

**IMPLEMENTATION OF QUALITY STANDARD & GAP
ANALYSIS IN BGW WOMEN HOSPITAL,
GONDIA.**

A dissertation submitted in partial fulfillment of the requirements

For the award of

Post-Graduate Diploma in Health and Hospital Management

By

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International Institute of Health Management Research

New Delhi-110075

19-12-11 to 19-03-12

AS IS REPORT OF BAI GANGABAI WOMENS HOSPITAL, GONDIA.



Certificate of Approval

The following dissertation titled "SANA SAYYED AMREEN" 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.



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To Whomsoever it May Concern

This is to certify that **Dr. Sayyed Sana Amreen** has successfully completed his 3 month internship in our organization from 19 December 2011 to 19 March 2012. During this internship she has worked on **Implementation of quality standards & Gap Analysis in BGW Govt Hospital, Gondia** under the guidance of me and my team at Bai Ganga Bai women Hospital.

We wish her good luck for her future assignment



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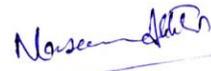
Certificate from Dissertation Advisory Committee

This is to Certify that **Dr. Sayyed Sana Amreen** a graduate student of the post **Graduate in health and hospital management** has worked under our guidance and supervision she is submitting this dissertation titled Implementation of quality standards & Gap analysis in BGW Govt Hospital, Gondia. In partial fulfillment of the requirement for the award of the **Post-graduate in health and Hospital management.**

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ABSTRACT

Public health care in India is a great concern for Indian government and therefore many initiatives are taken to improve the delivery of Health care services for efficient and better patient care. Various agencies are involved through structured mechanism to enhance the capacity and capability of health care facilities to deliver best health care services at various service provider levels such as District hospitals, Sub district hospital, Rural hospitals, Primary Health care centers.

Towards improving the healthcare system in the country, one of the major initiatives by the Ministry of Health & Family Welfare (GOI) is National Rural Health Mission (NRHM), which envisages bringing out a 'paradigm shift' in the health care delivery system across the country. In order to achieve the articulated objectives of NRHM within the given time frame a multi-pronged strategy has been adopted and supported by the Ministry of health & Family Welfare, Government of India. Institutional strengthening in terms of infrastructure and human resource development are crucial to Public Health System. Availability, affordability and accessibility of Health care services are the utmost necessity to reduce the unmet needs of the community.

The current functioning in BGW hospital, Gondia of the health care facilities in the public sector has ample scope for improvement in almost every area. The Indian public Health Standards (IPHS) provides a framework on manpower, equipment and infrastructure related issues. Review of existing facilities against the required parameters would lead to identification of gaps, which would need to be addressed for efficient functioning of these facilities.

By studying whole hospital AS-IS process & gap and develop to-be processes & action plan in line ISO 9001-2008 standard requirements followed by handholding public health care facilities for improving management systems leading to patient satisfaction and continual improvement.

This 'AS-IS Gap Report' with recommendation is prepared for Bai Gangabai women Hospital situated in District Gondia of Maharashtra. The Mapped As-Is processes would facilitate in framing action plan of this facility to enhance the quality of health care services provided with maximum benefit to the public. 'AS-IS Gap Assessment on the following parameters: Functionality of the facilities

- Availability of services
- Equipment
- Performance statistics
- Human resource Infrastructure, etc.

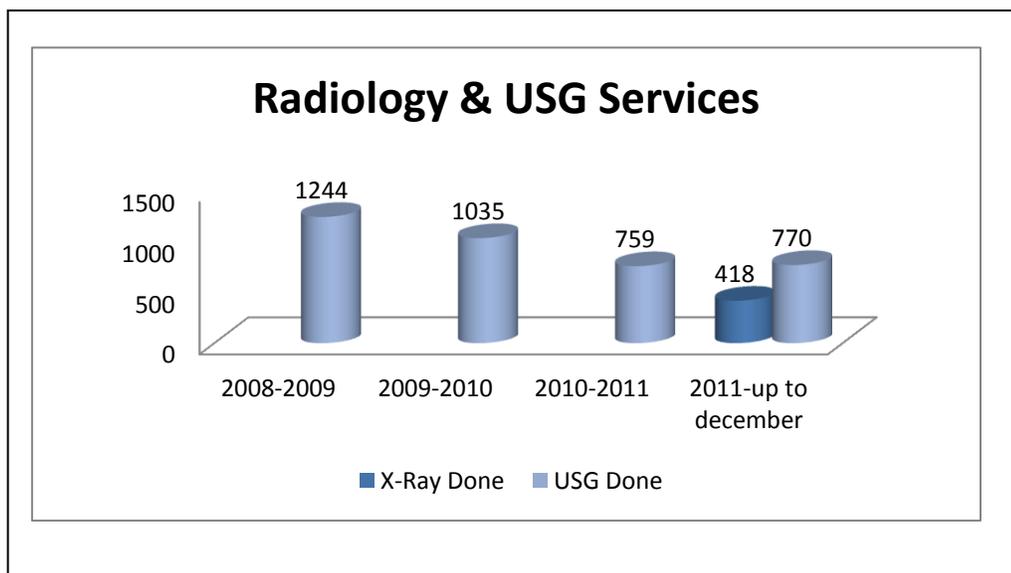
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SR No	NAME OF CHAPTERS	PAGE NO.
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PRODUCTIVITY GRAPH

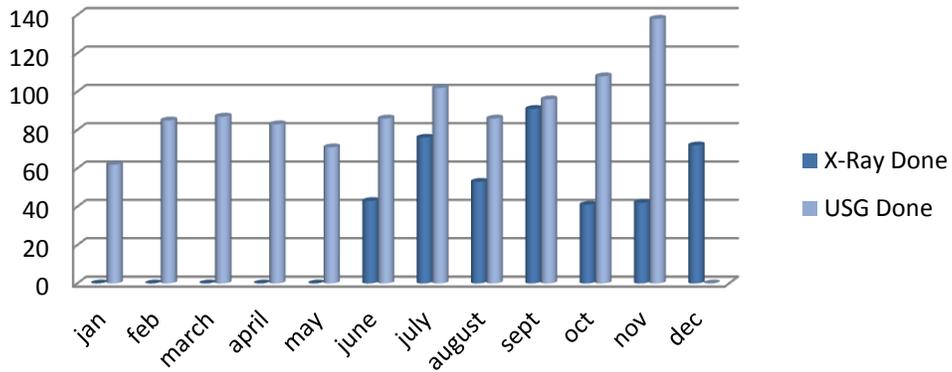
DIAGNOSTIC SERVICES PRODUCTIVITY

- In the year 2008-2009, 2009-2010, 2010-2011 there was X-ray machine in hospital which was unoperational new machine was installed in 2011, USG rate is decreasing since 2008 because only three days USG service is in Hospital and no permanent radiologist is appointed.

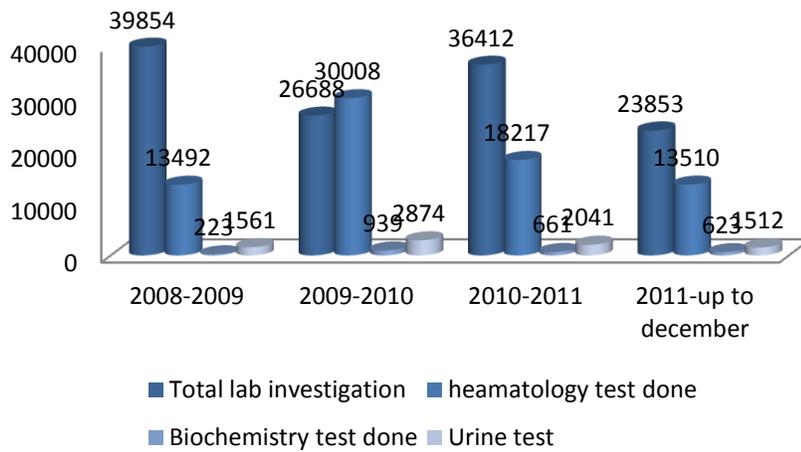


- Since month of June X-ray service start, In the month of December USG machine is unoperational so USG is decreased.

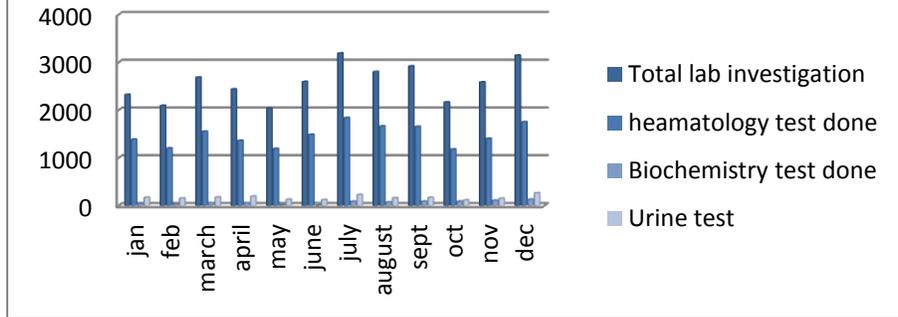
Radiology & USG-2011



Laboratory Services

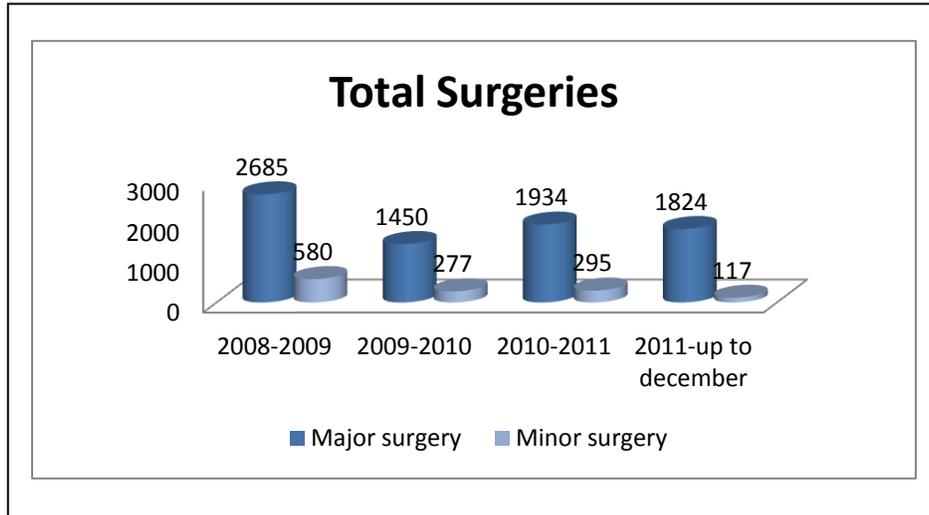


Laboratory services-2011

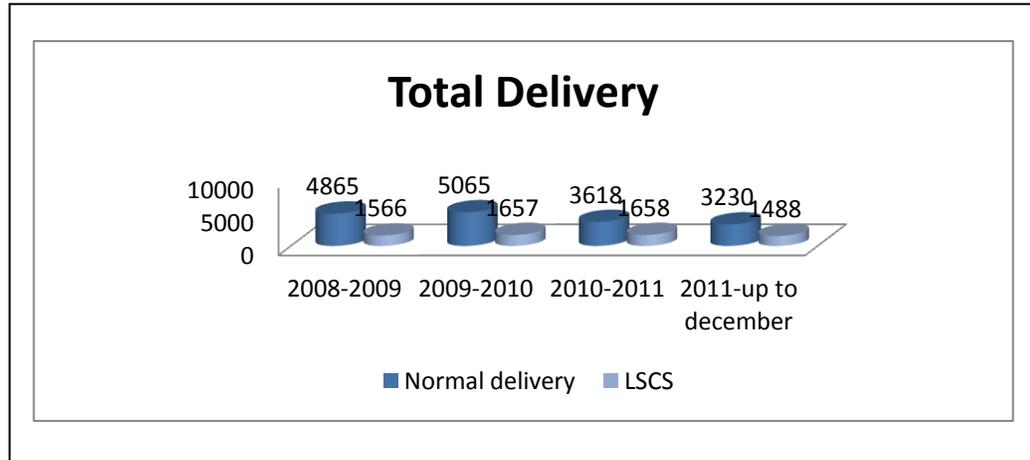


OPERATION THEATER PRODUCTIVITY

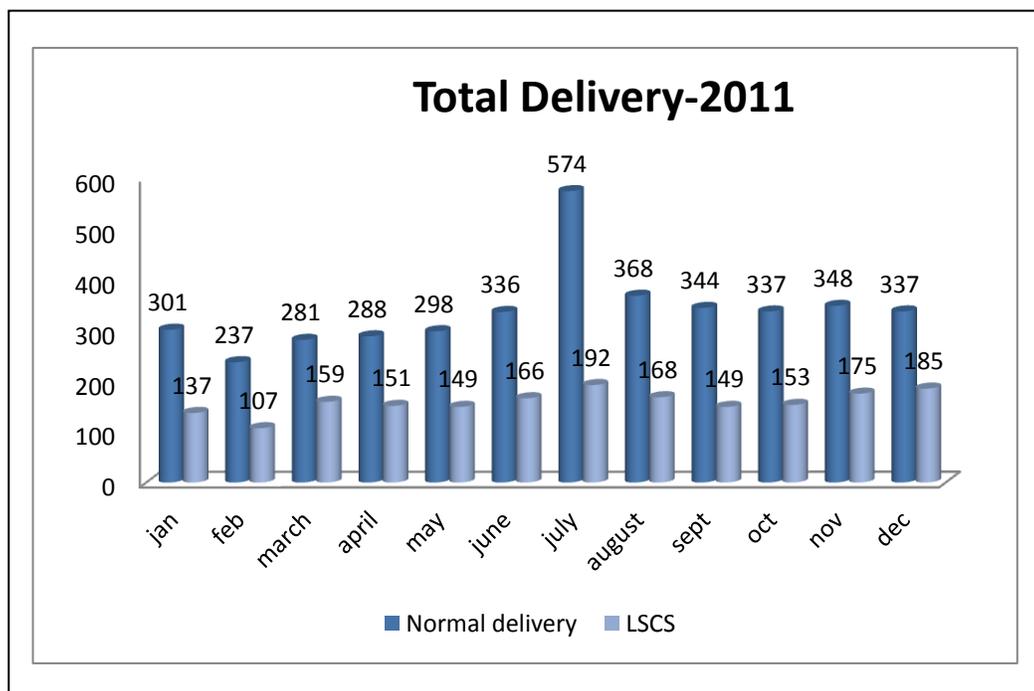
- Since 2008 to 2011 major surgeries and minor surgeries are decreasing as in PHC , SDH, RH trained doctors are appointed so the minor surgeries are conducted there and as the ASHA worker are taking care of ANC patients so complications are less.



LABOR ROOM PRODUCTIVITY



- Since January total number of LSCS are increasing because of more patients referred from PHC, RH are in serious and complicated stage so doctor has to go for LSCS instead of giving trial for normal deliveries. Number of normal deliveries are not much increased or decreased since month of January as normal deliveries are conducted in PHC, RH.



INTRODUCTION

GONDIA: A BRIEF PROFILE

Gondia District, Maharashtra

Close to Madhya Pradesh state, and is considered as the gateway to Maharashtra from central and eastern India Gondia city is the administrative headquarters of Gondia District in western Maharashtra. Gondia is very. It is famous for its small scale tobacco industries and rice mills, in fact Gondia is known as “Rice city” due to its abundant rice mills. This district was carved out of Bhandara district in 1999.

Geography

The adjoining districts to Gondia are on northern side Balaghat district of Madhya Pradesh and to the south there are Chandrapur and Gadchiroli district of Maharashtra and to West Bhandara district of Maharashtra.



Divisions

The district is divided into 2 sub-divisions,

- a) Gondia
- b) Deori

ECONOMY AND EDUCATION

Gondia is well-known for its learning institutes especially in the fields of;

- Engineering
- Medical
- Polytechnic
- MBA
- Art, commerce and science

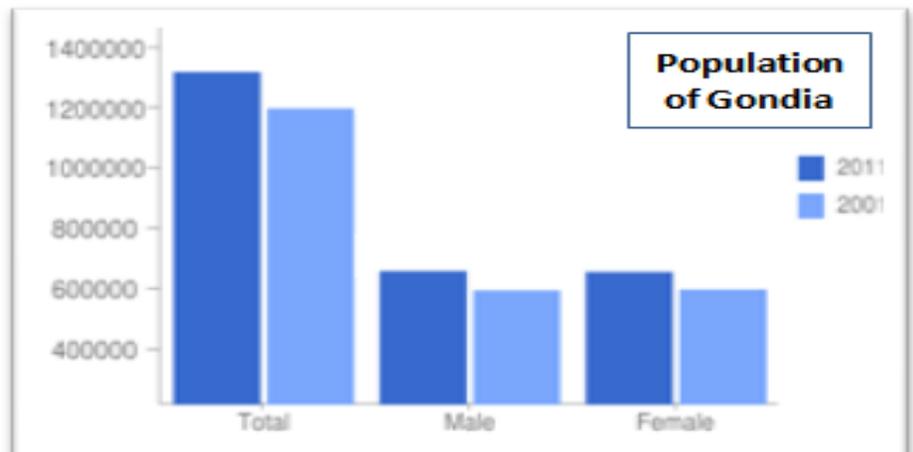
Gondia is also known as an industrial area in Nagpur Region. MIDC has not yet fully developed the industrial area in Gondia; however corporations have started setting up their base in the region, ever since plot allotment is in progress.

TRANSPORT

Gondia is around 150 km east of Nagpur and approx. 170 km from Raipur Jn. and 1000 km from Pune. It can be reached through railways and by road. Gondia airport is still under construction and shall be operational soon by the name of “*Birsi Airport*”.

1. RAIL

Gondia is an important junction and has heavy goods & passenger traffic due to the broad gauge Mumbai - Calcutta railway route which is 1060 km from Mumbai, capital of state and the broad gauge line heading south to Nagbhir and north to Balaghat.



DEMOGRAPHICS

- Total area of Gondia district is 5,234 Sq. Km.
- Gondia District population constitutes around 1.18 percent of total Maharashtra population. In 2001 census, this figure for Gondia District was at 1.18 percent of Maharashtra population.
- Average density of Gondia district is 253 per sq. km.
- Total Population of Gondia district in 2011 census was 1,322,331.
- Male Population of Gondia district of Maharashtra is 662,524.
- Female Population of Gondia district of Maharashtra is 659,807.
- Child Population (0-6) of Gondia district is 136,116.
- Male Child Population in Gondia district of Maharashtra is 70,015.
- Female Child Population in Gondia district of Maharashtra is 66,101.
- Total 10.29 percent of Gondia population is in age group of 0-6.
- 10.57 percent of male population of Gondia district is in age group of 0-6.
- 10.02 percent of female population of Gondia district are in age group of 0-6.
- Population growth rate of Gondia district was 10.13 percent during the decade.
- Female Sex ratio of Gondia district is 996 females per 1000 males
- Child (below 6 years) sex ratio of Gondia district is 944 females per 1000 males
- Average literacy rate of Gondia district is 85.41 percent.
- Male literacy rate in Gondia district of Maharashtra is 93.54 percent.
- Female literacy rate in Gondia district of Maharashtra is 77.30 percent.
- Total literates in Gondia district are 1,013,144 people.
- There were total 136,116 children under age of 0-6 against 171,191 of 2001 census.
- Of total 136,116, male and female were 70,015 and 66,101 respectively.
- Child Sex Ratio as per census 2011 was 944 compared to 958 of census 2001.
- In 2011, Children under 0-6 formed 10.29 percent of Gondia District compared to 14.26 percent of 2001; there was net change of -3.97 percent in this compared to previous census of India.

Description	2011	2001
Actual Population	1,322,331	1,200,707
Male	662,524	598,834
Female	659,807	601,873
Population Growth	10.13%	10.54%
Area Sq. Km	5,234	5,234
Density/km2	253	229
Proportion to Maharashtra Population	1.18%	1.24%
Sex Ratio (Per 1000)	996	1005
Child Sex Ratio (0-6 Age)	944	958
Average Literacy	85.41	78.52
Male Literacy	93.54	89.61
Female Literacy	77.30	67.58
Total Child Population (0-6 Age)	136,116	171,191
Male Population (0-6 Age)	70,015	87,427
Female Population (0-6 Age)	66,101	83,764
Literates	1,013,144	808,414
Male Literates	554,230	458,266
Female Literates	458,914	350,148
Child Proportion (0-6 Age)	10.29%	14.26%
Boys Proportion (0-6 Age)	10.57%	14.60%
Girls Proportion (0-6 Age)	10.02%	13.92%

Demographic Details

Proportion of Gondiya



Population Comparison with Rural and Urban

Description	Rural	Urban
Population (%)	82.93 %	17.07 %
Total Population	1,096,631	225,700
Male Population	548,739	113,785
Female Population	547,892	111,915
Sex Ratio	998	984
Child Sex Ratio (0-6)	947	927
Child Population (0-6)	113,995	22,121
Male Child(0-6)	58,538	11,477
Female Child(0-6)	55,457	10,644
Child Percentage (0-6)	10.40 %	9.80 %

Male Child Percentage	10.67 %	10.09 %
Female Child Percentage	10.12 %	9.51 %
Literates	825,515	187,629
Male Literates	454,969	99,261
Female Literates	370,546	88,368
Average Literacy	84.01 %	92.17 %
Male Literacy	92.81 %	97.02 %
Female Literacy	75.25 %	87.26 %

HEALTH CARE FACILITIES IN THE GONDIA DISTRICT

Medical College	None
District Hospital	1
Women Hospital	1
Sub District Hospital	1
Rural Hospitals	9
Primary Health Centre	39
Sub-Centre	238

Project involvement

Implementation of ISO standard in BGW district hospital.

Department involve

Studied and survey whole hospital both clinical and non clinical that is OPD , IPD, Diagnostic services, labor room , OT , dietary, laundry , housekeeping etc.

Reflective learning

It was great opportunity I learned lot of new things like detailed process mapping of each department. And provide training to different departmental staff for quality improvement. Also help to MS for organizing red ribbon HIV awareness train campaign. Make new directional and departmental signage plan for hospital. make some changes in current documental record in different department. Many quality changes also implement.

INTRODUCTION

Quality improvement embraces a philosophy of meeting or exceeding customer expectations through the continuous improvement of the processes of producing a good or service. QI posits that the quality of goods and services depends foremost on the processes by which they are designed and delivered. Hence, QI focuses on understanding, controlling, and improving work processes rather than on correcting individuals' mistakes after the fact. QI also assumes that uncontrolled variance in work processes is the primary cause of quality problems. Hence, QI focuses analyzing the root causes of variability, taking appropriate steps to make work processes predictable, and then continuously improving process performance.

Operationally, QI combines three elements: use of cross-functional teams to identify and solve quality problems, use of scientific methods and statistical tools by these teams to monitor and analyze work processes, and use of process-management tools (e.g., flow charts that graphically depict steps in a clinical process) to help team members use collective knowledge effectively. Cross-functional teams play an integral role in QI because most vital work processes span individuals, disciplines, and departments. Cross-functional teams bring together the many clinical professionals and nonclinical hospital staff members who perform a process to document the process in its entirety, diagnose the causes of quality problems, and develop and test possible solutions to them.

OBJECTIVES

- To understand the current operational workflow in BGW hospital.
- To understand the documentation & data flow.
- To analyze bottleneck in the current system.
- To identify the current and desired efficiency measurement parameters.

APPROACH AND METHODOLOGY

The following approach has been used for the purpose of As is process mapping and capturing the gaps of the district hospital:

- **Locations covered in the Hospital-** Diagnostic services, labor room, Operation Theater. Two staff and one in charge staff .
- **Period of Hospital Survey-** 19 December 2011 to 19 march 2012s
- **Data Collection-**Data-collection techniques have allowed us to systematically collect information about our manpower, infrastructure, process and services of the district Hospital.

❖ Primary Data

- Interview and administrators/departmental staffs/staffs/medical practitioners using checklist based on various standards.
- Physical verification and gaps of various process, Hospital records, structural and non-structural infrastructure.
- Observations of systems, processes and gaps.
- Interviewing/ Consultation (face-to-face) and group consultation
- Gap analysis based upon authorized standards
- Mapping and scaling of As is process

❖ Secondary Data

- Data published by Municipal Authority/ State govt.
- Other Government Publications
- Internet sources
- Hospital records/ MIS

Scope of Work

Scope of work includes development of Quality management System followed by ISO-9001-2008 certification. In the first year survey is to be conducted throughout the hospital as per the IPHS and ISO 9001-2008 standards. The As- Is survey of the Hospital includes:

- Observation
- Review of manpower
- Equipment
- Infrastructure
- Legal compliances
- Services and facilities
- Current processes both clinical and administrative.
- Control of support services such as laundry services, housekeeping, security services, dietary services and management Information system

To develop standard operating procedures, standard treatment guidelines and quality protocols for different clinical departments as well as for the supportive departments. Besides documentation, trainings to be provided at regular intervals as per the training need assessment of the staffs towards implementation of the Quality management System in the hospital. As per the requirement of ISO 9001-2008 standards, internal quality audit to be conducted of the hospital systems and accordingly measures to be taken for continual improvement of hospital services in consultation with stakeholders.

Hospital Fact Sheet

Name of Institution	Bai Gangabai women Hospital, Gondia (District hospital)
Date of Inception	1962
Size of the Hospital (No of sanctioned beds)	200
No of Functional beds	108
Scope of Services	Preventive, promotive and curative services
Civil Surgeon	Dr. Milindh Rao Sonwane

Medical superintendent	Dr. Naseem Akhtar
Registered Office/ Address	Nehru Chowk, Gondia District, Maharashtra
Future plans	New block coming up for blood bank on first floor in the main building of lab, NRC ward, pediatric ward, SNCU.

Bed Mix

Sl no	Bed Mix	BGW Hospital
1	Surgical ward	37
2	Labor ward	34
3	Pediatric ward	18
4	NICU	5
5	NRC	10

HISTORY OF BGW HOSPITAL

Gondia district is naxal dominated and tribal area. Hospital covers mainly Ravanwadi, kati, akodi, dawniwada, bhanpur, khamta and dasgao PHC's. BGW HOSPITAL is one and the only referral centre in gondia district for womens. Hospital established in year 1939 and undertaken by government on 1st of July 1962. Initially it was 50 beded later on it became 80 beded and now its sanction beds are 200.

SWOT ANALYSIS

The swot analysis of Bai Ganga Bai Hospital, Gondia, shows that the hospital needs improvement to maintain the quality of care in the long term and with the support of District and state authorities. The

analysis evaluates the strength, weakness, opportunities and threats of the hospital takes into account the internal and external factors both favorable and unfavorable to the hospital in providing quality care. The following standard framework has been used for SWOT analysis

❖ **Key Strengths:**

- Good Management support for the quality improvement of the hospital
- Effective involvement of the state health Authorities for the up gradation and overall improvement of the hospital.
- Adequate funds available in account of IPHS and RKS for the betterment of the quality of care.
- Proper implementation of National programmes.
- Regular meeting of Rogi kalyan Society of the hospital.

❖ **Key Weakness**

- Inadequate manpower under IPHS norms.
- Lack of communication between Staff and top management.
- Non operational of Intensive care unit and absence of security services.
- Inadequate infrastructure in critical areas like Emergency and Operation theatre etc.
- Non- functioning of the Intensive care unit.
- Regular meetings within hospital staff are not held.

❖ **Key opportunities**

- Employee recognition and reward management.
- Development of better communication system among staffs.
- Establishing quality protocols and providing training towards the effective implementation of the protocols.

❖ **Key Challenges**

- Lack of trained staffs
- Improper monitoring of the support services like housekeeping etc.
- Technological advancement and use of modern equipments and facilities for providing quality care

Diagnostic Services

In BGW hospital, Gondia diagnostic services include pathology, X-ray, USG & ECG services. USG services are available 3 days a week i.e. Monday, Wednesday and Friday. X-ray & ECG service is available during OPD hours. Area of X-ray department is 16.2sq meter, staffed with one technician, one attendant and one Radiologist serving for both USG and X-ray department. Area of USG department is 15.3 sq meter, staffed with one PNDT councilor and one Radiologist.

Pathology department open till 6pm afterward basic investigation like Hb, blood group etc are done at blood bank in emergency situation at night. Area of Pathology department is 27.78 sq meter, staffed with two technician and one lab attendant. Services available at pathology are HB, CBC, blood group, malaria parasite, sickle cell anemia, creatinine etc.

ECG service is newly established since one month, ECG procedure take place in the examination room of OPD & staffed with one technician providing service in OPD hours.

A. X-ray department

Process Group	Diagnostic services	Sub Process	X-ray Department
Process Location	X-Ray department	Process Owner	X-ray Technician
Input(s)	Patient requisition slip	Output(s)	Test report

-
- Patient comes to the X-ray department after doctor prescribes for X-ray in the X-ray requisition slip.
 - X-ray Technician verifies the registration no of the patient written in the requisition slip & OPD slip.
 - Technician record the patient details in the X-ray register.
 - For MLC patients technicians records the details in the MLC registration register.
 - Amount of Rs 30 is charged per patient for X-ray.
 - After receiving the money a receipt is given to the patient by the technician
 - For BPL patient's money is not charged & photocopy of the BPL card is taken & the card number is written against the name of patient in the registration register.
 - Patient is being provided gown for preparation before the procedure takes place.
 - In case of female patients, X-ray technician calls the female attendants from USG department or from the ward or sometimes patient relative are asked to be present during the procedure.
 - Patient is requested to get rid of the jewelleryes & accessories & handed over to the patient relatives.
 - After exposure film is processed & dried.
 - Then the X-ray film is given to the patient in case of OPD patients.
 - For IPD patients, x-ray technician record the patient details like, patient name, age sex, diagnosis site in the X-ray registration register & also writes the name of the ward in the register.
-

-
- For IPD patients, X-ray report is sent to the ward or sometimes ward attendant comes to collect the report.
 - No money is charged during the time of X-ray for IPD patients. The entire amount is charged at the time of discharge of the patient.
 - All the consumables that are being used during the X-ray procedure are updated in the stock register.

Process records	X-ray requisition slip, X-ray register, MLC register, cash receipt book.
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B. Laboratory Services

Process Group	Diagnostic services	Sub Process	Laboratory service
Process Location	Laboratory	Process Owner	Lab technician
Input(s)	OPD Paper	Output(s)	Investigation report

- For OPD patients, after consulting, Doctor prescribes for investigations on the OPD paper.
 - Patient reaches the laboratory.
 - Technician checks the OPD paper & records the patient name, registration number in register and test to be done for that patient.
 - Technician collects the patient sample as per the tests & collects payment &
-

give receipt to patient.

- Technician labels the particular vials containing patient samples with registration number & patient name.
- Technician intimates the patient to collect the report after 1 hour (approx)
- Lab technician segregates the specimens according the various test & start testing the samples.
- After performing the test, technician records the details of the result in the lab register against the name & registration number of the patient.
- Patient comes to the laboratory department to collect the report.
- Lab technician records the result in the OPD slip of the patient.
- For IPD patients, sister collects the sample from the patients & labels the sample by regd no of the patient. Sister writes the type of test to be performed in a piece of paper.
- Ward attendant/patient relative takes the blood sample & piece of paper to the laboratory.
- Lab technician intimates the ward attendant about the time of collection of report
- After performing the test lab results are recorded in the IPD lab test register & on the piece of paper in which test where requested.
- About, after one hour ward attendant/ patient relative comes to collect the report.

Process records	OPD paper, OPD lab register, IPD lab register ,Payment slip
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C. USG DEPARTMENT

Process Group	Diagnostic services	Sub Process	Sonography
Process Location	Sonography room	Process Owner	Radiologist
Input(s)	Patient OPD slip with referral slip	Output(s)	Sonography Report

- The Sonography room is manned by One radiologist & one PNDT counselor

For OPD Patients:

- During consultation, if required, doctor advises for Ultra Sonography test to the patient.
- Doctor writes patient name, age, sex, regd no, & diagnosis site ie. whether Abdomen/pelvis, in the USG requisition slip & hand over the slip to the patient.
- Patient goes to the USG room & shows the requisition slip & OPD slip to the PNDT counselor.
- PNDT counselor collects the USG requisition slip from the patient asks them to sit outside the room.
- Patients sit on the chairs that are placed outside the USG room for about 2 hrs (approx).
- PNDT counselor records the patient details in the Sonography register like- name, age sex, address, diagnosis, BPL card no
- For MLC patients, counselor marks MLC on the Sonography register against the name of the patient.
- Amount of Rs 100 is charged for Sonography test.
- PNDT counselor asks for the service charge & in return gives a cash receipt of RS 100 to the patient.
- For ANC and BPL patients, no amount is charged and photocopy of the BPL card of the patient is kept by the PNDT counselor.
- The BPL card no of the patient is recorded in the Sonography register by the PNDT counselor against the name of the patient.

- Amount collected is then recorded in the Amount register & at the end of the month handed over to the cashier and a receipt copy is given by the cashier to the PNDD counselor.
- Radiologist puts Sonography jelly on the abdomen area & then carries out the USG test.
- Then report is given to the patient after 60 minutes (approx).
- Radiologist writes patient name, age, sex, & his findings of the Abdomen/pelvis area in the report & signs on it.
- Then the findings are recorded by the PNDD counselor in the Sonography register.

For IPD patients:

- Doctor advises for USG test to the admitted patient.
- Doctor writes patient name, age, sex, regd no, & diagnosis site ie.whether Abdomen/pelvis, in the USG requisition slip & hand over the slip to the patient.
- Then patient is accompanied by ward attendant to the USG room with patient case sheet & requisition slip.
- The requisition slip is kept by the PNDD counselor
- Patient USG test is carried out by the radiologist.
- Report is given to the patient/ ward attendant within 10 minutes of the test performed.

For ANC patients:

- Counselor gives advice to the patient about Sonography and sex determination and in this overall procedure takes 30 minutes to 45 minutes.(approx)
- For ANC patient, patient details are recorded in form (F-form) which contains some detail like-Name, Sex, Registration No, Referred by Dr. Patient condition, complication, Date, Time, result of pre natal diagnosis.LMP. etc
- Signature of the patient is taken on the form F.
- Then Sonography is carried out by the Radiologist.
- Patient report is given after the signature of the radiologist.

Process records	Sonography register, requisition slip, USG Report, Amount register.
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GAPS FINDING & RESULT:

RADIOLOGY - USG & X-RAY

Sr No	Gap Statement	Rationale/ explanation	Gap classification	ISO 9001-2008 clause
1	Precautionary signage board for pregnant women is not available in front of X ray room	Harmful radiation of X ray room dangerous for pregnant women	Service	9001-2008 clause 7.2.1, 6.3
2	Rate chart & working hour's chart, report time not displayed in the X-ray department	Patient are unaware regarding X rays service charges & timing of X ray	Service	9001-2008 clause 7.2.1, 7.2.3
3	Standard procedure not followed for conducting X rays for pregnant women	While conducting X ray of pregnant women, abdomen area is covered with cloth rather than lead shield for radiation safety precaution	Service	9001-2008 clause 7.2.1
4	Indicator of red	There is no	Service	9001-

	bulb outside X ray room is not there	X indication/awareness to prevent patient flow at the time of X-ray . Patients come inside the X-ray room when the procedure is carried out		2008 clause 7.2.1, 6.3
5	There is no power backup for X-ray machine	During load shedding no power back up to X ray machine due to which X ray service during get hampered & patient have to wait	Service/ infrastructure	9001-2008 clause 7.2.1,6.3
6	Radiation protection is not supervised by radiologist and Hospital In charge	TLD badges are not used as there is no renewal of badges from BARC since 2008 because of no payment	Service	9001-2008 clause 7.2.1
7	There is no MLC report format is available in X-ray department	MLC cases are recorded in general record register	Process	9001-2008 clause 7.1
8	There is no quality assurance program for diagnostic services	There is no control over quality, performance, number of redo's , service delivery , report time etc	Process	9001-2008 clause 7.2.1
9	There is no patient preparation area	Patient is prepared in X-ray room only	infrastructure	9001-2008 clause 6.3

	in X-ray department			
10	There is no safe procedure for disposal of clinical, toxic and liquid waste	These waste directly disposed in wash basin from there it is drain in open drainage system without any treatment	infrastructure	9001-2008 clause 6.3
11	In X-ray room glass of the door is broken	From broken glass door radioactive rays exposed to public area and also affect the patient privacy	infrastructure	9001-2008 clause 6.3
12	Doors, windows are not coated with lead paint	Doors and windows are directly open to public area; due to which public directly get exposed to harmful radioactive rays	infrastructure	9001-2008 clause 6.3
13	X-ray room location is close to public door	X-ray room is adjacent to public door, labor patient are shifted from the same door	infrastructure	9001-2008 clause 6.3
USG				
14	There is separate payment slip for X-ray and USG department	Common payment slip for X-ray & USG may lead to documentation error	Process	9001-2008 clause 7.2.1
15	USG service is not available 7 days in a week	There is only three specific days for USG (Monday, Wednesday, Friday) so on other days patient has to suffered	Service	9001-2008 clause 7.2.1
16	There is no	Patients are unaware of day	Service	9001-

	display for USG service days	and time of USG department so patient has to visit the Hospital again and again		2008 clause 7.2.1
17	NO patient privacy in procedure USG department	during USG in the patient bed	No curtain is available in the door of USG room & bedside screen is insufficient to cover the patient bed	Service 9001-2008 clause 7.2.1
18	There is no female attendant in Sonography department	PCPNDT Councilor carries the reporting as well as work of attendant.	Resource	9001-2008 clause 7.2.1
19	There is no proper area for and department	waiting USG X-ray patients inside department for waiting.	There are only three chairs available outside the X-ray and USG department so patients are directly enter inside department for waiting.	infrastructure 9001-2008 clause 6.3
20	Sonography department is adjacent to X-ray department	Position of the X-ray tube is towards the wall which is common in both department (x-ray and Sonography	infrastructure	9001-2008 clause 6.3
LAB				
21	Periodic external validations of laboratory reports are not conducted by the hospital	There is no quality check of the authenticity of the laboratory reports. If there is any doubt regarding the reports, doctor asks the patient to get it done from other private laboratories	Process	9001-2008 clause 7.2.1

	authority				
22	No protective equipments are used by the lab technician at the time of collection of patient sample	Lab technician do not wear gloves or masks at the time of collection of patient sample. Collection of sample is done with bare hands	Process	9001-2008 clause 7.2.1	
23	Government Supply MF-7 register for capturing record of Malaria test is not available	Malaria test record is maintained in normal register	Process	9001-2008 clause 7.2.1	
24	Technicians color blindness test has not been done	Technician doing various test which report depend on changing of color	Process	9001-2008 clause 7.2.1	
25	There is no complete information written on blood sample	Collected sample labeled with patient name, some time registration number, no date & time of collection on that sample this leads to miss reporting	Process	9001-2008 clause 7.2.1	
26	There is no health & safety training provided for relevant to their duties	Employees are unaware regarding their safety in their work environment which leads to occupational hazards this hamper the productivity of the employees and	Process	9001-2008 clause 7.2.1	

increase in load of hospital						
27	There is no departmental inspection carried out quarterly or annually	To access the compliance with health and safety standards, no departmental inspection is carried out from the hospital	Process	9001-2008 clause 7.2.1		
28	There is no procedure to reduce time of equipment	No timely procedure for equipment repairing & documentation for reporting of	Process	9001-2008 clause 7.2.1		
29	There is no designated person responsible for fire safety coordination	Because of this no fire safety measures are taken in whole hospital like fire extinguishers are in place but not refilled since 2003	Service	9001-2008 clause 7.2.1		
30	There is no expert advice on appropriateness of test, sample required and interpretation of abnormal report	Due to which accuracy of the result is affected, these leads to delay in treatment	Service	9001-2008 clause 7.2.1		
31	There is no proper labeling of the chemical reagents used in	While performing the lab test, reagents are kept in different containers without labeling which may lead to	Service	9001-2008 clause 7.2.1		

	the laboratory	error & accident		
32	There is no policy & availability of 'HAZMAT KIT'	No precautionary instructions or guidelines are available in case of hazardous chemical spillage	Service	9001-2008 clause 7.2.1, 6.2
33	There is no printed format available for investigation report	Lab technician notes down the result of the tests performed in the OPD slip or on a piece of paper in case of IPD patients	Service/resource	9001-2008 clause 7.2.1,6.3
32	Pathology service is not available round the clock	After 5 pm, laboratory is closed & primary tests like blood grouping & HB are carried out in the Blood Bank. No biochemistry test like urea , creatinine are available during emergency after 5 PM	Service	9001-2008 clause 7.2.1
33	No standard protocols of performing the laboratory test are displayed in the testing area	Work instructions of performing different test are not displayed	Service	9001-2008 clause 7.2.1
34	IPD sample collecting vials are reused for collecting patient urine sample	IPD sample collecting vials are washed in plain water for removing the labeling from the vials. Proper sample collection containers are not available	Service	9001-2008 clause 7.2.1,6.2

35	Laboratory equipments are not calibrated	The measuring equipments like calorimeter, water bath etc are not calibrated	Service	9001-2008 clause 7.2.1
36	There is no separate sample collection area in the laboratory	There is no demarcation or partition available in the laboratory separating the collection area for patient sample	infrastructure	9001-2008 clause 7.2.1

ECG

37	There is no separate ECG room	ECG procedure is taking place in OPD consultation area because of this privacy of patient affected.	infrastructure	9001-2008 clause 6.3
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1.0 Purpose:

The purpose of this procedure is to give efficient, timely and reliable report to the patient.

2.0 Scope:

The scope of this procedure is to provide reliable diagnostic output to all patients.

3.0 Reference:

Quality System Manual, QSM:01, Section 7.0

4.0 Details: role & responsibility within departmental staff with standard operating procedure.

table SOPS with role & responsibility.

S#	Activity	Responsibility	DOCUMENT REFERENCE
4.1	Radio Diagnostic Management		
4.1 .1	Radio diagnosis department includes following investigation in Sadar Hospital: a. Ultra Sound b. X Ray	Radio Diagnosis Department	-
4.1 .2	Department in charge or technician receives the OPD slip from OPD patient and X-ray Requisition form from ward for performing the investigation.	Technician	OPD slip /X-ray Requisition form F/JHA/HZA/GDH/SHH/ HCM-06/01
4.1 .3	Department In Charge or technician updates test and patient details in their Daily Registers for the purpose.	Department In Charge/ Technician	Daily X Ray /Sonography Register F/JHA/HZAGDH//SHH/ HCM-06/01 F/JHA/HZA/GDH/SHH/ HCM-06/07
4.1 .4	Department In charge or technician collects the applicable charges from patients for performing	Technician	

	the test.		
4.1.5	All diagnosis are performed by respective technicians & sent for reporting to radiologist and handing over to the concerned department/ward on the same day.	Radiologist/ Technicians	
4.1.6	Radiology Department maintains daily expenditure in stock register for consumables.	Technician	Stock register F/JHA/HZA/GD H/SHH /HCM- 06/03
4.1.7	The department maintains a property register for fixed assets.	Technician	Property register F/JHA/HZA/GD H/SHH/ HCM- 06/02
4.2	Pathology Department		
4.2.1	Doctor advices patient for Lab investigation on the OPD slip/ BHT. Nurse on duty enter the details in lab register and send it to the sample collection room.	Doctor/Nurse on duty	OPD Slip/ Lab Register/BHT F/JHA/HZA/GD H/SHH/ HCM- 01/01
4.2.2	Lab In charge/ Technician receives OPD slip from OPD patients or Lab register from wards for requisite test.	Pathologist/ Technician	OPD Slip/ Lab register F/JHA/HZA/GD H/SHH/ HCM-

			01/01
4.2 .3	Different types of Samples collected from patient as per the test prescribed by the doctor at sample collection counter	Lab In Charge/ Technician	

S#	Activity	Responsibility	DOCUMENT REFERENCE
4.2 .4	<p>Samples for various tests are collected in the laboratory of Sadar Hospital:</p> <ul style="list-style-type: none"> • Hematology • Bio chemistry/Serology • Urine/Stool R/E • Pregnancy test • Malaria kit 	Lab In Charge/ Technician	
4.2 .5	Examination of collected samples from patients is performed as per the guidelines	Lab In Charge/ Technician	
4.2 .6	All records of patient's tests are entered into the respective register like Hematology Register, Biochemistry/Serology register, Pregnancy test register etc	Lab In Charge/ Technician	Hematology, Biochemistry/ Serology, Urine R/E, Stool R/E, Pregnancy test registers
4.2 .7	Lab technician prepares a report according to test result.	Technician	
4.2 .8	Technician hands over investigation report to the respective ward and patients	Technician	
4.2 .9	The department maintains a master list of the equipment and the log book for vital and costly equipment as per the Equipment Management Policy	Technician In-Charge	Equipment master List

4.0 List of Guidelines:

Laboratory Safe Practices

Handling of Laboratory Samples

Lab Quality Assurance

General Work Instruction-Radiology Service

Radiation Safety Guideline

USG Work Instructions

GDL/JHA/HZA/GDH/SHH/HCM-06/06

Operation Theatre Management

In Bai Ganga Bai Women's Hospital Gondia, Operation Theater is situated on the ground floor, it is near to labor room, labor ward and Post surgery ward-1, so that in emergency patient can easily be shifted to OT from labor room and after operation patient can easily shifted to surgery ward Operation Theater . There is one major OT and septic OT having area 75.84 sq meters, 12.96 sq meter respectively. Septic OT is used for infectious patient like HIV, HbsAg positive. Two changing rooms are there, one for male and other for female.

Sterilization room is located adjacent to OT room having area 33.12 sq meters, separated by glass window in OT chamber. There are two autoclave machines, one vertical & other horizontal in CSSD and one gas stove for boiling instrument. There is only one door for flow of used & sterilized department. Used instrument from OT are washed in the wash basin situated outside CSSD. Washed instrument are placed in the boiling water on the gas stove. After boiling, separate drums are prepared for instrument sets and technician sticks the autoclave strip/ indicator on these drum. in single door loaded autoclave machine. All record of autoclave drum maintained in autoclave register with autoclave indicator strip in sister room in OT.

Equipment with different department maintains receiving record of autoclave with indicator strip in their respective department.

OT is staffed one sister in each shift supervise with In charge sister in morning shift.

A. Pre-Operative Procedure

Process Group	OT Management	Sub Process	Pre-operative procedure
Process Location	Labor ward/ Labor room	Process Owner	Ward Sister
Input(s)	Patient	Output(s)	Patient prepared for surgery

- If patient gets admitted in labor, attendant shift patient to the labor room from casualty, in labor room sister check the patient, does PV examination and if sister feels some complication in delivery of patient then she gives call to Doctor. Doctor examines the patient and give chance for normal delivery, if complication in normal delivery then doctor advice LSCS.
- If patient gets admitted in complicated labor then she directly shifted in OT for emergency LSCS .On daily doctors round, doctor advice sister to shift full term ANC patient in labor room for examination.
- Doctor explains the condition of patient to patients relative and decide to take patient for LSCS .Doctor inform sister to shift patient in OT for LSCS and writes on IPD case sheet.
- On daily doctor round, doctor instruct sister to shift ANC patient to labor room for examination ,if some complication in delivery then shift patient in OT for LSCS .Gynecological patients are shifted from labor room.

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- Sister put consent stamp on IPD paper and takes signature of patient relative, also writes high risk consent on IPD paper and takes sign of patient relative.
 - Sister withdraws blood and send to pathology with patient relative or attendant.
 - Sister gives test dose of xylocain to patient
 - Sister ask attendant to prepare patient, so attendant does shaving of private part of patient, gives OT dress to patient
 - If elective procedures (like hysterectomy etc) all investigations of patient done on OPD basis & patient goes herself to KTS hospital and take physician fitness from physician and gets admitted sister inform doctor orally.
 - Sister tell attendant to clean the private part of patient, attendant does the shaving of private parts of the patient.
 - Sister puts consent stamp on IPD case paper and ask patients relative and patient to sign on consent, if patient is risky then sister writes high risk consent on IPD case paper and explain to relative and take sign of relative and patient.
 - Sister give xylocain test dose to patient, inj.TT, antibiotic inj.& OT dress. and shift patient to OT with IPD case sheet.
 - For MTP (medical termination of pregnancy) sister fills “form C” i.e consent from the patient..

Process records	, Patient IPD case paper,
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B. Surgical Procedure

Process Group	OT Management	Sub Process	Surgical procedure
Process Location	Operation theatre	Process Owner	Surgeon/Anesthetist/Assisting sister
Input(s)	Prepared patient	Output(s)	Operated patient

- Patient comes in OT with IPD paper, sister ask her to lie down on OT table.
- Anesthetist examine the patient (BP ,pulse, heart rate, auscultate patient chest).and check IPD case paper i.e name, age, investigations, consent,
- In the mean time assisting sister wash hands and get scrubbed and enters in OT, wear autoclave gown.
- Sister prepare instrument trolley,(linen trolley, anesthesia trolley already prepared in morning).
- Surgeon wash hands and get scrubbed, were plastic gown and enters in OT, sister give him autoclave OT gown to were.
- Anesthetist cleans the patient and induces the patient.
- In the mean time doctor cover the patient with autoclave sheets and sister take out the instruments from trolley count it and keep it on patient lower limb.
- Anesthetist tells surgeon to start procedure, and then surgeon start to operate.
- When baby out, sister gives the baby in tray to attendant, she takes baby to

baby recitation room and clean the baby, does mouth suction and wrap in cloth.

- Before closing incision sister counts instrument and sponges.
- Anesthetist also monitor patient continuously.
- After suturing skin again sister check and count instruments and sponges, hemostat clamp.
- After surgery anesthetist writes anesthesia notes in notes sheet and in anesthesia register.
- Doctor writes surgery notes, post operative order in surgery notes sheet, and in surgeon register.
- Sister writes baby notes i.e mother name, time of birth, weight of baby etc and in surgery book.
- When patient gets conscious shifted to surgery ward on stricture.

Process records	Patient case sheet, anesthesia notes sheet, surgery notes sheet.
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C. Post Operative Procedure

Process Group	OT Management	Sub Process	Post operative procedure
Process Location	ICU room	Process Owner	Anesthetist/sister

			on duty
Input(s)	Operated patient	Output(s)	Patient shifted to ward

- After the operation the patient is transferred from the OT to the post operative ward for post Operative care.
- Surgeon writes operative notes on operative notes sheet i.e elective or emergency, name of patient, surgeon, assistant, anesthetist, anesthesia, indication, procedure, intra operative event ,treatment, also writes in surgery register i.e date, name of patient, registration number, age,sex, provisional diagnosis, procedure, anesthesia, anesthetist, surgeon, male/female child .
- Anesthetist writes anesthesia notes sheet i.e registration number, name of patient, age, sex, surgery, indication, assistant, anesthetist, date of surgery, preoperative notes, consent, NBM/Non NBM, GC, vitals, intra operative, post operative vitals, IV fluids.
- Anesthetist writes in anesthesia register i.e registration number, date, name, age, sex, indication, surgeon, male/female child, events during surgery.
- Sister enters detail of patient in surgery book i.e annual number, monthly number, name, age, sex, date, provisional diagnosis, surgeon, anesthetist, anesthesia, male/female child, baby notes etc.
- Sister writes baby notes on IPD case sheet, mother name, birth time, weight of baby, baby cried or not weather normal or not, and take foot impression on IPD case paper.
- As the patient becomes conscious, attendant shift the patient to surgery ward on Struthers
- After Tubectomy sister record in Tubectomy register.

- After MTP entry in MTP register.

Process records	Patient IPD paper, OT register, Anesthesia notes sheet,, surgery notes sheet, surgery register, anesthesia register, surgery book, Tubectomy register, MTP register.
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OPERATION THEATRE & CSSD

Sr No	Gap Statement	Rationale/ Explanation	Gap Classification	ISO 9001 clause
1	There is no system of OT list	There is no prior preparation of OT list day before surgery, doctors inform verbally to OT sister and to labor ward sister	process	9001 - 2008 clause 7.2.1
2	There is no PAC room in OT	Pre anesthetic checkup is done by anesthetist on OT table at the time of surgery	process	9001 - 2008 clause 7.2.1
3	There is no identification bracelet for operative patient	Patient is transferred from ward or labor room with IPD case sheet only.	process	9001 - 2008 clause 7.2

4	Linen and anesthesia trolley is prepared by sister in the morning	Both Trolley are prepared in morning and used throughout day	process	9001 - 2008 claus e 7.2.1
5	There are two OT tables in major OT.	If simultaneously two operations are going on patient may gets scared.	process/infr astructure	9001 - 2008 claus e 7.2.1 ,6.3
6	In OT shadow less light is not in operational condition	Hanging shadow less light is not working, instead of this low illuminating light is used.	resource/ser vice	9001 - 2008 claus e 7.2.1 ,6.2
7	OT table is not properly functioning	Difficulty in adjusting the height of table and giving proper position to patient, some time brick or paper is used for adjusting OT table	service	9001 - 2008 claus e 7.2.1
8	In OT warmer is not used.	No proper training is provided to OT staff.	service	9001 - 2008 claus e 7.2

9	There is no 24x7 running tap water in OT	Attendant bring water by bucket for hand washing and instruments	resource	9001 - 2008 claus e 6.2
10	There is no portable light in OT	During vaginal hysterectomy and DNC ceiling light is not sufficient for visualization.	resource	9001 - 2008 claus e 6.2
11	There is only one suction machine in main OT	Difficult to manage two surgery at the same time	resource	9001 - 2008 claus e 7.2.1 , 6.3
12	Mouth suction instrument available	During General anesthesia difficult to manage mouth secretion which leads to aspiration pneumonia.	resource	9001 - 2008 claus e 6.2
13	Septic OT is not equipped with necessary equipment	All necessary equipments are bring from major OT.	resource	9001 - 2008 claus e 6.2
14	Broken gas stove for boiling instrument	Broken gas with low flam intensity lead to increase the time for boiling and also improper cleaning of instrument	resource	9001 - 2008 claus e 6.2

15	There is no flash sterilizer present in CSSD	During surgery if one instrument is dropped then there no procedure to sterilized that instrument, other instrument have to remove form new drum.	resource	9001 - 2008 claus e 6.2
16	Common washbasin is used for hand washing and instrument washing	No dedicated scrubbing area for surgeon and sisters. Used instrument are also washed in same place	resource/pr ocess	9001 - 2008 claus e 7.2.1 ,6.2
17	In OT shadow less light is not operational condition	Hanging shadow less light is not working, instead of this low illuminating light is used.	Service/res ource	9001 - 2008 claus e 7.2.1 , 6.2
18	There is no zoning in Operation Theatre	There is no proper demarcation and awareness regarding zone like preventive, clean, sterilize	infrastructu re/process	9001 - 2008 claus e 7.2.1 , 6.3
19	There is no recovery room in OT	After surgery patient directly shifted to surgery ward	Infrastructu re	9001 - 2008 claus e 6.3

20	No electrical safety in waiting area of OT	The height of electric meter and wirings are at very low height which is very close to patient waiting chair	Infrastructure	9001 - 2008 clause 6.3
21	There is no wash basin inside CSSD	Instruments are washed outside CSSD where doctors washed their hand.	Infrastructure	9001 - 2008 clause 6.3
22	The instrument drying & inspecting area is very small	Very small area & is insufficient for inspecting , drying instrument to cope with daily load of CSSD	Infrastructure	9001 - 2008 clause 6.3
23	There is no space for storage of instrument or drum	After sterilization all instrument from different department are stored in main OT. According to need or demand instrument send to different department from main OT	Infrastructure	9001 - 2008 clause 6.3
24	Unidirectional flow of instrument or drum	Dirty and sterilized instrument or drum entry and exit rout is same	infrastructure re/process	9001 - 2008 clause 7.2.1 , 6.3
25	There is no checklist available before surgical procedure	These leads to error during and after surgical procedure	process	9001 - 2008 clause

				7.2.1
26	No system to check the functioning of equipments in the beginning of the day.	Before first case is induced there is no system to check the- <ul style="list-style-type: none"> • All equipments are functioning. • All required instruments are in working condition. • The lights are functioning. • The power back up is available. 	process	9001 - 2008 claus e 7.2.1
27	Infection control practices are not follows in the OT.	Nurse & Attendant do not change their cloth before entry & exit in the OT.	process	9001 - 2008 claus e 7.2.1
28	Patients are made to wait in the Pre op/Post op or Corridor till he/she is taken in to the OT.	Patient wait outside OT while other procedure is going on and also before shifting to ward	infrastructu re/ process	9001 - 2008 claus e 7.2.1 ,6.3
29	Doctors do not write surgery notes in the OT register.	Doctor writes surgery notes only in IPD case sheet but she does not writes the OT notes in the OT register which is completed by OT nurse.	process	9001 - 2008 claus e 7.2.1
30	No documentation record of receiving the patients	There is no record maintained of receiving the patient.	process	9001 - 2008 claus e

				7.2.1
				1
31	Record of cancelled surgeries is not maintained.	Since the record of cancelled surgeries is not maintained, so it becomes difficult to analysis the reason / cause for the cancellation of the surgeries.	Process	9001 - 2008 claus e 7.2.1

GAPS RESULT & FINDING:

1.0 Purpose:

The purpose of this procedure is to develop a system for managing Operation Theatre for quality patient care

2.0 Scope:

The scope of this procedure covers patients selected for surgical procedures

5.0 Reference:

Quality System Manual, QSM: 01, Section 7.0

**6.0 Details: role and responsibility of staff with standard operating procedure.
Table – SOPS of OT with role and responsibility.**

S#	Activity	Responsibility	DOCUMENT REFERENCE
4.1	Pre-operative care of Patients		
4.1.1	Staff Nurse receives Bed head ticket for the details of the patient.	Sister In Charge	Bed Head Ticket
4.1.2	Staff Nurse Inform OT attendant about the surgery of the patient. OT assistant takes the informed consent of the patient in the BHT	Doctor In-charge of Surgery	Bed Head ticket
4.1.3	OT Assistant ensures preparation of part for surgery.	OT Assistant	-
4.1.4	Anesthetist ensures that pre anesthesia check up of the patient is done and necessary pre-medication is also administered.	Anesthetist	
4.1.5	OT assistant checks the vitals, record and assists the anesthetist in Pre Anesthesia Check up.	OT Assistant	-
4.1.6	Surgeon ensures required investigations are done, blood is arranged, and patient is adequately prepared for surgery.	Surgeon	Reports
4.1.7	OT Assistant helps the patients to change the clothes, remove ornaments, Nail Polish, prosthesis, Dentures and hand over them to relatives in front of the patients.	OT Assistant	-
4.1.8	OT Assistant shifts the patient to the OT as per the OT schedule	OT Assistant	-
4.2	Operation Theater Management	Anesthetist, Surgeon	
4.2.1	OT Assistant ensures that all the items required for surgery are cleaned & properly sterilized & made available before the surgery.	Surgeon/ OT Assistant	Sterilization register F/MHA/HZA/GD H/SHH/HCM-

			03/05
4.2.2	Anesthetist ensures adequate analgesic and anesthesia and the surgeon ensures effective surgery.	Anesthetist and Surgeon	-
4.2.3	OT Assistant notes down all the drugs, which are used during surgery in the 'operation theatre consumable' OT Consumables Register	OT Assistant	Stock Register F/MHA/HZA/GD H/ SHH/HCM- 03/02
4.2.4	OT Assistant keeps a daily record of surgeries in Operation Theater Register	OT Assistant	OT Register F/MHA/HZA/GD H/ SHH/HCM- 03/01
4.2.5	Adequate monitoring of the patient is done throughout the surgery.	Anesthetist/ Surgeon	
4.2.6	OT Assistant covers the patient and help in transferring the patient to concerned ward. The responsibility of the OT staff ends only after the patient is taken over by the post-operative ward.	OT Assistant	
4.2.7	All linen and soiled gowns / towels are collected by dhobi from OT. All disposables / waste materials segregated in the designated color coded bins are collected and disposed.	OT Assistant/House keeping Staff	-
4.2.8	OT Assistant washes/clean/dries all instruments, equipment and gadgets and keep them in safe custody.	OT Assistant	-

LABOR ROOM

In Bai Gangabai Women Hospital, Gondia, labor room is located in ground floor which is near to OT , ANC , PNC ward and is staff by only one sister in each shift with in charge sister in morning shift. In labor ward one labor room is equipped with three labor table & one medicine trolley, suction machine etc. baby stabilization room is adjacent labor room equipped with incubator, phototherapy unit, suction machine etc. in the labor ward lobby area two bed are there for waiting of patient during examination and sister room which serve as nursing station for all that is ANC, PNC, labor room.

Labor Room Management

Process Group	Labor room	Sub-Process	Admission
Process Location	Labor room	Process Owner	Sister on duty
Input(s)	IPD ticket	Output(s)	No of patient admitted

Process Flow / Process Description

- Patient comes with labor pain and consults with the doctor in casualty/OPD.
- Doctor examines the patients and based on the condition takes decision to admit patient.
- Doctor advice admission to the patient and write notes and treatment on IPD paper. Patient relatives goes to the sister registration counter for the registration of the patients for Indoor admission along with OPD paper.
- In case of emergency or active labor condition Patient is directly shifted to labor room in a wheel chair by the attendant. Simultaneously patient's relative makes the IPD paper & goes to the labor room In-charge along with OPD paper.

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- Sister checks the IPD admission form & enter all detailed in admission register like name, age, date of admission, cast, occupation, income, referred and also enter all medicine order, name, registration no. into the GOB (General Order Book) register.
 - Sister count 'Foetal Heart Sound' by Foetoscope and also per vaginal examination.
 - In case of complication, sister gives a call to on duty doctor from her mobile phone.
 - By that time, sister collects the blood sample in plain & EDTA bulb for investigation and labels the sample by writing registration number & name of the patient. Sister writes the investigation to be done on the OPD paper, & hand it over to the patient relative.
 - Patient relative goes to laboratory & brings report written on OPD form.
 - In case of non active labor patient, patient have to go lab for blood collection & investigation.
 - After all assessment if patient having time for delivery then patient shifted to ANC ward.
 - The patient is called from ANC ward two hourly for FHS counting, if needed PV examination take place.
 - The situation in which normal delivery not possible patient shifted to operation theater after preoperative procedure like consonant form signature, xylocain test dose, injection TT, IV antibiotics ,shaving preparation etc
 - For case patient need tertiary care patient is referred to GMC or other hospital depends on will of patient along with referral slip with received signature from relative.
 - Depend on patient condition ambulatory facility provided by hospital free of cost.

Patient Records	IPD paper, GOB register
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	Investigation reports
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2. Delivery

Process Group	Labor room	Sub-Process	Delivery
Process Location	Labor room	Process Owner	Sister on duty
Input(s)	No of patient admitted in day	Output(s)	No. of normal deliveries in a day

Process Flow / Process Description

- As per doctor consultation, patient gets admitted in the labor ward.
- As early labor progresses, patient is shifted to the labor room by the attendant.
- In all normal situation sister performed delivery procedure baby out & cut umbilical cord by putting baby mother chest, placenta removed.
- if needed she took episiotomy cut and sutured it.
- By the time attendant take baby for suction, normal resuscitation,& clean the baby cotton cloth. Sister take foot print of baby in the IPD paper and made baby card by pre written stamp format and filled information in card.
- if baby cry immediately after birth then baby handover to relative by taking receiving signature from relative, receiving format written by sister in local language enclosing sex of child and also telling verbally by sister.
- Doctor write delivery note on pre design stamp format.
- In case baby not cry then patient transferred to NICU and put these record in transfer register(registration no, name, religion ,baby sex ,live birth/stillbirth, birth weight, id child cry within 1 minute ,etc).
- After delivery sister filled all information in the maternity register (sr no,

month no, maternity no, name, age, Para, DOA, PPH, type of delivery, conducted by, any referral etc).

- After delivery patient is shifted to the PNC ward in wheel chair or stretcher by attendant.
- In case of emergency in PNC ward sister called the doctor by phone or by written request in call book by attendant.
- Then doctor come & visit the patient other than round time.

Patient Records	Maternity register, IPD paper, Birth detail slip.
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Process Group	Labor room	Sub-Process	Discharge
Process Location	O&G ward	Process Owner	Gynecologist
Input(s)	No of patient admitted in day	Output(s)	No. of patient discharge in day

Process Flow / Process Description

- After Normal vaginal delivery patient shifted to PNC ward and after lower segment caesarean section patient shifted to surgery ward.
- The baby and mother are kept for in the ward for observation.
- Doctor examines the baby and mother and according to condition of both, doctor advises the discharge to patient, and writes on IPD paper for discharge.
- Sister in charge fills the discharge card, name, age, sex and doctor fills the condition of patient and writes on discharge treatment and sign.
- Sister gives discharge paper and birth slip to patient and enters in register.
- Then Mother and baby get discharge.

Patient Records	Discharge card , birth slip
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Process Group	Labor room	Sub-Process	Investigation
Process Location	Laboratory	Process Owner	Lab. Technician
Input(s)	No. of requisitions in a day-	Output(s)	No. of reports generate in a day-

Process Flow / Process Description

- Most commonly investigations are HIV and Hemoglobin, blood group, are done.
- Urine is most commonly done for LSCS.
- For these investigations, sister write on a OPD paper as requisition and send it to the laboratory by the patient relative's and attendant with the samples collected from the patient .
- Those samples are sent to the laboratory.
- Technician send reports to ward or relatives take the report from pathology.
Send to ward.

Patient Records	Investigation report.
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Process Group	Labor room	Sub-Process	Death
Process Location	Labor room	Process Owner	Doctor
Input(s)	No. of patients admitted in a month	Output(s)	No. of death occurred in a month

Process Flow / Process Description

1. After death of the patient, doctor on duty does the counseling of the patient relatives.
2. Doctor fills up the Medical certificate and sign for the cause of death
3. Sister gives one copy of the death certificate to the patient relative and one copy in hospital with sign of relative.
4. After completion of all these formalities the dead body is send to KTS hospital for post mortem then handed over to the patient relative, if patient relative are unwilling to do PM then consent is taken from them and body is handover to relatives.
5. Signature of the patient relative is taken on the backside of the death certificate copy that is retained by the hospital.
6. Sister also enters in the death register.
7. Body is transferred to home by ambulance.

Patient Records	Death certificate, Death registers.
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GAPS FINDING&RESULT

Labor Ward

Sr No	Gap Statement	Rationale/Explanation	Gap Classification	ISO 9001-2008 clause
1	In labor ward patient are not kept according to their	there are ANC and PNC patient are kept randomly, in labor room ,but	process	9001- 2008 clause 7.2.1

demarcation

2	Sister hand over baby to process	9001- 2008
	There is no patient relatives and take identificati sign of relatives, it may on tag for cause miss match of babies newborn babies in labor room	clause 7.2.1
3	There is no Only sister on duty process	9001- 2008
	medical conduct normal delivery officer or even episiotomy cut & pediatrician suturingetc. is available during delivery	clause 7.2.1
4	No security There is no security service process	9001- 2008
	service is available. Male persons available in are entering into the labor labor room. room for which privacy of the patient is not maintained in labor room. Multiple relatives stay in ANC & PNC wards	clause 7.2.1,6.1
5	Signature when sister hand over baby process	9001- 2008
	of mother only sign of patient relative is not taken is taken. on the IPD case sheet.	clause 7.2.1
6	Partograph : Partograph is either process	9001- 2008
	is not incompletely filled or in maintained some cases it is not filled at in labor all.	clause 7.2.1

	room				
7	There are no Precautions taken while handling baby.	Mausi clean baby and does mouth suction without wearing gloves	service	9001- clause 7.2.1	2008
8	ANC clinic conducted only one day in a week in the OPD.	ANC clinic is conducted only one day in a week in the OPD as a result patient send back without consultation if she come non ANC Clinic day	service	9001- clause 7.2.1	2008
9	Patient is shifted to the ward immediately after delivery	Normal delivery patient is supposed to be kept two hours and LSCS 6 hours in recovery area after delivery but she is shifted to the ward immediately	service/process	9001- clause 7.2.1	2008
10	There are no bed sheets available on patient bed	There are no fresh clean bed sheets available in the hospital as the dhobi is not available since last 4to 5 months. payment of dhobi has not cleared for the last one year	resource/service	9001- clause 7.2.1,6.2	2008
11	There is no curtain between three labor table	when three patients are on three table, patient may get scared, there is no privacy to patient	resource/process	9001- clause,6.2	2008
12	NO sterile tray or	Sister keep instrument on table	resource/process	9001- clause,6.2	2008

	cloth is used for keeping instruments for delivery				
13	: There are no essential equipments available in labor room	There is no foetal Doppler machine, BP apparatus, stethoscope, available in the labor room. At present Foetoscope is used to count foetal heart rate and BP apparatus, stethoscope are brought from OT if required	resource/proces s	9001- clause 6.2	2008
14	There is no examination room in labor room.	The pregnant lady is examined in the Labor table because there is no examination room to examine the pregnant lady	infrastructure	9001- clause ,6.3	2008
15	There is no proper place for storage of autoclave drum and emergency tray	There is a place for storage but not use to keep drums and emergency tray,	infrastructure	9001- clause,6.3	2008
16	Door of ANC ward is Broken	This may increase chance of theft in night time	infrastructure	9001- clause ,6.3	2008
17	There is no waiting	If patient has time for delivery then patient shifted to ANC room for waiting.	infrastructure	9001- clause ,6.3	2008

	room for ANC patient in labor room				
18	Eclamsia patients are There is no manage in ANC/PNC special wards eclamsia room	infrastructure	9001- clause ,6.3	2008	
19	There is no waiting area for No waiting the patients and their area for relatives, relatives and patients patient waiting outside relatives labor room in unhygienic condition	infrastructure	9001- clause ,6.3	2008	
20	There is no Cadaver is keep in iron box separate (shavpatika) in the store place to room of labor ward keep stillbirth cadaver till issue	resource/infrast ructure	9001- clause ,6.3	2008	
21	There is no Infected or sero positive septic labor patient get delivered on room or same table these leads to labor table chance of infection to other patient. average rate of positive delivery is 1-2 per month.	resource/infrast ructure	9001- clause ,6.3,6.2	2008	
22	In ANC IN case of emergency and PNC patient relative has to go to ward no labor room to call the sister. nursing	process/infrastr ucture	9001- clause 7.2.1, 6.3	2008	

station is
available

RECOMMENDATION:

Radiology and USG

Sr No	Gap Statement	Rationale/Explanation	Gap Classification	Recommendation
1	Precautionary signage board for pregnant women is not available in front of X ray room	Harmful radiation of X ray room dangerous for pregnant women	service	There should be precautionary signage board in local language for pregnant women.
2	Rate chart & working hour's chart, report time not displayed in the X-ray department	Patient are unaware regarding X rays charges & timing of X ray	service	There should be rate chart, working hour chart available outside x ray room.
3	Standard procedure not followed for conducting X rays for pregnant women	While conducting X ray of pregnant women, abdomen area is covered with cloth rather than lead shield for radiation safety precaution	service	There should be lead abdominal shield for carrying X ray in pregnant women.
4	Indicator of red bulb outside X ray room is not there	There is no indication/awareness to prevent patient flow at the time of X-ray . Patients come inside the X-ray room when the	service	There should be red bulb outside X ray room.

procedure is carried out

5	There is no power backup for X-ray machine	During load shedding no power back up to X ray machine due to which X ray service during get hampered & patient have to wait	service	There should be connection of generator backup at least in case of emergency.
6	Radiation protection is not supervised by radiologist and Hospital In charge	TLD badges are not used as there is no renewal of badges from BARC since 2008 because of no payment	service	There should be regular checking & renewal of TLD badges.
7	There is no MLC report format is available in X-ray department	MLC cases are recorded in general record register	process	MLC report format should be printed.
8	There is no quality assurance program for diagnostic services	There is no control over quality, department performance, number of redo's , service delivery , report time etc	process	There should be documented record number of redo's and also check time of reporting.
9	There is no patient preparation area in X-ray department	Patient is prepared in X-ray room only	infrastructure	On one side of X RAY room there should be small preparation & changing area.

10	There is no safe procedure for disposal of clinical, toxic and liquid waste	These waste directly disposed in wash basin from there it is drain in open drainage system without any treatment	infrastructure	There should be soak pit for disposable of toxic material.
11	In X-ray room glass of the door is broken	From broken glass door radioactive rays exposed to public area and also affect the patient privacy	infrastructure	New glass should be fit in the place of broken glass.
12	Doors, windows are not coated with lead paint	Doors and windows are directly open to public area; due to which public directly get exposed to harmful radioactive rays	infrastructure	At least public expose door and window should be coated with lead.
13	X-ray room location is close to public door	X-ray room is adjacent to public door, labor patient are shifted from the same door	infrastructure	There should be restrict public traffic in front of X ray room

Ultra Sonography

14	There is separate payment slip for X-ray and USG department	Common payment slip for X-ray & USG may lead to documentation error	process	There should be separate payment slip in x ray & OPD department.
15	USG service is not available 7 days in a week	There is only three specific days for USG (Monday, Wednesday, Friday) so on other days patient has to suffered	service	USG service should be alternate day on same ANC day.

16	There is no display for USG service days	Patients are unaware of day and time of USG department so patient has to visit the Hospital again and again	service	There should be display of USG service day & time.
17	NO patient privacy during USG procedure in USG department	No curtain is available in the door of USG room & bedside screen is insufficient to cover the patient bed	service	Curtain should be placed in USG room and also restrict entry.
18	There is no female attendant in Sonography department	PCPNDT Councilor carries the reporting as well as work of attendant.	resource	There should be female attendant at the time of USG.
19	There is no proper waiting area for USG and X-ray department	There are only three chairs available outside the X-ray and USG department so patients are directly enter inside department for waiting.	infrastructure	There should be arrangement of some more chairs to avoid overcrowding.
20	Sonography department is adjacent to X-ray department	Position of the X-ray tube is towards the wall which is common in both department (x-ray and Sonography	infrastructure	There should be LEAD shield covered wall in between X RAY & USG room wall.

LAB

21	Periodic external validations of laboratory reports are not conducted by the hospital	There is no quality check of the authenticity of the laboratory reports. If there is any doubt regarding the reports,	Process	There should be periodic external validation of report with documented
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	authority	doctor asks the patient to get it done from other private laboratories		record from renowned lab.
22	No protective equipments are used by the lab technician at the time of collection of patient sample	Lab technician do not wear gloves or masks at the time of collection of patient sample. Collection of sample is done with bare hands	Process	There should be use of disposable gloves.
23	Government Supply MF-7 register for capturing record of Malaria test is not available	Malaria test record is maintained in normal register	Process	MF_7 register should be maintain to record malaria.
24	Technicians color blindness test has not been done	Technician doing various test which report depend on changing of color	Process	At the time of recruitment there should be procedure for color blindness test for technicians in the lab.
25	There is no complete information written on blood sample	Collected sample labeled with patient name, some time registration number, no date & time of collection on that sample this leads to miss reporting	Process	There should be complete information about patient name, registration number, date of collection, ward name. For there random regular audit by higher

authority.

26 There is no health & safety training provided for relevant to their duties Employees are unaware regarding their safety in their work environment which leads to occupational hazards this hamper the productivity of the employees and increase in load of hospital Process There should be occupational health safety training at the time of recruitment and also quarterly, yearly compulsory training should be there to employees.

27 There is no departmental inspection carried quarterly or annually To access the compliance with health and safety standards, no departmental inspection is carried out from the hospital Process There should be quarterly, yearly departmental inspection with record of some issue & feedback with date, time.

28 There is no procedure to reduce down time of equipment No timely procedure for equipment repairing & documentation for reporting Process There should be procedure for timely complain with documented record with time of complain & actual get it in each steps.

29 There is no designated person responsible for fire safety Because of this no fire service safety measures are taken in whole hospital like fire extinguishers Process There should be one person who is responsible for fire safety

	coordination	are in place but not refilled since 2003		maintenance.
30	There is no expert clinical advice on appropriateness of test, sample required and interpretation of abnormal report	Due to which accuracy of the result is affected, these leads to delay in treatment	service	There should be expert advice or check up in case of abnormal report.
31	There is no proper labeling of the chemical reagents used in the laboratory	While performing the lab test, reagents are kept in different containers without labeling which may lead to error & accident	service	There should be proper labeling of chemical reagent along with there dilution, concentration, manufacturing, expiry with some danger symbol.
32	There is no policy & availability of 'HAZMAT KIT'	No precautionary instructions or guidelines are available in case of hazardous chemical spillage	service	There should be availability HAZMAT KIT with training about its usage.
33	There is no printed format available for investigation report	Lab technician notes down the result of the tests performed in the OPD slip or on a piece of paper in case of IPD patients	Service/resource	printed format for investigation report should be there.

32	Pathology service is not available round the clock	After 5 pm, laboratory is closed & primary tests like blood grouping & HB are carried out in the Blood Bank. No biochemistry test like urea , creatinine are available during emergency after 5 PM	service	There should be round clock pathology services for all test like creatinine, albumin, blood sugar, blood group.
33	No standard protocols of performing the laboratory test are displayed in the testing area	Work instructions of performing different test are not displayed	service	There should be work instruction for performing different test.
34	IPD sample collecting vials are reused for collecting patient urine sample	IPD sample collecting vials are washed in plain water for removing the labeling from the vials. Proper sample collection containers are not available	service	There should be no re use of sample.
35	Laboratory equipments are not calibrated	The measuring equipments like calorimeter, water bath etc are not calibrated	service	There should be daily, monthly, quarterly calibration of equipment with record.
36	There is no separate sample collection area in the laboratory	There is no demarcation or partition available in the laboratory separating the collection area for patient sample	infrastructure	There should be small demarcated sample collection area away from testing area.

ECG

- 37 There is no ECG procedure is taking infrastructure There should be separate ECG place in OPD separate ECG room consultation area room. because of this privacy of patient affected.

OPERATION

THEATRE & CSSD

- 1 There is no system of OT list There is no prior process preparation of OT list day before surgery, doctors inform verbally to OT sister and to labor ward sister As most of surgeries are Emergency but one day prior at least estimate list should be prepared by doctors.
- 2 There is no PAC room in OT Pre anesthetic checkup process is done by anesthetist on OT table at the time of surgery PAC procedure can be done in recovery room.
- 3 There is no Patient identification bracelet for operative patient Patient is transferred from ward or labor room with IPD case sheet only. There should be identification bracelet in patient hand containing name, registration number, ward name.
- 4 Linen and anesthesia trolley is prepared by sister in the morning Both Trolley are prepared in morning and used throughout day process Linen anesthesia trolley prepared at the time of surgery.

5	There are two OT tables in major OT.	If simultaneously two operations are going on patient may gets scared.	process/infrast ructure	There should be partition in between OT table.
6	In OT shadow less light is not in operational condition	Hanging shadow less light is not working, instead of this low illuminating light is used.	resource/servi ce	There should be arrangement of shadow less light in OT having light intensity 10000 lux.
7	OT table is not properly functioning	Difficulty in adjusting the height of table and giving proper position to patient, some time brick or paper is used for adjusting OT table	service	OT table should be repaired or change.
8	In OT warmer is not used.	No proper training is provided to OT staff.	service	Pediatric warmer should be used in OT.
9	There is no 24x7 running tap water in OT	Attendant bring water by bucket for hand washing and instruments	resource	There should be separate chlorinated water supply round cloak.
10	There is no portable light in OT	During vaginal hysterectomy and DNC ceiling light is not sufficient for visualization.	resource	There should be availability one portable light inside OT.

11	There is only one suction machine in main OT	Difficult to manage two surgery at the same time	resource	There should be two suction machine with working condition for two OT table.
12	Mouth suction instrument not available	During anesthesia difficult to manage mouth secretion which leads to aspiration pneumonia.	General resource	There should be availability of mouth suction equipment.
13	Septic OT is not equipped with necessary equipment	All equipments are bringing from major OT.	necessary resource	Septic OT should be equipped with minimum necessary equipment.
14	Broken gas stove for boiling instrument.	Broken gas with low flam intensity lead to increase the time for boiling and also improper cleaning of instrument	low resource	There should be high flam stove inside CSSD.
15	There is no flash sterilizer present in CSSD	During surgery if one instrument is dropped then there no procedure to sterilize that instrument, other instrument has to remove form new drum.	resource	There should be availability of flash sterilizer.
16	Common washbasin is used for hand washing and instrument washing	No dedicated scrubbing area for surgeon and sisters. Used instrument are also washed in same place	resource/proce ss	There should be separate wash basin for scrubbing.

17	In OT shadow less light is not in operational condition	Hanging shadow less light is not working, instead of this low illuminating light is used.	Service/resour ce	There should be availability of high illuminating shadow less light .
18	There is no zoning in Operation Theatre	There is no proper demarcation and awareness regarding zone like preventive, clean, sterilize	infrastructure/ process	Demarcated zoning should be there.
18	There is no recovery room in OT	After surgery patient directly shifted to surgery ward	infrastructure	There should be at least two bed recovery room inside OT.
19	No electrical safety in waiting area of OT	The height of electric meter and wirings are at very low height which is very close to patient waiting chair	infrastructure	Main electrical circuit which is place in waiting area should be covered if possible place should be change.
20	There is no wash basin inside CSSD	Instruments are washed outside CSSD where doctors washed their hand.	infrastructure	There should be one wash basin inside CSSD to clean dirty instrument.
21	The instrument drying & inspecting area is very small	Very small area & is insufficient for inspecting , drying instrument to cope with daily load of CSSD	infrastructure	Drying, inspecting area should be extend with high illuminating light.

22	There is no space for storage of instrument or drum	After sterilization all instrument from different department are stored in main OT. According to need or demand instrument send to different department from main OT	infrastructure	There should be one rack inside CSSD to keep sterilize equipment.
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23	Unidirectional flow of instrument or drum	Dirty and sterilized instrument or drum and exit rout is same	infrastructure/ process	There is glass window in between OT & CSSD these way can be used for sterilize supply to OT these make bidirectional way.
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24	There is no checklist available before surgical procedure	These leads to error during and after surgical procedure	process	There should be availability of check list pre op, during, post op surgery.
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25	No system to check the functioning of equipments in the beginning of the day.	Before first case is induced there is no system to check the functioning. <ul style="list-style-type: none"> • All equipments are functioning. • All required instruments are in working condition. • The lights are functioning. • The power back up is 	process	There should be system of daily calibration, functioning of equipment with documented record.
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available.

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|----|--|--|-------------------------|---|
| 26 | Infection control practices are not follows in the OT. | Nurse & Attendant do not change their cloth before entry & exit in the OT. | process | There should be strict policy for precautionary measure before entry or exit. |
| 27 | Patients are made to wait in the Pre op/Post op or Corridor till he/she is taken in to the OT. | Patient wait outside OT while other procedure is going on and also before shifting to ward | infrastructure/ process | There should be separate pre/ post operation area inside OT. |
| 28 | Doctors do not write surgery notes in the OT register. | Doctor writes surgery notes only in IPD case sheet but she does not writes the OT notes in the OT register which is completed by OT nurse. | process | Doctors should write OT notes into OT register & IPD case paper and it should be monitored by OT In charge or other higher authority. |
| 29 | No documentation record of receiving the patients | There is no record maintained of receiving the patient. | process | There should be documented record for receiving patient. |
| 30 | Record of cancelled surgeries is not maintained. | Since the record of cancelled surgeries is not maintained, so it becomes difficult to analysis the reason / cause for the cancellation of the surgeries. | process | There should be documented record with reason for cancellation of surgery. |

Labor Ward

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|---|--|---------|---|
| 1 | There are ANC and PNC process
In labor ward room in labor room ,but patient are not patient are kept kept according to randomly, their demarcation | process | Patient should be kept as per demarcation with providing bed number. |
| 2 | Sister hand over baby to process
There is no patient relatives and take identification tag sign of relatives, it may for newborn cause miss match of babies in labor babies room | process | There should be identification tag with complete information to baby. |
| 3 | There is no Only sister on duty process
medical officer or conduct normal delivery pediatrician is even episiotomy cut & available during suturingetc. delivery | process | There should be availability of medical officer at the time of delivery. |
| 4 | No security There is no security process
service available service is available. Male persons are entering into the labor room for which privacy of the patient is not maintained in labor room. Multiple relatives stay in ANC & PNC wards | process | There should be availability of security service or control by attendant. |
| 5 | Signature of When sister hand over process
mother is not baby only sign of patient taken on the IPD relative is taken. case sheet. | process | Baby should be handover after mothers stabilize with taking signature of |

mother.

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|---|---|--|----------------|--|
| 6 | Partograph is not maintained in labor room | Partograph is either incompletely filled or in some cases it is not filled at all. | process | There should be regular monitoring of Partograph maintenance by in charge sister. |
| 7 | There are no Precautions taken while handling baby. | Mausi clean baby and does mouth suction without wearing gloves | service | There should SOPs for handling baby like with gloves, use of sanitizer before handling, use of pre warm cloth etc. |
| 8 | ANC clinic conducted only one day in a week in the OPD. | ANC clinic is conducted only one day in a week in the OPD as a result patient send back without consultation if she come non ANC Clinic day | service | There should be alternate day ANC clinic. |
| 9 | Patient is shifted to the ward immediately after delivery | Normal delivery patient is supposed to be kept two hours and LSCS 6 hours in recovery area after delivery but she is shifted to the ward immediately | service/proces | There should be area to stabilize delivery patient immediately after delivery. |

10	There are no bed sheets available on patient bed	There are no fresh clean bed sheets available in the hospital as the dhobi is not available since last 4to 5 months. payment of dhobi has not cleared for the last one year	resource/servi ce	There should be availability of clean bed sheet changing with regular interval with record maintenance with taking patient signature.
11	There is no curtain in between three labor table	when three patients are on three table, patient may get scared, there is no privacy to patient	resource/proce ss	There should availability of curtain in between labor table.
12	NO sterile tray or cloth is used for keeping instruments for delivery	Sister keep instrument on table	resource/proce ss	Instrument should be keep in sterile cloth or tray.
13	: There are no essential equipments available in labor room	There is no foetal Doppler machine, BP apparatus, stethoscope, available in the labor room. At present Foetoscope is used to count foetal heart rate and BP apparatus, stethoscope are brought from OT if required	resource/proce ss	There should be availability of foetal Doppler machine, BP apparatus, stethoscope.
14	There is no examination room in labor room.	The pregnant lady is examined in the Labor table because there is no examination room to examine the pregnant	infrastructure	There should be small examination room.

lady

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|----|---|---|--------------------------|---|
| 15 | There is no proper place for storage of autoclave drum and emergency tray | There is a place for storage but not use to keep drums and emergency tray, | infrastructure | Storage place should be utilized for storage of drum. |
| 16 | Door of ANC ward is Broken | This may increase chance of theft in night time | infrastructure | Door should be repaired. |
| 17 | There is no waiting room for ANC patient in labor room | If patient has time for delivery then patient shifted to ANC room for waiting. | infrastructure | There should be 3-4 bed in the labor room for active labor patient. |
| 18 | There is no special eclamsia room | Eclamsia patients are manage in ANC/PNC wards | infrastructure | There should be separate eclamsia room in labor ward. |
| 19 | No waiting area for patients and relatives | There is no waiting area for the patients and their relatives, relatives and patient waiting outside labor room in unhygienic condition | infrastructure | Waiting area should be clean furnished by chairs, mandir. |
| 20 | There is no separate place to keep stillbirth cadaver till issue | Cadaver is keep in box (shavpatika) in the store room of labor ward | resource/infras tructure | There should be separate place , clean box available to keep still birth cadaver. |

21	There is no septic labor room or labor table	Infected or sero positive patient get delivered on same table these leads to chance of infection to other patient. average rate of positive delivery is 1-2 per month.	resource/infras tructure	There should be one dedicated labor table in labor room.
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CONCLUSION

An honest effort has been met to study above mention process of BGW hospital Gondia and also to analyze current system & its bottle neck. The hospital shall strive to provide promotive, preventive and curative health services to public in the district with sustain effort to ensure that is equitable, affordable, accountable & responsive to the needs of the people with limited resources. The hospital shall build & upgrade competencies of the people involved in service delivery to keep current with changing professional requirements and to overcome emerging challenges in the field of public health care. Finally quality assurance program in public health facility is unique concept if properly implemented then hospital authority can easily reach optimum level of success in providing quality healthcare services to the community.

REFERENCES

- ISO Standard 9001- 2008.
- Family friendly checklist
- Quality circle checklist
- IPHS guideline checklist & guidelines.

ANNEXURE

I. IMAGING EQUIPMENT

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (No.)	GAP	STATUS (F/NF)	REPAIRABLE/ NOT REPAIRABLE	CALIBRATION	REMARKS
1	500 M.A. X-ray machine*	1	0	1				
2	300 M.A. X-ray machine	1	1		F			
3	100 M.A. X-ray machine	1	1		F			
4	60 M.A. X-ray machine	1	0					
5	C arm with accessories *	1 (desirable)	0					
6	Dental X ray machine	1	0					
7	Ultra Sonogram (Obs & Gyne. Department should be having a separate ultra sound machine of its own)	1+1	1		F			
8	Doppler ultrasound	1 (Desirable)	0					
9	Portable ultrasound	1 (Desirable)	0					
10	C.T. Scan Multi slice	1 (Desirable)	1		F			
11	Mammography Unit *	1 (Desirable)	0					
12	Echocardiogram*	1 Desirable)	1		F			
Note: Xray machines should preferably be Digital		* To be provided as per need.						

II. X RAY ROOM ACCESSORIES

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (No.)	GAP	STATUS (F/NF)			REMARKS
1	X.ray developing tank	1	6		F			
2	Safe light X.ray dark room	2	1	1	F			
3	Cassettes X.ray	12	30		F			
4	X.ray lobby single	6	0					
5	X.ray lobby Multiple	1	0					
6	Lead Apron	2	1	1	F			
7	Intensifying screen X-ray	1	3		F			
8	Dosimeter	3	6		F			

Note :-Power backup are not present in X-Ray department & ultrasound department

Equipments for Ecclampsia Room Department not available

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (No.)	GAP	STATUS (F/NF)	REPAIRABLE/ NOT REPAIRABLE	CALIBRATION	REMARKS
1	ICU Beds		N/A					
2	Emergency Resuscitation Tray (Adult) including intubation equipment		N/A					
3	B.P.Appartus		N/A					
4	Cardiac Monitor		N/A					
5	Pulse Oximeter		N/A					
6	Airway (Female)		N/A					

7	Nebuliser		N/A					
8	Oxygen supply(central)		N/A					
9	Suction Apparatus (Electrical)		N/A					
10	Suction Apparatus (Foot)		N/A					
11	Wall Clock		N/A					
12	Torch		N/A					
13	Emergency call bell		N/A					
14	Stethoscope		N/A					

B	General Equipments for SNCU	STANDARD REQUIREMENT	AVAILA BLE (No.)	GAP	STAT US (F/NF)	REPAIRA BLE/ NOT REPAIRA BLE	CALIBRA TION	REMA RKS
1	Electric heater / boiler		N/A					
2	Washing machine with dryer(separate)		N/A					
3	Electronic fumigator		N/A					
4	Vacuum Cleaner		N/A					
5	Gowns for doctors, nurses, neonatal aides, Group D,staff &mother		N/A					
6	Washable slippers		N/A					
7	Vertical Autoclave		N/A					

8	Autoclave drums (large & medium & small sizes)		N/A					
9	Disinfectant Sprayer		N/A					
10	Container for liquid disinfectant		N/A					
11	Formalin Vaporizer		N/A					
12	Hot Air Oven		N/A					
13	Ethylene oxide (ETO) Sterilizer							



For Monitoring and Effective programme management for immunization following are to be used

S/N	Group	STANDARD REQUIREMENT	AVAILA BLE (Yes/No)	Status , if available	Reason, if not available			REMARKS
1	REGISTERS	Immunization register						
		Vaccine stock & issue register						
		AD Syringes, Reconstitution syringes, other logistic stock & issue register						
		Equipment, furniture & other accessories register						
		Geneset Logbook						
		Tracking Bag and Tickler Box						

2	MONITORING TOOLS	Tally sheets						
		Immunization cards						
		Temperature Logbook						
		Microplans						
3	REPORTS	Monthly UIP reports						
		Weekly surveillance reports (AFP, Measles)						
		Serious AEFI reports						
		Outbreak reports						

**OPERATION
THEATRE
EQUIPMENT**

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (NO.)	GAP	STATUS (F/NF)	REPAIRABLE/ NOT REPAIRABLE	CALIBRATION	REMARKS
1	Auto Clave HP Horizontal	1	0	1				
2	Auto Clave HP Vertical (2 bin)	2	1	1	F			
3	Operation Table Ordinary Paediatric*							

4	Operation Table Hydraulic Major	2	0					
5	Operation table Hydraulic Minor	2	4		F			
6	Operating table non- hydraulic field type	1	0					
7	Operating table Orthopedic *		1		F			
8	Autoclave with Burners 2 bin		0					
9	Autoclave vertical single bin	1	0					
10	Shadowless lamp ceiling type major* 3	1	0					
11	Shadowless lamp ceiling type minor* 2	1	0					
12	Shadowless Lamp stand model	1	1		F			
13	Focus lamp Ordinary	2	0					
14	Diathermy Machine (Electric Cautery)	2	1		F			
15	Suction Apparatus - Electrical	3	3		F			
16	Suction Apparatus - Foot operated	3	0					
17	Dehumidifier*	2	0					
18	Dosimetered Narrow band UV-B lamp – machine for urb photo therapy	1	0					
19	Ultra violet lamp philips model 4 feet	1	0					
20	Ethylene Oxide	4	0					

	sterilizer*							
21	Microwave sterilizer*	3	0					
22	Intense Pulse Light Machine	1	0					
23	Ultrasonic cutting and coagulation	4	0					
24	Plasma Sterilizer	1 desirable	0					
25	Ultrasonic cleaner	1	0					

*** To be provided as per need**

**X.
LABORATORY
EQUIPMENTS**

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (NO.)	GAP	STATU S (F/NF)	REPAIRA BLE/ NOT REPAIRA BLE	CALIBRAT ION	REMA RKS
1	Binocular Mircroscope	6	5	1	3 F	2 Repairment		
2	Chemical Balances	2	0	2				
3	Simple balances	2	0	2				
4	Electric Colorimeter	2	3		2 F			
5	Auto analyser *	1	0	1				
6	Semi auto analyser	1	1		NF			
7	Micro pipettes of different volume range	10	10					
8	Water bath	2	4	2	1F			
9	Hot Air oven*	3	1	2	F			
10	Lab Incubator*	3	1	2	F			
11	Distilled water plant	2	0	2	F			
12	Electri centrifuge table top	3	3	3	2 F			
13	Cell Counter Electronic*	1	2	1	F			
14	Hot plates	3	0	3	F			

15	Rotor / Shaker	3	1	2	NF			
16	Counting chamber	3	1	2	F			
17	PH meter	2	0	2	F			
18	Paediatric Glucometer/ Bilirubinometer	1	0	1				
19	Glucometer	2	0	2				
20	20 Haemoglobinometer	2	9		F			
21	21 TCDC count apparatus	1	0	1				
22	22 ESR stand with tubes	4	4	2	F			
23	Test tube stands *	Jan-00						
24	Test tube rack *	Jan-00						
25	Test tube holders*	6	3	3	F			
26	Spirit lamps*	8	0	8				
27	Microtome*	1	0	1				
28	Oven (Wax embedding)*	1	0	1				
29	Tissue processor*	1	0	1				
30	Timer stop watch	2	1	1	F			
31	Alarm clock	1	0	1				
32	Elisa Reader cum washer	1	0					
33	Blood gas analyser*	1	0					
34	Blood Component Separator	1	0					
35	Biosafety Cabinet	1	0					
36	Refrigerators	4	2	2	F			
37	Platelet Agetator	1	0					
38	Platelet Thawing Machine	1	0					
39	Laboratory Autoclaves	4	0	4				
40	Laminar Flow		0					
41	Automatic Blood Gas	1	0	1				

	Analyzer							
42	Fine Needle Aspiration Cytology	1	0	1				
43	Histopathology Equipments	1	1		NF			
44a**	Pipette – 1 ml & 5 ml		1ml-8,5ml-3		F			
b	Burette 10 ml.		0					
b	Conical Flask		1		F			
c	Biker/Glass bottles		10		F			
d	Glass or plastic funnel		4		F			
e	Glass stirring rod		0					
f	Small stainless steel bowl		0					
g	Electronic weighing scale		0					
h	Measuring cylinder		9		F			
i	Gas Burner		0					
j	Laboratory balance		0					
k	Stop watch, Cyclomixer		1		F			
l	Micro pipette 10-100 ml:10-200ml		10		F			
m	Micro Tips		300		F			
n	Micro Tips		0					
o	Centrifuge, Oven		0					
p	Bath Serological		0					
q	Digital calorie meter		2		F			
r	Stirrer with stainless steel stirring rod		0					
s	Digital electronic temperature controller		0					
45i***	Ion – meter Table Top (specific for fluoride estimation in		0					

	biological fluid)							
ii	Table Top Centrifuge without refrigeration		0					
iii	Digital PH Meter		0					
iv	Metaler Balance		0					
v	Mixer		0					
vi	Incubator Pipettes / Micropipettes		0					
46	CO Analyser		0					
47	Dry Biochemistry	1 (Desirable)	0	1				
48	Auto Embedic Station *	1	0	1				
49	Electrolyte Analyser	1	0	1				
50	Glycosylated Haemoglobin ometer	1	0	1				
51	Haematology Analyser with 22 parameters	1	0	1				
52	Blood Collection Monitor	1	0	1				
53	Blood Bank Refrigerator	4		4				
54	Floatation Bath	1	0	1				
55	Emergency Drug Trolley with auto cylinder	1	0	1				
56	Dialected Tube Scaler		0					
57	Class – I Bio Safety Cabinet	1	0	1				
58	Knife Sharpner	1	0	1				
59	Air Conditioner with Stabilizer	1	0	1				
60	Cyto Spin	1	0	1				
61	RO Plant	1	0	1				

62	Computer with UPS and Printer	1	0	1				
63	Whole Blood Finger Prick HIV Rapid Test and STI Screening Test each	4000	0	4000				

*** To be provided as per need**

Power backup no available

XI. SURGICAL EQUIPMENT SETS

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (NO.)	GAP	STATUS (F/NF)	REPAIRABLE/ NOT REPAIRABLE	CALIBRATION	REMARKS
1	P.S.set	2	0	2				
2	MTP Set (Including Suction Cannula size 6-12	2	0	2				
3	EB Set	5	0	5				
4	Microscope (Gynae for wet smear and PCT)	1	0	1				
5	Biopsy Cervical Set*	2	0	2				
6	D & C Set	2	0	2				
7	I.U.C.D. Kit	2	0	2				
8	LSCS set	5	0	5				
9	MVA Kit	2	0	2				
10	Vaginal Hysterectomy	2	0	2				
11	Proctoscopy Set*	2	0	2				
12	P.V. Tray*	2	0	2				
13	Abdominal Hysterectomy set	2	1	1	F			
14	Laparotomy Set	2	2		F			
15	Formaline dispenser	3	2	1	F			
16	Kick bucket	8	6	2	F			

17	General Surgical Instrument Set Piles, Fistula, Fissure*	2	2	5	F			
18	Knee hammer	5	0	5				
19	Hernia, Hydrocele*	2	2		F			
20	Varicose vein etc*	1	0	1				
21	Gynaec Electric Cautery	1	0	1				
22	Vaginal Examination set*	8	0	8				
23	Suturing Set*	Jan-00	3	2	F			
24	MTP suction apparatus	Jan-00	0	1				
25	Thoracotomy set	1	0	1				
26	Neuro Surgery Craniotomy Set	1	0	1				
27	I M Nailing Kit	1	0	1				
28	SP Nailing	1	0	1				
29	Compression Plating Kit*	1	0	1				
30	AM Prosthesis*	1	1		F			
31	Dislocation Hip Screw Fixation*	1	0	1				
32	Fixation Fracture Hip	1	0	1				
33	Spinal Column Back Operation Set	1	0	1				
34	Thomas Splint	7	3	4	F			
35	Paediatric Surgery Set	1	0	1				
36	Mini Surgery Set*	2	1	1	F			
37	Urology Kit	1	0	1				
38	Surgical Package for Cholecystectomy*	1	0	1				
39	Surgical package for	1	0	1				

	Thyroid							
40	GI Operation Set*	2	0	2				
41	41 Appendicectomy set *	2	0	2				
42	42 L.P.Tray*	5	1	4	F			
43	43 Urethral Dilator Set	4	2	2	F			
44	44 TURP resectoscope *	1	0	1				
45	Haemodialysis Machine *	Desirable	0					
46	Amputation set	1	2		F			
47	Universal Bone Drill	Desirable	1		F			
48	Crammer wire splints	8	0	8				
49	Heamodialysis machine	2	0	2				
50	IUCD -5 Nos	5	0	5				
51	Minilap sets-	3	0	3				
52	NSV sets-	3	2	1	F			
53	Colposcope	1	0	1				
54	Cryoprobe	1	0	1				
55	Skin Biopsy Sets	5	0	5				

**ANAESTHESIA
EQUIPMENT**

S.NO	Name of the Equipment	STANDARD REQUIREMENT	AVAILABLE (NO.)	GAP	STATUS (F/NF)	REPAIRABLE/ NOT REPAIRABLE	CALIBRATION	REMARKS
1	Anesthetic - laryngoscope magills with four blades	3	2	1	F			
2	Endo tracheal tubes sets	2	1	1	F			
3	Magills forceps (two sizes)	6	1	5	F			
4	Connector set of six for	6	0	6				

E.T.T								
5	Tubes connecting for ETT	6	0	6				
6	Air way female*	10	4	6	F			
7	Air way male*	20	0	20				
8	Mouth prop*	8	0	8				
9	Tongue depressors*	10	1	9	F			
10	O2 cylinder for Boyles	10	4	6	F			
11	N2O Cylinder for Boyles	10	3	7	F			
12	CO2 cylinder for laparoscope*	10	0	10				
13	PFT machine	1	0	1				
14	Boyles Apparatus with Fluotec and circle absorber	1	2		F			
15	Exchange Transfusion Sets*	As per need	0					

*** - to be provided as per need**

2	Blood Bank Refrigerator	N/A						
3	ILR	N/A						
4	Deep Freezer	N/A						
5	Spare ice pack box	N/A						
6	Room Heater/Cooler for immunization clinic with electrical fittings	N/A						
7	Waste disposal twin bucket, hypochlorite solution/bleach	N/A						

8	Freeze Tag	N/A						
9	Thermometers Alcohol (stem)	N/A						
10	Almirah for Vaccine logistics	N/A						
11	Almirah for vaccine logistics	N/A						
12	Immunization table	N/A						
13	Chair for new staff proposed	N/A						
14	Stools for immunization room	N/A						
15	Bench for waiting area	N/A						
16	Dustbin with lid	N/A						
17	Water container	N/A						
18	Hub cutters	N/A						
19	5 KVA Generator with POL for	N/A						
20	Coolers*	N/A						
21	Air conditioners	N/A						
22	Central A/C for OT	N/A						

* One cooler per 8 beds in the wards