Summer placement

In

Columbia Asia hospital Ghaziabad

(April 2 to 31may 2015)

A Report

By

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MBA Hospital and Health Management

2014-2016

Institute of Health Management Research, Jaipur

Under the guidance

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that the study on Gap Analysis in OT Department, Clinical Audit of OT & ICU, and Process Audit of CSSD at Columbia Asia Hospital, Ghaziabad has been done and submitted by Dr Ritu Chaudhary, a student of Masters of Business Administration in Hospital and Health Management-19 th Batch from Institute Of Health Management and Research, Jaipur.

The study project was prepared in the internship period from April 2, 2015 to May 31, 2015 at Columbia Asia Hospital, Ghaziabad. This is her original work.

I wish her all success for her future endeavors.

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COLUMBIA ASIA

1st June, 2015

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Ritu Chaudhary** has completed **Two** months training in the department of **Operation Theatre (OT)** at **Columbia Asia Hospital-Ghaziabad.** W.e.f 2nd **April 2015 to 31th May 2015.**

During this tenure with us we found her to be diligent and hardworking.

We wish her all the best in her future endeavors.

Yours Sincerely,

For Columbia Asia Hospital - Ghaziabad

Himanshu
Manager Human Resources

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At the onset of the report I would like to express my special gratitude and appreciation Mr Gaurav Sharma (GM) for allowing me to pursue my summer internship from Columbia Asia hospital Ghaziabad.

I would also like to acknowledge with much appreciation the crucial role of my mentor Dr Sudhir Kumar(CMS) , Akhilendra Kumar (operation manager),Who despite of other busy work and schedule was there to guide me and whose stimulating suggestions and encouragement helped me to complete my training

This training would not have been completed without a substantial support from Dr.pawan Kumar and all Doctors and staff members in operation theatre department.

I would also like to thank my institution and faculty members without whom this project would have been a distant reality.

I express my gratitude and respectful regards to my mentor Professor Dr. Suresh Joshi , IIHMR, Jaipur for the guidance.

Finally, and most importantly, I would like to thank God for allowing me to complete my project, my beloved parents and family for their blessing and my friends for their help and wishes for the successful completion of this training.

Dr. Ritu chaudhary

1st yr MBAHM

IIHMR Jaipur

Table of Contents:

ABBREVIATION:

OT-Operation theatre

OPD-out patient department

H.R-Human resource department

PT-patient

PAC-pre anaesthesia check up

PRE-OP- pre operative area

POST-OP- post operative area

INTRA –OP- intra operative area

ICU- intensive care unit

Sign in- pt time inside OT

IPD- In patient department

OR-Operating room

MRN number-pt registration number

WHO-world health organization

CA-clinical audit

ICU- intensive care unit

OT-operation theatre

CSSD- central sterile sterilization department

A REPORT ON OBSERVATIONAL LEARNING:

Introduction:

It is a hundred bedded multispeciality hospital situated in Ghaziabad. It is operational since September 2010. The floor plan of hospital is as follows:

Basement Floor: Support service department, Human resource Dept, Biomedical and engineering, IT, Purchase, General Stores, Linen & Laundry, MRD.

Ground floor: Registration, OPD, Customer care department, Marketing, Cafeteria, Emergency, Laboratory, Radiology, Finance, General pharmacy, Billing, Dietary department, Internal audit.

First floor: Endoscopy, physiotherapy, Nursing station, Labour room, cath lab, NICU, IPD, Dialysis.

Second Floor: OT, ICU, CSSD

Specific Objective: To describe the observational learning of different departments of the hospital.

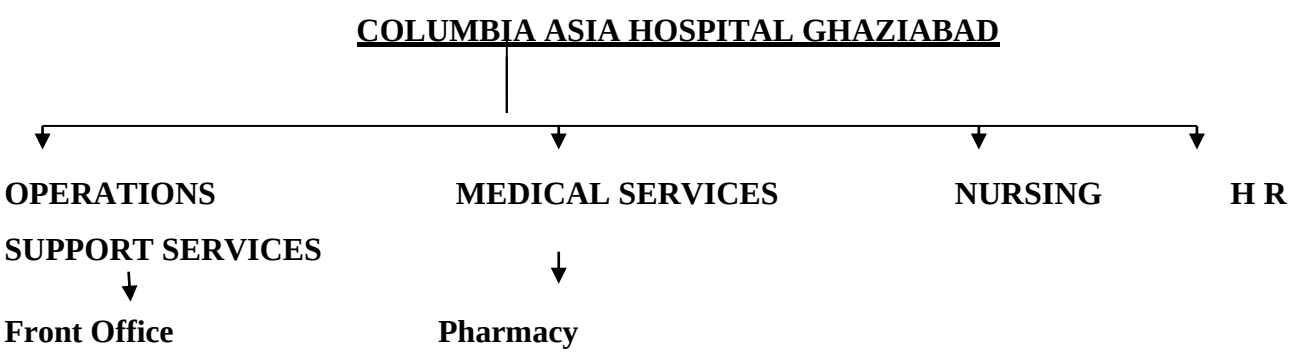
Mode of data collection: Qualitative data is collected by observing and interacting with staff of different departments of the hospital.

General findings on learning:

Observational learning of different departments of the hospital.

Mode of data collection: Qualitative data is collected by observing and interacting with staff of different departments of the hospital.

General findings on learning:



Billing **Biomedical**

MRD

Finance **Physiotherapy**

Stores **CSSD**

Marketing **Transfusion Medicine**

Quality control **Dialysis**

Internal Audit **Dietary**

Purchase **Laboratory**

Emergency Medicine

O T

ICU

HIC (hospital infection control

Radiology

Dietetics

NICU

Labor room

REGISTRATION:

This department is segregated to following sub departments:

1) OP Billing: Timings is 7.30am to 7.30pm. Cash and credit billing for Registration, consultation, Investigation and procedure.

2) Admission billing: 24/7 services. Before admission patient and patient party is educated about billing charges by giving chart to them.

3) Corporate and Insurance billing: Timings is 9am to 6.30pm. Verification and documentation of mandatory certificates for hospitalization is collected. Explaining terms and conditions to patients about corporatement. Timely billing and submissions of final bills is done here.

OPD:

Timings: 9 am to 5.30pm.

Different department has different consult chambers with separate examination room, Procedure room , refraction room etc.

- New patients/Follow-up patients are guided to their respective OPDs.
- PRE (Patient Relation Executives) receive the patients check for bills and make record.
- The medical record of the follow-up patients are telephoned to MRD and retrieved.
- The nurses check each patient for BP, weight and height. Glucometer and dressing if needed.
- The patient's files are sent one by one on to the doctor's table.
- Consultation is completed and followed down for investigation if requested.
- All the files are collected back by the MRD staff at the end of the day.

IPD:

Floor managers take care of IP patients. They do daily IP guest rounds, Room wise round complaints and analysis, Feedback tracker and analysis, Discharge analysis tracker.

Roles of floor manager are:

- Ensure hygiene and cleanliness in wards, timely check off the same.
- Ensure discharges as early as possible.
- Every admitted patient has room orientation.
- Ensure all reports are available before doctor's rounds.
- Supervise the ward secretaries.

Quality indicators: Turnaround time at the time of discharge off the patient.

Feedback analysis given by patients.

PHARMACY: Located on the first floor. All required drugs were indented from user department and issued from pharmacy.

ACCIDENT & EMERGENCY: The hospital offers 24/7 ambulance services and have an ambulance control room.

All critical care emergencies

Road Traffic Accidents & Head Injuries

BILLING:

This department is segregated to following sub departments:

1) OP Billing: Timings is 7.30am to 7.30pm. Cash and credit billing for Registration, consultation, Investigation and procedure.

2) Admission billing: 24/7 services. Before admission patient and patient party is educated about billing charges by giving chart to them.

3) Corporate and Insurance billing: Timings is 9am to 6.30pm. Verification and documentation of mandatory certificates for hospitalization is collected. Explaining terms and conditions to patients about corporatement. Timely billing and submissions of final bills is done here.

OT: It is located in second floor. There are 3 OT's:

1) General OT

2) Cardiac OT

3) Orthopaedic OT

On an average two hundred surgeries are performed in a month.

Quality Indicators:

- Modification of anaesthesia plan
- Unplanned ventilation during anaesthesia
- Adverse anaesthesia event
- % of Adverse anaesthesia Mortality
- Re exploration
- Re scheduling
- Surgical site infection
- Haematoma at the puncture site
- % of infection by tube & catheter

CSSD: List of equipments: Steam sterilizer –big and small, ETO Sterilizer, washer disinfector, ultra sonic cleaner, hot air oven, sealing machine, flash sterilizer, LTSF (low temperature steam formaldehyde)

- All Single Use Devices & multi use devices (Consumables) receive from OT, cath lab, endoscopy, radiology, ICU & other user end.
- To be well pre-wash in water by user end.
- All pre-cleaned items are transported to CSSD by means of a closed trolley. Items are sent on Pre-fixed days of ETO or LTSF Sterilization in CSSD every day.
- Items are received by CSSD technician, it will go for final wash, dry with compressor air, wipe with isoprfol alcohol, color code for no. of time used, packing & batch monitoring label, then sterilized by ETO or LTSF.
- Sterile items are sent back on the next day to OT, cath lab, endoscopy, radiology, ICU & other user end.

ICU : It is located in second floor. There was one general ICU and one NICU.

RECEIVING THE PATIENT

- From A & E : (ADMISSION)
    - Critical patients are stabilized in A & E.
    - A & E in charge informs the Consultant and intensives about the patient condition.
    - A & E Nursing staff Informs the ICU nursing in charge to make the required arrangements to receive the patient.
    - At the time of shifting the patient, the ward staff will inform the ICU in charge or senior staff.
    - After shifting the patient to ICU, the nursing staff will hand over the patient IP file, Reports and explains about patient condition.
    - The A & E Doctor will explain the patient condition to the intensives.

- From OT :
    - OT Informs ICU in charge to arrange the requirements according to patient condition.
    - Equipments and accessories are taken from ICU to OT to shift the patient from OT to ICU with monitor.
    - OT staff, Technicians and Doctors will accompany during shifting till patient is transferred to ICU bed and stabilized
    - Post op orders, IP file and reports are handed over to the nursing staff by OT staff.
    - Anesthetists will hand over the details of the patient condition to the intensivist.

SHIFTING THE PATIENT

- TO OT :
    - According the pre op orders handing over the IP file, all the LAB reports , consent forms (Surgical, anesthesia, blood, high risk) by ICU nursing staff to OT staff.
    - Confirmation from ICU staff about the blood arranges, blood products are given to OT.
    - Patient attainders will be informed about the shifting of patient to OT.

- TO WARD:
    - The consultants and intensives will decide, explain the condition to the relatives and give the orders to for shift.
    - Once the information received from the intensives, the nursing staff will inform to the ICU in charge to arrange the bed in ward accordingly.
    - If the patient is self pay, patient party will decide the kind of bed, for Insurance and corporate patient concern department will allocate the bed.
    - ICU in charge will inform to the billing department about the shift out and arrange the bed in the ward and pass the same information to the ICU staff.
    - The ICU staff will coordinate with the ward staff and arrange the bed accordingly and shift the patient to the ward.

LABORATARY:

Accredited by NABL. It has 5 sub divisions:

1) Phlebotomy.

2)Haematology and clinical pathology.

3) Clinical biochemistry.

4) Microbiology and serology.

5) Histopathology and cytopathology.

Quality indicators: Reagents inventory, Quality control and calibration, corrective actions and documents.

CATHLAB: It is located in first floor. On an average ten cath procedures like Cardio angiogram, percutaneous trans arterial angioplasty etc were performed in one day.

MRD: Files are classified by MR (medical record) number.

Multiple admission files are maintained under one file only.

Death and normal files are color coded

Birth and death registration done both online and hard copy handing over to corporation.

Notifiable diseases are registered.

Quality indicator:

- %of medical record not having discharge summary.
- % of MR not having initial assessment
- % of MR without complete plan of care and proper consent.
- % of missing records of number of deaths and notifiable disease.

QUALITY DEPARTMENT: Pre and final assessment is done for NABH.

Factors involved to assess quality are: Patient factors, provider factor, Task, technology and tools factor, team work, environmental and organizational factors.

A REPORT ON OPERATION THEATER GAP ANALYSIS:

CONTENTS-

RESEARCH STUDY:-

Gap analysis in operation theatre department of Columbia Asia hospital Ghaziabad.

INTRODUCTION:

Operation theatre is also known as the operating room, It is a facility inside the organization, where all surgical procedure are carried out in a sterile environment. Columbia Asia Hospital Ghaziabad has 3 OT.1 general OT, 1 cardiac OT, 1 orthopaedic Surgery OT. Operating rooms are devoid of a theatre setting (though

some in teaching hospitals may have small galleries), making the term "operating theatre" a misnomer for the modern facility. Operating rooms are spacious, easy to clean, and well-lit, typically with overhead surgical lights, and may have viewing screens and monitors. Operating rooms are generally windowless and feature controlled temperature and humidity. Special air handlers filter the air and maintain a slightly elevated pressure. Electricity support has backup systems in case of a black-out. Rooms are supplied with wall suction, oxygen, and possibly other, aesthetic gases. Key equipment consists of the operating table and the anaesthesia cart. In addition, there are tables to set up instruments. There is storage space for common surgical supplies. There are containers for disposables. Outside the operating room is a dedicated scrubbing area that is used by surgeons, anaesthetists, ODPs (operating department practitioners), and nurses prior to surgery. An operating room will have a map to enable the terminal cleaner to realign the operating table and equipment to the desired layout during cleaning.

Several operating rooms are part of the operating suite that forms a distinct section within a health-care facility. Besides the operating rooms and their wash rooms, it contains rooms for personnel to change, wash, and rest, preparation and recovery rooms(s), storage and cleaning facilities, offices, dedicated corridors, and possibly other supportive units. In larger facilities, the operating suite is climate- and air-controlled, and separated from other departments so that only authorized personnel have access.

Operating room equipment:

- The operating table in the centre of the room can be raised, lowered, and tilted in any direction.
- The operating room lights are over the table to provide bright light, without shadows, during surgery.
- The anaesthesia machine is at the head of the operating table. This machine has tubes that connect to the patient to assist him or her in breathing during surgery, and built-in monitors that help control the mixture of gases in the breathing circuit.
- The anaesthesia cart is next to the anaesthesia machine. It contains the medications, equipment, and other supplies that the anaesthesiologist may need.
- Sterile instruments to be used during surgery are arranged on a stainless steel table.
- An electronic monitor (which records the heart rate and respiratory rate by adhesive patches that are placed on the patient's chest).
- The pulse oximeter machine attaches to the patient's finger with an elastic band aid. It measures the amount of oxygen contained in the blood.
- Automated blood pressure measuring machine that automatically inflates the blood pressure cuff on patient's arm.

- An electrocautery machine uses high frequency electrical signals to cauterize or seal off blood vessels and may also be used to cut through tissue with a minimal amount of bleeding.
- If surgery requires, a Heart-lung machine, or other specialized equipment, may be brought into the room. Heart lung machine takes the temporary control of the heart and lung during the surgery maintaining the circulation of blood and oxygen content of the body
- Advances in technology now support Hybrid Operating Rooms, which integrate diagnostic imaging systems such as MRI and Cardiac Catheterization into the operating room to assist surgeons in specialized Neurological and Cardiac procedures.

Surgeon safety equipments:

People in the operating room wear PPE (personal protective equipment) to help prevent germs from infecting the surgical incision. This PPE includes the following:

- a protective cap covering their hair
- masks over their lower face, covering their mouths and noses with minimal gaps to prevent inhalation of plume or airborne microbes
- Shades or glasses over their eyes, including specialized colored glasses for use with different lasers. a fiber-optic headlight may be attached for greater visibility
- vinyl gloves on their hands; latex is used as well, but much less common due to latex sensitivity which affects some health care workers and patients
- long gowns, with the bottom of the gown no closer than six inches to the ground.
- protective covers on their shoes
- if x-rays are expected to be used, lead aprons/neck covers are used to prevent overexposure to radiation

The surgeon may also wear special glasses that help him/her to see more clearly. The circulating nurse and anaesthesiologist will not wear a gown in the OR because they are not a part of the sterile team. They must keep a distance of 12-16 inches from any sterile object, person, or field.

Patient that are coming to OT department for surgical procedure, either they are planned case (elective case) or they are emergency case.

If Pt is elective case then patient, first admitted to the ward then all investigation (PAC) done in ward. PAC is done minimum 6 hr prior to the surgery. Then patient come to the pre-operative area then come into intra-op

area then come to post –op area after the surgery. When patient become stable then patient shifted to ward room, if patient is not stable then shifted to ICU department.

If patient is emergency case, then all investigation done in ER department ,then patient directly come to pre-op area in OT then come to intra-op area then come to post-op area, if patient is stable then pt comes to ward, if pt is not stable then patient comes to ICU department.

OT department consist of:

- Pre-op area
- Intra-op area
- Post-op area
- Clean utility area
- Store room
- Dirty utility area
- 3 general OT
- Hand washing area
- Staff room
- Operation manager room
- LAP(laoroscopic instrument) tower
- Image intensifying machine
- Neonatal open care system
- Cautery machine
- Autoclave
- Hysteroscopy instrument
- Fibre optic instrument
- General instrument
- Specific set instrument for specific surgery
- Pendent
- Recovery trolley
- Anaesthesia machine
- Biomedical waste plastic box with different colour codes
- Nursing station
- Changing room

Check list, Forms, Documents, Record:-

- Pre-operative list
- Pre surgical check list
- Surgical safety check list
- OR nursing record
- Anaesthesia record
- Post op check list
- Recovery room chart
- OR record(Appointment of patient)
- Briefing record
- Stock register
- Recovery trolley register
- OT Quality indicator record

S no	Indicator
1	Modification of anaesthesia plan
2	Unplanned ventilation during anaesthesia
3	Adverse anaesthesia events
4	Anaesthesia related mortality
5	Surgical site infection
6	Re-exploration /unplanned return to O.T
7	Accidental removal of tubes and catheter
8	Incidence of hematoma at the puncture site
9	% of rescheduling of the procedure

- Consent for anaesthesia
- Consent for surgery
- High risk informed consent
- Histopathology & cytology requisition form
- Code blue record & evaluation form
- Crash cart check list Adult/paediatric
- Consent to receive blood and blood product
- Transfusion reaction form
- Narcotic drug administration form
- OT check list before surgery

- Certificate of still birth
- Consent form for Anaesthesia and Hysterectomy
- Consent for Anaesthesia and Laparoscopic surgery
- Consent form for Disposable of Amputated Body part
- Antibiotic usage form
- Suspected Adverse drug reaction reporting form
- Consent for Disposal of foetus over 20 weeks & 500gm & still birth form.

Process flow for OT patient:

Patient enters the hospital

⇩

Registration

⇩

Billing for consultation

⇩

Consultation in outpatient department

⇩

Sonography, ultrasound, MRI investigation (positive)

⇩

Admission in IPD

⇩

Blood investigation/PAC for surgical procedure

⇩

Surgical procedure done in OT room

⇩

⇩

Discharge with proper medication

OT department staff-

- 12 technician
- 10 nurse
- 1 OT supervisor
- 3 Anaesthesiologist
- Surgeons
- Consultant surgeons

RESEARCH PROBLEM: There seems to be gap in functioning of OT department.

RATIONAL:

The goal of this project is to analyse the gaps in procedure flow, Documents, Human resources utilization, patient time schedule, patient satisfaction, facilities for patients in OT department. The following information may support management to make better procedure of Operation theatre department in competitive and volatile healthcare market.

RESEARCH QUESTION:

- What are the gaps in OT procedure and OT record?
- What are the areas where pt dissatisfaction is maximum ?
- Whether the appointment time and sign in time of patient is same or not?

OBJECTIVE:

- To study any deviation from standard procedure in intra operative period.
- To study the documentation procedure.
- To study the pre-op area.
- To study smooth recovery of patient in post- op area.
- To study pt satisfaction during, before and after the surgery.

RESEARCH METHODOLOGY:

- It is a descriptive study using observational method of data collection.
- 300 patients operated but I observed 75 patients (patients from 8.30 am to 5.30 pm)
- 75 pt procedures were study.
- Pt feedback is analysed in excel sheet.
- Pt appointment time is analysed in excel sheet.
- Sources of data: Primary data collection
- Sample size: 75 pt sample size is taken
- Sampling technique: Random sampling collection
- Selection of respondents: Patients, who have under gone for surgical procedure in OT department.
- Sampling tool: Questionnaire is semi structured
- Study duration: 2 months

- Study area: Columbia Asia hospital

DATA ANALYSED: Quantitative data is analysed in excel sheet using different formulas.

LIMITATION OF STUDY:

The following limitations of the study were identified:

- ❖ Time constraints for various activities of the project.
- ❖ Some patients were not willing to give the feedback.
- ❖ Some patients discharge at night.
- ❖ ICU patient's feedback is very difficult to record.

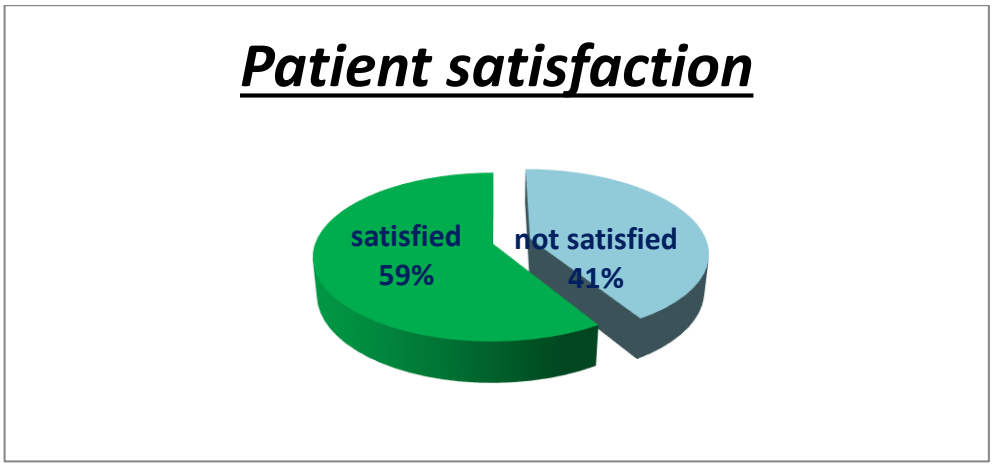
INTERPRETATON;

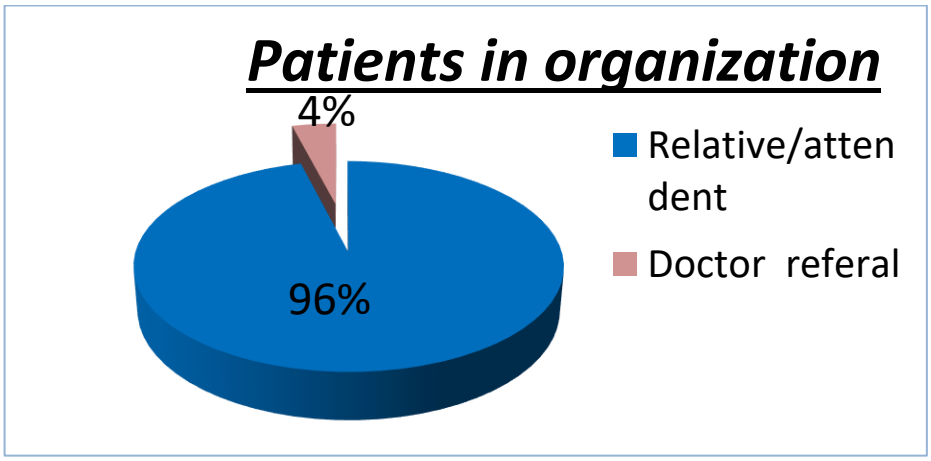
Patient feedback:-

- Anesthesia: 100% Patients were satisfied with anesthesia.
- OT procedure: 100% patients were satisfied.
- Nursing care: shortage of staff & nurses should know the proper Hindi.
- Doctor's: all Doctors are good.
- Area for improvement: finance, pharmacy, cafe, nursing staff should be increased.

Out of 75 pt 8 pt said finance area should improved.6 said pharmacy area should improved.7 said café area should improved.10 said nursing staff should improved.

finance	pharmacy	cafe	Nursing staff
8	6	7	10





According to observation gaps in OT:

- Blood bank facility is not available.
- Surgical site is not marked.
- Adverse anesthesia events are not reported.
- Supported documents and investigations for the surgery are not checked by the staff during the handover of the patients.
- Human resource utilization is not proper because most of surgery start at 1 pm .So anesthetist doctor don't have any work to do. Anesthetist doctors are full time doctors from 8.30 to 5.30 pm. One morning shift nurse and technician don't have any work to do. They just came and go back to their home by doing nothing.
- Forms & formats are not updated.
- Plastic box for biomedical waste are not properly labeled & check.
- Pt are not in appointment time. Patient appointment time and sign in time is noted .there is a delay in sign in time and appointment time. Reason for delay are:-

  - Finance clearance

  -Surgeon came late

  -Surgeon was busy in another case or in OPD

-Health care provider's coordination

-Patient came late

Out of 75 pt 8 pt were late due to finance.2 pt were late due to Doctor came late.6 were late due to Doctor was busy in OPD or in another case.3 due to doctor's coordination.5 due to pt came late.

SOLUTION/RECOMMENDATION:

- Blood bank facility should be in the organization.
- Surgical site should be marked before the surgery.
- Adverse anesthesia events should be recorded.
- Surgery should start as early as possible so that Anesthetist Doctor have sufficient time to observe the patients in post operatively & for better utilization of OT time. Morning shift nurse & technician time can be used properly.
- Consent forms should be revised.
- Doctors should work in a team.
- There should be a get together of Doctors, finance head & CMS.
- Supported investigation for the surgery should be checked by the nurse/ technician.
- One copy of previous investigation and prescription should be keep in the file of the patient or should scan the prescription and keep it in care 21.
- Biomedical waste plastic box label should be check regularly.

CONCLUSION:

The study was undertaken to analyse the gap in OT department .Human resource utilization should be proper for better OT utilization time .Formats should be revised. Patient should be in appointment time for pt satisfaction.pt satisfaction is very important for organization because 94% pts are coming in the organization is either, by the old pt or by the attendant or by the relative. All documents, previous

prescription and investigation of pt should be kept in file of the pt at the time of handover of patient in OT to save the time of the Doctors & for better surgery. There should be proper induction class of nurses for handover policy of pt. surgical site should be marked ideally by the surgeon in ward by marker. Adverse anaesthesia events should be recorded for maintenance of quality indicator of OT and ideally adverse anaesthesia events should be display in OT department. Now organization is in economics of scale, so organization should improve in these areas , that will be good for organization in future.

ADVERSE ANAESTHESIA EVENTS FORMATS:

S.NO	Pt.Name	Age/sex	MRN	Procedure	surgeon	anaesthesiologist	Adverse anaesthesia event	Corrective-action	comments

ANNEXURE:

QUESTIONNAIRE:

- Do you filling any pain during surgery?
  -yes
  -no
- How was your pre operative counselling?
  -excellent
  -good
  -fair
- How was your post operative counselling?
  -excellent
  -good
  -fair
- Are you getting proper nursing care?
  -yes
  -no
- Are you satisfied with your surgeon t/t?

-yes

-no

- Would you like the food services?

-yes

-no

- Who told you about the organization?

-internet

-relative

-Doctor’s reference

- Are you feeling any uneasiness in any area?

-finance area

-Diagnostic area

-treatment area

-no problem

- Area for improvement?
- One experience that you will carry out from this organization

AN AUDIT REPORT:

CONTENTS:

- Research study
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- Study duration
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- Data analysis
- Interpretation
- Conclusion
- Annexure

RESEARCH STUDY:

To study the area for improvement by the audit process on various topics of the departments.

INTRODUCTION:

Audit-It is the process of reviewing of delivery of care to identify deficiencies so that they may be remedied.

Clinical audit- It may be defined as peer review for evaluation of medical care through retrospective and concurrent analysis of medical record.

Process audit-It is the process of reviewing of process flow of the department to identify deficiencies so that they may be remedied.

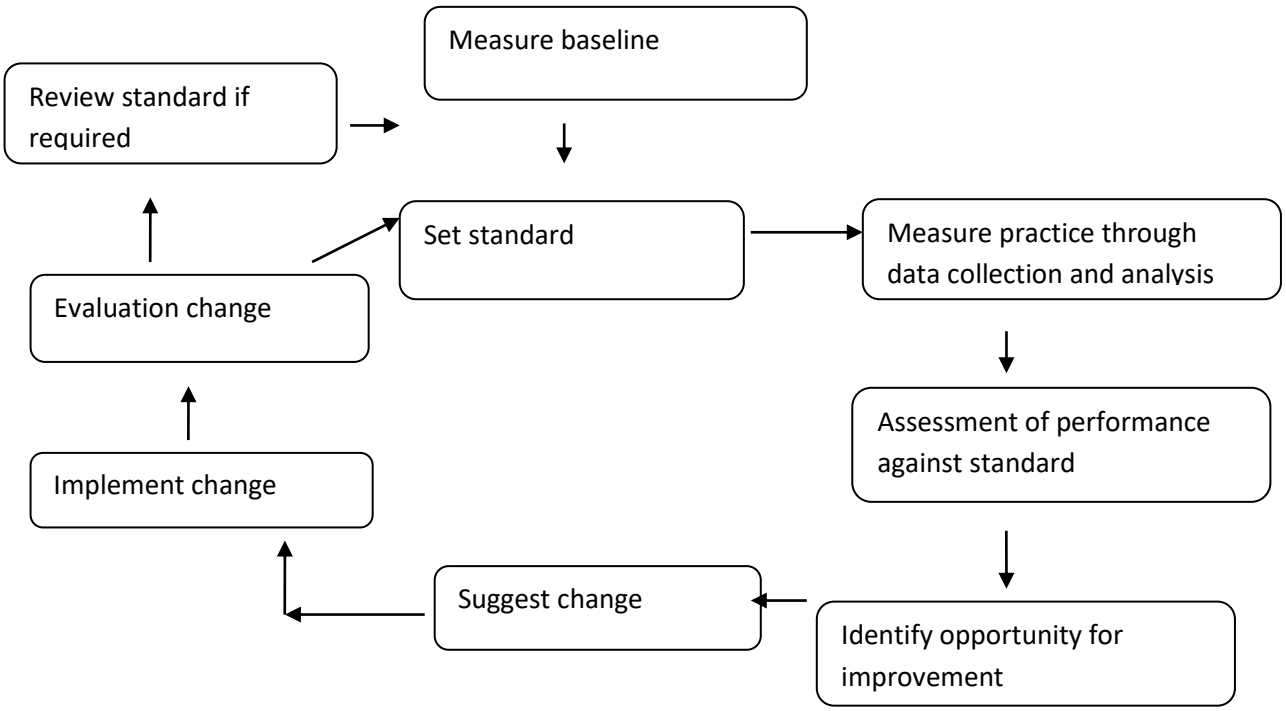
AIM OF AUDIT- To improve the quality of healthcare services rendered to the patients.

CLINICAL AUDIT COMMITTEE- Hospital administrator, Coordinator

-Representative of all disciplines

-Nursing representative

AUDIT CYCLE-



RATIONAL:

Audit is carried out in the organization to improve the quality of care. It is done by the clinical audit committee. it should be done regularly for better care of patients.

RESEARCH QUESTION:

-What are the areas for improvement?

-What could be the possible solution for improvement?

OBEJECTIVE:

- To study the medical record, documents of the department.
- To study the process flow of the department

METHODOLOGY:

- It is a descriptive study using observational method of data collection.
- Patient's procedures were observed.

- Topic should be well defined.
- Process flow of the department observed for one month.

CHECK LIST-check list is made to set the standard.

Check list for clinical audit of topic- infection control, anaesthesia, biomedical waste for OT department.

Check list for clinical audit of topic- infection control, biomedical waste, for ICU department.

Check list for process audit for CSSD department.

Study duration-1 month

Study area- ICU, OT, CSSD department

Check list:

Infection control OT department-

check LIST	YES	NO	
Hand hygiene guidelines practices(Doctor & nurse& technician)			
hand hygiene guidelines should be displayed			
Attire shall be specified to ensure adherence to infection control protocols.			
Pre-surgical prophylaxis			
Safe injection & infusion practices			
laundry & linen management process			
OT environment maintenance(OT air conditioning ,humidity ,temperature ,Ac ducts, Hepa filters)			

Prevention of cross infection			
equipment maintenance			
personal protective equipment, soaps, disinfectant available			
isolation/ barrier nursing facilities			
vaccination for Doctors ,Nurse			
proper sterilisation of instrument			
proper handling of biomedical waste			
personal hygiene maintenance of Doctor, nurse ,technician			
awareness of Needle stick injury(NSI)			
monitoring and Record of QUALITY indicator of OT			
provide regular training for infection control (basically for new employees)			

Area for improvement:- proper handling of biomedical waste.

ANAESTHESIA CHECK LIST:

PRE ANAESTHESIA CONSULTATION	Bench marks (investigation)	YES	NO
	CBC		
	Random blood sugar		
	urea, creatine		
	HBsAG ,HIV,HCV		
	Coagulation		

	profile(PT,APTT,PLATELET COUNT)		
	ECG		
	X-RAY CHEST-PA VIEW		
if Co-morbidities	Echo/TMT		
	Serum electrolytic		
	thyroid profile		
	PFT		
	Blood grouping and Rh typing		
	LFT		
	RFT		

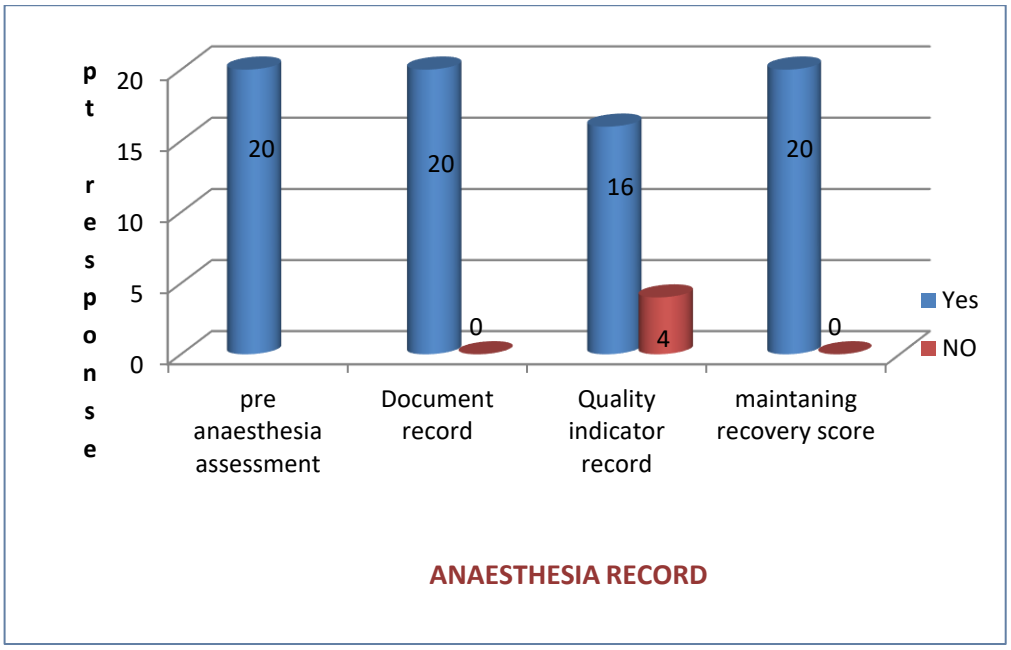
DOCUMENTS FOR ANAESTHESIA:-

s.no	DOCUMENTATION	YES	NO
1	pre -op check list		
2	pre anaesthesia assessment		
3	anaesthesia medication plan record		
4	pre- induction assessment		
5	consent for anaesthesia & surgery		
6	high risk consent(anaesthetist &surgeon		
7	anaesthesia record		
8	Post -op check list		
9	Record of anaesthesia quality indicator		
10	control of cross infection		

QUALITY INDICATOR OF ANAESTHESIA:

S no	Indicator	yes	No
1	% Modification of anaesthesia plan		
2	% of unplanned ventilation following anaesthesia.		
3	% of adverse anaesthesia event		
4	Anaesthesia related mortality		

Metrics	Yes	NO
pre anaesthesia assessment	20	0
Document record	20	0
Quality indicator record	16	4
Maintaining recovery score	20	0



AREA FOR IMPROVEMENT-Adverse anaesthesia event should be recorded & they are defining her but are not displayed here.

CHECK LIST FOR BIOMEDICAL WASTE OF ICU &OT DEPARTMENT:

STANDARD	YES	NO
proper awareness of staff		
proper segregation& collection in different colour code plastic box		
proper storage of biomedical waste.		

protective measures are used by staff		
regular checking of labels on box		
transportation to proper site		
Documents &reports should be maintained		

Area for improvement :-

1. regular checking of labels on box
2. storage of biomedical waste before transportation

3.Documents & reports should be maintain

Check list of infection control for ICU department:

Check list	YES	NO	Comments
Hand Hygiene Guideline Practices(hand rub shall be used before entering.)			
Attire shall be specified to ensure adherence to infection control protocols.			
Safe Injection and Infusion Practices			
Laundry and linen management process			
Prevention of Cross infection			
Isolation barrier, nursing facilities			
Vaccination of all staff			
Proper sterilization of instruments			
Equipment maintenance			
Personal Protective Equipment, Soap, Disinfectant available			
Proper handling of biomedical waste			
Personal hygiene maintenance of doctor, nurse, technician			
Awareness of needle stick injuries			

monitoring of infection related quality indicators(i.e. ventilator associated pneumonia(VAP),urinary tract infection(UTI),surgical site infection(SSI)central line related blood stream infection(CRBI)			
provide regular training to all staff on infection control policies& procedures(for new employees)			

AREA FOR IMPROVEMENT:-

plastic box for biomedical waste should be labelled and properly handled.

CHECK LIST FOR CSSD DEPARTMENT-

MONTH APRIL - 2015

QUALITY INDICATORS-CSSD

MATRICS	BENCH MARKS
Total no of cycle-STEAM	5
Total no of cycle-ETO	1
NO of Recall	0
number of expired item received	2

Number of item for urgent sterilization	2
Biological indicator failure	0
EO Leaks	0
Equipment break down	0
Number of complain	0

Area for improvement-	recommendation:-	
1- Number of expired item received.	Only necessary items should be kept in department.	
2- Number of item for urgent sterilization.	no of sets of instrument which are generally used should be increased	

DATA ANALYSIS: Data is analysed on excel sheet using formulas.

LIMITATION OF STUDY:-Time was short to study on more topic.

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INTERPRETATION:

OT department

-Anaesthesia-Adverse anaesthesia events should be recorded and display in the department.

Infection control-Biomedical waste should be properly handled and labelled .record of handling waste should be maintained.

Biomedical waste- Biomedical waste should be properly handled and labelled. record of handling waste should be maintained.

ICU department-

Infection control-Biomedical waste should be properly handled and labelled .record of handling waste should be maintained.

Biomedical waste- Biomedical waste should be properly handled and labelled. record of handling waste should be maintained.

CSSD department -No. of item for urgent sterilization should be less.

-NO of expired item received should be less.

CONCLUSION:

Areas for improvement in clinical audit of OT &ICU department should be improved for better quality of care of patients, that will helpful for the organization in future. For example in OT department biomedical waste product should be handled properly and time of hand over should be recorded. Adverse anaesthesia events should be recorded in format and should be define to all staff and display in department.ICU biomedical waste should be properly hand over to housekeeping department. .for CSSD department number of expired item received should be minimum & item for urgent sterilization should also be minimum. Areas for improvement in process audit for CSSD department should be improved. If organization will improve in these areas, that will good for the organization for future in healthcare market, and there will no septicaemia and infection for patient.

REFERENCE :

-en.wikipedia.org

- National Accreditation Board for Hospitals and Healthcare providers (NABH 3rd edition)

National Accreditation Board for Hospitals and Healthcare providers (NABH 2nd edition)

-Quality improvement in Anaesthesia edited by Dr carol.peden

-www.mayoclinic.org

-Operating room manual of Columbia Asia hospital.

-Operating room manual of nursing care of Columbia Asia hospital.

-WHO guidelines

-Operation theatre management system(CGM OTMS) www.cgm.com

ANNEXURE-

Time schedule:

S. NO	NAME OF THE DEPARTMENT	DATE OF VISIT	% OF TIME SPENT	INTERECTED WITH(NAME & DESIGNATION)
1	REGISTRATION	02/04/2015	2%	MR.ADIT KM(IN CHARGE)
2	OPD	03/04/2015	2%	MR. ANUJ(IN CHARGE)
3	RADIOLOGY	04/04/2015	2%	MR SUNIL(SUPERVISOR)
5	CENTRAL PHARMACY	06/04/2015	2%	MR.NEELAM(SUPERVISOR)
6	GENERAL STORES	07/04/2015	2%	MR.PRADEEP(IN CHARGE)
7	ACCIDENT & EMERGENCY	08/04/2015	2%	DR.RIZWAN(IN CHARGE)
8	BILLING	09/04/2015	2%	MRS.NEHA(EXECUTIVE)
9	IPD	10/04/2015	2%	MR.AJAY(IPD(IN CHARGE)
10	ICU	11/04/2015	2%	DR.RAJESH(IN

				CHARGE)
11	OT	02April – 31 May	40%	DR.POWEN(IN CHARGE)
12	CSSD	13/04/2015	2%	MR.RANJEET(IN CHARGE)
13	BLOOD BANK	14/04/2015	2%	MR.NARAYAN(IN CHARGE)
14	LABORATARY	15/04/2015	2%	MR.SANDEEP(SUPERVISOR)
17	MARKETING	16/04/2015	2%	MRS.ISHITA(HEAD)
18	FINANCE	17/04/2015	2%	MR. ANUDEEP(HEAD)
19	INTERNAL AUDIT	18/04/2015	2%	MR.AKHILENDRE(HEAD)
20	PURCHASE	20/04/2015	2%	MR.
21	HR	21/04/2015	2%	HIMANSHU SINGH
22	FACILITY	22/04/2015	2%	MR RANDEEP
23	MRD	23/04/2015	2%	MR.PRITAM(INCHARGE)
24	PHYSIOTHERAPY	24/04/2015	2%	DR.REENA(IN CHARGE)
25	QUALITY DEPARTMENT	25/04/2015	2%	MR.AKHILENDRE(HEAD)
26	BIOMEDICAL & ENG	27/04/2015	2%	MR PRADEEP(IN CHARGE)

28	LINEN & LAUNDRY	28/04/2015	2%	MR NARAYAN(IN CHARGE)
29	HOUSEKEEPING	29/04/2015	2%	MR.RAM NARAYAN(IN CHARGE)
30	DIALYSIS UNIT	30/04/2015	2%	DR.ASHISH(IN CHARGE)
31	CATHLAB	01/05/2015	2%	MR GYANI(IN CHARGE)