative Officer	1	0	1	0	1
	Office Superintendent	1	0	1	0	1
	Assistant	2	1	2	1	2
	Junior Assistant / Typist	2	0	2	0	2
	Accountant	2	1	0	1	2
	Record Clerk	1	0	1	0	1
	Office Assistant	1	0	1	0	1
	Computer Operator	1	5	0	5	5
	Driver	2	1(phsc)	1	1(phsc)	2
	Peon	2	0	2	0	2
	Security Staff*	2	0	5	0	6
	Total	**17**	**9**	**17**	**9**	**26**

Note: *Drivers post will be in the ratio of 1 Driver per 1 vehicle**.** Driver will not be required if outsourced*
** The number would vary as per requirement and to be outsourced.*

D. Operation Theatre

S.No.	Staff	IPHS Norm		Current Availability at Hospital (Indicate Numbers)	Proposed new posts (Required as per workload)		
		Emergency / FW OT	General OT				Total
1	Staff Nurse	8	1	2	4		6
2	OT Assistant	4	2	1	5		6
3	Sweeper	3	1	1	3		4
	Total	**15**	**4**	**4**	**12**		**16**

E. Blood Bank / Blood Storage

S.No.	Staff	IPHS Norm		Current Availability at Hospital (Indicate Numbers)	Proposed new posts (Required as per workload))		
		Blood Bank	Blood Storage				Total
1	Staff Nurse	3	1	1	0		1
2	MNA / FNA	1	1	0	0		0
3	Lab Technician	1	-	6	0		6
4	Safai Karamchari	1	1	1	0		2
	Total	**6**	**3**	**8**	**0**		9