Summer Training At

Shalby Multispecialty Hospitals, Jaipur

(May 10 – July 2, 2021)

Project Title

To study the compliance of active IPD medical records and billing process accuracy at Shalby hospitals.

By

Dr. Nidhi Sharma

MBA Hospital & Health Management

2020-2022

Indian Institute of Health Management and Research

The IIHMR University, Jaipur

2021

SHALBY
ACADEMY

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TO WHOMSOEVER IT MAY CONCERN

Ref. No: SHACD/IN21-22/347
Date: 03.07.2021

This is to certify that **Dr. Nidhi Sharma** has undergone an Internship in the **"Department of Clinical Operations"** from 10th May 2021 to 10th July 2021 at **Shalby Hospitals, Jaipur.**

During this period she exhibited a high level of professionalism and a tremendous zest for learning.

We would like to thank her sincere efforts during Covide-19 Period.

We wish **Dr. Nidhi Sharma** all the best in her future endeavors.

With Best wishes,

Babu Thomas
(Chief Human Resource Officer)

Acknowledgment

The completion of this project could not have been possible without the participation and assistance of a lot of individuals contributing to this project. However, I would like to thank **IIHMR University, Jaipur** for providing me an opportunity in form of summer training so that I could work in real time scenario and understand the working of hospital sector .

I would like to express my deep appreciation and indebtedness to **SHALBY HOSPITALS**, **Jaipur** and their team for their endless support, kindness, and understanding me during this project duration.

I am extremely grateful to **Mr Anubhav Sukhwani** (CAO, Shalby Hospitals,Jaipur) for providing me opportunity to work as an intern at Shalby Hospital ,Jaipur as well as sparing his valuable time for my project and giving his valuable advice and guidance for the project.

I am highly indebted to **Dr Samir Banzal** (Deputy Medical Superintendent, Shalby Hospitals, Jaipur) for his guidance and supervision. I would like to thank him for providing the necessary information and resources for this project and without his assistance and support my journey and project wouldn't have been completed.

I am extremely grateful to **Dr Atul Sharma** (Internal Auditor, Shalby Hospitals ,Jaipur) for guiding me through the insights of auditing and making this project possible.

I would like to thank **Mr Gyanendra Sindhu** (Quality Head, Shalby Hospitals, Jaipur) for providing me detailed information on my project.

I would also like to thank **Mr Vijay Yadav** (Assistant Manager Billing Department, Shalby hospital, Jaipur) for providing his assistance and guidance during this project.

I would also like to thank all the medical officers of Shalby Hospitals Jaipur especially **Dr Lata Sharma , Dr Sunanda ,Dr Shafiq, Dr Abhishek,Dr Rakesh ,Dr Rajpal** for providing their support and answering all my questions during this project.

I am extremely grateful to **Dr Shiv Kumar Tripathi** (Dean Training, IIHMR University) for his support and valuable suggestions.

Also, I would like to thank my Parents and family who supported me in all possible manners and allowed me to do my internship during this pandemic period.

I would also like to thank my fellow IIHMR-ians **Nidhi Jadho** and **Tushar Chaudhary** for making my journey seamless and encouraging me at every point of time.

Above all, I would like to thank the Great Almighty for always having his blessing on me.

CONTENT

Abbreviations

Abbreviations	Full Form
ABG	Arterial blood gases
BT	Blood Transfusion
CBC	Complete blood count
CQI	Continuous Quality improvement
ECG	Electrocardiogram
EEG	Electroencephalogram
ETO	Ethylene oxide
HIV	Human immunodeficiency virus
HRCT	High Resolution computer tomography
IPD	In –Patient department
ISMP	The Institute for safe medication practices
LINAC	Linear Accelerator
MO	Medical Officer
MRD	Medical Record department
NABH	National Accreditation board for hospitals and healthcare providers
NABL	National Accreditation Board for Testing and Calibration Laboratories
OPD	Out Patient Department
OT	Operation theatre
RBS	Random Blood Sugar
RFT	Renal Function Test
SICU	Surgical Intensive Care Unit
TPA	Third Party Administration
USG	Ultrasonography

INTRODUCTION

Summer training is an integral part of MBA hospital and Health Management. As a part of the curriculum, students are required to undergo 8 weeks training with a reputed organisation to learn the daily operational management. The main purpose of training is to get an exposure of the functioning of the organization and apply management skills what are being taught to us in the college.

As part of summer training I got opportunity to work with Shalby Hospitals,Jaipur which is a multispecialty hospital and due to this pandemic phase I wanted to explore more on how hospitals are working in this hard time and giving best of their medical care services when there is crisis of beds, oxygen cylinders, medical supplies in each and every hospital.

Due to this distinguishing feature and actual hardships that are being faced by hospital in this time I choose Shalby Hospital, Jaipur for my summer training program.

AIM

To study and analyse the various departments in Shalby Hospital, Jaipur and understand their administrative and managerial functions.

OBJECTIVES

A. To understand and learn day to day micro level operations of management.
B. To identify issues and problems associated with some specific operational areas.
C. To provide some solutions to the identified problems.
D. To formulate a project report on work we did in the hospital.

PROFILE OF HOSPITAL

Shalby Hospitals (Shalby Limited), was first established by Dr. Vikram I. Shah in 1994 in the heart of Ahmedabad, Gujarat ,It now operates as a chain of multispecialty hospitals across India having branches in ten and more cities. Shalby Hospitals has been awarded the NABH and NABL accreditations, as well as the CQI certification for excellence in quality. Shalby Hospitals is a world renowned Joint Replacement Centre today establishing many records. Since 2007, they have successfully performed thousands of joint replacement surgeries, and the number is rising day by day.

Shalby Multispecialty Hospital, Jaipur, tertiary care hospital chain has global leadership in Total Knee Replacement (TKR) and is a providing medical care in all spares of specialty.

The hospital is full of modern amenities housing 225 beds (125 operational beds),as a global chain it was launched in Jaipur on 23 march 2017 and was unveiled by Dr. Ashok Lahoti, Hon'ble Mayor, Jaipur City .

The hospital unit is spread over a plot area of 42033 Square Meters has a built up area of 192550 Sq. Ft. A green Field project, Shalby-Jaipur is one of its kind multi-specialty hospitals setup. The hospital is equipped to manage medical, surgical and neonatal critical care with experts and trained nursing staff, technologies at Shalby Hospital includes CT scan, MRI, X-ray and USG.

Address:

Near Gandhi Path Underpass, 200 ft. Bypass, Sector-3,

Chitrakoot, Jaipur

Rajasthan 302021

E-mail: www.shalby.org

Mission

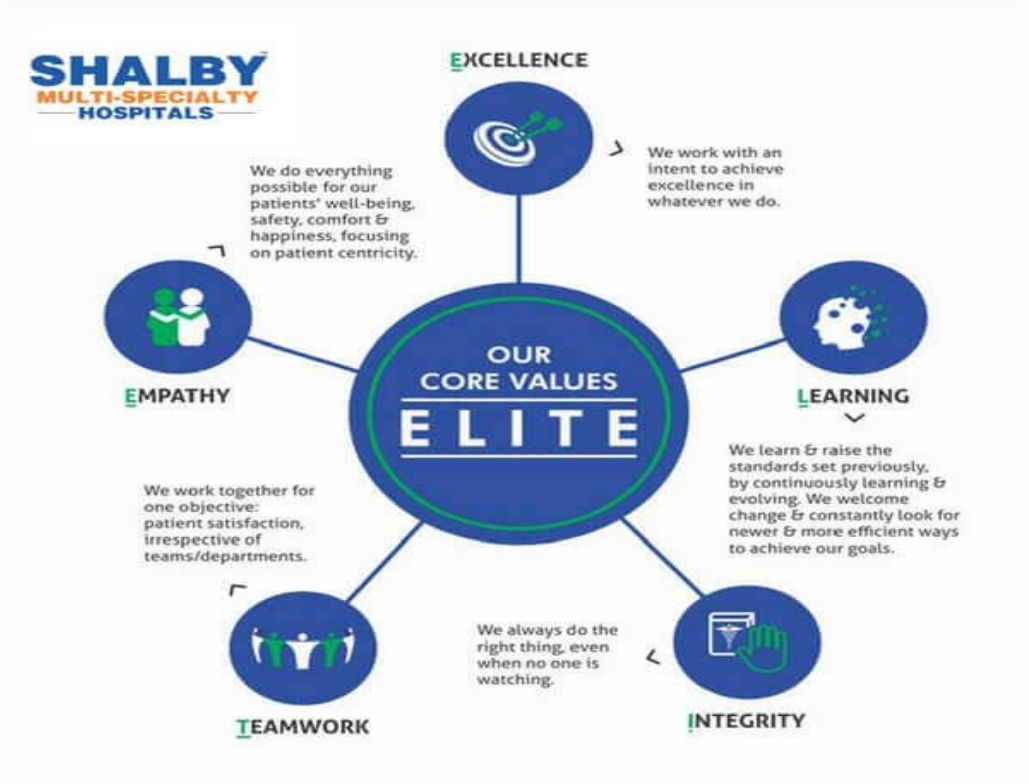
"Leveraging global leadership in Joint replacement to establish multi-specialty care across geographies."

Vision

"Exceeding expectation from health."

Values

We value each and every human life placed in our hands and constantly work towards meeting the expectations of our customers and stakeholders by raising the standards of our service deliveries, every time.



CENTRE OF EXCELLENCE

- Cardiology
- Dental Cosmetic and Implantology
- Endocrinology – Diabetology
- ENT Surgery
- Gastroenterology
- General Medicine
- General Surgery
- Hip Joint Replacement
- Intensive and Critical Care
- Knee Joint Replacement
- Neuro Science Department
- Neurosurgery
- Obstetrics and Gynaecology
- Oncology
- Oncosurgery
- Orthopaedic and Trauma
- Paediatrics and Neonatology
- Plastic Surgery
- Pulmonology and Chest
- Radiology and Imaging
- Urosurgery

FLOOR CHART

Floors	Installed Items
Terrace Floor	Lift machine room1,Lift machine room 2,Cooling Towers(2) ,RO Plant 1 , Dialysis RO Plant, Ordinary Heat Pump ,Overhead Water Storage tanks, Fire tank ,Soft water tank, Flush tank , RO drinking water(2) , RO Dialysis water(2)
9Th Floor	Suite Room, Premier Rooms and Twin Sharing Rooms, Nursing Stations
8Th Floor	Suite Room, Premier Rooms and Twin Sharing Rooms, Nursing Stations
7Th Floor	Administration , clinical Research Room
6Th Floor	Premier Rooms ,Twin Sharing Rooms and General Wards, Nursing Stations
5Th Floor	Premier Rooms ,Twin Sharing Rooms and General Wards, Nursing Stations
4Th Floor	Premier Rooms ,Twin sharing Rooms and General Wards, Nursing Stations , Chemo Drug Preparation Lab
Services Floor	CSSD, Server Room ,UPS Room, OT AHU Area ,Cath lab UPS battery bank ,Storage ,IT Server Room
3Th Floor	SICU , CTVS ICU ,Cath Lab , Cathhold, OT ,OT Medicine Store , Doctor Lounge ,Counseling Room, PICU, NICU, Doctor Changing Room
2Th Floor	MICU , Isolation Rooms(positive & negative) ,Labor Room , OT ,Doctor Lounge ,Doctor Changing Room ,Counseling Room
1Th Floor	O.P.D. , Dialysis ,Health Check-Up Lounge ,Doctor Lounge, Waiting Area, AHU Room, Echo Room ,TMT, ECG, Sample Collection ,Procedure Room, OPD Billing, Waiting Area
Ground Floor	Reception ,May I Help You ,O.P.D,OP Pharmacy,

	Admission/Billing, Cafeteria/Kitchen, TPA ,Counseling Room ,waiting Area, Temple, LT Room, Gas Manifold Room, Air & Vacuum Compressor Room, D.G Set , Transformer ,H.T Meter Room , General waste Room ,Bio Medical waste Collection Room, Security Guard Room ,Assembly Area , Parking
Basement -1	Emergency Ward, Procedure Room, X-Ray & X-ray Console Room, MRI, Endoscopy, CT Scan & CT Console Room, Mammography ,USG, EEG, NCU, Procedure Room, Endoscopy Room, Doctor Room, Male and Female Change Room, HVAC Plant, Housekeeping Store, Dirty Linen Store, Hazardous material Store, Parking
Basement -2	IP Pharmacy , Mortury Room ,Medical Record Department/Clinical Research , Pathology ,Sample Collection ,Parking ,Blood Discard Room ,Reception
Basement -3	Linac Room, Recovery Room, Minor OT , Brachy Therapy ,TPS Room, STP, Pump Room, Softener Plant, Parking.

METHODOLOGY

During my 8 weeks of training at Shalby Hospitals, Jaipur I got the opportunity of interacting with various professionals. They provided me insights of not only their department but also how the various departments of hospital work in an integrated manner. This was a great opportunity by which I got to know how actual hospital management functions.

The following methodologies were used by me during my visits at various departments as well as during data collection for my project.

Primary Data Source

- Interacting directly with staff of various department
- Interviewing the in-charge of that department
- Directly Observing things by spending time in that department

Secondary Data Sources

- By going through their records and manual
- Through website of hospital

Various Departments in Hospital

CLINICAL	NONCLINICAL	ANCILLARY
Outpatient Department	Admission/Registration	Human Resource
Inpatient Department	Billing	Supply Chain Management
ICU	Laundry And Housekeeping	Finance
OT	Food And Beverages	Quality Department
Cath Lab	Maintenance And Engineering	Information and Technology
Radiology	MRD	Marketing

Dialysis	Security	Home Care
CSSD	Ambulatory Services	Infection Control
Laboratory Services	Pharmacy	Biomedical Department

Department wise observations

Admission and Registration

The admission department is present on ground floor it consists of admission and registration desk. They use SRIT system for whole of the hospital.

If patient wants to visit as OPD patient then he directly comes to desk and gets consultation fees is taken and patient is sent to OPD.

If patient has to get admitted as inpatient then he is first send to counseling room where patient is given an estimate amount and then admission form for patient is filled and he is registered at front desk and then patient is sent to back office and initial payment is done by patient and then he again comes to front desk and then patients file is made and he is sent to the floor that is allotted to patient by management.

The ID proof and phone number of patient is very important for getting registered.

Billing

The billing department is present on ground floor behind the front desk all payments by patient is done here except for OPD billing, they just don't do billing of patient after the discharge of patient is planned but they maintain day to day billing process on their system so that no hustle occurs at the end .They give regular reminder to patient for billing also. During discharge of any patient it's their responsibility to give proper assistance to patient and if they have to refund any amount then they get patient refund form fill by patient if the refund amount is more than Rs 100 and they have to get it approve by finance head of the hospital and then amount is directly returned to patient account.

Inpatient Department

This is the main functional area of the hospital as most of the care of patient is taken here only. When the patient gets admission on the front desk then only whatsapp message on that floor is sent by front desk and accordingly the room for patient is arranged by floor PRO.

Once patient is arrived the MO and nursing staff take the initial summary of the patient and then according to disease of patient and advice of consultant doctor the lab investigations are carried on. Finally when patient has to be discharged the discharge summary of patient is prepared and patient is sent to billing department for no dues and then patient is discharged.

Emergency Department

The emergency department is located at -1 floor in the hospital.

The patient when comes into emergency then first he is taken on triage bed and then he is categorized as Red, Yellow ,Green and Black on the basis of severity of injury . After categorizing the patient is shifted in ER with a band of same color as recognized during triage on his wrist and then the further treatment is carried out.

Manpower: 1 Resident in charge

4 Resident Doctor

1 Nursing in charge

9 Nursing Staff are present on rotation basis in 24 hours of time frame.

CSSD (Central Sterile Supply Department)

The department is present on the service floor that is between 3 and 4 floors. As this department is responsible for providing sterile instruments and gowns to operation theatre and rest of the departments that's why it has to be near operation theatre preferably.

At Shalby Hospitals they have one ETO machine and two Autoclave machine (one manual and one automatic).

ETO machine are used for plastic items. The items have to be washed then dried and packed through machine and then kept in ETO machine.

Autoclave machine is used for linens, gowns, stainless steels .The temperature used is 121^{o}c for 15 mins.

CSSD is operational from 8am to 8pm and if required at late hours they come on on- call basis.

Three people work in this 12 hour shift.

Operation Theatre

Shalby hospital is famous for Orthopaedic surgeries they have 8 Operation theatre in total out of which four are present on second floor and four on third floor. They have specific OT for neurosurgery (1), cardiology (1) and Orthopaedic (2) surgeries on the third floor.

For all other surgeries they use second floor OT and for Orthopaedic surgeries also they use two of the OT on second floor.

Radiation and oncology

Radiation room is present at basement (-3) as this department consist of radioactive material so their ideal place is either a building close to the hospital or at the ground floor.

The hospital has Brachy and LINAC machines installed out of which Brachy machine is used to treat a specific area as the source is placed near the affected area and gamma rays are used in it whereas in LINAC X- rays are used and deep penetration of the rays are carried out to get desired result.

Radio Diagnosis

This department is present on basement (-2) floor and consists of one MRI machine and One CT scan.

MRI is of 1.5 Tesla of Siemens , CT scan machine is also of Siemens of 32 slices, X-rays are Samsung DR of 600 mA and Samsung CR Two machines that are portable also for IPD of 60 and 100 mA. They have mammography, endoscopy and Ultrasound machines as well on same floor.

They have 3 people for 8 hour duty and for rest of the hour they are on call duty.

ICU (Intensive Care Unit)

The department house CTVS ICU, SICU on third floor and MICU on second floor. The patient in this department comes either by Emergency room or after getting operated. SICU has 5 beds and 3 ventilators of GE . There is presence of 1 consultant doctor and 2 Senior resident doctor .Nurses are present in 1:1 depending upon patients and GDA staff is 2.

Maintenance and engineering

The department looks after each and every small part of the hospital that is required to run a hospital but goes unseen such as RO, sewage treatment plant, fire tanks, lift machine room , heat ventilation air condition, power supply, diesel generator, chiller water plants, bore well tank and sump pump.

Supply Chain Management

This department house purchase of medical and non-medical material; Pharmacy (inpatient, Outpatient and OT) and general (Nonmedical, CapEx).

Purchase requisition /Indent is done by the department which needs anything then this request has to be signed by finance and purchase department. After that a request for quotation is made and considering lead time and price one quotation is decided and comparative statement is prepared and then the purchase order is placed.

Quality Department

This department mainly focuses on quality of not only patient but also of the hospital. They have different standard operating procedures for various departments which they follow and they also carry out various audits such as active audit file, prescription audits, etc. They carry out mock drills such as when blue code is declared in the hospital in how much time the staff responds.

The quality department is considering NABH fifth and fourth edition guidelines.

To study the compliance of active IPD medical records and billing process accuracy at Shalby hospitals.

During my 8 week of summer training I conducted an organizational study in which I selected two organizational problems which were as follows:

A) To study the compliance of active IPD medical record.
B) To study revenue leakage due to billing process inaccuracy.

A) To study the compliance of active IPD medical record

Introduction

A medical record is a record of a patient's medical information (such as medical history, care or treatments received, test results, diagnoses, and medications taken).
A medical record enables healthcare professionals to plan and evaluate a patient treatment and ensures continuity of care among multiple providers. The quality of care a patient receives depends directly on accuracy and legibility of the information the medical records contains. Maintaining a complete record is important not only to comply with licensing and accreditation requirements but also with the adequate care received by the patients.

The medical record serves as a document to provide data for internal hospital records and auditing quality assurance. Good medical care generally means a good medical record, while an inadequate medical record generally reflects poor medical care therefore periodic auditing and maintenance of medical record is important.

The IPD Medical record has following documents:

1) Admission Form And General consent
2) Accident and Emergency department patient assessment
3) First Consultation form
4) Initial assessment form
5) Consultant Notes (Consultant Doctor , Medical officer)
6) Medication Chart
7) Nutritional Assessment form

8) Nursing initial admission Assessment Form
9) Nursing Notes
10) Surgical Consents (If Applied)
11) Surgical Check list(If Applied)
12) Operative notes(If Applied)
13) Reports of multiple investigations

The chapter tenth of NABH fourth edition i.e. Information Management System states that active audit of files must be carried out by the hospital.

IMS.7. The organisation regularly carries out review of medical records.

IMS.7. (e) The review includes records of both active and discharged patients.

The chapter six of NABH fourth edition i.e. Continual Quality Improvement states the quality guidelines for a medical record.

The Following NABH Standards are related to active audit file that have to be fulfilled by the hospital.

CQI.3.The organisation identifies key indicators to monitor the clinical structures, processes and outcomes, which are used as tools for continual improvement.

CQI.3. (a) Monitoring includes appropriate patient assessment.

Interpretation: The organisation shall develop appropriate key performance indicators suitable to it.

The following is, however, mandatory:

i. Time for initial assessment of indoor and emergency patients.
ii. Percentage of cases (in-patients) wherein care plan with desired outcomes is documented and counter-signed by the clinician.
iii. Percentage of cases (in-patients) wherein screening for nutritional needs has been done.
iv. Percentage of cases (in-patients) wherein the nursing care plan is documented.

CQI. 3. (c). Monitoring includes medication management.

iii. Percentage of medication charts with error prone abbreviations

CQI .3. (j). Monitoring includes patient safety goals.

v. Compliance rate to medication prescription in capitals

CQI.4. The organisation identifies key indicators to monitor the managerial structures, processes and outcomes, which are used as tools for continual improvement.

CQI.4. (g). Monitoring includes availability and content of medical records.

iii. Percentage of medical records having incomplete and/or improper consent.

Executive summary

According to hospital policy the documentation of the inpatient file must start within 30 min of arrival of the patient on the floor starting with initial assessment done by medical officer and nursing staff and then continuously documenting the other procedures carried out on the patient. The proper sequence is being followed so as to arrange the different records so that it becomes easy for others staff also to read it. Regular audit is being carried out so as keep a check on the documentation like Assessment forms, plan of care, consultants notes, consent forms, etc.

A structured checklist was used and that was only used for active audit of IPD files. Random visits to IPD floors was carried out and the checklist was filled for 10 patients each day and the compliance on those files was carried out over a period of 21 working days and data of 210 files was collected and no file was repeated during this period.

Aim and Objectives

1. To Assess that the existing documentation is in accordance to NABH Standard.
2. To identify lacunae in the same and to propose possible solution.

Methodology

i. Study Period - (18^{th} May to 10^{th} June 2021)

ii. Sample Size : 210

iii. Tool Used : Structured Check list(Annexure 1)

iv. Data Source : Primary

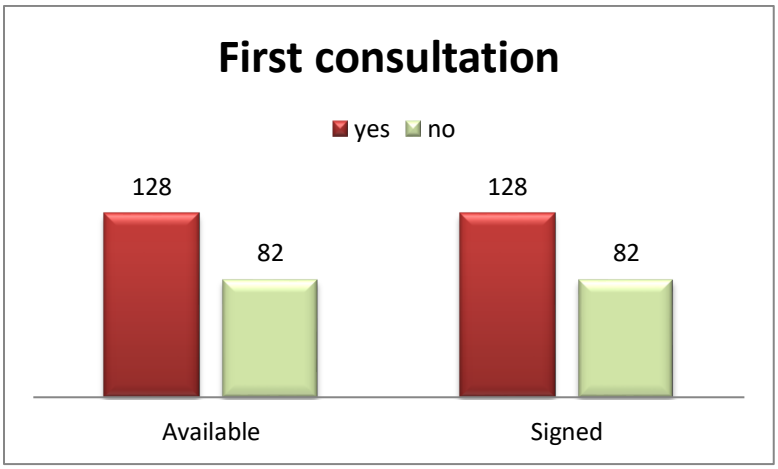
v. Data Collection Approach : Systemic Random Sampling

Analysis

1) First Consultation

The first consultation is very important as it is the point where the consultant doctor guides the patient to get admitted in hospital or not.

The number of files having first consultation mentioned in them was 128 out of 210 which contributed to 61% of total files.



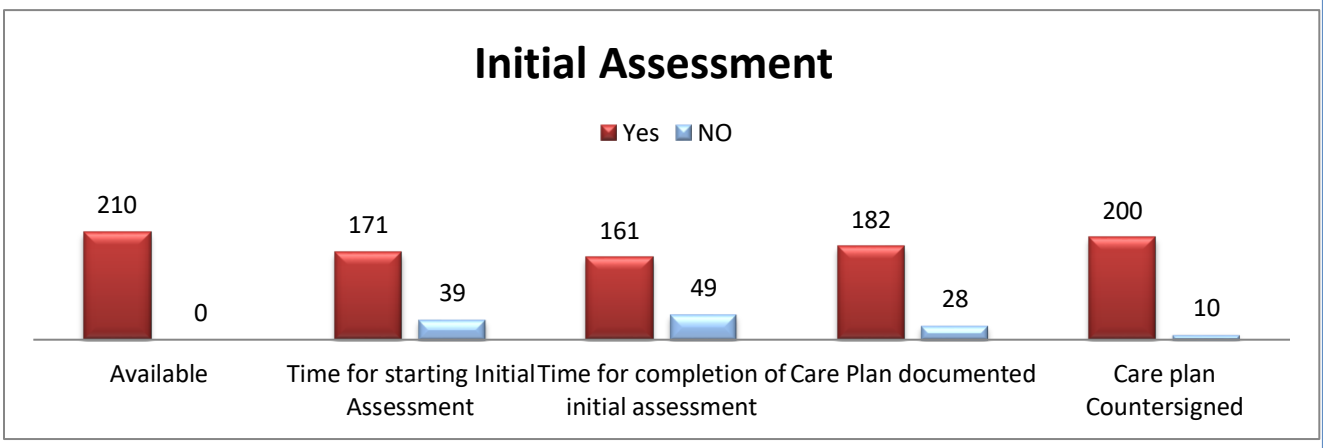
2) Initial Assessment

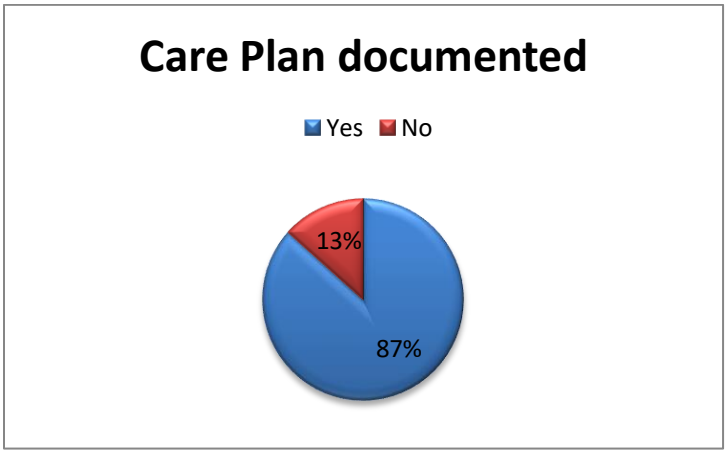
Initial Assessment has to be conducted within 30 minutes of patient arrival on the floor. The medical officer present on the floor is responsible for filling this form and he has to take into consideration the following points:

Time of starting initial assessment, Time of completion of final assessment , care plan documented and care plan countersigned.

Care plan documented is an important factor as it conveys the desired outcomes. Out of 210 files only182 had care plan documented which accounts to 87% of total files .

Care plan countersigned directs to the person who actually filled the initial assessment form and out of 210 only 200 files had care plan countersigned which accounted to 95.2% of total files.





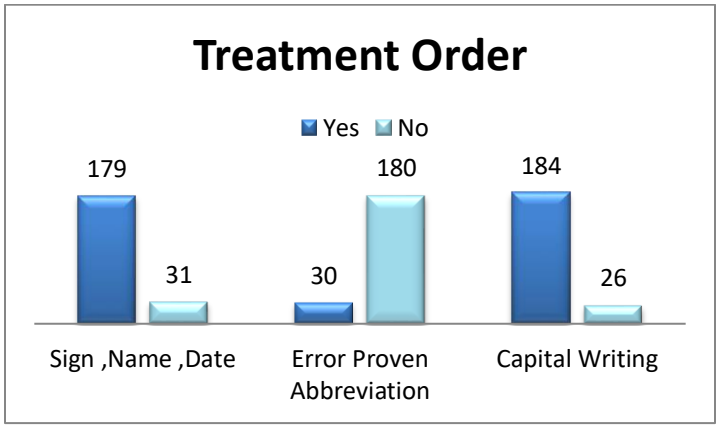
3) Treatment Order

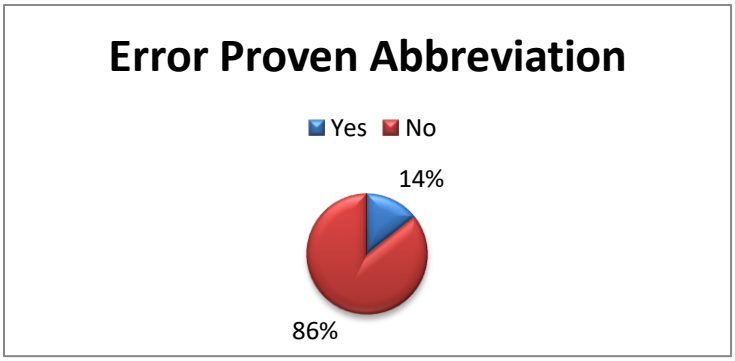
Treatment order consists of all medication, their time of administration, dosage, route of administration so that the nursing staff can follow them accurately therefore they have to be written in capital letters, clear and legible. The treatment order must be signed and name and date have to be written on it. The error proven abbreviation must not be written on the files as it causes confusion and can lead to medication error and for these some of the abbreviations are accepted by the organizations that are accepted by ISMP.

The no of files having named, date and sign was 179 out of 210 accounting to 85.2% of total files.

The no of files having capital writing was 184 out of 210 which accounted to 87.6% of total files.

The no of files having error proven abbreviation accounts to 30 out of 210 which accounts to 14.2 % of total files.

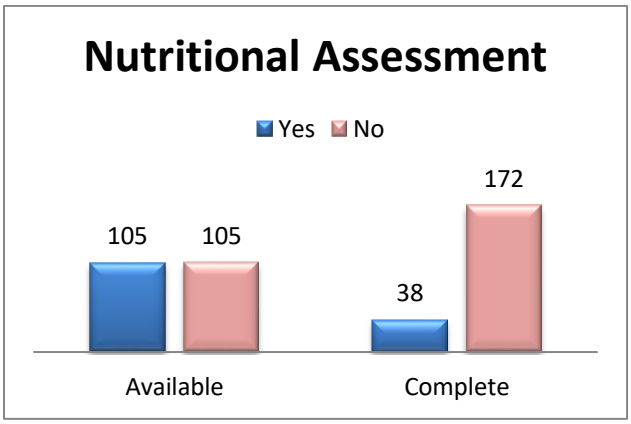




4) <u>Nutritional Assessment</u>

Nutritional Assessment is done for every patient as the nutritional needs for each and every patient is different and therefore proper assessment is required. Nutritional assessment form has to be filled by the dietician and in accordance to this only the diet given to the patient is decided.

The number of files having nutritional assessment form available was 105 out of 210 which accounts to 50%.The number of files having completed nutritional assessment was 38 out of 210 file which accounts to 18% of total files.

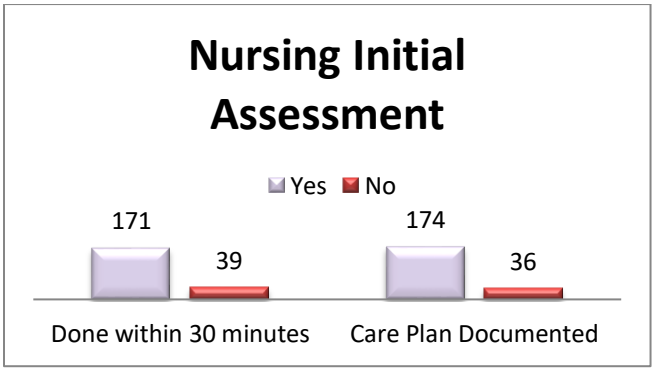


5) <u>Nursing Initial Assessment</u>

Nursing initial assessment has to be done within 30 minutes of patient arrival on the floor and the care plan that nursing staff have to follow other than the medication is also documented on it.

The no of files having assessment done within 30 minutes were 171 which accounts to 81.4% of total files.

The no of files having care plan documented is 174 out of 210 which accounts to 82.8% of total files.



6) Consents

Consents are important as they act as a permission given by patient himself or his relative to carry forward any surgical procedure or any other test or procedures that are required during a surgery. These consents have to be taken within the 24 hours before carrying out any surgical or other procedures. These consents must be complete and proper and signed as they include the risks that can occur during or after completion of a process.

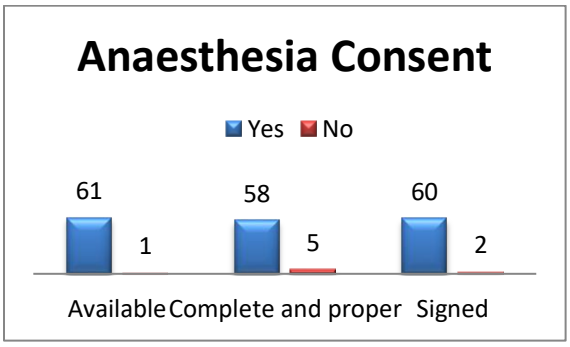
The compliance rates of consents are as follows:

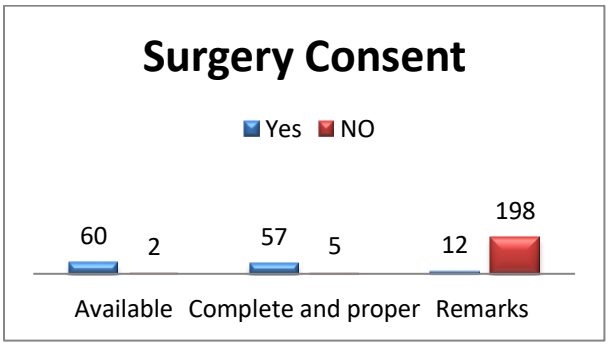
Anaesthesia consent is 93.55%

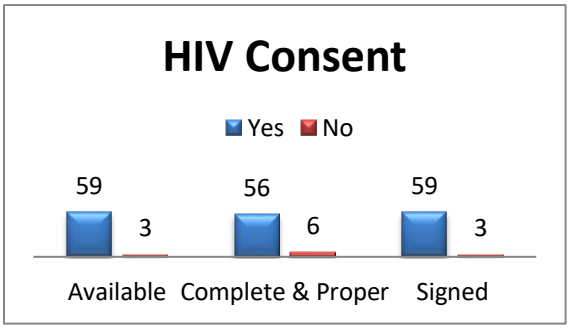
Surgical consent is 91.94%

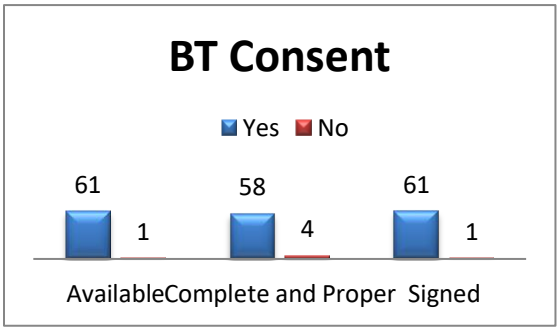
HIV consent is 90.32%

BT consent is 93.55%





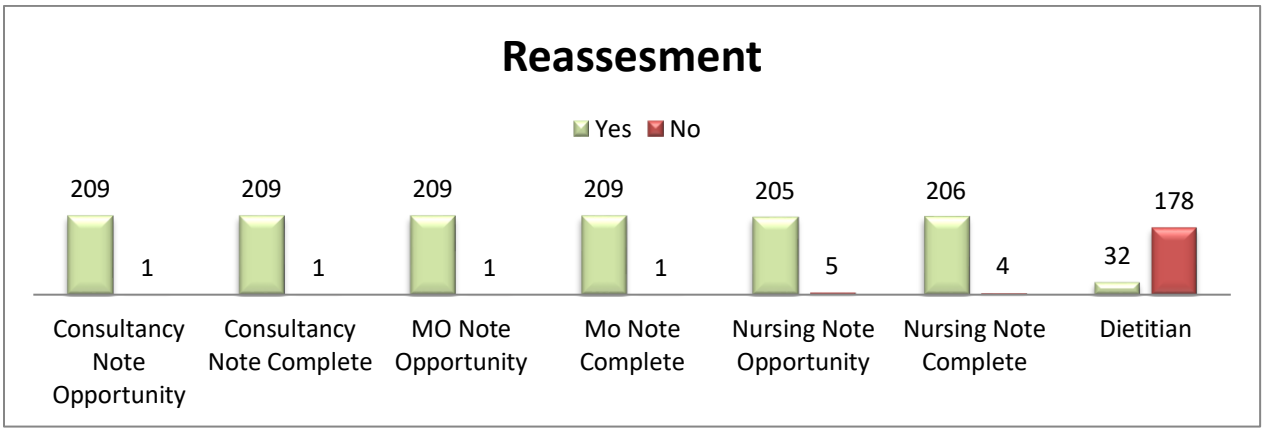




7) Reassessment

Reassessment contains information of notes written by consultants, medical officer and nursing staff on daily basis .

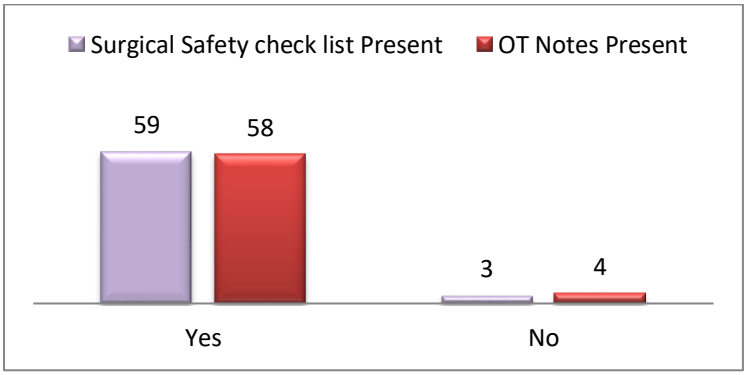
One consultant note , two medical officer note and three nursing staff notes must be documented in a day in medical record of patient.



8) <u>Surgical safety checklist and OT Notes</u>

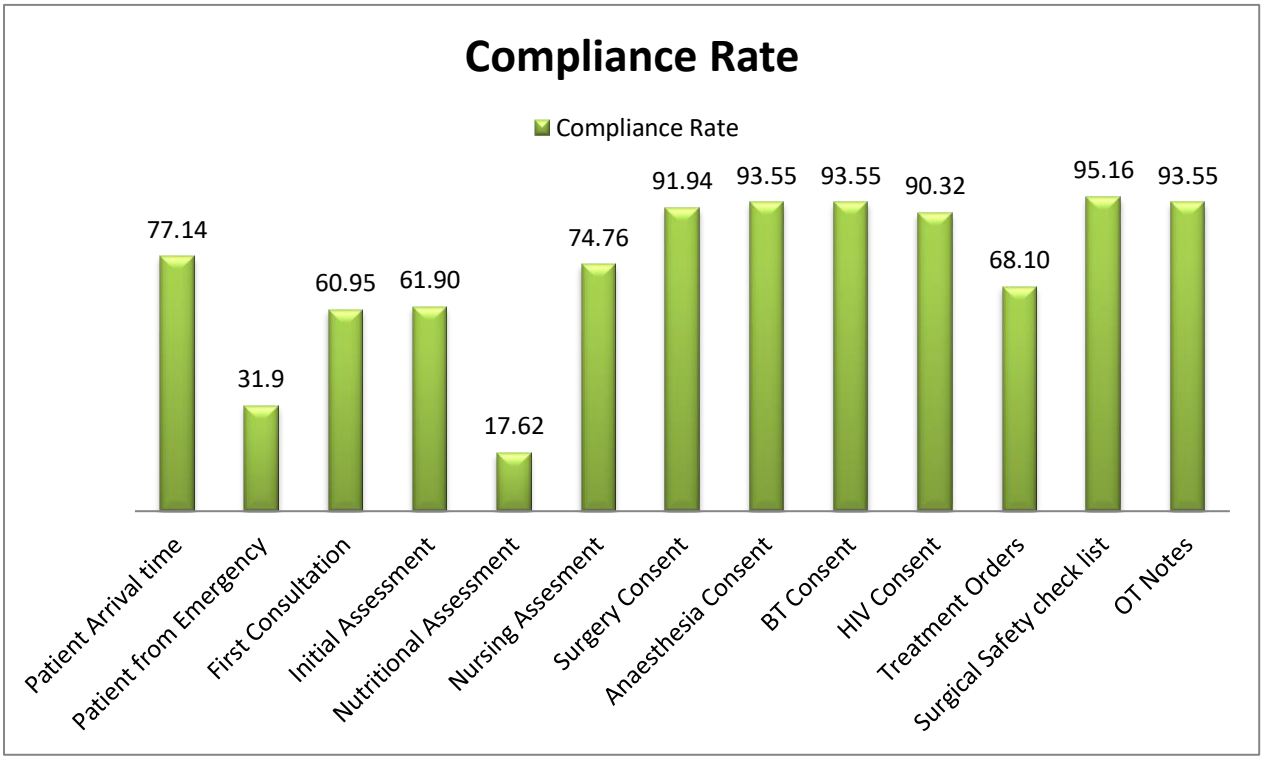
The surgical safety checklist are the list checked and signed by the surgeons before performing the surgery and OT Notes are written by the surgeons after they have performed surgery so as the minute details of the surgery can be kept as record and also can be referred afterwards.

The percentage of Surgical Safety checklist and OT notes present in files are 95.1% and 93.5% respectively.



Conclusion

The compliance rate of active IPD medical records as per the NABH Standards of Shalby Hospital is displayed in the following graph which clearly shows that their compliance rate in various parts of the medical record is not satisfactory such as in patient arrival time, first consultation , initial assessment, nutritional assessment ,nursing initial assessment and treatment order therefore steps to reduce them must be taken and steps to achieve the target compliance rate for each parts of medical record must be taken and must be maintained over the period of time.



B) To study revenue leakage due to billing process inaccuracy.

Introduction

Revenue leakage is the unnoticed or unintended loss of revenue. The leaks can come from both the revenue and the expenditure side. Revenue leakage refers to under-billing your customers for services and products provided by your organization. Revenue leakage occurs when you're not able to efficiently and accurately track and bill for different usage. If you can't accurately track and bill for consumption-based services, you could be missing out on a significant revenue stream. Usage-based billing helps you to ensure that charging for your services and never leaving potential revenue on the table.

Hospital has different type of patients such as patients from emergency, outpatient, inpatient and daycare patients. Hospital provides a range of services including medical care , diagnostic services , surgeries and nursing care.. All these patients in turn lead to revenue generation of the hospital. This part plays a vital role in functioning of whole of the hospital as whatever revenue is generated by this helps the hospital to expand itself as well as invest in new technologies and other requirements required by the hospital.

There are various possibilities in a hospital from where a revenue leakage occurs and these are as follows:

1. **Incomplete or un-billed procedures**

The medical staff including physicians must be made aware of billing process as incorrect coding will lead to poor patient care and all minor or bed side procedures will go unrecorded. All Staff must be acquainted with the billing process also.

2. **Incomplete, un-billed or inaccurate Claims**

The inaccurate claims leads to damaging the reputation and performance of company. The hospital must look into what are the procedures performed on patient and what are the claims submitted so as to avoid this problem.

3. **Managing Patient Balances**

The patient balance management process is important for the hospital therefore timely reminder and flexible payment methods must be present so that maximum reimbursement occurs.

4. **Underpayments and Fee-Schedule problems**

Underpayments go unseen in an organisation knowing what your services cost is very important therefore review of fee structure must be done in an organisation on monthly basis.

5. **Incompetent claim denial management**

Denial management is very important and has to be handled by professionals as it requires to investigate unpaid claims, any uncover services by insurance companies and also to appeal the rejections as per the memorandum of understanding signed with the company**.**

6. **Patient Centricity**

Patient Centricity is very important for a hospital as being a healthcare organisation the primary responsibility is toward the patients and their trust and satisfaction is very important as it will only lead to more business for the hospital. Good communication with patient is the most important factor which a hospital must consider.

7. **Staff or Front Desk related Issues**

Front desk is the first point of interaction between the patient and hospital therefore efficient and trained staff must be present at the reception desk and billing department. The staff should help patients and their attendants in seamless admission and billing process.

Executive Summary

Shalby hospitals was also interested in analyzing the revenue leakage caused due to under billing .

The internal auditing team of the hospital was analyzing the billing department for preventing the loss.

They used a checklist so that they can keep a check on the under billing procedures.

The hospital follows a procedure of billing on daily basis in which when the patient is admitted in the hospital the room rent is charged according to the room decided by the patient and the financial counseling department of the hospital. Each and every procedure carried on patient is documented on the daily basis on the medical activity record sheet and that sheet is

submitted every day to the billing department at the end of the day and they compute each and every procedure written on that sheet and the procedures that are indented by the nursing stations on the floor.

The internal auditing team used their checklist before discharging the patient and reviewed all the bills of the patient and they cross checked the bill with the daily activity record sheet and then changes in the bill were carried out and then final billing of patient was done and patient was discharged. At the end of the day a report was also being made so as to review their performance and files having no revenue loss, revenue loss prevented and revenue loss that occurred was analyzed so that at the end of the day they can improve their billing process and make necessary changes.

Objective

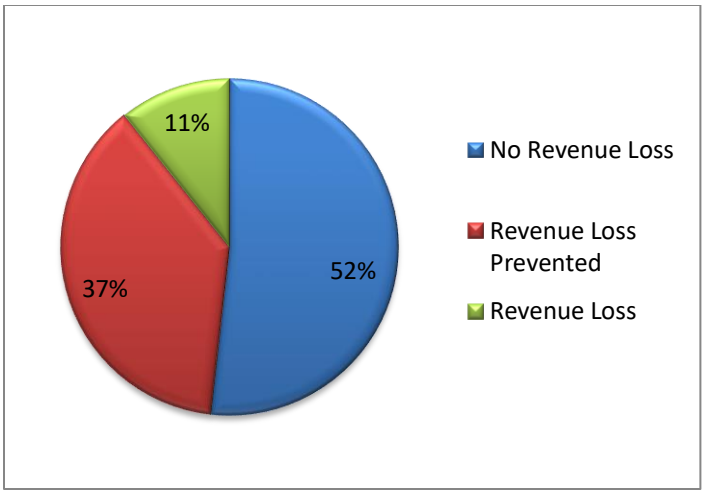
- To assess the revenue leakage incurred by the hospital due to unbilled procedures of inpatient and daycare patients.

Methodology

i. Study Period - (1st June to 15 th June 2021)
ii. Sample Size : 112
iii. Tool Used : Structured Check list(Annexure 2)
iv. Data Source : Primary

Data Interpretation

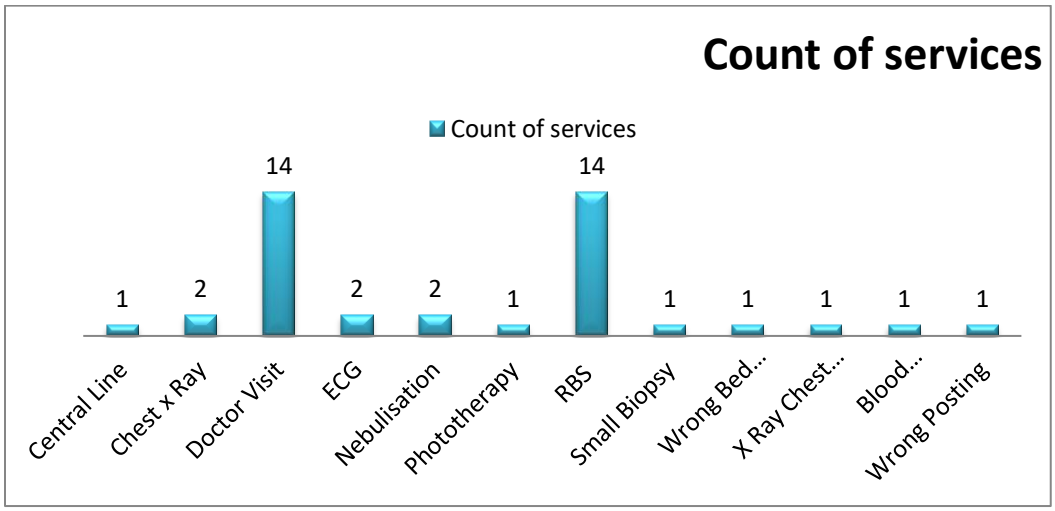
It was observed that out of 112 files 58 files reported no revenue loss, 42 files reported prevented revenue loss and 12 files reported revenue loss.



Revenue loss

These are those loses which were either missed by billing department during billing or those procedures that have to be mentioned in medical record sheet but were not written appropriately and therefore they were missed.

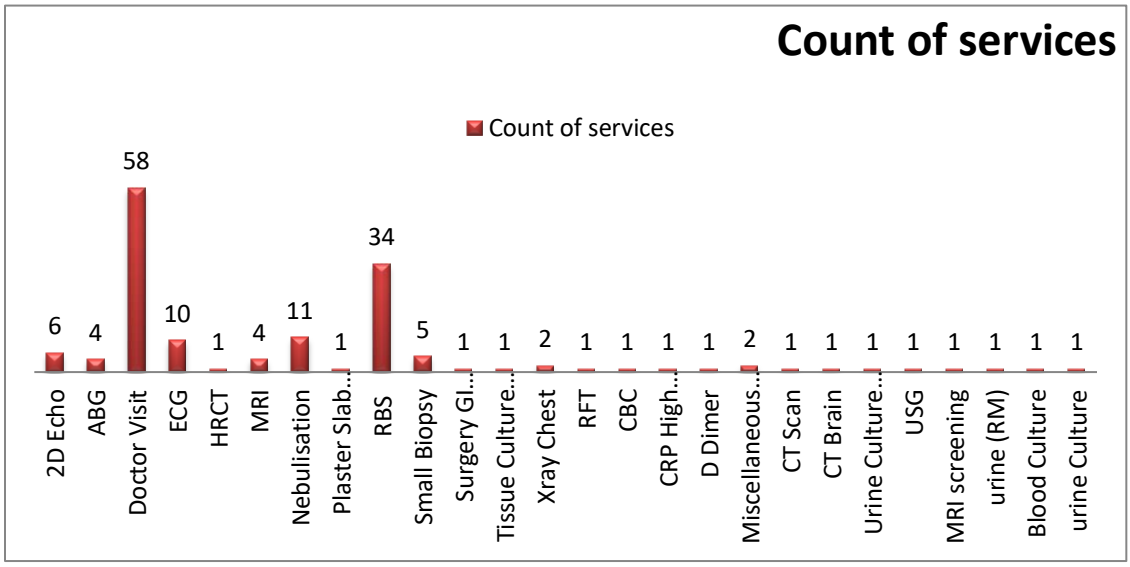
The following graph shows revenue loss in terms of their counts. It's evident from the graph that in terms of counts doctor visit, random blood sugar and ECG accounts to highest in revenue loss.



Revenue Loss Prevented

These were those loses that were prevented by the billing department by matching the medical record sheet and indent done by nursing staff that could have lead to revenue loss if gone unseen.

The following graph shows both revenue loss in terms of counts of services. It's evident from the graph that doctor visit, random blood sugar and nebulisation accounts to highest in revenue loss prevented.



Conclusion

Revenue leakage due to billing process non accuracy is present in almost all the hospitals and the percentage varies from hospital to hospital and therefore focus to control this must be given and strengthening the billing process is the most important factor that has to be considered.

There are various procedures which go under billed such as missing bedside procedures (catherization, intubation, ventilator, Bi-pep and dressing) and various investigations such as RBS, nebulisation, ECG, ABG, etc. therefore special emphasis must be given on these investigations.

Physicians and referral doctor's visits are also the area of concern for the hospital.

Recommendations

- Periodic training about the NABH standards to fill a medical record must be given to the existing staff as well as the new enrolling staff.
- The dietician in the hospital must fill nutritional assessment form for each and every patient admitting in the hospital.
- More frequent audit of medical records must be accomplished so as to track the discrepancies.
- If possible one staff at each floor should be assigned the responsibility for proper documentation of active files.
- Doctor's visit must be mentioned in the daily medical activity record sheet if consultant doctor doesn't mentions it then it should be responsibility of floor medical officer to fill it on their behalf.
- Nursing staff must be trained for proper documentation of the investigations in the daily medical activity sheet.
- Auditing of ECG rolls and proper ECG training must be given to the staff so that they don't repeat ECG frequently.

ANNEXURE

Annexure1: Checklist For Active File Audit

IP NO.											
DOA	Date										
Time	Patient arrival time										
Specialty	Surgical										
	Medical										
Consultant's Name											
Patient from emergency											
First Consultant	Available										
	Signed										
Initial Assessment	Available										
	Time for starting of Initial Assessment										
	Time for completion of Initial Assessment										
	Care plan Documented										
	Care Plan Countersigned										
Nutritional Assessment	Available										
	Complete										
Nursing Initial Assessment	Done within 30 mins										
	Care Plan										

	Documented										
Surgery consent including high risk	Available										
	Complete & Proper										
	Remarks										
Anesthesia Consent	Available										
	Complete & Proper										
	Signed										
BT Consent	Available										
	Complete & proper										
	Signed										
Treatment Orders	Sign ,Name & Date										
	Error proven Abbreviation										
	Capital Writing										
HIV Consent	Available										
	Complete & proper										
	Signed										
Reassessment	Consultant Note-Opportunity										
	Complete										
	Mo Note-Opportunity										
	Complete										
	Dietitian										
Surgical Safety											

Check List											
OT Notes											
Signature of Auditor											

Annexure 2: Checklist for revenue leakage

Date of Discharge	Patient Number	Date Of Admission	Charge Code	Types Of Finding	Responsible Department	Unit	Revenue Loss prevented	Revenue Loss

Time Schedule

Sr.No	**Name of the department**	**Date of visit**	**% Time Spent**	**Interacted with (Name and Designation)**
1	Inpatient Department	Everyday	3 hour daily	Dr. Samir Banzal (DYMS)
2	Billing	Everyday	2 hour daily	Dr Atul Sharma (Internal Auditor) Vijay Yadav(Assistant Manager, Billing)
3	Dialysis	12 And 13 May	2 hour per day	Dr Kusum Yadav(Deputy manager clinical)
4	Registration	14 and 15 May	2 hours	Ms. Kiran rajawat (DM

				– Operations Hospitality)
5	Outpatient Department	17 May	2 hours	Dr. Samir Banzal (DYMS)
6	Supply Chain Management	19 May	2 hours	Mr. Ajay Sharma (Manager SCM)
7	Radiation and oncology	22 and 24May	2 hours	Ms. Anam Nafees Ansari(RSO)
8	Maintenance	25 May and 28 May	2 hours	Rajendra Sharma(Assistant Manager)
9	Operation theatre	26 May	2 hours	Mr Om Prakash Jat (OT Manager)
10	Pharmacy	29 May and 1 June	2 hours	Mr. Ajay Sharma (Manager SCM)
11	Emergency room	2 June	2 hours	Dr. Samir Banzal (DYMS)
12	ICU and Cath Lab	4 June	2 hours	Dr Suresh Bhargava
13	CSSD	5 June	2 hours	Dr Kusum Yadav(Deputy manager clinical)
14	Third Part Administration	8 June	2 hours	Mr. Mamtesh Sharma(Assistant Manager)
15	Quality Department	7 and 9 June	2 hours	Mr Gyanendra Sindhu(Quality Manager)
16	Finance	10 and 11 June	2 hours	Mr Manish Chopra(AGM Accounts and finance)
17	Laundry and housekeeping	12 June	2 hours	Mr. Surjo halder (Assistant Manager)
18	Radiology	14 June	2 hours	Mr Subhash Yadav (Technician)
19	Human Resource	15 June	2 hours	Ms. Deepika Joshi (

				Manager,HR)
20	MRD	16 June	2 hours	Mr Harish (Executive)
21	Infection Control Department	17 and 18 June	2 hours	Mr Harjeet Singh (Infection Control Nurse)
22	Information And technology	19 June	2 hours	Mr. Deepak Singh(Assistant Manager IT)
23	Security and Ambulatory Services	21 June	2 hours	Mr. Surjo halder (Assistant Manager)
24	Marketing	23 June	2 hours	Mr Jitesh Rawat (DGM)
25	Home Care	24 June	2 hours	Mr Ajay Chaudhary(Assistant Manager)
26	Biomedical Department	26 June	2 hours	Mr Mahesh Kumar Choudhary(Assistant Manager)

References

- **NABH 4TH EDITION - [PDF DOCUMENT]**

  In-text: ("NABH 4th Edition - [PDF Document]", 2021)

  Your Bibliography: *NABH 4th Edition - [PDF Document]*. fdocuments.in. (2021). Retrieved 28 June 2021, from https://fdocuments.in/reader/full/nabh-4th-edition-58f9b22a81c29.

- **What is Revenue Leakage? And How to Stop It - RecVue**

  In-text: (Stock, 2021)

  Your Bibliography: Stock, B. (2021). What is Revenue Leakage? And How to Stop It - RecVue. Retrieved 9 July 2021, from https://www.recvue.com/what-is-revenue-leakage-and-how-to-stop-it-before-it-starts

- **9 STEPS TO RESTRICT REVENUE LEAKAGE IN MEDICAL BILLING - VIAANTE**

  In-text: ("9 steps to Restrict Revenue Leakage in Medical Billing - Viaante", 2021)

  Your Bibliography: 9 steps to Restrict Revenue Leakage in Medical Billing - Viaante. (2021). Retrieved 12 July 2021, from https://www.viaante.com/2020/08/14/9-steps-to-restrict-revenue-leakage-in-medical-billing/

- **BEST MULTISPECIALTY HOSPITAL IN INDIA | SHALBY HOSPITALS**

  In-text: ("Best Multispecialty Hospital in India | Shalby Hospitals", 2021)

  Your Bibliography: Best Multispecialty Hospital in India | Shalby Hospitals. (2021). Retrieved 8 July 2021, from https://www.shalby.org/

- **SHALBY HOSPITAL JAIPUR - DOCTORS LIST, BOOK APPOINTMENT ONLINE | CREDIHEALTH**

  In-text: ("Shalby Hospital Jaipur - Doctors List, Book Appointment Online | Credihealth", 2021)

  Your Bibliography: Shalby Hospital Jaipur - Doctors List, Book Appointment Online | Credihealth. (2021). Retrieved 8 July 2021, from https://www.credihealth.com/hospital/shalby-multispecialty-hospital-jaipur/doctors