Summer Training at
Artemis Medicare Services Limited,
Gurgaon
(April - June, 2013)

"A PROJECT ON STUDY OF IPD FLOW AND EVALUATION OF DISCHARGE PROCESS" "PROJECT ON CHECKING THE COMPLIANCE OF PATIENT & FAMILY EDUCATION FORM" "CLINICAL AUDIT AND ANALYSIS OF MEDICAL RECORDS"

By
Aditya Kaura

Under the guidance of
Dr. Nirmal Gurbani

Post Graduate Diploma in Hospital and Health Management
2012-2014

Institute of Health Management Research,
Jaipur
2013

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
1, Prabhu Dayal Marg
Sanganer Airport, JAIPUR - 302 011, INDIA
Tel. : 3924700, 2791431-32
Fax : 91-141-3924738
E-mail : iihmr@iihmr.org
URL : http://www.iihmr.org
Gram : HEALTHINST

Certificate

This to certify that Dr. ADITYA KAURA has successfully undergone his summer training from 08 April 2013- 08 June 2013 in Artemis Health Institute, Gurgaon . The topic of his project report were "Study on Infant IPD and evaluation of discharge process", "Project on checking the compliance of Patient and Family education form" and "Clinical audit and analysis of medical records"

The candidate has successfully carried out the mentioned studies assigned during his summer training from 08 April 2013 – 08 June 2013 and his approach towards the study was sincere, scientific and analytical.

We wish him success in all his future endeavors.

DR NIRMAL GURBANI
Professor
IIHMR JAIPUR

DR. ASHOK KAUSHIK
Dean Academics and Student Affair
IIHMR JAIPUR

Dated: 7th June 2013

TO WHOM IT MAY CONCERN

This is to certify that Dr. Aditya Kaura from Institute of Health Management Research, Jaipur has successfully completed his Internship in Quality Department at Artemis Health Institute, Gurgaon from 8th April 2013 till 7th June 2013.

During his training, he was found to be sincere and hardworking.

We wish him success in future.

For Artemis Health Institute,

Ramanjit Kaur Virk
Group Team Leader - Training & HR

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ACKNOWLEDGEMENT

The Project training at **Artemis health institute,** Gurgaon, provided me both learning experience as well as a glimpse into the daily management functions of a renowned hospital. I was fortunate enough to interact with the people, who in their own capacities have encouraged and guided me in each and every step.

First of all, I would like to thank **Dr. Devlina Chakravarty, COO** for providing me an opportunity to do internship at **Artemis health institute.**

I am grateful to my mentor **Dr. Nirmal Gurbani** to guide me from the start who has always been there for me whenever I needed him in helping me choose the hospital, project and implementing the project in the best possible way.

I am obliged to **Col. Rajnish Handa,** Head HR, **Mrs. Ramanjit Kaur Virk,** Group Team leader of training and development, for giving me this wonderful opportunity to learn and experience the corporate work culture by trusting my capabilities.

I want to express my gratitude and sincere thanks to my mentor **Mrs Rajani Rao,** GTL – Quality & Systems for her constant support and invaluable time-to-time guidance and kind help in completion of this project.

I also want to extend my thanks to **Dr. S.D. Gupta,** Director-IIHMR for incorporating right attitude towards learning and **Dr.Ashok Kaushik,** Dean-Academic and Students Affairs, IIHMR, for helping and supporting wherever and whenever I wanted.

Finally I acknowledge my indebtedness to the quality team (Mrs Ekta sharma and Mr Sushil das), nursing, pharmacy, patient care services (PCS) and medical records department staff at Artemis Health Institute, Gurgaon, who supported me in successfully completing this project.

Dr. Aditya Kaura

Gurgaon
8th June 2013

CERTIFICATE

This is to certify that **Dr. Aditya Kaura**, student of PGDHM from **Institute of Health Management Research, Jaipur** has successfully completed his project titled "**A project on study of IPD flow and evaluation of discharge process", "Project on checking the compliance of Patient family education form" and "Clinical audit and analysis of medical records"**

To the best of my knowledge this project is the original work of the candidate. I am fully satisfied with the project work.

Mrs Rajni Rao

GTL – Quality & Systems
Artemis Health Institute.

8th June 2012

Gurgaon

Dated: 7th June 2013

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Artemis Medicare Services Ltd.

Ramanjit Kaur Virk
Group Team Leader - Training & HR

ABBREVIATION

Abbreviation	Full form
IT	Information Technology
HIS	Hospital Information System
AHI	Artemis Health Institute
MLC	Medico-legal certificates
IPD	In Patient Department
OT	Operation theatre
GDA	General Duty Assistant
DA	Drug administration
TAT	Turnaround time
JCI	Joint Commission International
NABH	National Accreditation Board for Hospital and Health care Provider
OPD	Out patient department
PCS	Patient care services
NABL	National Accreditation board of laboratory
OP	Out patient
QCI	Quality Control
LOS	Length of stay
TPA	Third Party Assistance

Hospital Profile

Artemis Health Sciences is promoted by Apollo tyres group and is highly regarded for itsprofessional management. The name Artemis depicts the ancient Greek Goddess and the sister of Apollo (Greek God of medicine). The logo of Artemis is the "art of health care" that signifies that "you are always in good hands" and encapsulates the philosophy of care and patient focus. Artemis health institute aims to define and deliver cutting edge healthcare in India by uniquely integrating healthcare delivery with research and development, medical education and manufactures of medical devices and equipments.

Artemis health institute is 300 bedded, super specialties, and tertiary care hospital located in Gurgaon, India. Designed to be one of India's most advanced hospitals, Artemis has some of the world's finest technology and equipment. The medical practices and procedures followed at the hospital are research oriented and benchmarked against the best in the world. The hospital delivers world class services in a warm, open, patient-centric environment. A sprawling campus of 8 acres has the potential of adding 300 more beds taking the total bed strength of 600.

The hospital handles close to 200,000 patients a year, out of which 12,000 are international patients. International patients come to Artemis health institute from UK, USA, Europe, Middle East, Australia, Yemen, and Africa and amongst other countries.

Highlights.

- First hospital in Gurgaon region to be Joint Commission International (JCI) accredited.
- Accredited by national accredited board for hospitals and health care providers (NABH).
- Artemis health institute Gurgaon was awarded as the most promising start up health care company of the year 2007, at "the health care excellence awards 2008" organized by the express group and express group health care.
- One of the first paperless hospitals in India, to have fully electronic hospital informative system.
- The hospital won the Asia Pacific award for Hand Hygiene in 2010 and 2011 and it strictly follows 5 steps of Hand Hygiene to prevent hospital acquired infections. The hospital has set defined protocols to prevent nosocomial infections like VAPS, SSI, UTI, Needle Stickinjuries.

VISION,MISSION AND CORE VALUES

VISION

To create an integrated world class healthcare system, forecasting, protecting, sustaining and restoring health through best in class medical practices and cutting edge technology developed through in depth research carried out by the world's leading scientific mind.

MISSION

- Deliver world class patient care services.
- Excel in the delivery of specialized medical care supported by comprehensive research and education.
- Be the preferred choice for the world's leading medical professionals and scientific minds.
- Develop, apply, evaluate and share new technology.
- Be an active partner in local community initiatives and contribute to its wellbeing and development.

CORE VALUES

- **C**are for the customers
- **R**espect for Associate
- **E**xcellence through teamwork
- **A**lways Learning
- **T**rust Mutually
- **E**thical Practices

Artemis Health Sciences

Health care Delivery - Artemis Health Sciences is focused on delivering world classhealthcare with its state of the art facilities, spread across India. The first **Artemis Health Institute**, located in Gurgaon in the National Capital Region, is operational since July 2007.The facility is designed and constructed across a total area of 525,000 square feet (when completely built). The area is divided into three towers- Tower I, Tower II and Tower III (Future expansion).The construction is in strict accordance with International guidelines.

The facility focuses on offering patients technology-backed world-class healthcare delivered by leading medical professionals certified by international medical bodies. Additionally, Artemis follows patient-centric processes conforming to International Patient Protocols, there by establishing new standards of service and care.

SWOT of the Hospital

❖ **Strengths**

- Exclusive centre for Cardiology and Oncology
- Core Specialities are cardio, neurology, oncology, nephrology, fertility centre & bariatric surgery
- Ambience and homely environment.
- Cutting Edge Technology.
- Internationally renowned faculty
- International Quality Protocols
- Patient Centric Approach
- Healthy and friendly environment
- Liver Transplant Centre & Cosmetic Clinic
- Separate PCS team for Registration , Billing & Handling Queries

❖ **Weakness**

- Access to the hospital through public transport is less
- Low awareness in public

❖ **Opportunities**

- Awareness among the public
- Scope of international patients
- Branding at airports

❖ **Threats**

- Competition from upcoming hospitals

Floor Directory

Ground Floor

- Atrium(Reception)
- PCS-OPD
- Phlebotomy(Sample Collection)
- Physiotherapy
- OPD-Pharmacy
- International Patient Lounge
- Health & Wellness Department
- Dental centre
- Reproductive medicine centre
- Diagnostics(Imaging)
- Auditorium
- Blood Bank
- Emergency(12 beds)
- PCS-IPD
- TPA & Financial Counselling
- Visitors Cafeteria

First Floor

- Operation Theatre Complex(9 OT's with one hybrid OT)
- Recovery Area
- Cath Labs
- Day Care
- Surgical ICU(34 beds)
- NICU(11 beds)
- LDR(6 beds)

Second Floor

- PICU & MICU(34 beds)
- Administrative Block
- Chairman's Office
- Library
- IT Department
- Biomedical Services

Third Floor

- Twin Sharing Rooms
- Economy Rooms(Four Sharing)

Fourth Floor

- Twin Sharing Rooms
- Sleep Lab

Fifth Floor

- Executive Single Room
- Deluxe Single Room
- Liver Transplant Centre

Sixth Floor

- Nursing Administration Office
- Executive Suite
- Presidential Suite

Basement

- Dialysis unit(9 beds)
- Chemotherapy & Nuclear Medicine
- Clinical Research Office
- Endoscopy
- OPD(Dermatology & Ophthalmology)
- NAT Lab
- Infection Control Office
- MRD
- IPD Pharmacy
- Staff Cafeteria
- Laboratory Services
- Mortuary
- Clinical Engineering
- CSSD
- CGHS Wards
- Food & Beverages Department
- Nutrition & Dietetics
- Housekeeping Office
- Store receiving unit
- Stationary store
- Power Plant
- Civil engineering department
- Food and beverages department
- Kitchen

Project 1

IPD Process flow and evaluation of the discharge process

Executive summary:

For any organization the most important and primary concern is patient's satisfaction. Delay in discharges is a major concern for any hospital, it just not affects patient satisfaction level but also financially costs the organisation. This case study emphasises on delays occurring in discharges in the hospital. It is a prospective study of sample size of 100 patients, which covered all types of patients admitted in all the four IPD floors of the hospital. It covered cash, echs/cghs, international and TPA patients. The study was aimed at basically five specialities in which the time taken for discharges was seen the most and they are Neurology, Cardiology, Gynaecology, Neurosurgery and Orthopaedics. In order to understand the discharge process and the delays involved in it, first the whole process of IPD was understood. After understanding the complete process of IPD, data was collected at various ends regarding the process was initiated and the time it took to complete. The various parameters taken in consideration were the time for the discharge summary to be issued by the doctors, time taken for pharmacy clearance, time taken for billing and finally the time take by the nurses to execute this process. After collecting, compiling and analyzing the data, the areas of concern were highlighted for the optimum use of implementations to be done by the hospital.

Introduction:

IPD (In patient department) and its process

First of all, IPD on fifth floor and its process flow was understood to have a broader picture of factors contributing to medication error. The work flow process of nurse and the procedure of patient's admission to the patient's discharge were also dealt in detail.

Physical Facilities:

- Location: Third to sixth floor.
- Well connected with blood bank, labs and CSSD through lifts.
- Two nursing stations and one billing counter is there for the queries raised by the patient's attendant.
- Fire exit staircase and elevator present near the wards.

Ward Layout:

- Designed in a triangular shape with two nursing stations on two sides.
- Between the nursing stations there is an ancillary and auxiliary facility.
- Ancillary facility includes clean utility room where the fresh linens are kept for the patients such as sheets to be changed by the GDA as and when required, dirty utility room to dispense the biomedical waste according to the colour code, housekeeping room where the broom and the cleaner stuff is kept which is used for cleaning the patients room, it is seen that the floor of both bathroom and room is always dry to avoid patient's fall.

Equipments:

- **Crash cart**- They are kept in areas such as IPD floors, I.C.U, O.T's, Dialysis room etc so that as soon as there is a code blue the crash cart is taken to the bed side of the patient. The code blue team reaches within 90 sec and save the life of the patient.
- **Wheelchairs and trolleys** are kept on the floors and also in the atrium so that it can be used in the emergency conditions like patient's fall or in case the patient is suddenly feeling dizzy while he is trying to walk as per doctor's advice, also when he is unable to walk etc.
- **Pneumatic shoot device** through which the blood samples are carried to the diagnostic lab. It saves the time and workload of the nurses as well as the blood samples are reached quickly and the reports are prepared at the earliest.

Staffing – on each floor:

- **Doctors**- Each floor has a resident medical officer assigned who keeps a check on patient care and hour to hour activities and helps the nursing staff by answering their queries so that in any eventuality the patient does not suffer.
- **Nurses**- The nurse to patient ratio is 1:5 wherein one nurse at one shift takes care of five patients. It is the ideal ratio; she makes sure that the patient has no problem.
- **Dietician**- She comes on round every day and discusses with primary consultant about each patient and prepares the diet chart as per the patient's health for every patient.

- **Housekeeping**- Responsible for the maintenance of hygiene in the room so that there is no water lodging or blood spillage on the floor or anywhere in the room.

- **GDA**- The GDA's assist the nurse in handling the patient so that the patient is safe, e.g. at the time of sponge bath for the bed ridden patients who are obese or very old then the GDA assist the nurse so that the patient might not fall while changing the position.

Operation and communication:

- By HIS
- By landline phones
- By Mobile phones

Policy and Procedures followed for patient's safety from patient's admission to his discharge:

- **Admission** – Patient is registered and he is admitted to the room according to the choice and availability. If in case the patient is from ER and some investigations need to be done for further procedures then it is done first on the ground floor and subsequently the patient is shifted to the room. The reports come on the system automatically.

- **Checklist** – Admission, infection control, discharge.

- **Consent form** – All procedural consent forms are to be filled by the patient.

PROCESS:

- As soon the patient is admitted to the ward he is asked to wear the patient's dress. A white colour id band is placed on patient's wrist, if the patient is allergic to anything then a red band is also tied and if a patient is vulnerable then orange band is tied.

- He is well oriented by the nurse allotted to him about the facilities which includes room number and layout; call light and how to request assistance, bed operation, bathroom layout etc.

- A consultant visits the patient and the resident follows the prescription of what all medications are to be given to the patient.

- The nurse puts the order in the HIS for indenting and the TAT for indenting is appx. 20-25 min.

- A medication chart is prepared by the doctor and medicines are given to the patient on the standardized timings according to the dosage prescribed to the nurse.

- Before surgery the doctor takes care of the clearance of all tests required pre-operatively.

- The nurse brings the patient from OT either to the ward or to the I.C.U as directed by the doctor and asks for all the necessary information about the patient which is to be well taken care of, post-operatively.

- Patient is sent to OT through the safest means of transport preferably along with their bed to the OT. GDA and the allocated nurse assist the patient and take their file along with the patient and report to the doctor about the patient's status.

- Post-operative patients are monitored every hour by the nurse and special care is taken such as isolation e.g. patients who has undergone knee replacement a bag of the mask, shoe covers and the head caps are kept in front of the patient room so that whosoever enters the room they use it and go inside.

- Food and medicines from home is strictly prohibited because it might be unhygienic and high calorie diet which can result in compromising patient's health. In case the patient wants to have the home food then a written permission signed by the assigned doctor and the dietician is shown to the guard and then he allows entering of the food.

- **Hand rubs**- They are attached in front of every room as per the Hospital infection control policy.

- **Records** – Maintained in HIS as well as maintained manually.

- **Discharge** – Done from the ward only when the consultant orders. The doctor prepares the discharge summary on HIS. The nurse makes the activity sheet and sends it to pharmacy for clearance. After this, the floor coordinator assembles the reports to be given to thepatient and PCS staff makes the bill.

- Nurse prepares the kit which contains the discharge summary, medicines and reports which are given to the cash patients and TPA patients are given the reports only on the request of the patient. All MLC patients' details are with the hospital only.

- The doctor and the nurse give the required instructions to the patient about their diet, their medications and the preventive measures if any.

Room facilities:

- Beds all over the floors have the side railings so that the patient who is vulnerable or who has undergone surgery might not fall, the beds are adjustable, and it can be either raised or lowered down with the help of the remote control which is attached to the patient's bed. The medicine drawers have a lock so that the patient might not take the medicine on their own. It is mandatory for the nurse to go in the room and check the patient if the bell has rung thrice. The TAT to answer the patient's call is 90 sec.

Parameters of patient's safety:

- Medication error
- Patients fall
- Hospital acquired infections
- Needle stick injuries (infection control)
- Average time to attend the patient's complaint by nursing staff.
- Accidental removal of line
- Hematoma at puncture line
- Adverse drug reaction
- Bed sore
- Sentinel events
- Miscellaneous

Nurses will give the drug after cross checking:

- Right patient
- Right drug
- Right dose
- Right time
- Right method
- Right documentation

Patients Fall:

Hospital falls affect both young and old patients and many of them occur when the patient is alone or involved in elimination-related activities. Hospitalized patients often require assistance with basic self-care tasks, such as using the toilet, ambulating, and eating. They ask for assistance by using the call light. Other assistive devices like canes and walkers are also available in hospital rooms for patients who normally use such devices. e.g. A post operative patient slips in the bathroom might lead to serious injury.

Bed Sores:

Bed sores are a localized area of tissue injury that develops when the patient is exposed to external surface such as mattress, a chair or a wheelchair, or even other parts of the body. The following generally represent some of the precautions which health care providers should, but too often fail to undertake:

- The patient should be bathed daily.
- Repositioning of the patient should occur with a frequency so that the pressure is adequately relieved.
- Education should be given to the patient, family, and care givers on measures to be taken to avoid pressure sores, and appropriate documentation of such measures.

Needle Stick Injuries:

Needle stick injuries are also a common event which occurs while drawing blood, or performing other procedures, the needle might get slip and injure the healthcare worker. This sets the stage to transmit micro-organism from the source person to the recipient.

Prevention includes:

- Engineering controls *i.e.* needles or syringes with safety devices.
- Administrative controls including training and provision of adequate resources.

DISCHARGE PROCESS FLOW

Departmental guide: Quality department

Introduction:

Patient satisfaction has been recognised in the recent times as the most important element of quality and that makes an excellent hospital from different from the good hospitals. A stream lined discharge process can reduce the average length of stay of a patient benefiting the hospital as well as the patient. As soon as the patient is advised for discharge the first thought is to leave the hospital as soon as possible and get back to their home.

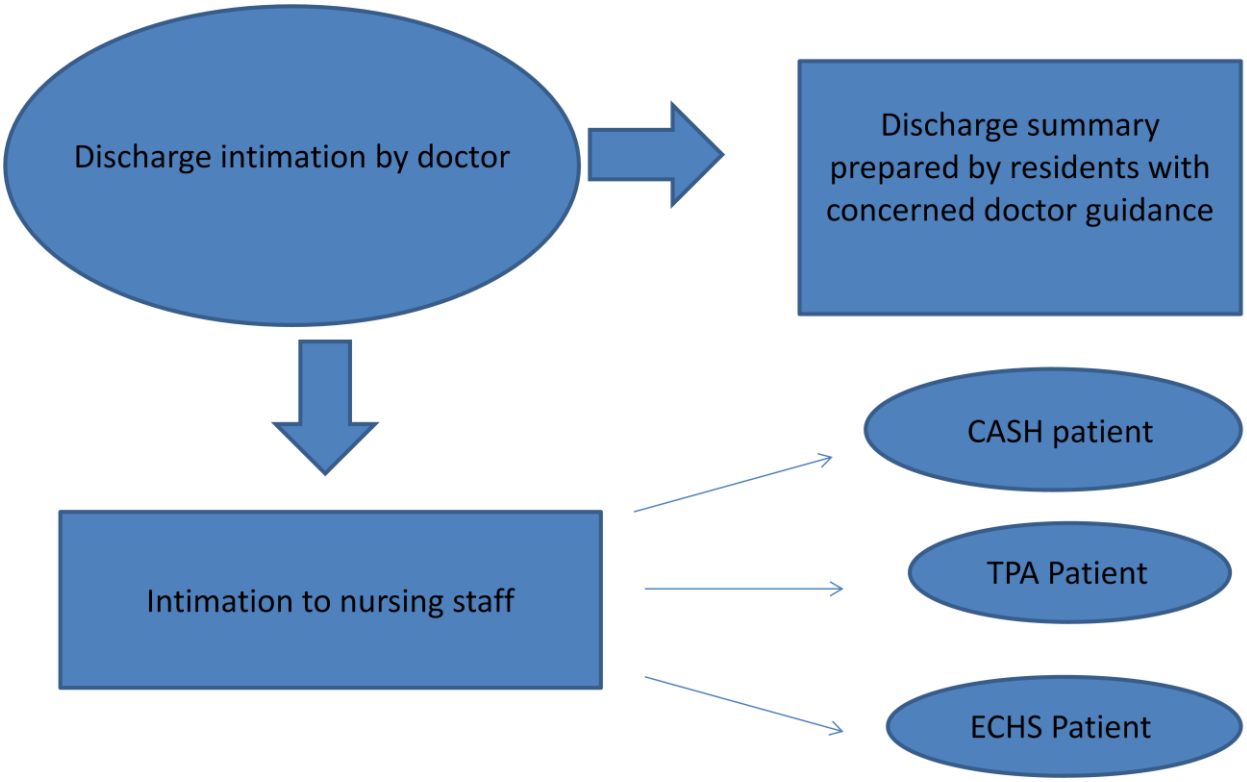
Objectives:

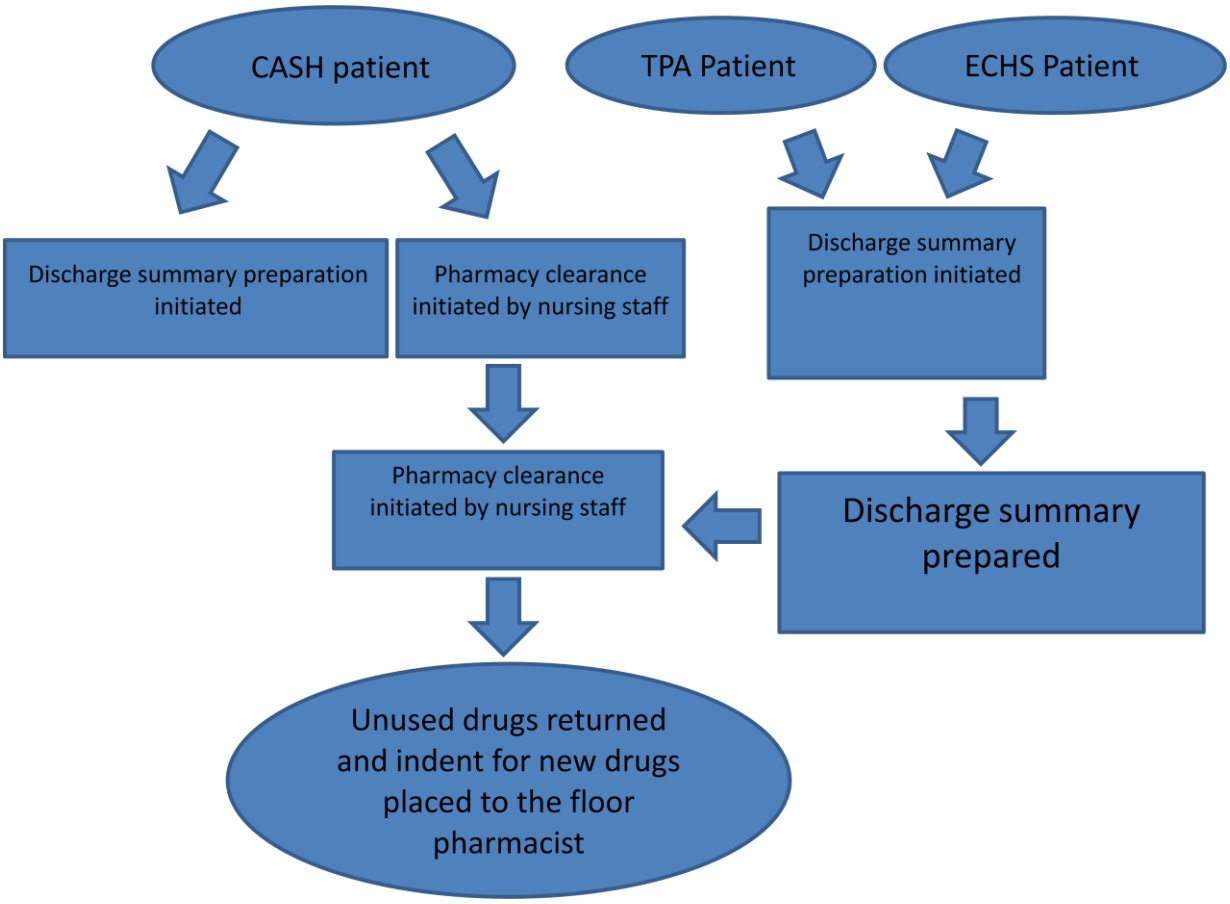
- To study process flows of IPD as well as other departments.
- To find the areas of delay in discharge process and their reasons.
- To streamline the discharge process reducing the time for discharges.

Methodology:

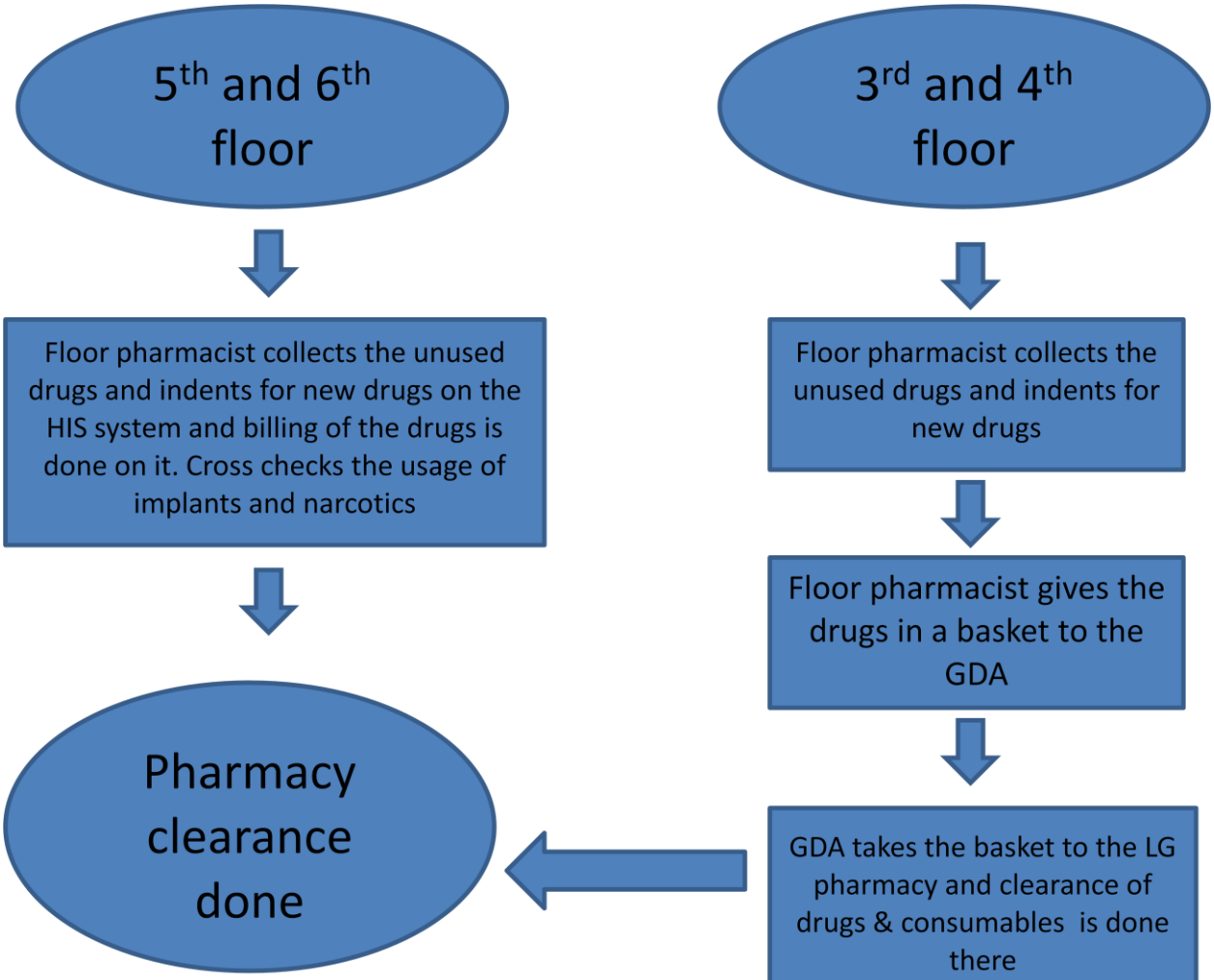
- **Data source**: Data has been collected on routine basis from in–patients department, discharges taking place in hospital at the time of study.
- All the analysis and graphical depictions were done with the help of MS-Excel.
- **Type of study**: Cross-sectional, prospective and analytical study.
- **Study area**: Artemis, Gurgaon
- **Time duration of study**: 9th April- 29th April, 2013.
- **Sample size**: Patients (100) – discharges taking place at various floors.
- **Sampling Method**: Convenient simple random sampling.

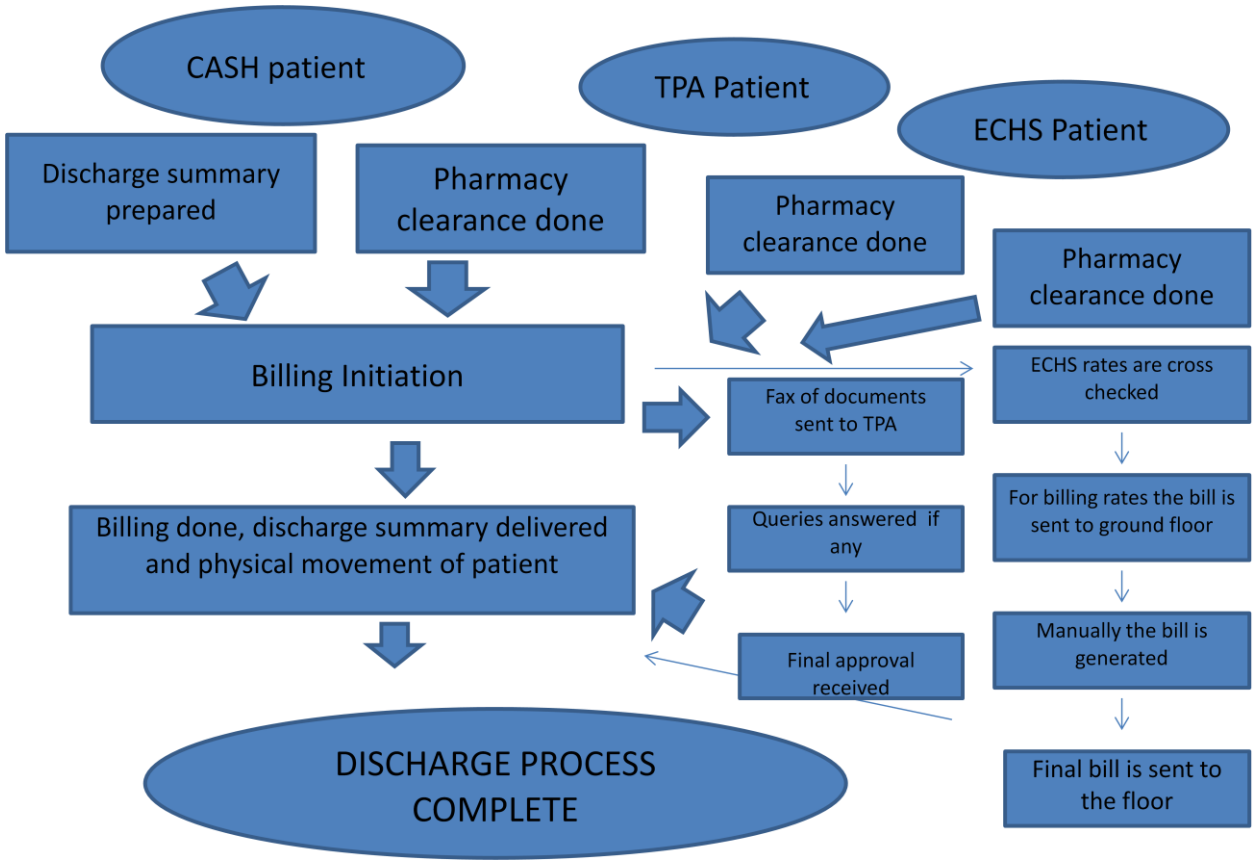
PROCESS FLOW




CASH patient
TPA Patient
ECHS Patient
Discharge summary preparation initiated
Pharmacy clearance initiated by nursing staff
Discharge summary preparation initiated
Pharmacy clearance initiated by nursing staff
Discharge summary prepared
Unused drugs returned and indent for new drugs placed to the floor pharmacist

PHARMACY CLEARANCE PROCESS





Overview:

THE APPROACH-

This project conducted was within the time frame of eight weeks (from April to May 2012). The approach involves 4 steps-

- Project design
- Data collection
- Data Interpretation
- Data analysis

Project design

- Project design first requires gathering, synthesizing and analyzing information with enough objectivity and detail to support a program decision that makes optimum use of resourcesto achieve desire result.

- The highlighted part of the discharge process was taken to be the time taken in each process.

- First whole process of IPD process flow was understood. Process map for discharge process was developed and track of activities taking place were monitored.

After formulation of the steps as shown in the flow chart above, study was done on the 3rd, 4th, 5th and 6th floor for cash, international, echs/cghs and TPA patients of the selective specialities that are Cardiology, Neurology, Neurosurgery, Orthopaedics and Gynaecology to track activities during discharge process when they take place on the floors and records maintained manually by tracking every moment involved in the discharge process. The various events recorded are as follows:

1. Time of intimation by doctor for discharge.
2. Time discharge summary was prepared by the doctor.
3. Time pharmacy clearance was initiated.
4. Time pharmacy clearance was done.
5. Time when the billing process was initiated.
6. Time when the billing was done.

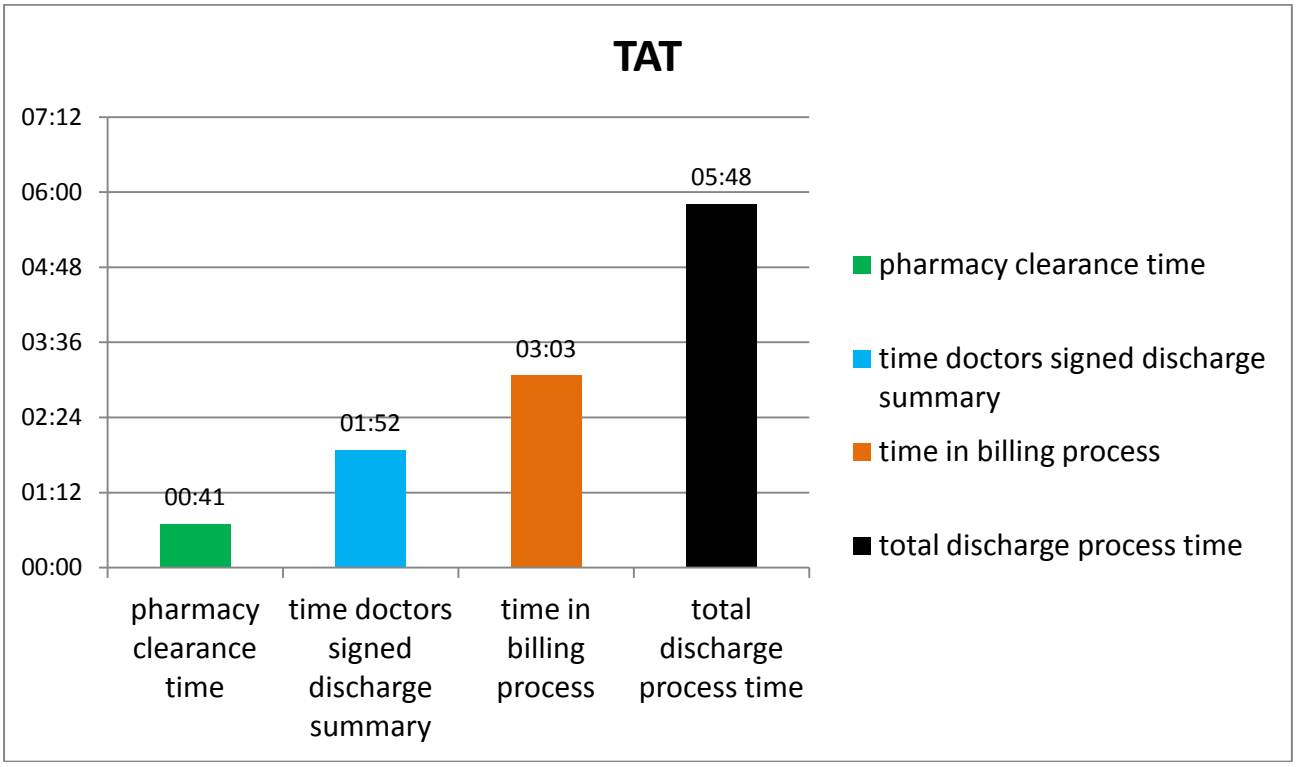
Sample size of 100 patient were taken by convenient simple random sampling method and a comparative study was done so as to gain access to the system flows taking place then determining what needs to be done.

Data collection-

To know about the discharge process I had done a study on the process flows of IPD and studied the discharge process. The data was collected directly from the respective stations. The data for the above time was collected from the respective stations/staff:

1. **Time of intimation by doctor for discharge**: Nursing staff/ Team leader accompanying the doctor at the time of rounds.
2. **Time discharge summary was prepared by the doctor**: The time was taken directly taken from the HIS where the exact time when the doctor had signed and issued the discharge summary on the system was seen.
3. **Time pharmacy clearance was initiated**: Time noted from the nursing staff that was responsible for the particular patient and to send the drugs for pharmacy clearance.
4. **Time pharmacy clearance was done**: The time when the pharmacist at the particular floor gave no dues.
5. **Time when the billing process was initiated:** The time was taken from the nurse related as well as cross checked from the billing counter.
6. **Time when the billing was done:** This data was directly collected from HIS which gave the exact time of billing one.

DATA ANALYSIS and INTERPRETATION



***The above figure gives the overall average time taken at each process**

The data is analysed Floor wise, speciality wise and according to the type of billing process.

FLOORWISE

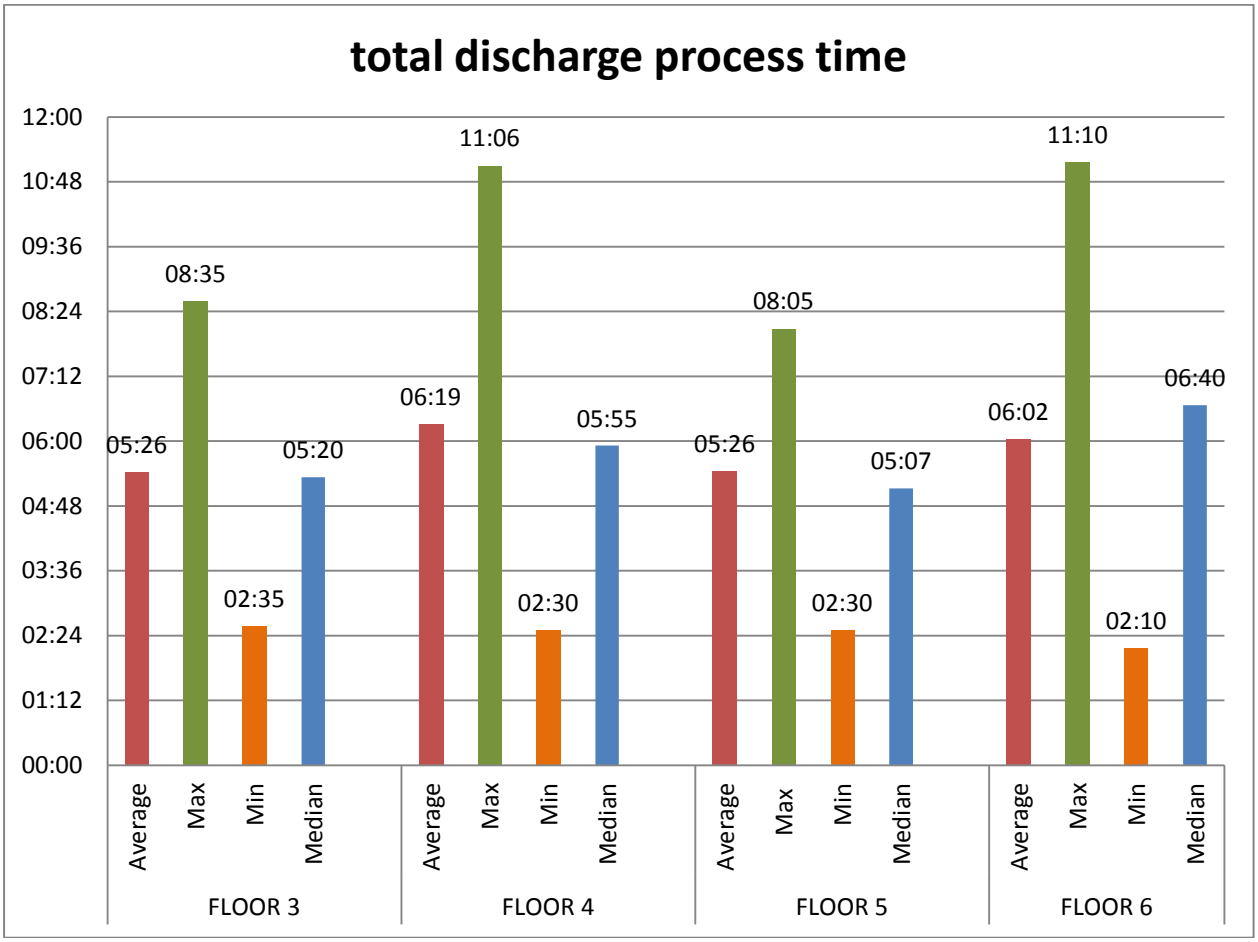


Figure 1

*** Figure 1 shows the comparison of average, minimum, maximum and the median time taken in the total discharge process at different floors.**

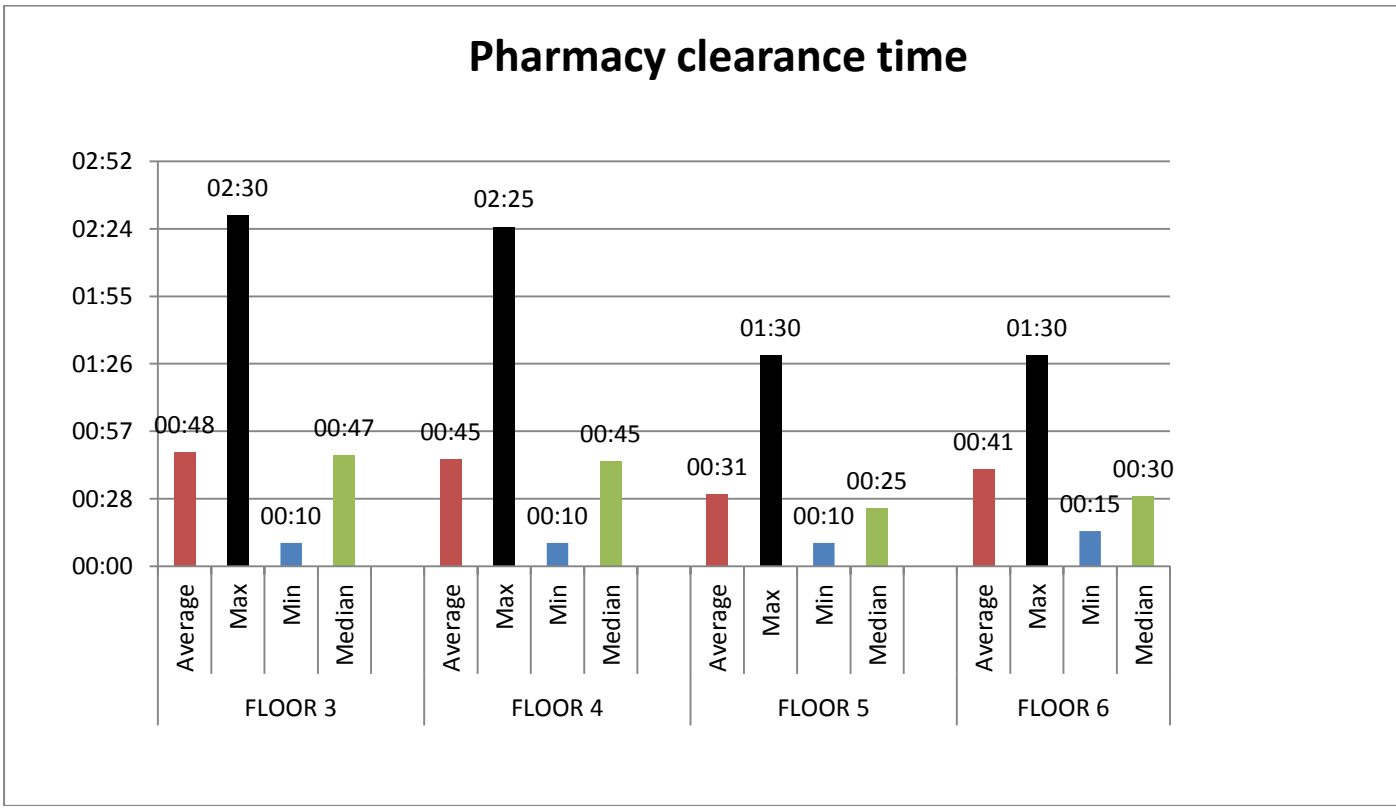
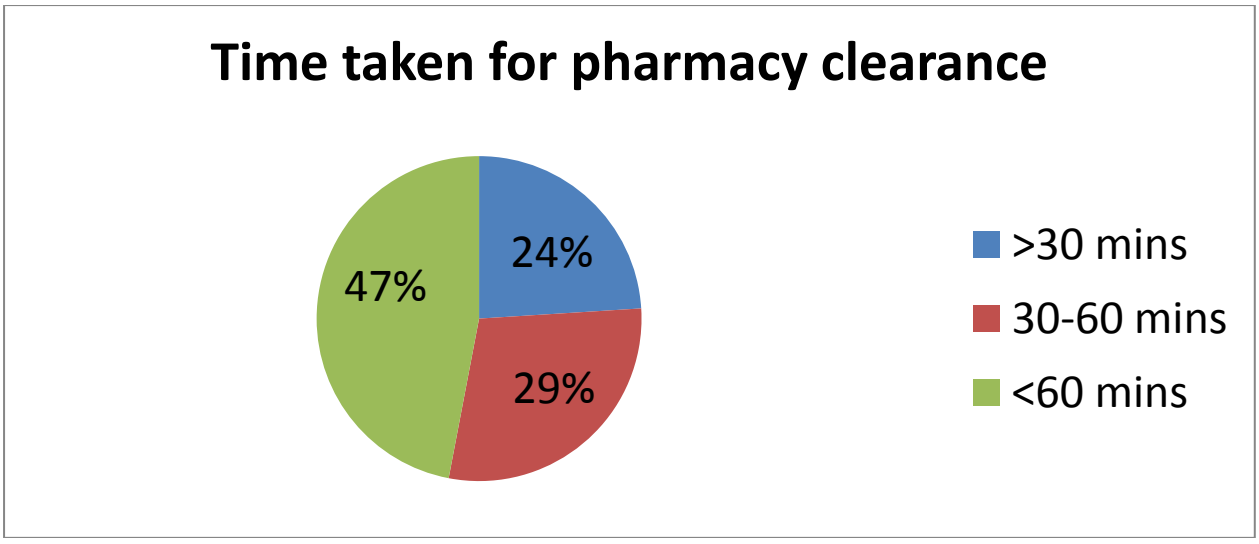


Figure 2
***Figure 2 shows the comparison between different floors in the time taken for pharmacy clearance.**



	3rd Floor	4th Floor	5th floor	6th floor	Total
>30 mins	10	4	5	2	21
30-60mins	22	8	4	5	39
<60 mins	16	2	1	2	21
Total	48	14	10	9	81

Figure 3

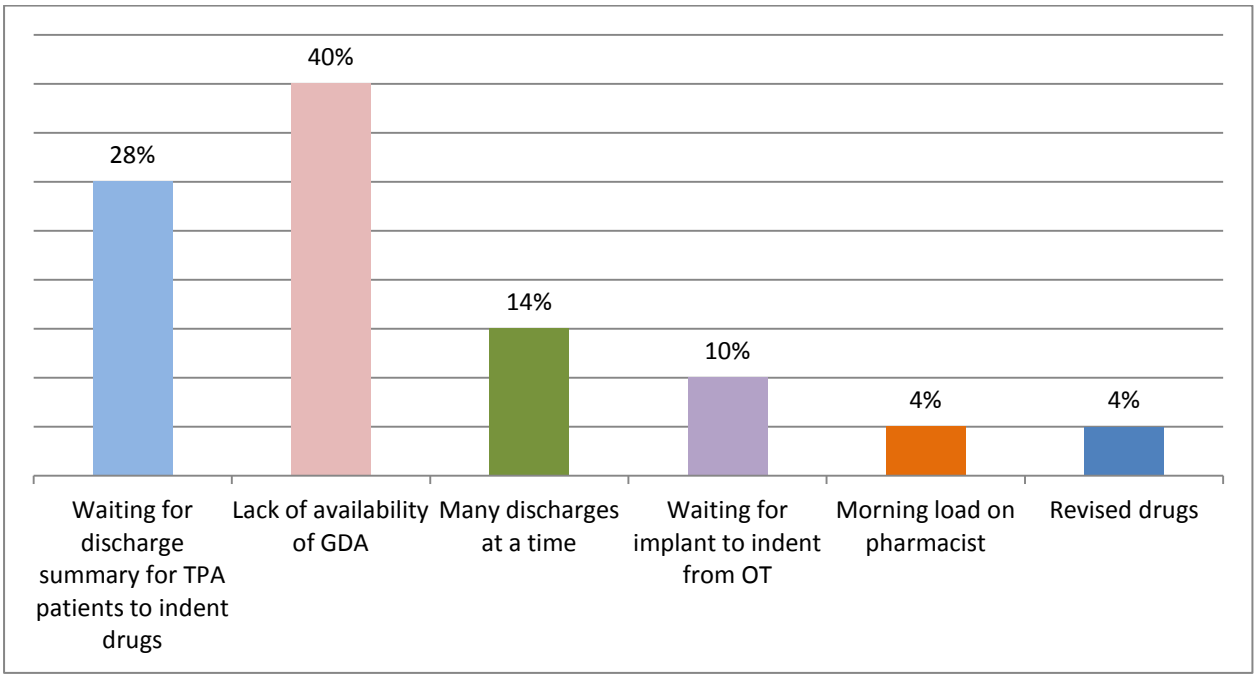


Figure 4
***Figure 4 shows the reasons for cases taking 60 minutes or more**

Observations:

*After personal observation, data collection and data analysis (figure 1, 2 and 3). Following are the observation:

1. The pharmacy clearance is faster on the 5th and 6th floor compared to the 3rd and 4th floor because of the presence of pharmacy clearance facility on the 5th floor for 5th and 6th floor.

2. Pharmacy clearance is seen to be the fastest on the 5th floor because it happens on that floor only.

3. There are many discharges on the 3rd floor at a single time so the pharmacy clearance takes the most time on that floor.

4. The time taken by a GDA to take the drugs to lower ground floor for no dues from 3rd or 4th floor takes a lot of time.

5. There are only three GDA at each floor so the reason for most of the delays is also blamed on the lack of GDA.

6. No fixed timing of a GDA for the collection of drugs from the floors.

7. The discrepancies in the time taken for pharmacy clearance is seen because there is no single GDA assigned for pharmacy, they are called on for the job as in when required.

SPECIALITY WISE

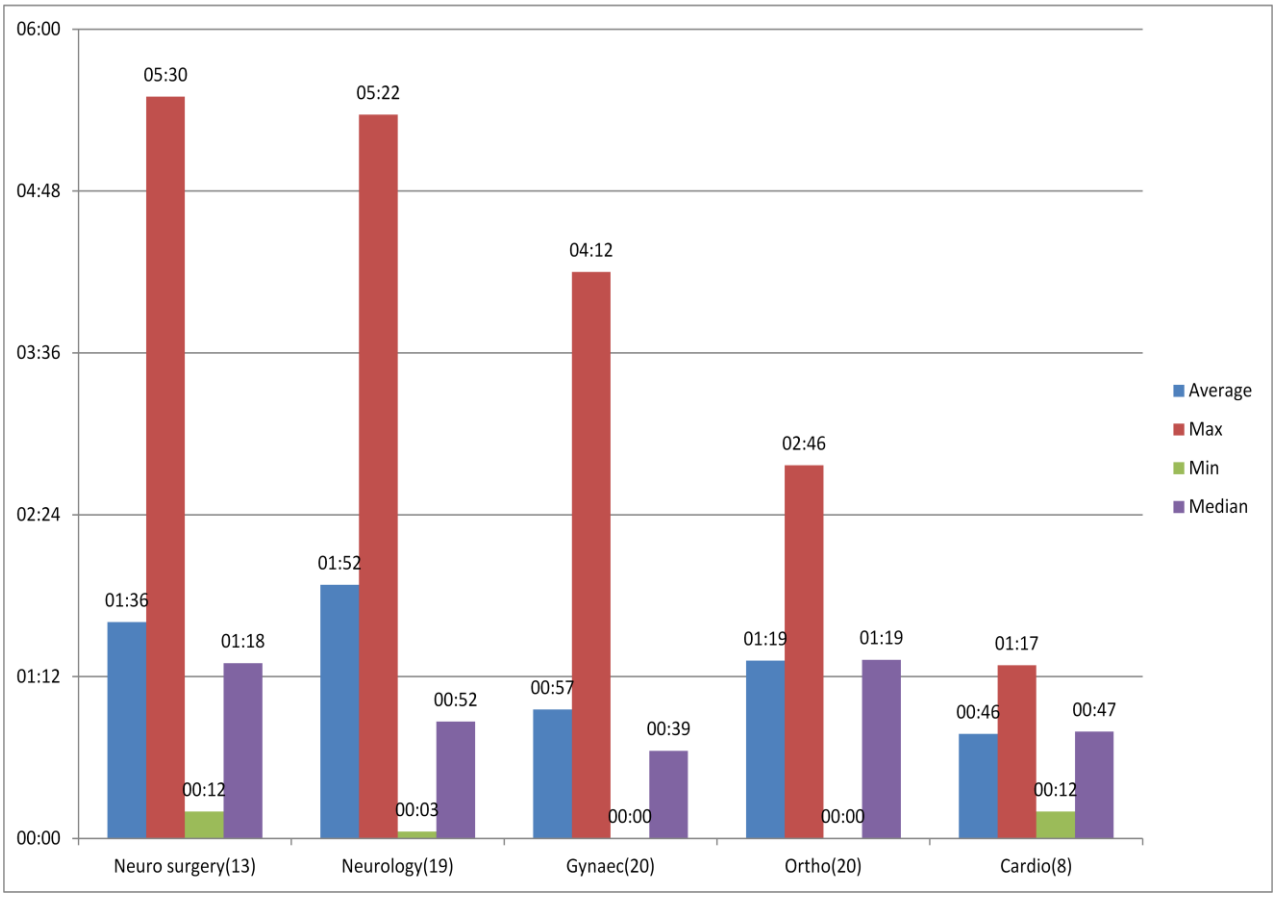


Figure 4

***Figure 4 shows the time taken by doctors of various specialities in preparing the discharge summary after they have intimated the patient and staff for the discharge of the patient**

The individual time taken by the specialities and the specialities covered are as follows:

1. Neurology
2. Neurosurgery
3. Gynaecology
4. Cardiology
5. Orthopaedics

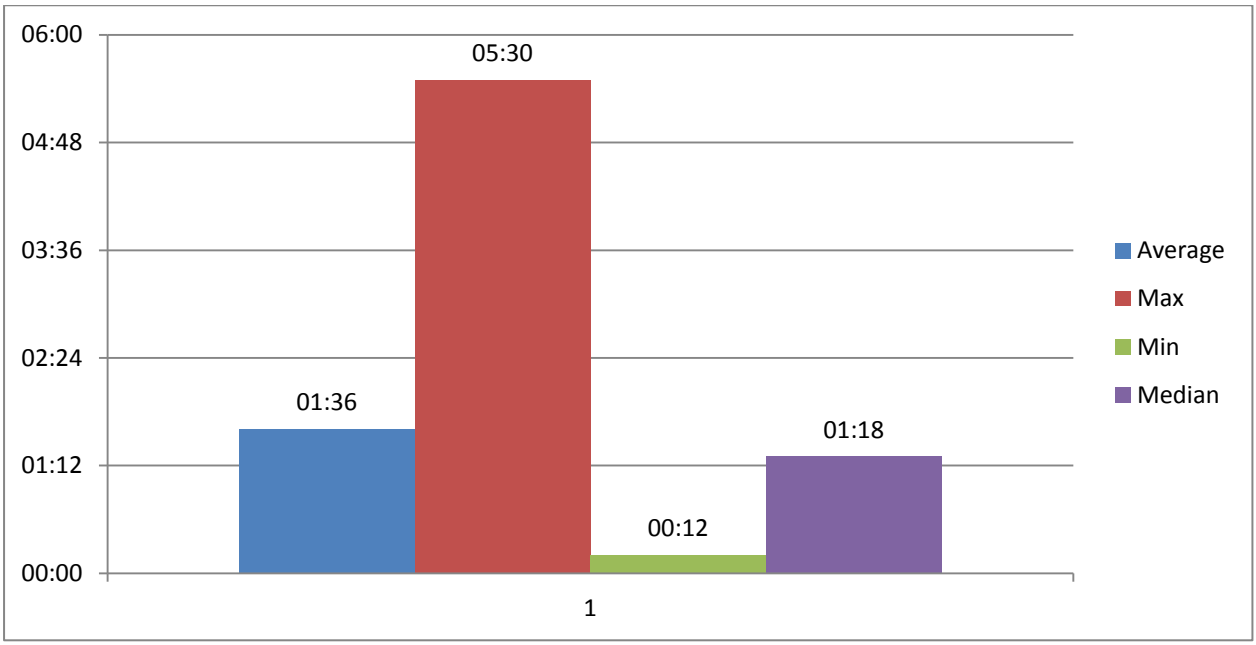


Figure 5

***Figure 5 shows the time take by neurosurgery department to complete discharge summary after intimation for discharge**

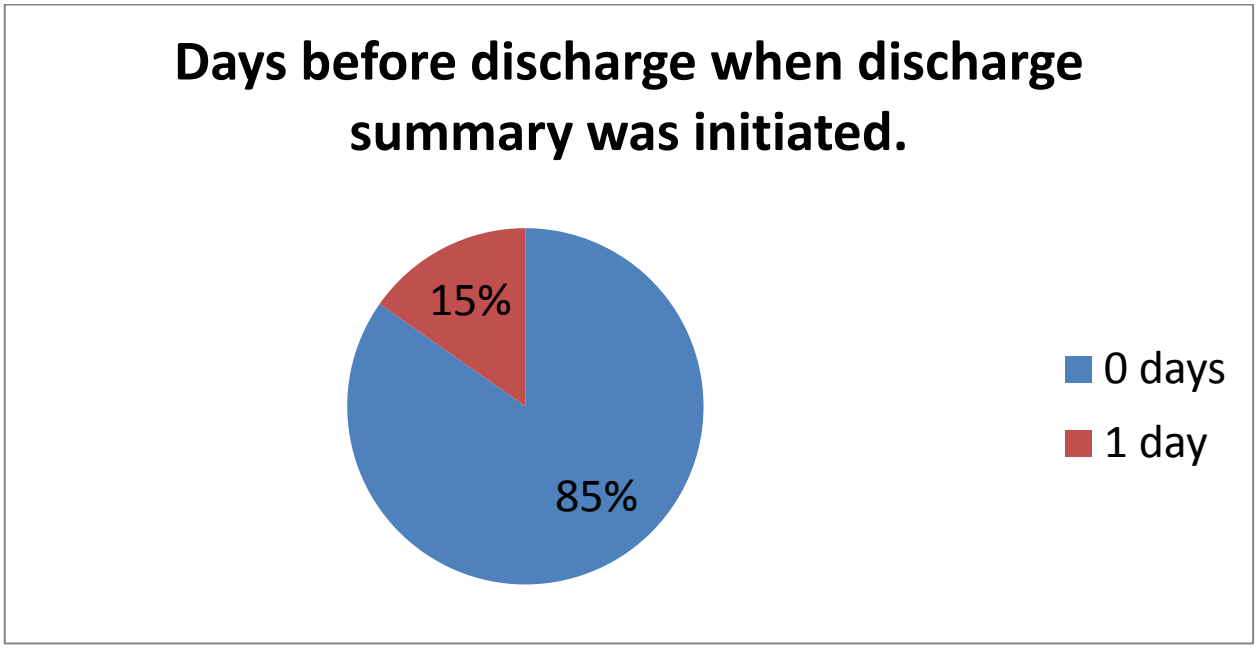


Figure 6

***Figure 6 shows the number of days before which the discharge summary preparation was initiated of neurosurgery department.**

NEUROLOGY

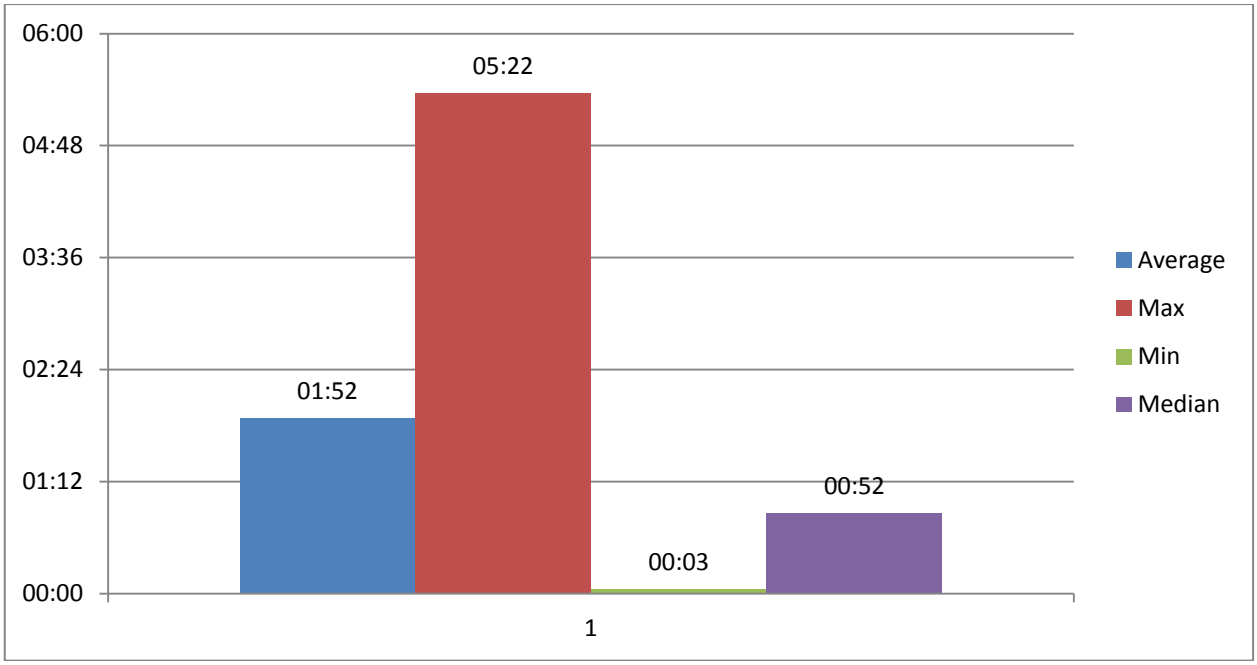


Figure 7

***Figure 7 shows the time take by neurology department to complete discharge summary after intimation for discharge**

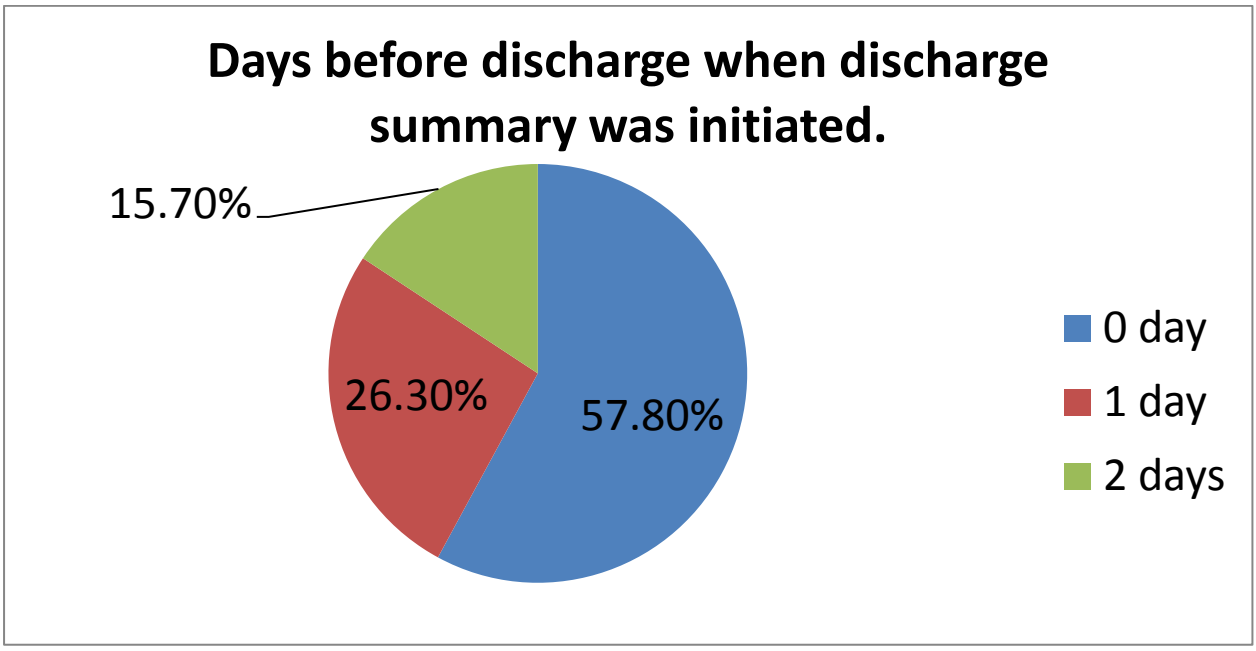


Figure 8

***Figure 8 shows the number of days before which the discharge summary preparation was initiated of neurology department.**

GYNAECOLOGY

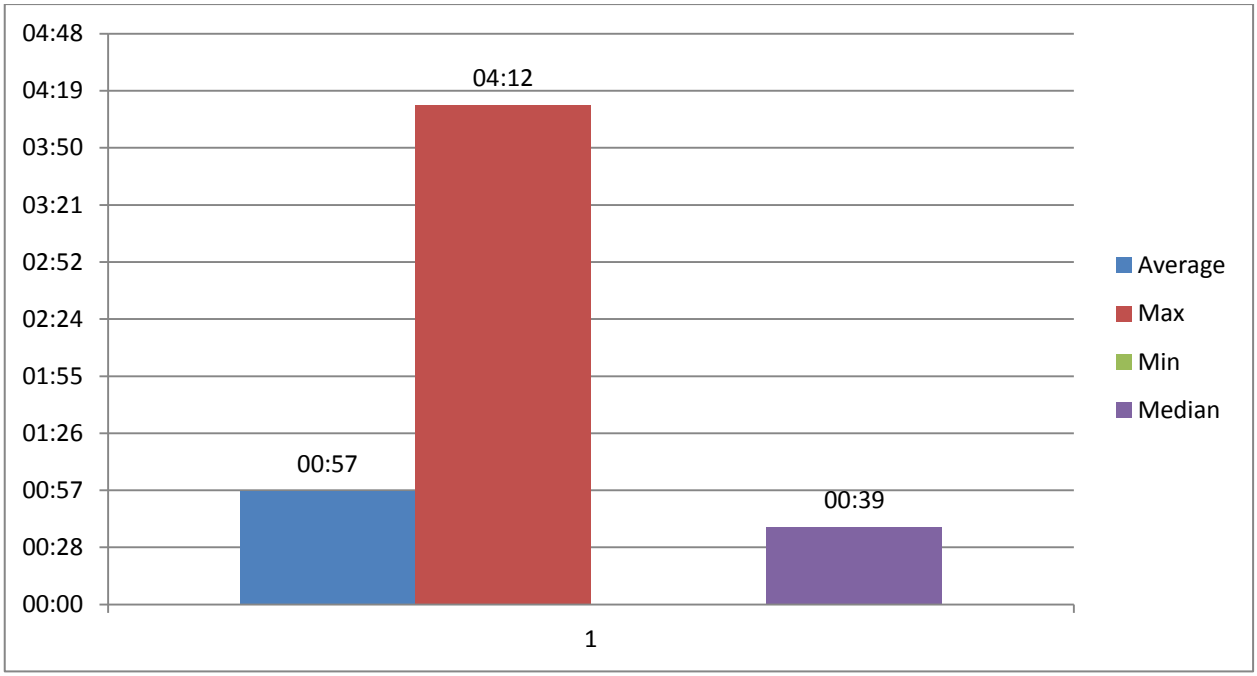


Figure 9

***Figure 9 shows the time take by gynaecology department to complete discharge summary after intimation for discharge**

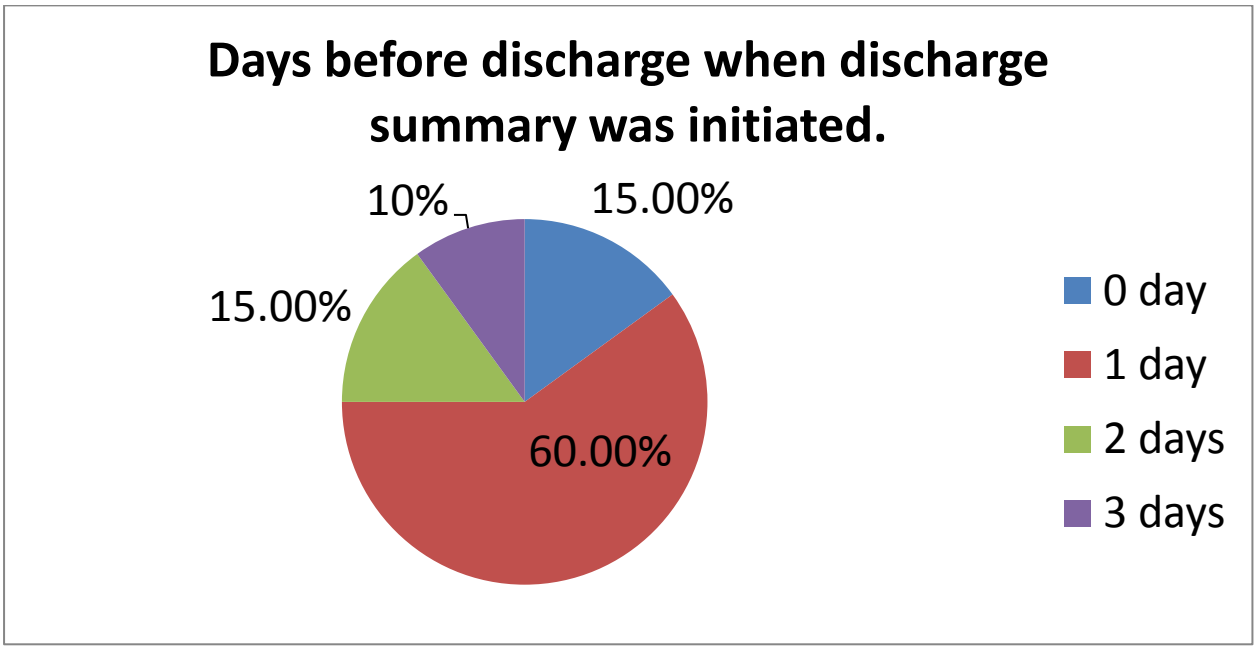


Figure 10

***Figure 10 shows the number of days before which the discharge summary preparation was initiated of gynaecology department.**

ORTHOPAEDICS

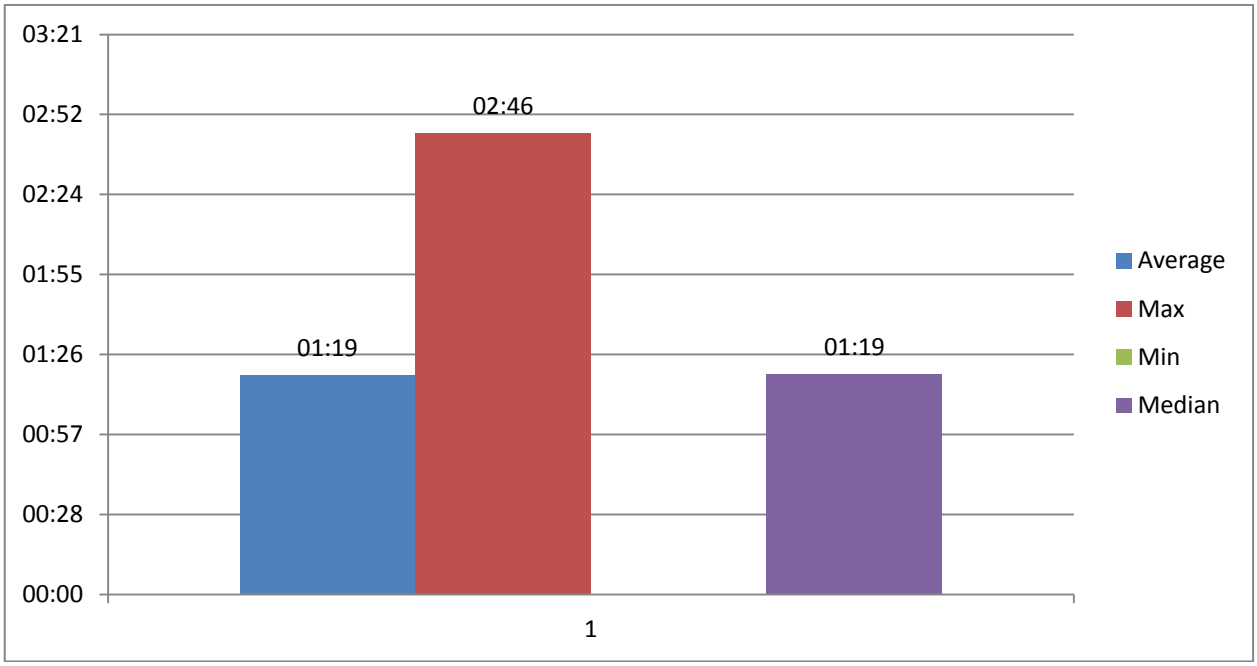


Figure 11

***Figure 11 shows the time take by orthopaedics department to complete discharge summary after intimation for discharge**

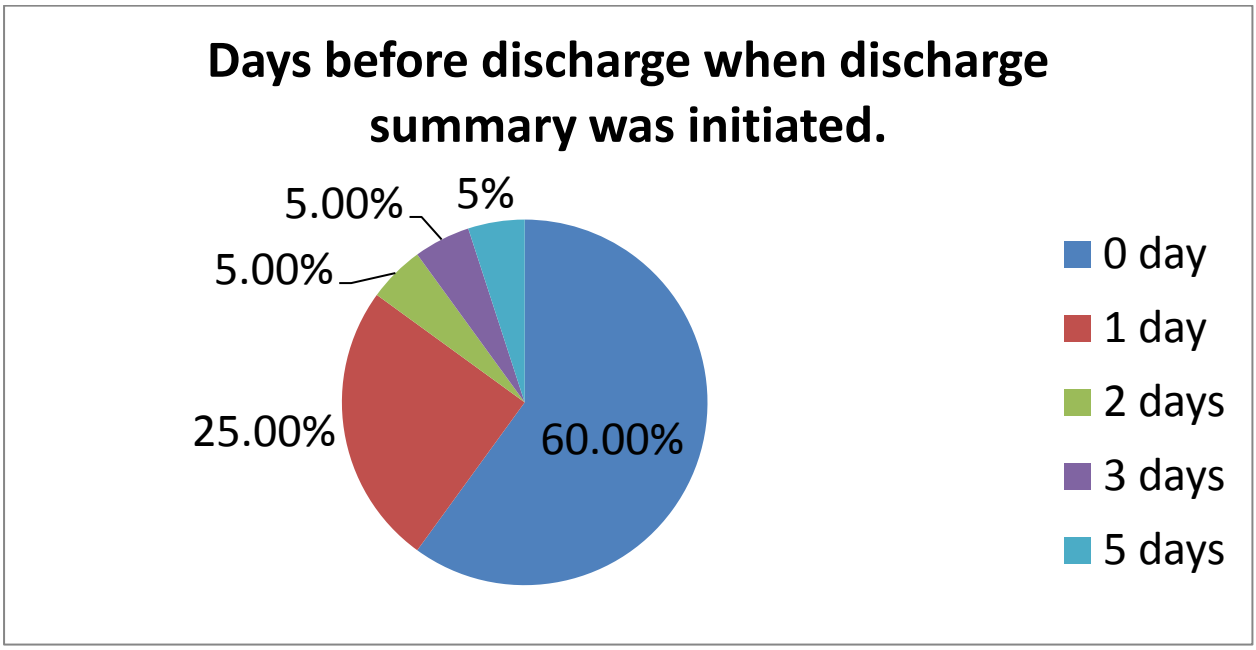


Figure 12

***Figure 12 shows the number of days before which the discharge summary preparation was initiated of orthopaedics department.**

CARDIOLOGY

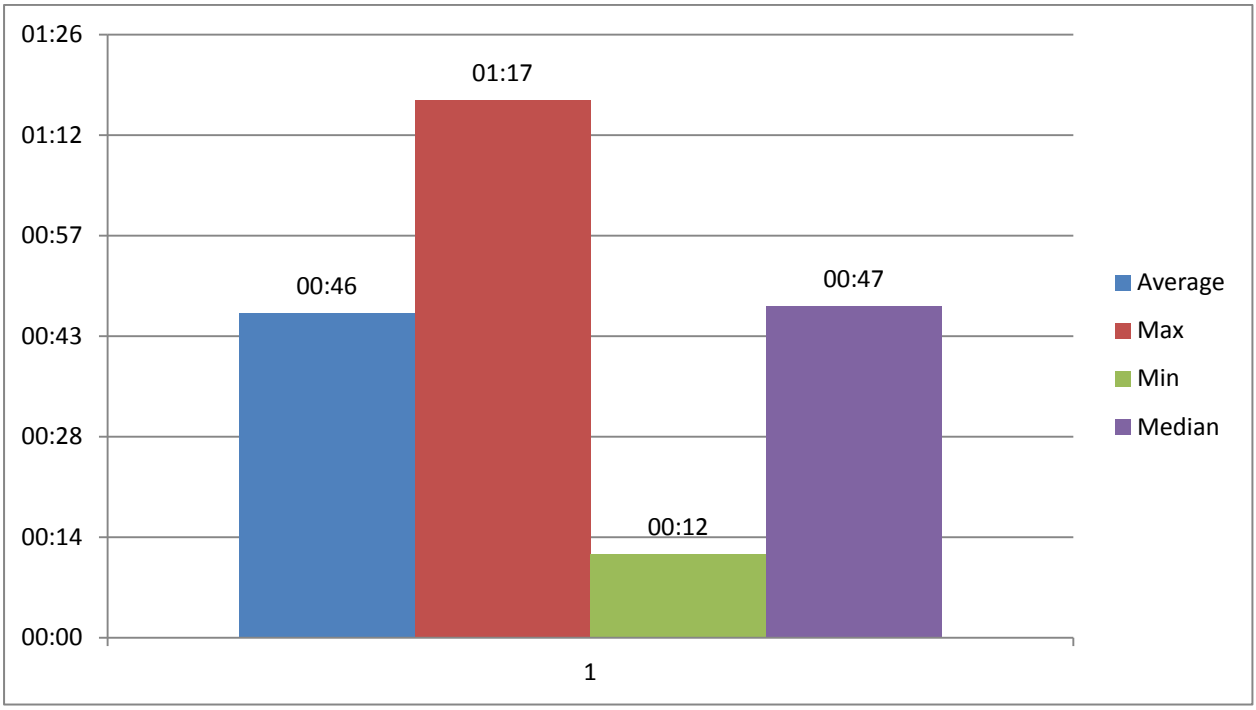


Figure 13

***Figure 13 shows the time take by cardiology department to complete discharge summary after intimation for discharge**

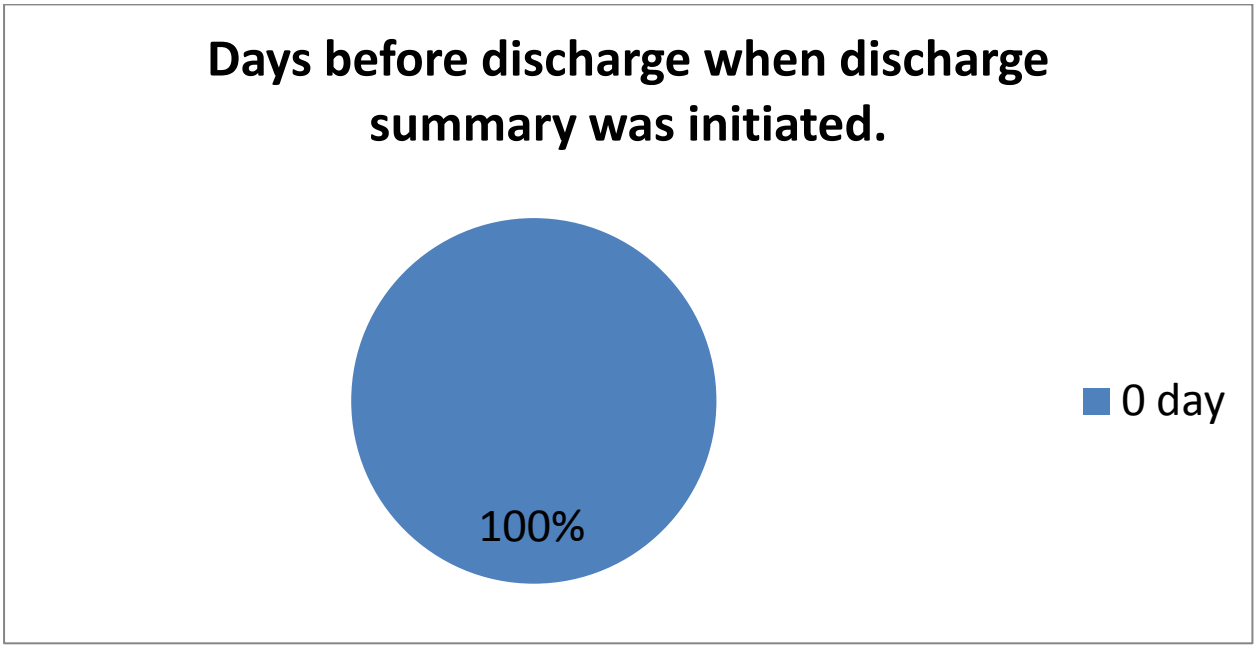


Figure 14

***Figure 14 shows the number of days before which the discharge summary preparation was initiated of cardiology department.**

DAYS BEFORE WHICH THE DISCHARGE SUMMARY PREPARATION WAS INITIATED

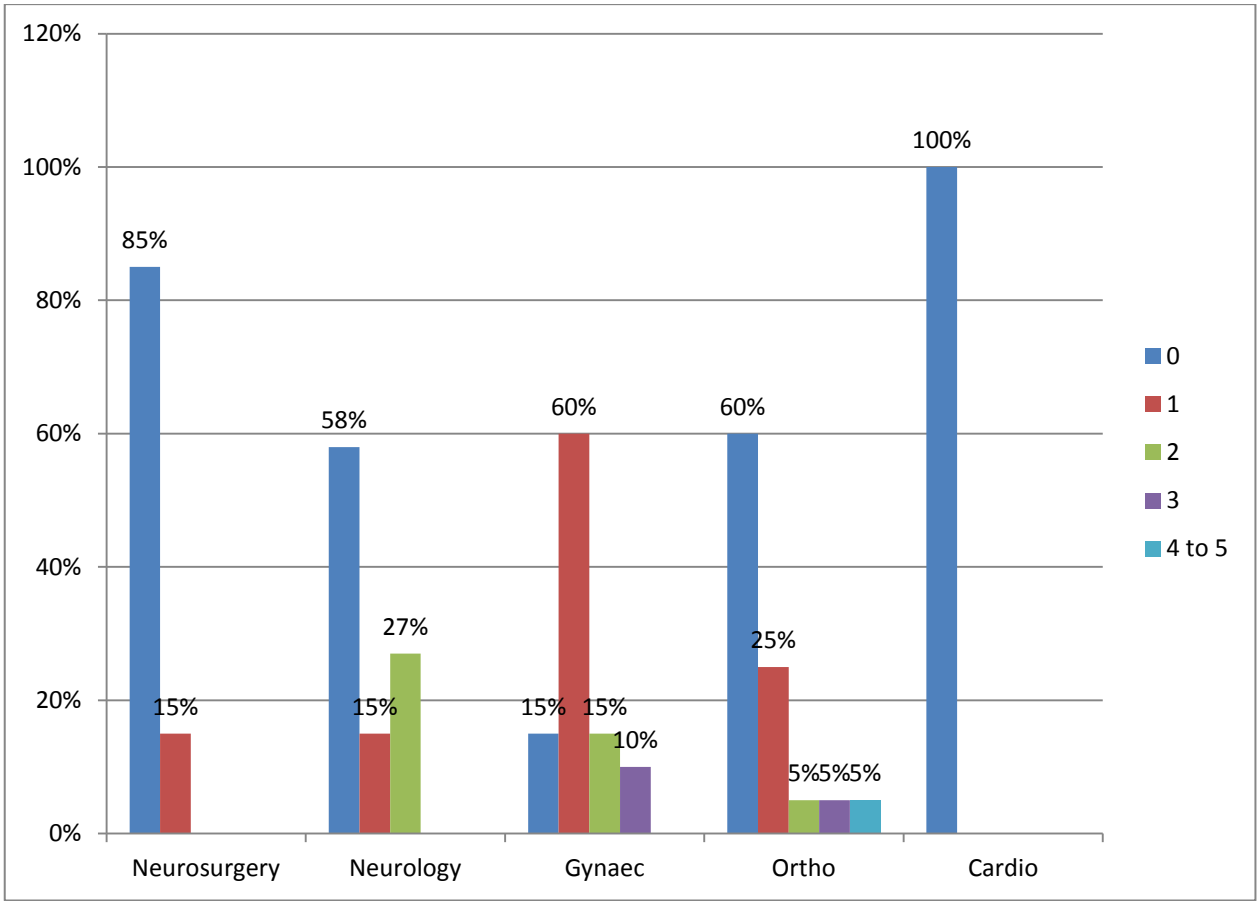


Figure 15

***Figure 15 shows the comparison speciality wise in which the days before which the discharge summary was initiated is seen**

Observations:

1. The time taken by Neurology department is seen to be the most in making discharge summary, the reason for this delay is the number of patients of the concerned doctor is huge.

2. The delay is even caused because the making of discharge summary for most of the cases is initiated at the same day of discharge.

3. Gynaecology is the department which initiates the making of most of its discharge summary before the day of discharge, this department is followed by orthopaedics department which also follows this process to a great extent.

DEPENDING ON THE TYPE OF BILLING PROCESS

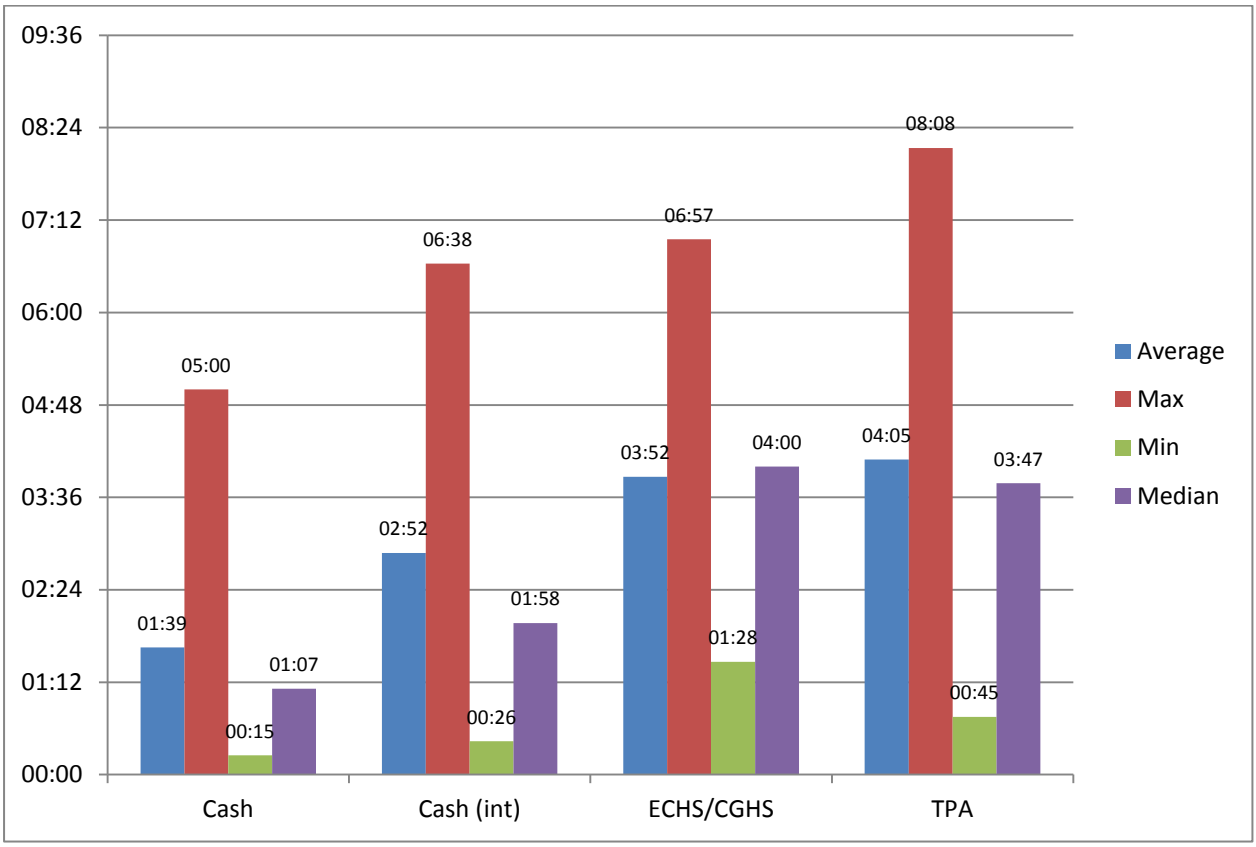


Figure 16

***Figure 16 shows the time taken for billing of various types**

There are various types of patients admitted in the hospital and their billing process is different and the time taken is different, they are as follows:

1. Cash Patient
2. International Patient
3. ECHS/CGHS Patients
4. TPA patients

CASH patients

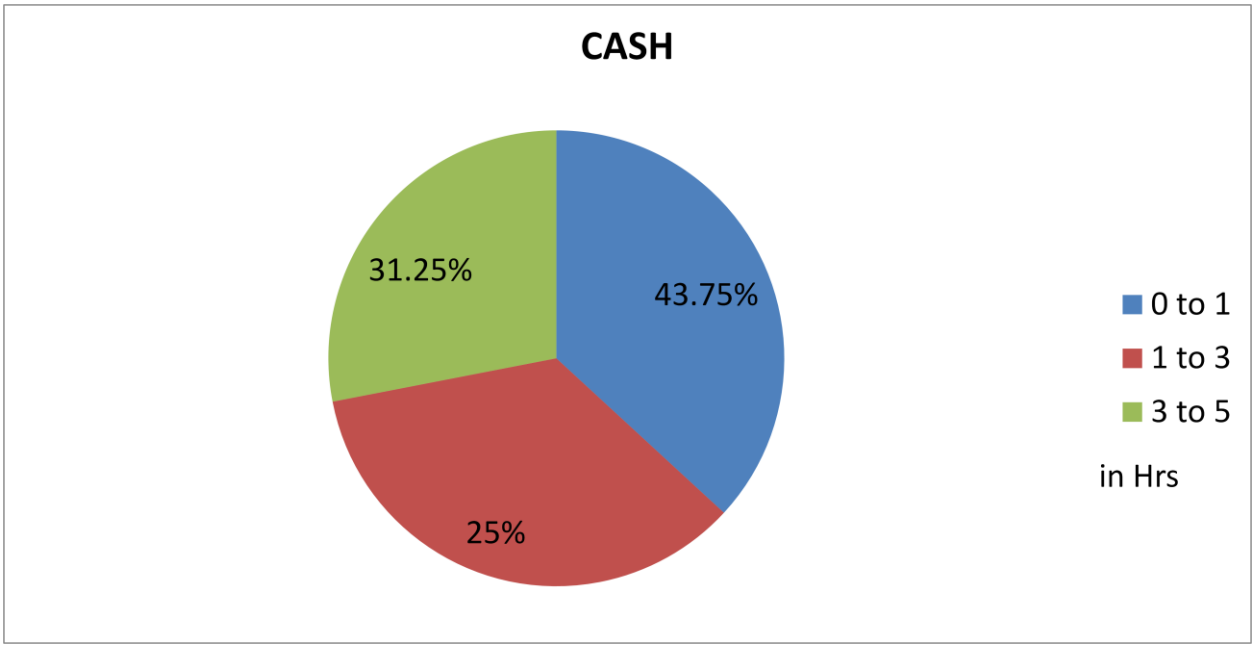


Figure 17

***Figure 17 shows the time generally taken in hrs for the billing process for cash patients.**

Ideal Time: Less than 1 hour
*** 56.25% cases are taking more than 1 hour**

Observations:

1. Discharge summary are received very late this leads to delay in billing.
2. Patient is sent for tests again to reconfirm their condition after the complete process which keep the billing pending.
3. Approximately 32% of the cases take more than 3 hrs.
4. Many discharges at times may also be a reason for the delay.
5. Billing counter is generally free in the morning hours waiting for the discharge papers to come to them.
6. There is an option for preparation of interim bill which can help make approximate bills and reduce the work during peak hours but this option is not exploited

INTERNATIONAL patients

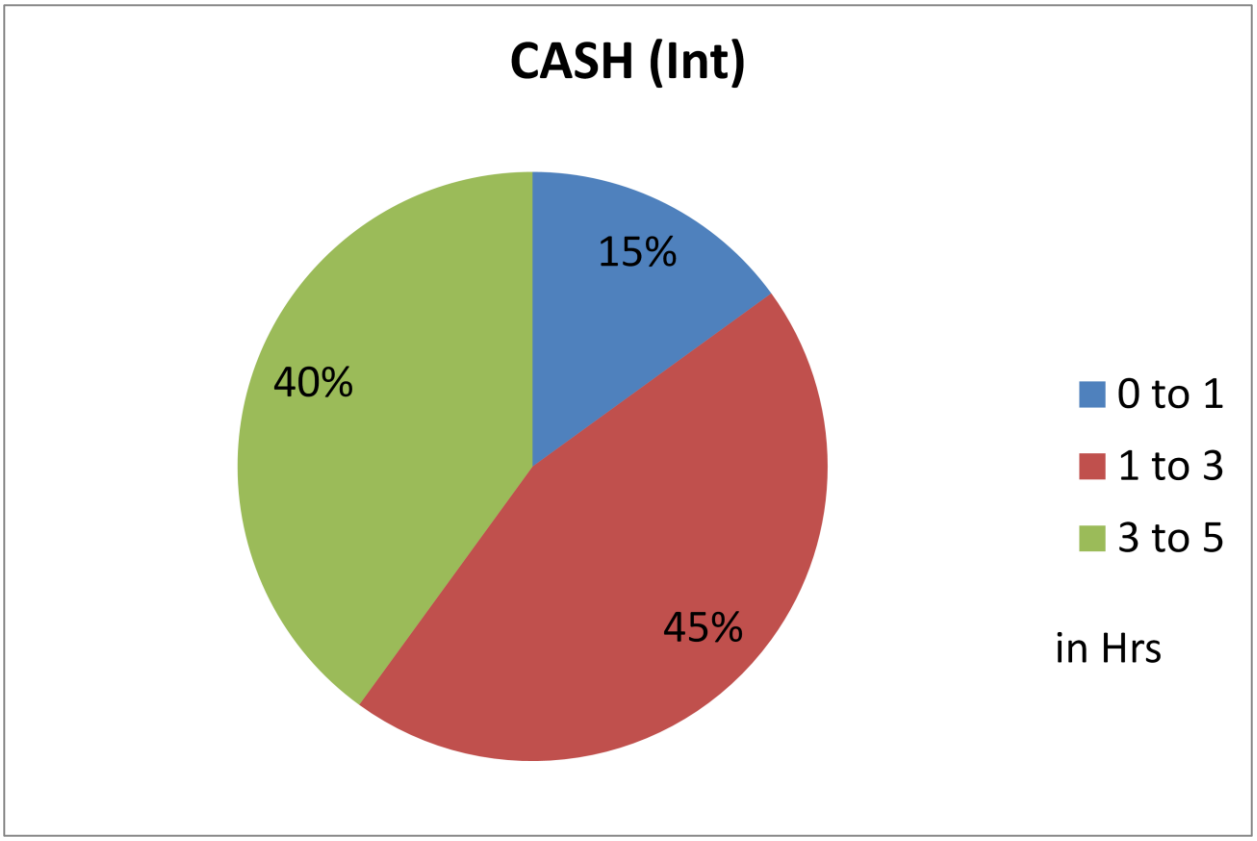


Figure 18
***Figure 18 shows the time generally taken in hrs for the billing process for international patients.**

Ideal Time: Less than 3 hours
*** 40% cases are taking more than 3 hours**

Observations:

1. Time in bill settlement according to the initial given estimate of the treatment.
2. Discharge summary are received very late this leads to delay in billing.
3. Approximately 40% of the cases take between 3 to 5 hrs.
4. There is an option for preparation of interim bill which can help make approximate bills and reduce the work during peak hours but this option is not exploited

ECHS/CGHS patients

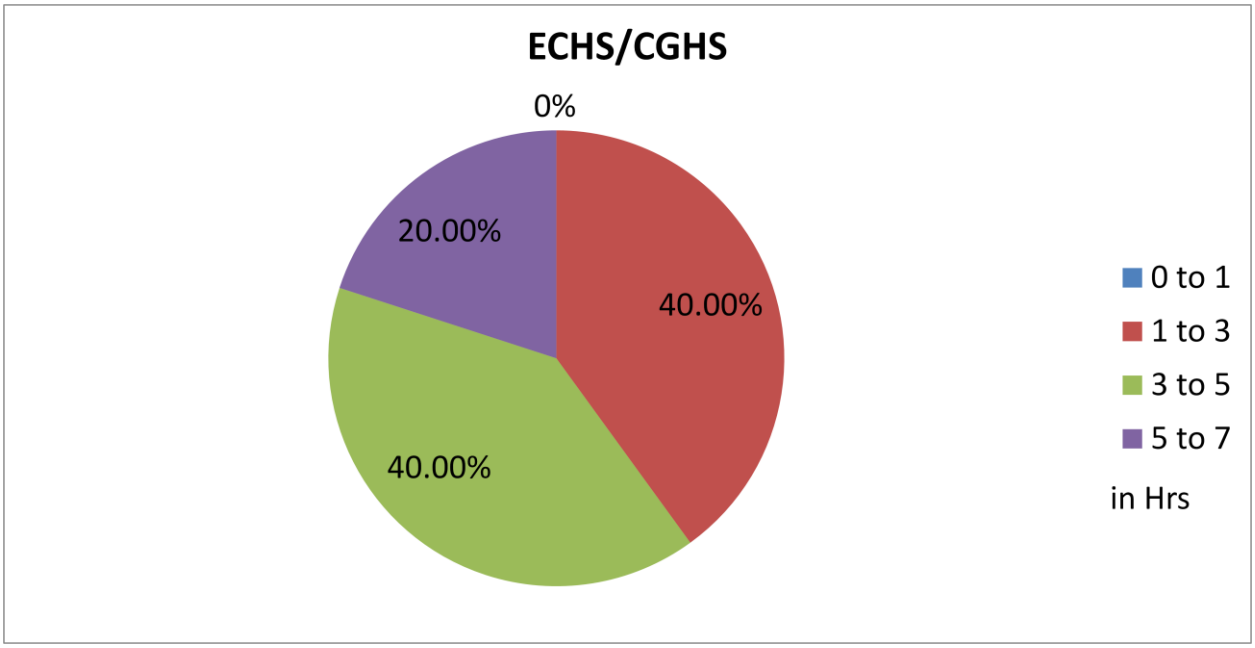


Figure 19

***Figure 19 shows the time generally taken in hrs for the billing process for ECHS/CGHS patients.**

Ideal Time: Less than 3 hours
*** 60% cases are taking more than 3 hours**

Observations:

1. Time in bill settlement according to the ECHS/CGHS rates.
2. Rates of ECHS/CGHS are not present on the HIS, this leads to manual making of the bills.
3. The bills are sent for finalisation to the lower ground floor in a separate office where they are prepared and then sent back to the respective billing counter causing a huge delay in billing process.
4. Discharge summary are received very late this leads to delay in billing.
5. Approximately 60% of the cases take more than 3 hours.
6. There is an option for preparation of interim bill which can help make approximate bills and reduce the work during peak hours but this option is not exploited

TPA patients

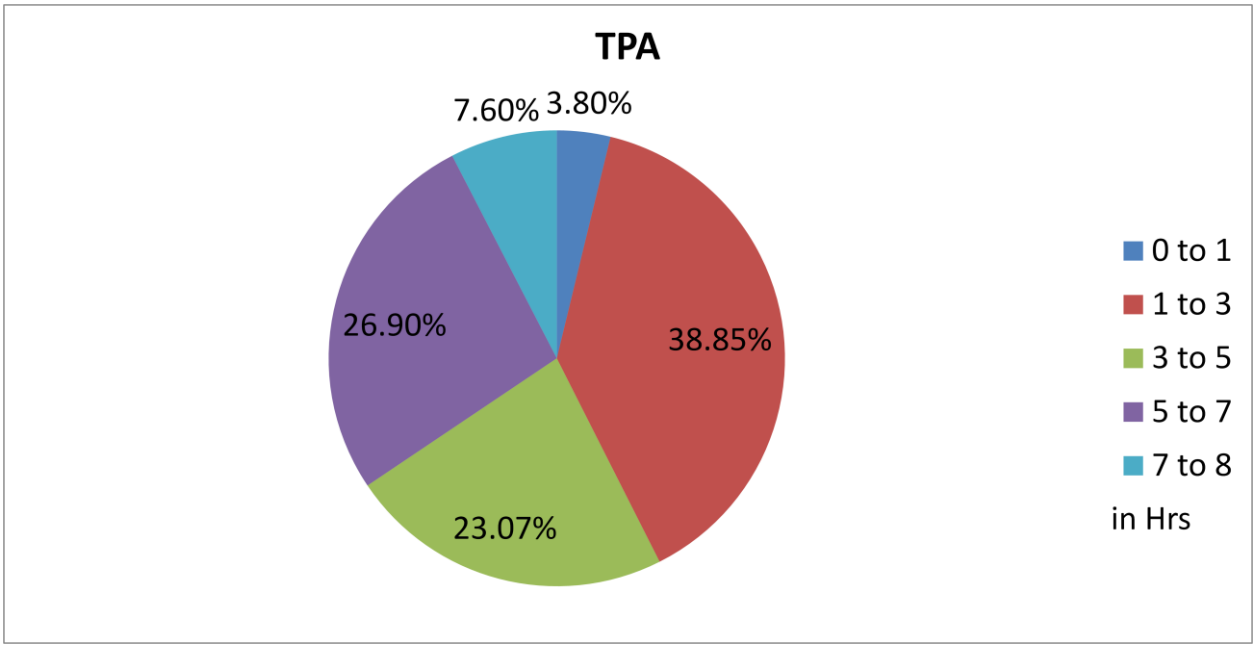


Figure 20

***Figure 20 shows the time generally taken in hrs for the billing process for TPA patients.**

Ideal Time: Less than 5 hours
*** 34.20% cases are taking more than 5 hours**

Observations:

1. Time in bill settlement according to the TPA rates.
2. The request of these patients is sent to the TPA office, further the concerned TPA is informed for authorisation and depending on the TPA, and time is taken for the billing process to complete.
3. Discharge summary are received very late this leads to delay in billing.
4. Approximately 60% of the cases take more than 3 hours.

RECOMMENDATIONS:

1. A discharge intimation form that will keep accountability of the streamlining of the process. A sample discharge intimation form is present in annexure 1.

2. A GDA specially assigned for pharmacy collection and drop on 3rd and 4th floor reducing the time of pharmacy clearance.

3. Floor co coordinator made in charge to overlook the daily discharges to be conducted on time.

4. Fixed timing of doctor round will help get the process in a system by which the nurses, pharmacists and billing people will have an idea about the time of discharges.

5. A separate module on the HIS should be created for ECHS/CGHS patients where their rates are mentioned.

6. The billing for international patients should be simultaneously and updated every day as the treatment continues to avoid last minute delays in settlement.

CONCLUSION:

As a student of 'Post graduation in health administration' I have tried to study and understand policies and protocols of Inpatient department of the hospital.

The main objective of the study was to analyze different aspects related to discharge process and the time taken at each end. From the analysis it was found that there are various areas where there is delay in the discharge due to multiple reasons. Discharges are not taken as seriously as they should be taken. The importance of the time factor is not taken in to consideration as a major criteria, preference is given to the in patients neglecting the patients that need to be discharged. The other important factor was accountability of the job and its importance.

The training from this hospital was very helpful for me to improve my knowledge and skills. I had been the part of many important processes like compilation of quarterly NABH indicators, JCI continued training programme and Artemis orientation program.

My project placement in this hospital was very impactful and productive. I express my sincere thanks to all who helped me by giving their valuable information about the procedures.

PROJECT 2

COMPLIANCE of PATIENT FAMILY EDUCATION FORM

Executive Summary:

Patient education is one of the six goals international patient safety goals given by JCI. As a JCI accredited hospital it is important for the hospital to maintain that compliance. Education of patient and their family is an important factor that needs to be considered and taken care of by the hospital. A patient has complete right to understand the procedure they are going through and the various aspects related to it.

Introduction:

Patient Family education form is an important part of the various other documents that are attached to the file with various parameters that need to be filled by the PCS staff, Nursing staff, Dietician, Physiotherapist and doctors after the related components are explained to the patient and their family. This form is issued at the time of admission to each and every patient. As an important requirement for JCI to be filled regularly, there was a complete compliance observed but with time negligence has been observed at few ends. To study the gap a random survey was conducted to check the patient family education form compliance.

Objectives:

- To study the compliance of patient family education form in all parameters.
- To study the area of gap in these compliances.

Methodology:

- **Data source**: Data has been collected on routine basis from in–patients department.
- All the analysis and graphical depictions were done with the help of MS-Excel.
- **Study area**: Artemis, Gurgaon
- **Time duration of study**: 20th April- 20th May, 2013.
- **Sample size**: Patients (64) – patient admitted at various floors.
- **Sampling Method**: Convenient simple random sampling.

Data Collection:

The data was collected from the 3rd, 4th, 5th and 6th where in patients are admitted. The files were checked at random. The patient family education forms were evaluated after at least two or three days of patient admission giving a fair chance to everyone responsible to fill the form in time. The ideal time for filling these forms is the day patient is admitted to the wards.

To execute this study a tool was prepared in which each component was mentioned. If there was compliance in every aspect then score was given as 1 and there was no compliance then it was given as 0. The components of patient family education form are mentioned as below:

Admission (PCS): Billing process & Cost of Treatment

Nursing: Ward routine, Rights & Responsibilities, Visitors Policy, OT Routine, Pain management, Falls Prevention, Vaccination, Glucometer & Insulin Devices, Restraints

Dietician: Diet, Food-Drug Interactions

Physiotherapy: Physiotherapy & Spirometry, Walking Aids

Doctors: Follow-up, LOS (length of stay), Diabetes

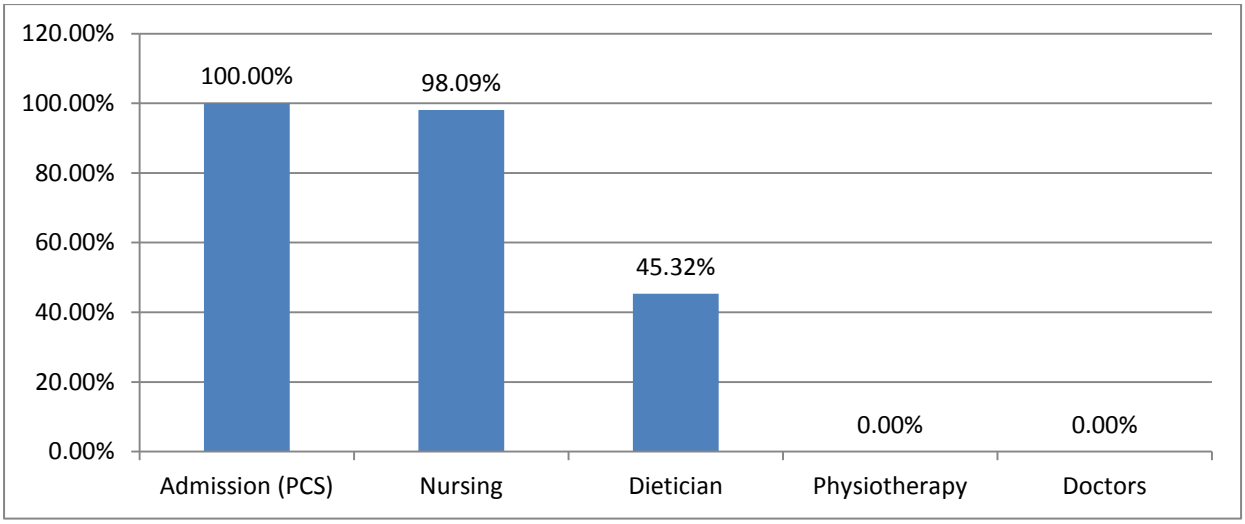


Figure 21

***Figure 21 shows the compliance of patient family education form**

Percentage Compliance		
Admission (PCS)	Billing process & Cost of Treatment	100.00%
Nursing	Ward routine	100.00%
	Rights & Responsibilities	100.00%
	Visitors Policy	100.00%
	OT Routine	100.00%
	Pain management	100.00%
	Falls Prevention	100.00%
	Vaccination	98.44%
	Glucometer & Insulin Devices	93.75%
	Restraints	90.63%
Dietician	Diet	90.63%
	Food-Drug Interactions	0.00%
Physiotherapy	Physiotherapy & Spirometry	0.00%
	Walking Aids	0.00%
Doctors	Follow-up	0.00%
	LOS	0.00%
	Diabetes	0.00%
	Sample Size	64

The above data and the graph before that clearly show and indicate us about the various parameters that are covered and their compliance. The data clearly gives us an idea about the gaps and areas where the patient family education form is lacking.

OBSERVATIONS:

1. The dieticians fill the form regularly but they skip mentioning the food drug interaction to the patients.

2. The nurses have seen to be the most regular in filling the form at the proper time, at the time of admission but there are a few parameters they tend to miss at a few times like vaccination, restraints, glucometer and insulin devices.

3. PCS staff is seen as the most efficient in filling these forms

4. Doctors and physiotherapist miss filling these forms.

5. During the time of rounds the files are taken along with the doctors and emphasis is not given in filling these forms.

RECOMMENDATIONS:

- The forms should be made available to the doctors at the time of rounds so that they can fill them.

- The nursing staff, dietician, doctors and physiotherapist should be regularly reminded about the importance of this form.

PROJECT 3

CLINICAL AUDIT AND ANALYSIS OF MEDICAL RECORDS

Executive summary:

Medical record is a clinical, scientific, administrative and legal document relating to patient care, includes a variety of types of "note" entered over time by heath care professionals, recording observations and administration of drugs and therapies, test results, x-rays, reports etc. The maintenance of complete and accurate medical records is a requirement of health care providers and is generally enforced as a licensing or certification prerequisite. The record contains statements of trained observes regarding the patient history, physical condition, investigations, line of treatment, daily progress and discharge/death summary. It provides the adequacy, quality and quantity of care provided to an indoor patient. This study is to check the compilation of records on paper as well as HIS by the clinician. As clinician play an important role in the treatment of the patients, it's necessary for them to document all the details of their treatment in the records. The study was conducted of a few random cases of a few specialities of four months (January to April 2013).

Introduction:

The study was conducted in the medical records department. A few data was collected from the records and few from the HIS. To audit the records a tool was prepared and the complete documentation process was understood of the concerned specialities. All the important details were taken care of while making the tool. The clinical papers that went in to each patient admission, to their operation details, paper work during their stay and discharge was understood.

Objectives:

- To study the clinical aspects documentation in the medical records.
- To audit the medical records and find parameters not filled by the clinicians.

Methodology:

- **Data source**: Data has been collected on routine basis from medical records department and HIS.
- All the analysis and graphical depictions were done with the help of MS-Excel.
- **Study area**: Artemis, Gurgaon
- **Time duration of study**: 10th May- 4th June, 2013.
- **Sample size**: Patients (100) – 20 files of each speciality
  (5 files of each month ranging from January to April 2013)
- **Sampling Method**: Convenient simple random sampling.

Data Collection:

The data collection was done from the medical records department selecting the files at random. A few components were seen in the patient files and the rest in the HIS. Random patient files were seen of four months. From each month five files were taken at random of each speciality. The components covered in it are:

Initial assessment: Plan of care, Medications, Diet, Activity, Discharge Plan, Estimate of Blood, Care Plan Goals.

Dr's Progress note: complete on day of admission, daily noted, pain assessment, care plans, Transfer notes and referral notes.

Consent form: All forms present, patient/relative signature, doctor's signature, witness signature, name of treating doctor and signature of treating doctor.

Anaesthesia assessment: Type of anaesthesia, PAC assessment, Time out documented, Baseline vitals documented.

Operative notes: pre op diagnosis, indications, complications and estimated blood loss.

Post anaesthesia recovery

Physiotherapy assessment

IDTR form assessment

PFE form assessment

Medical records Sheet: All drugs mentioned, ordered time, order signs and legibility

Discharge summary: condition of patient, physical activity advised, diet advised and other non-drug advised.

DATA ANALYSIS and DATA INTERPRETATION

*All the components were checked for a random number of cases in the medical records file and HIS. For the institute confidentiality reasons, the name of the specialities are not mentioned and taken as speciality A,B,C,D and E.

SPECIALITY A

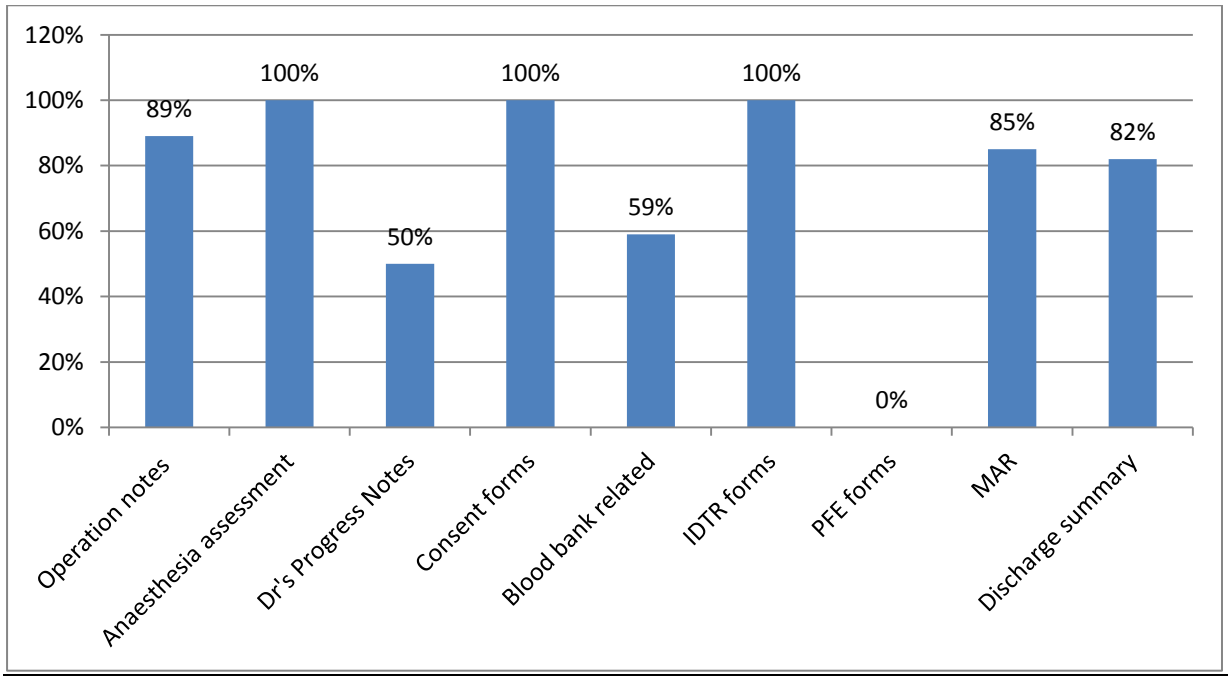


***Figure 22 shows the complete compliance percentage of speciality A**

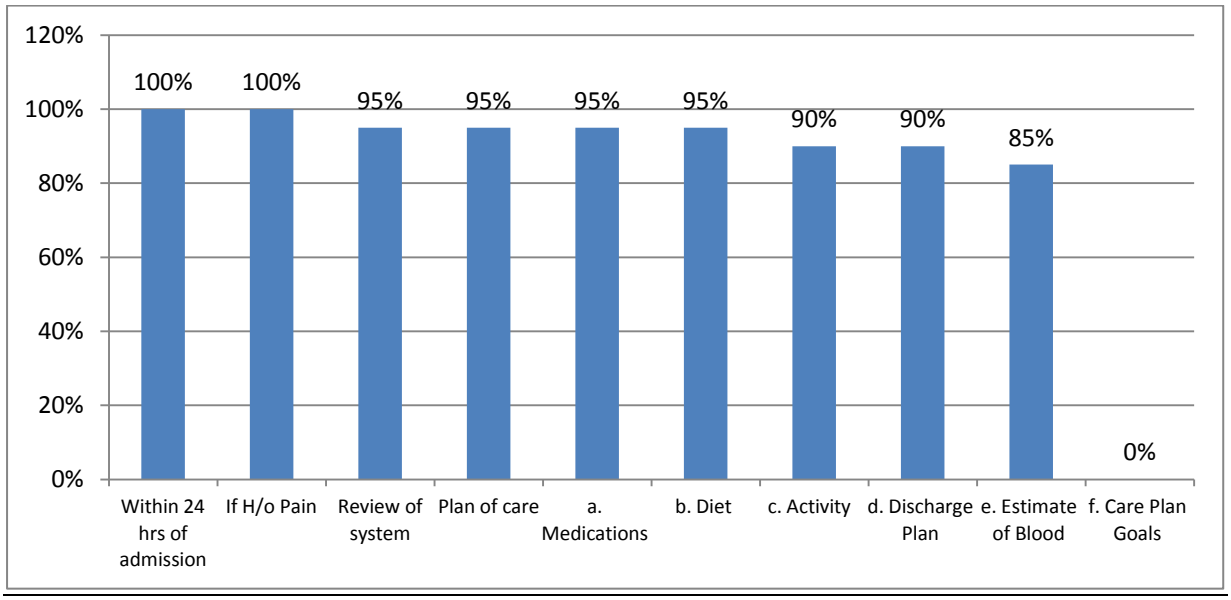


***Figure 23 shows the compliance percentage of initial assessment of speciality A**

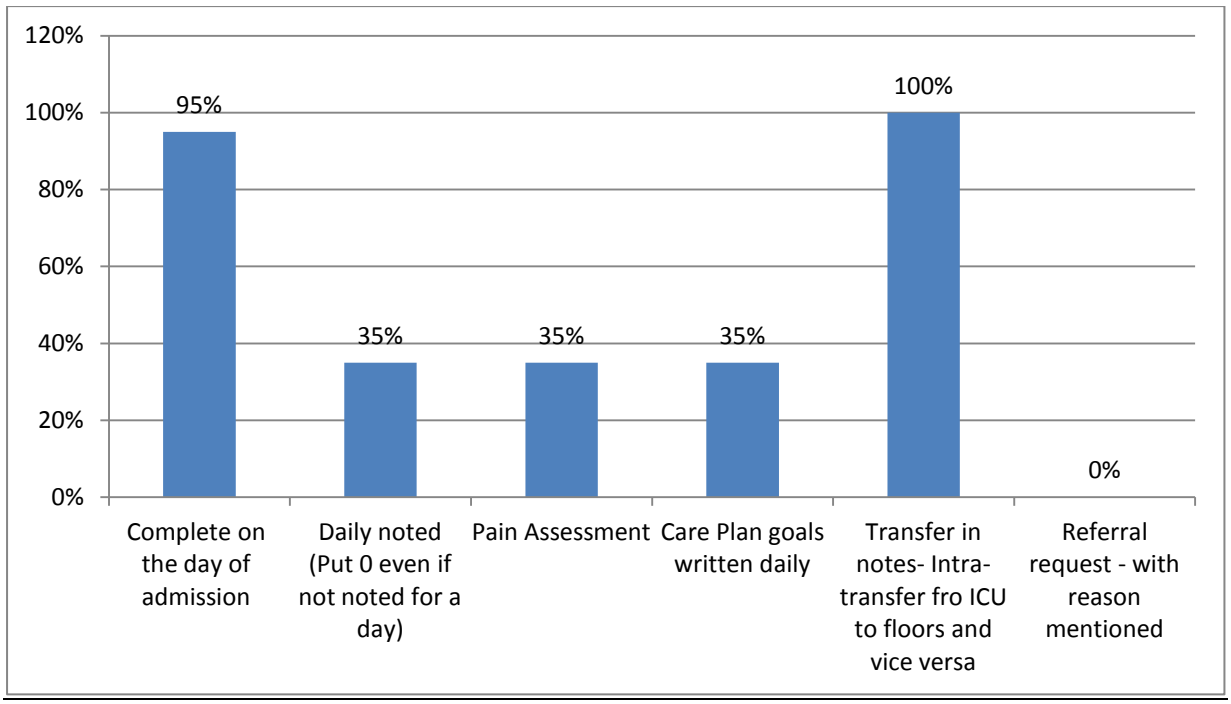


***Figure 24 shows the compliance percentage of Dr's progress note of speciality A**

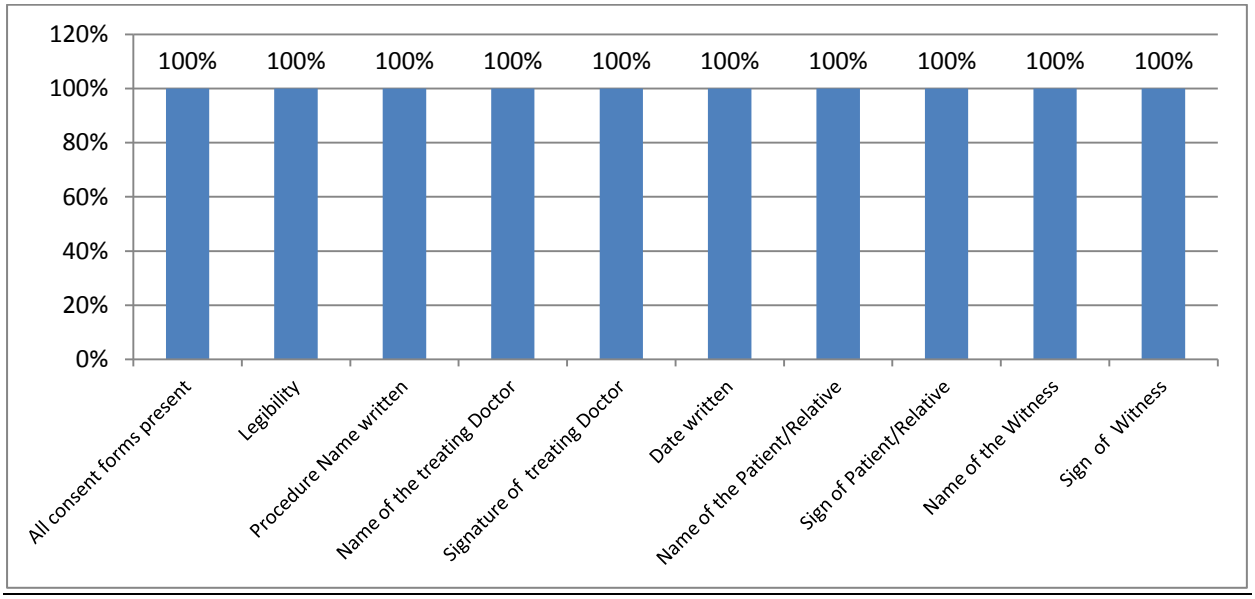


***Figure 25 shows the compliance percentage of consent forms of Speciality A**

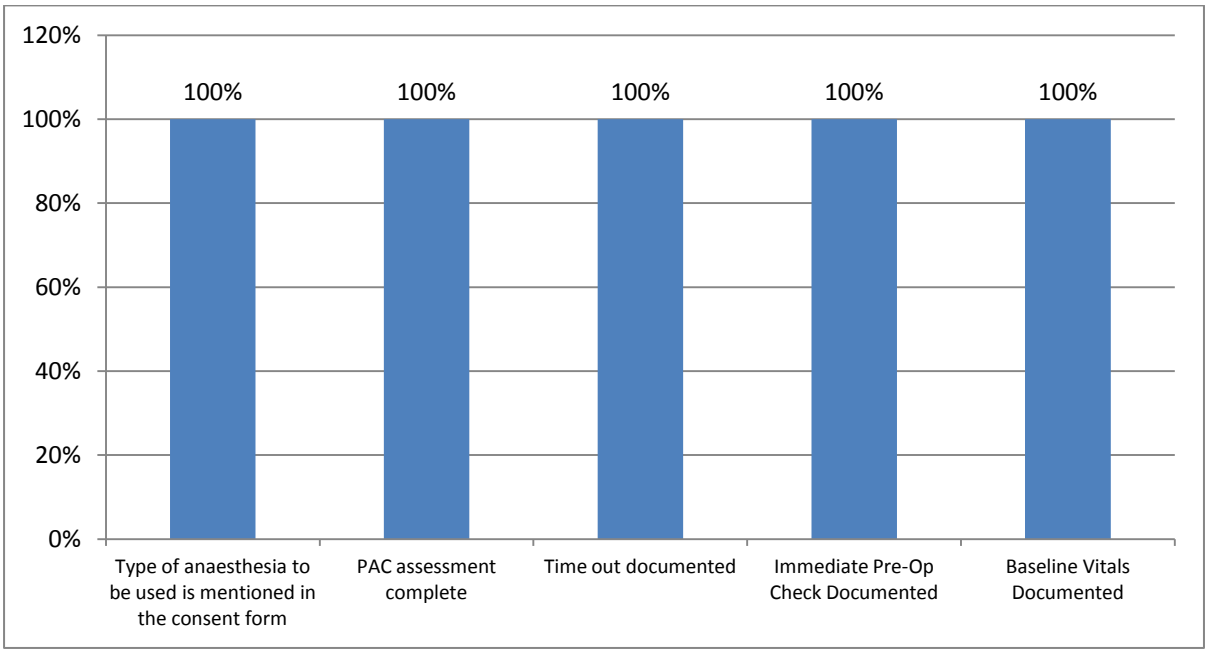


***Figure 26 shows the compliance percentage of anaesthesia assessment of speciality A**

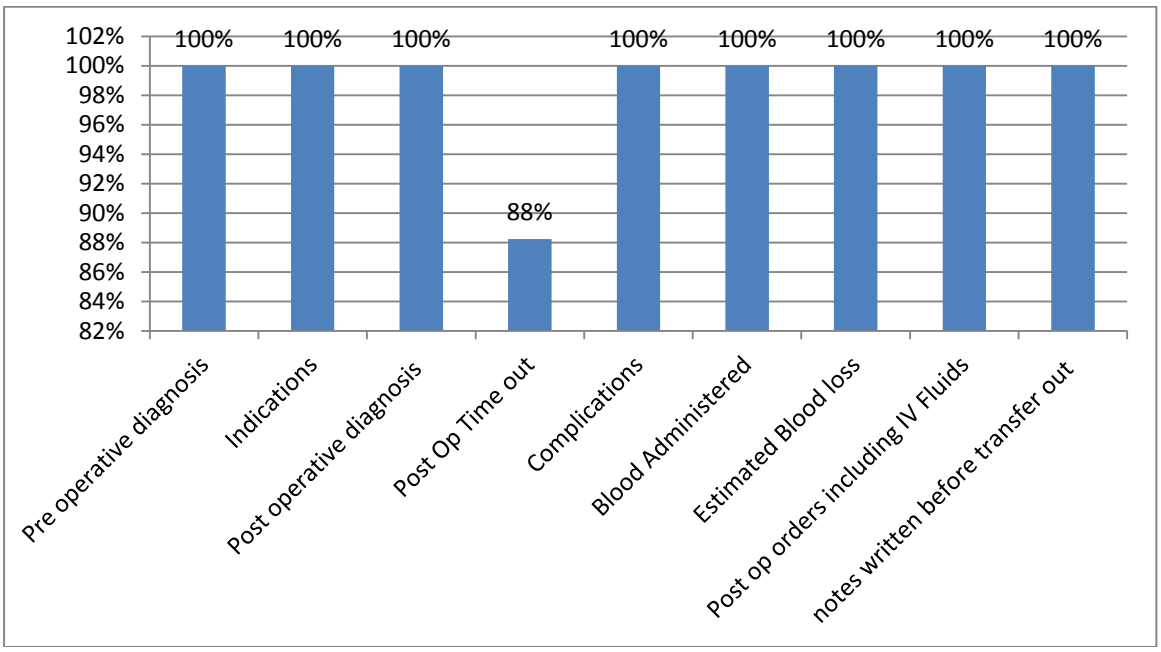


***Figure 27 shows the percentage of compliance of operative notes of Speciality A**

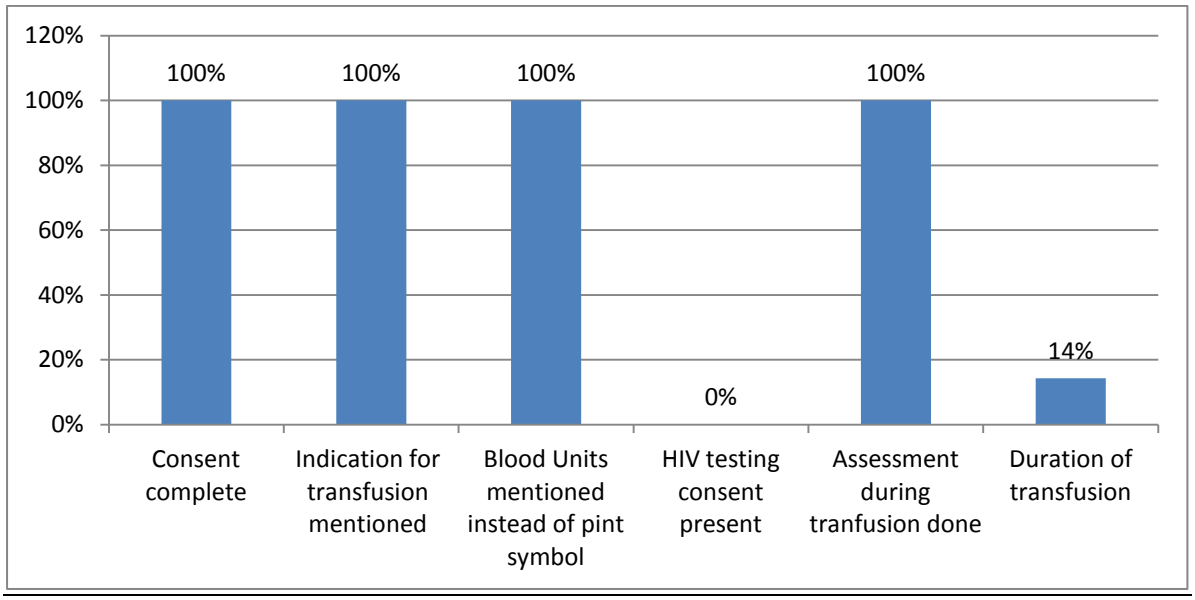


***Figure 28 shows the percentage of compliance if blood is received of Speciality A**

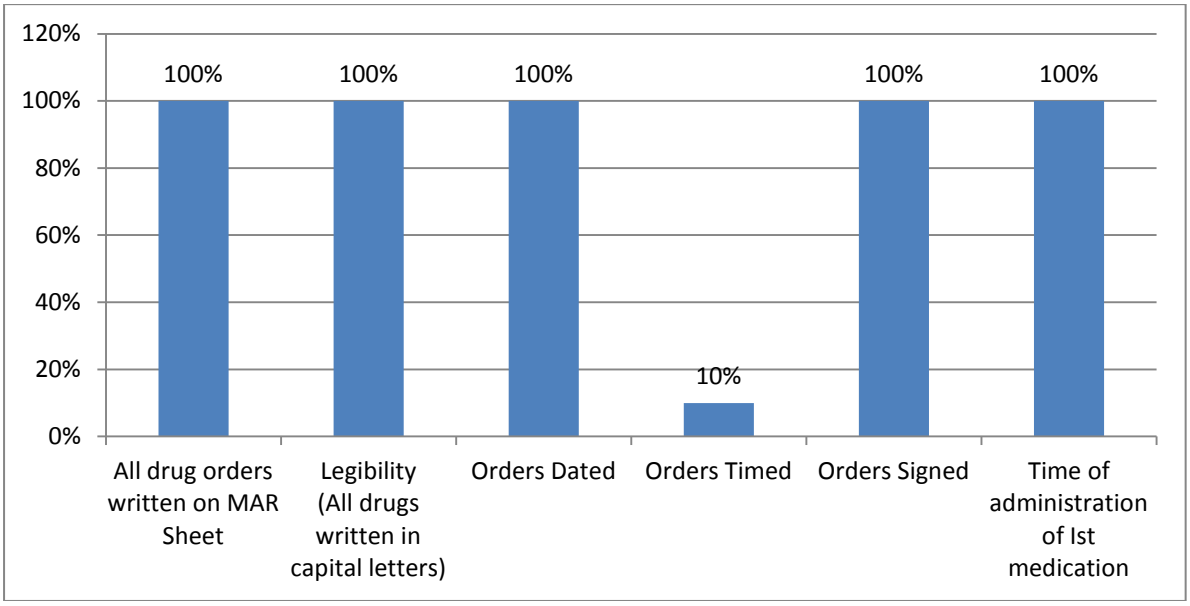


***Figure 29 shows the percentage of compliance of medicine administrative records of Speciality A**

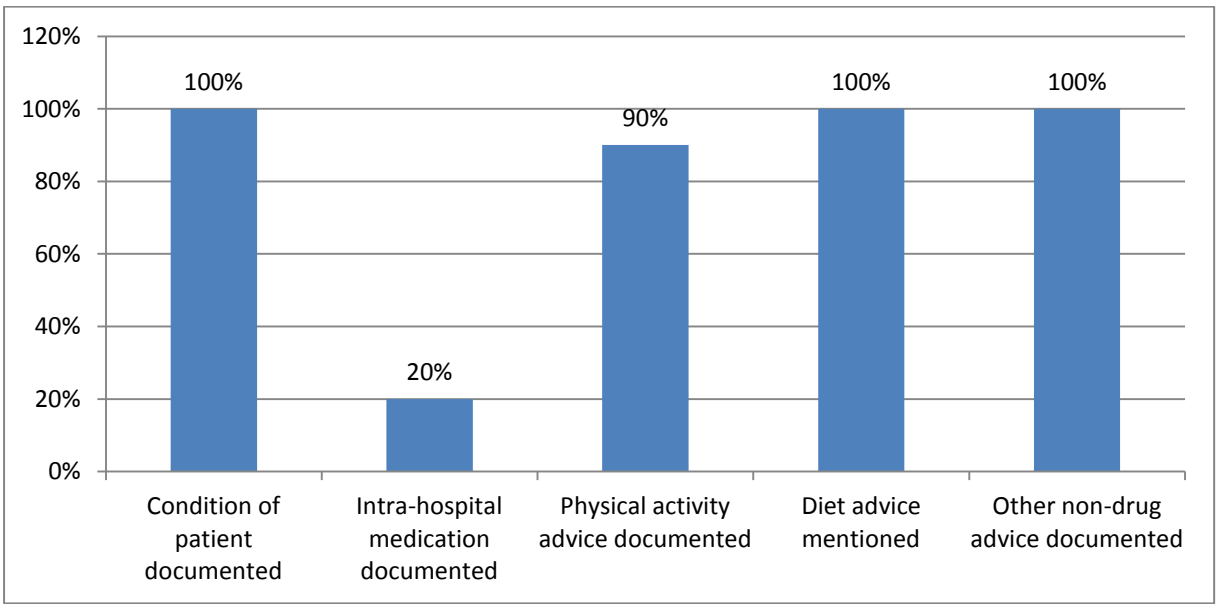


***Figure 30 shows the percentage of compliance of discharge summary of Speciality A**

Observations:

- Care plan goals are never written
- Progress notes of Speciality A are not mentioned timely.
- Consent forms and pre anaesthesia forms are filled regularly
- Time of drugs to be given are not mentioned by the doctors
- Post op time after the surgery is completed is forgotten to be noted
- In blood transfusion cases HIV testing is not done
- Intra hospital drugs are not mentioned in the discharge summary
- PFE forms are never filled by the doctors

SPECIALITY B

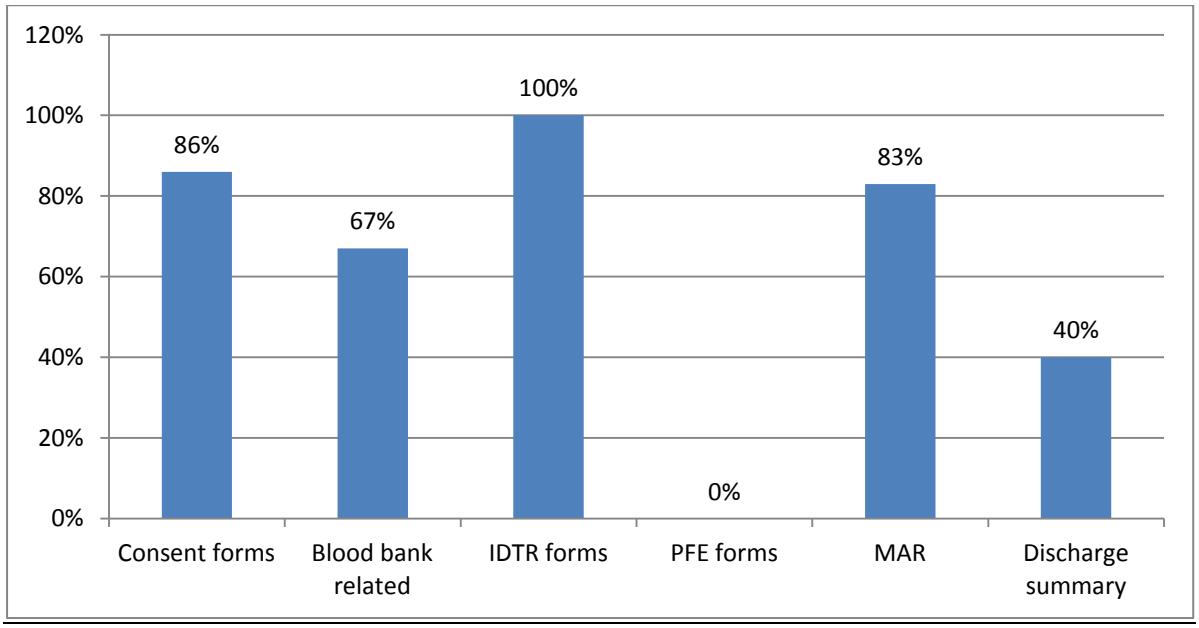


***Figure 31 shows the complete compliance percentage of speciality B**

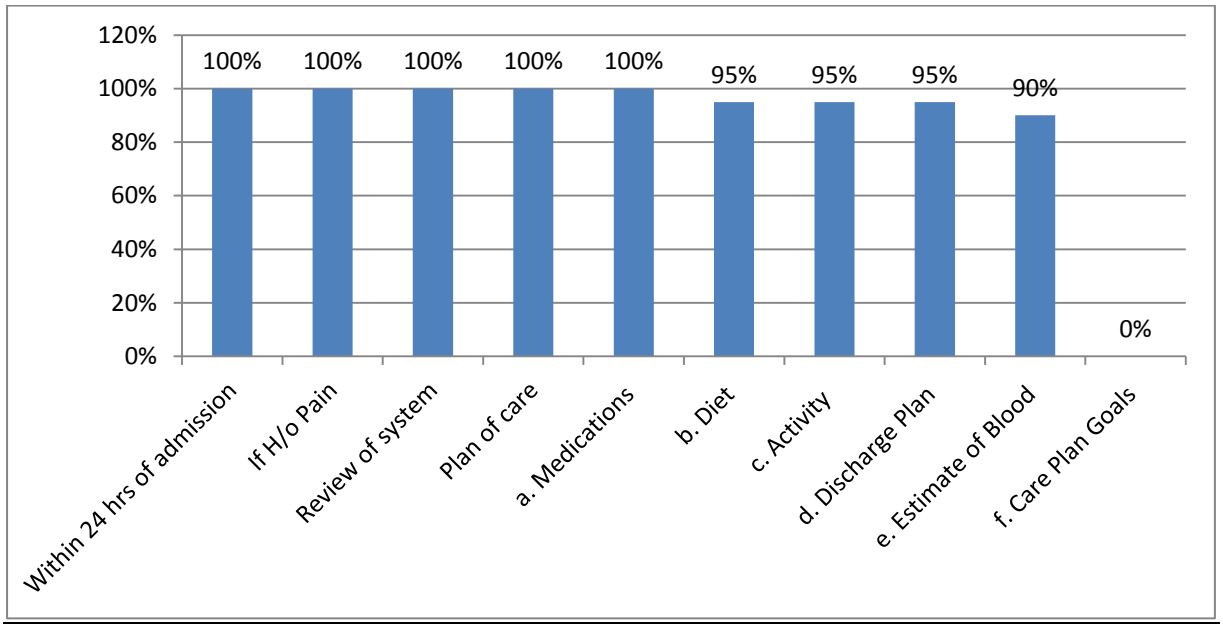


***Figure 32 shows the compliance percentage of initial assessment of speciality B**

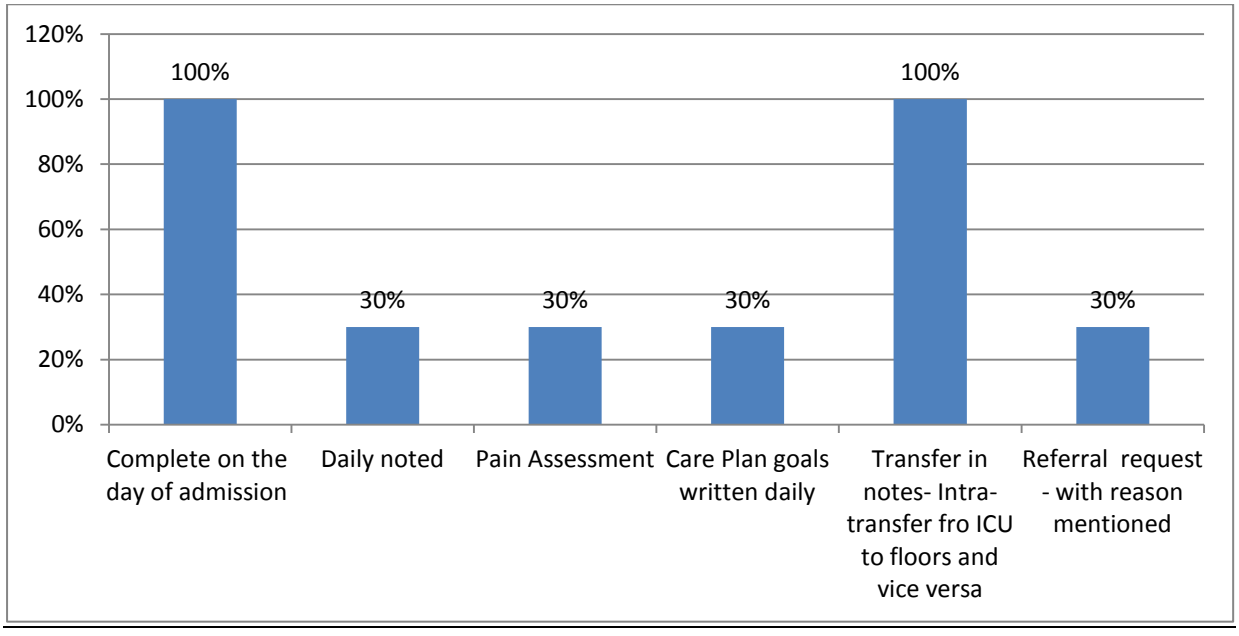


***Figure 33 shows the compliance percentage of Dr's progress note of speciality B**

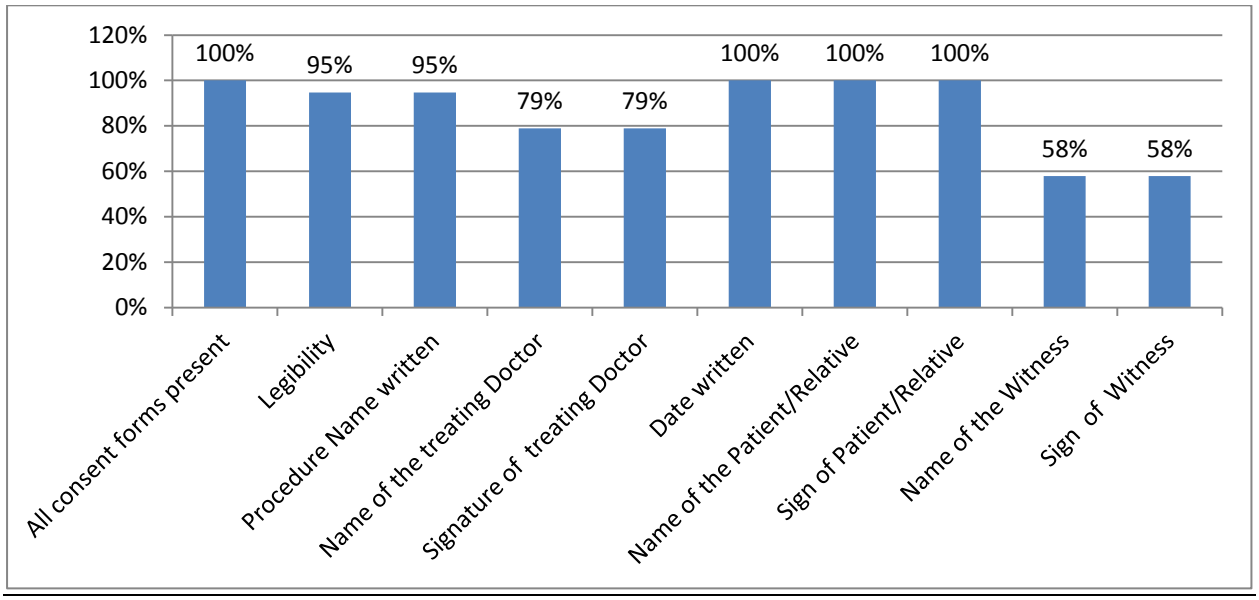


***Figure 34 shows the compliance percentage of consent forms of Speciality B**

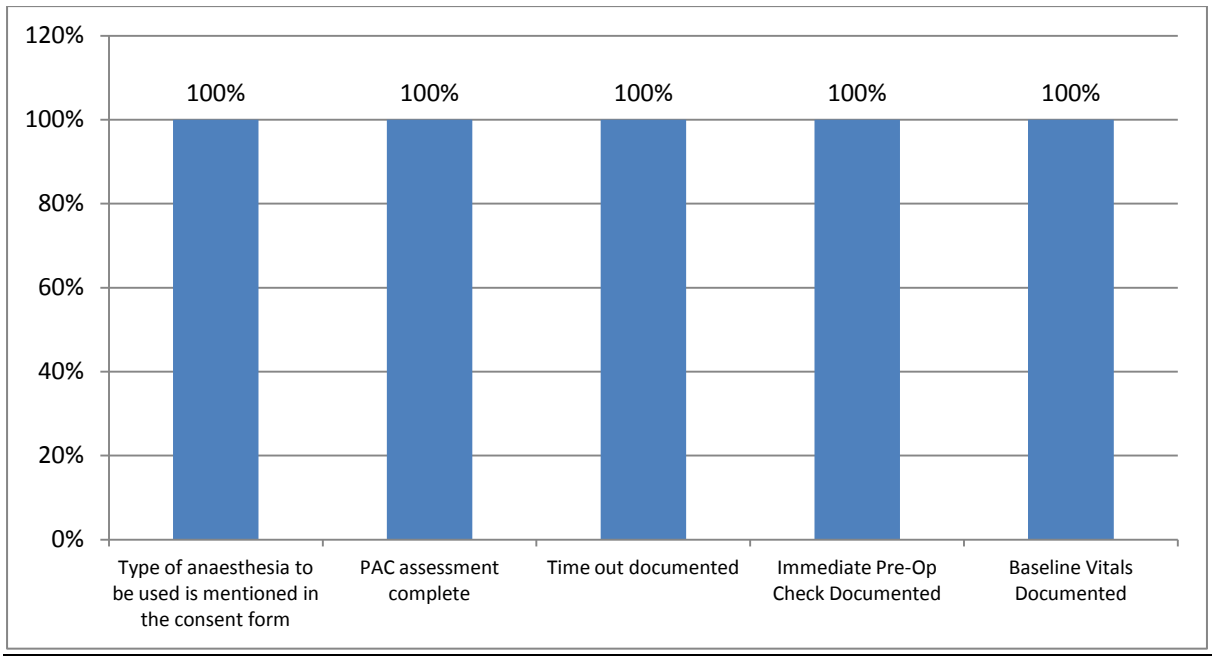


***Figure 35 shows the compliance percentage of anaesthesia assessment of speciality B**

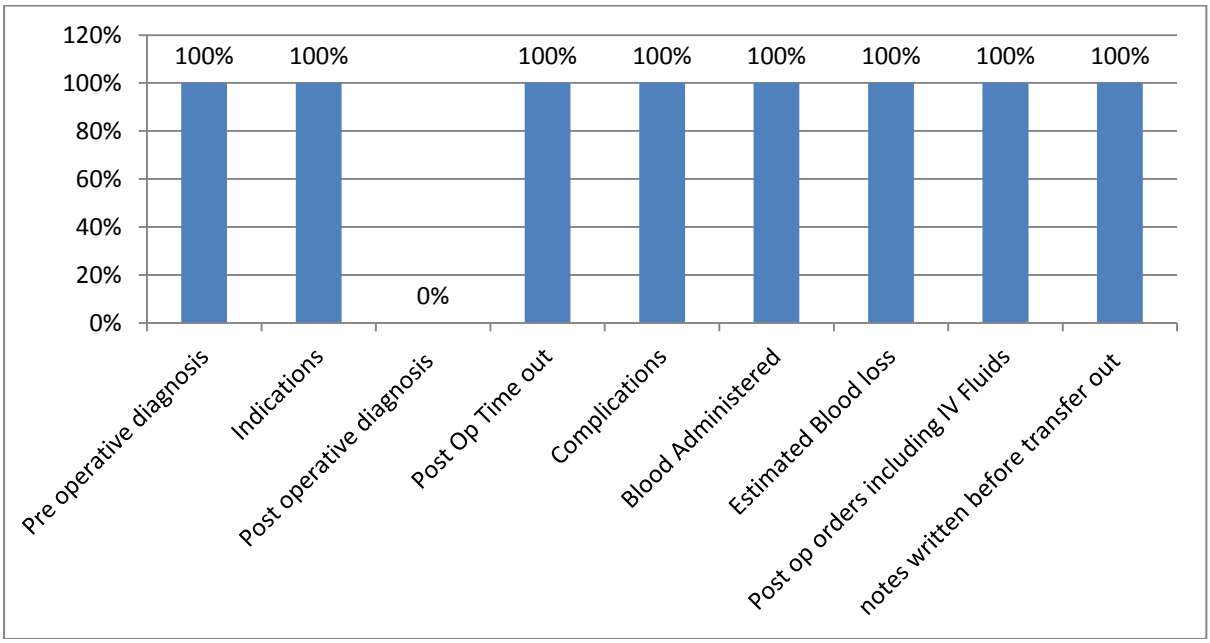


***Figure 36 shows the percentage of compliance of operative notes of Speciality B**

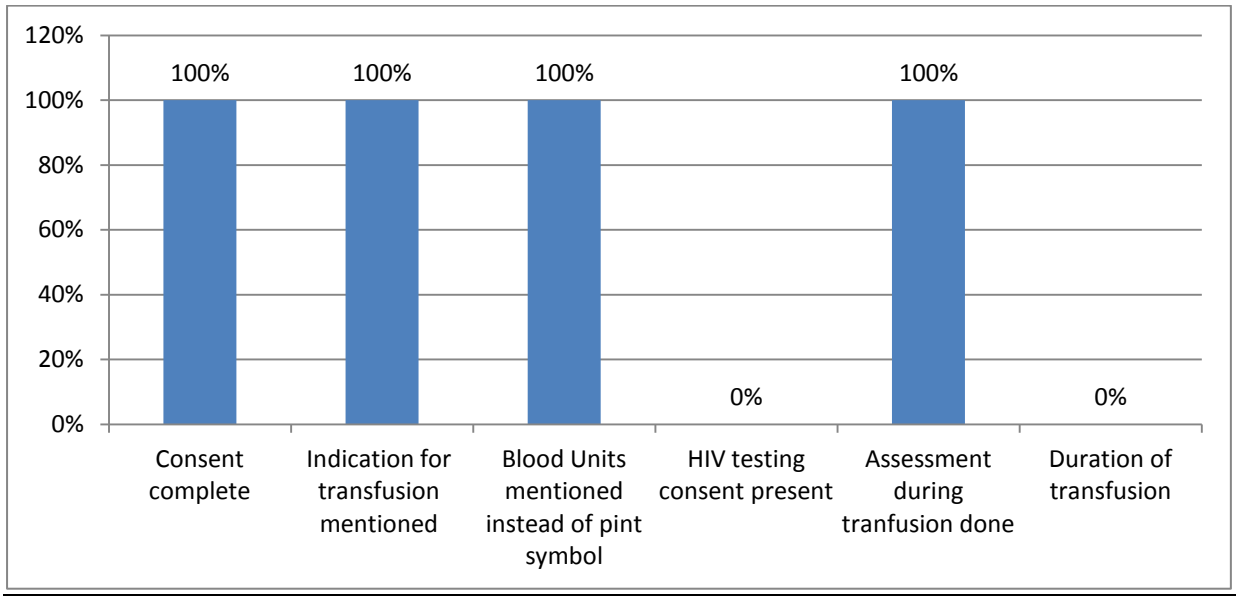


***Figure 37 shows the percentage of compliance if blood is received of Speciality B**

***Figure 38 shows the percentage of compliance of medicine administrative records of Speciality B**

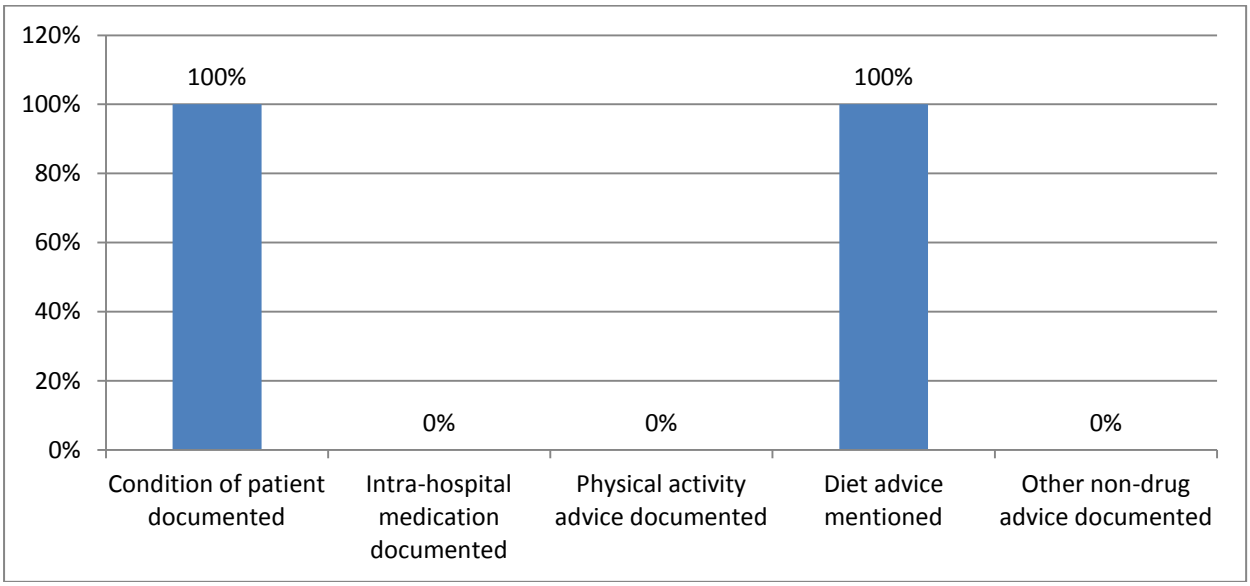


***Figure 39 shows the percentage of compliance of discharge summary of Speciality B**

Observations:

- Care plan goals are never written
- Progress notes of Speciality A are not mentioned timely.
- Pre anaesthesia forms are filled regularly
- Time of drugs to be given are not mentioned by the doctors
- Post op time after the surgery to be completed is forgotten to be noted
- In blood transfusion cases HIV testing is not done
- Intra hospital drugs and diet advise are not mentioned in the discharge summary
- PFE forms are never filled by the doctors
- Few components of consent forms is also missed

SPECIALITY C

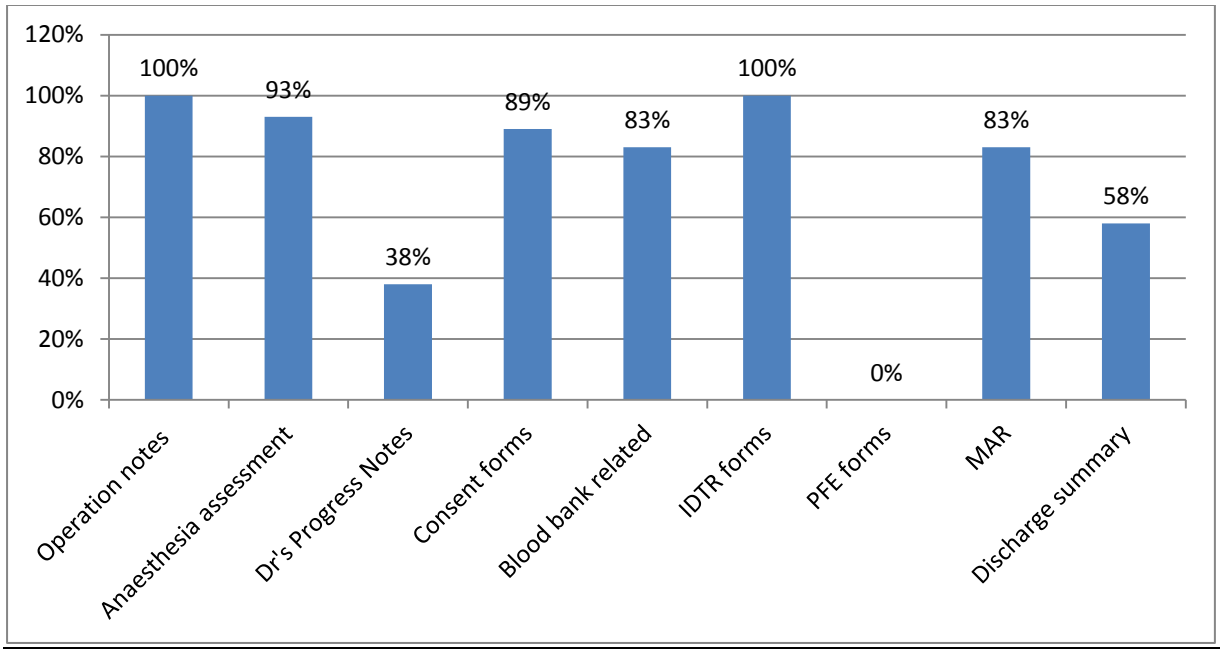


***Figure 40 shows the complete compliance percentage of speciality C**

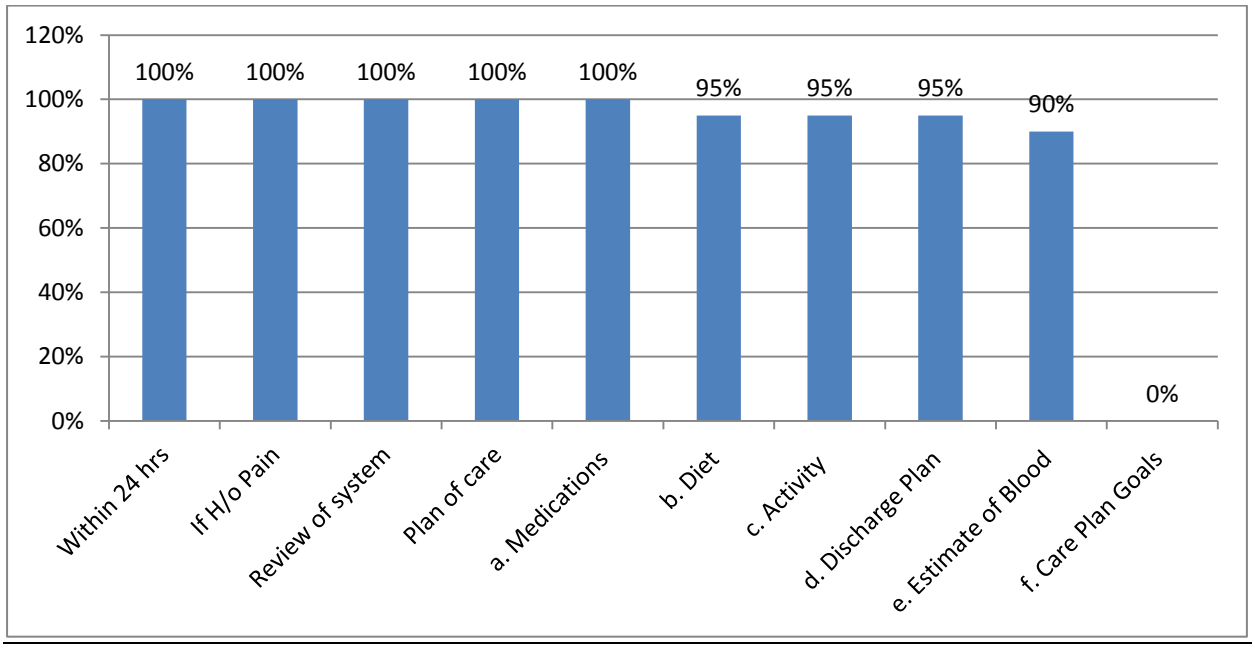


***Figure 41 shows the compliance percentage of initial assessment of speciality C**

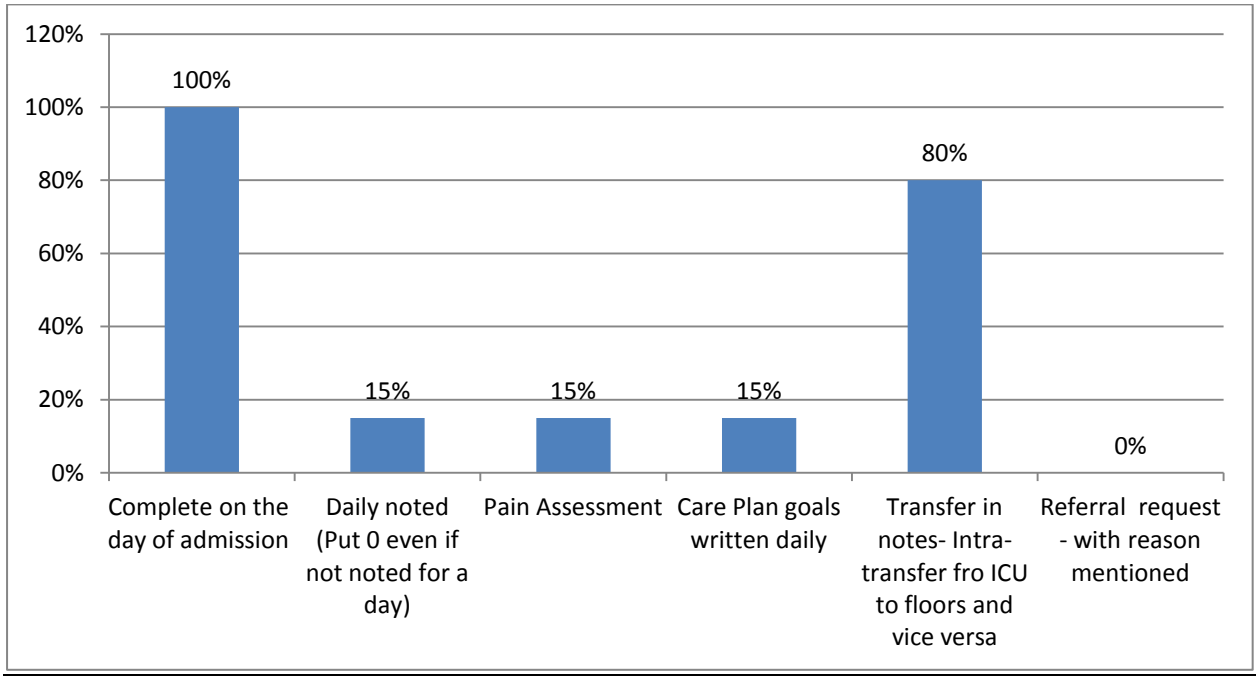


***Figure 42 shows the compliance percentage of Dr's progress note of speciality C**

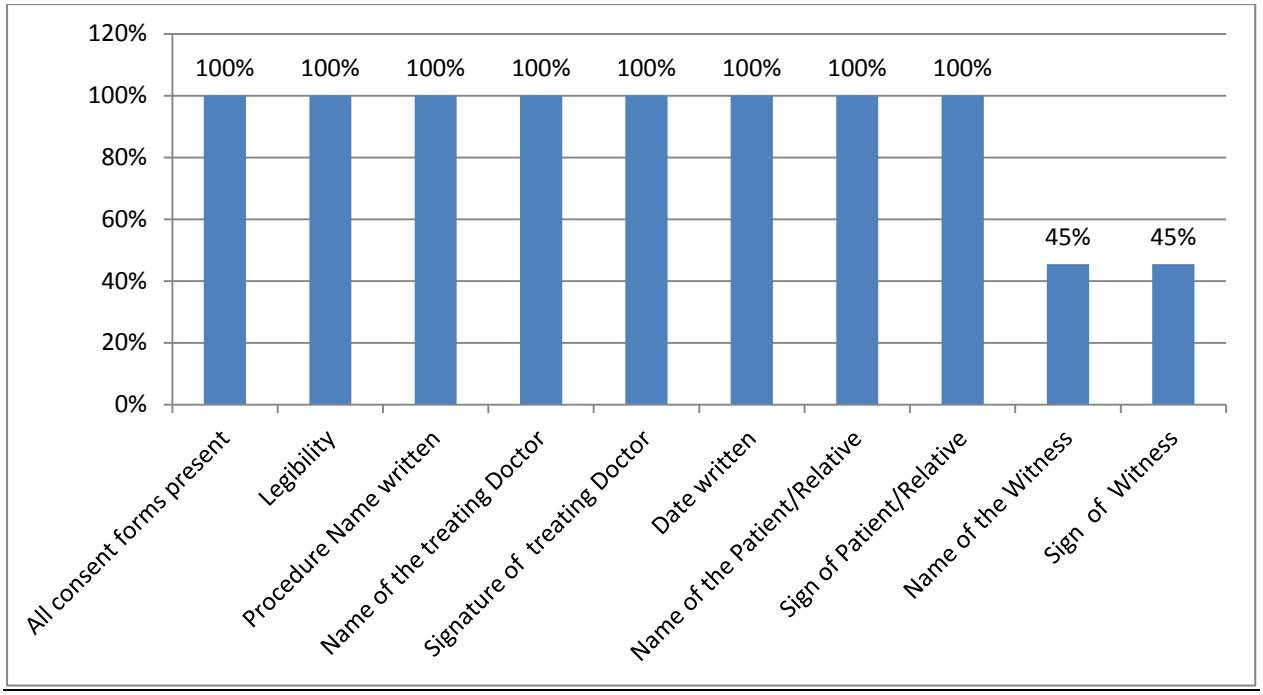


***Figure 43 shows the compliance percentage of consent forms of Speciality C**

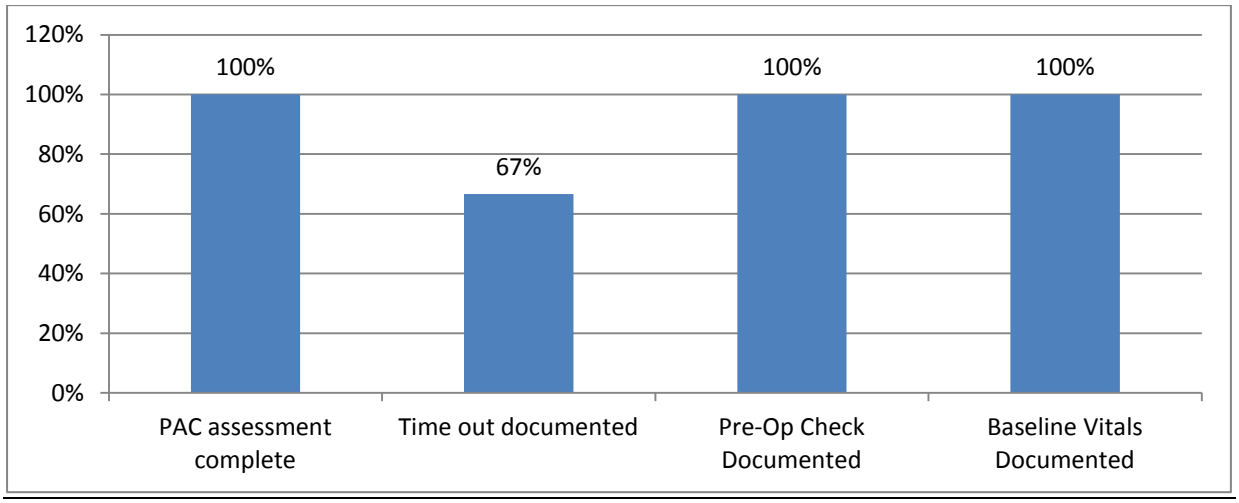


***Figure 44 shows the compliance percentage of anaesthesia assessment of speciality C**

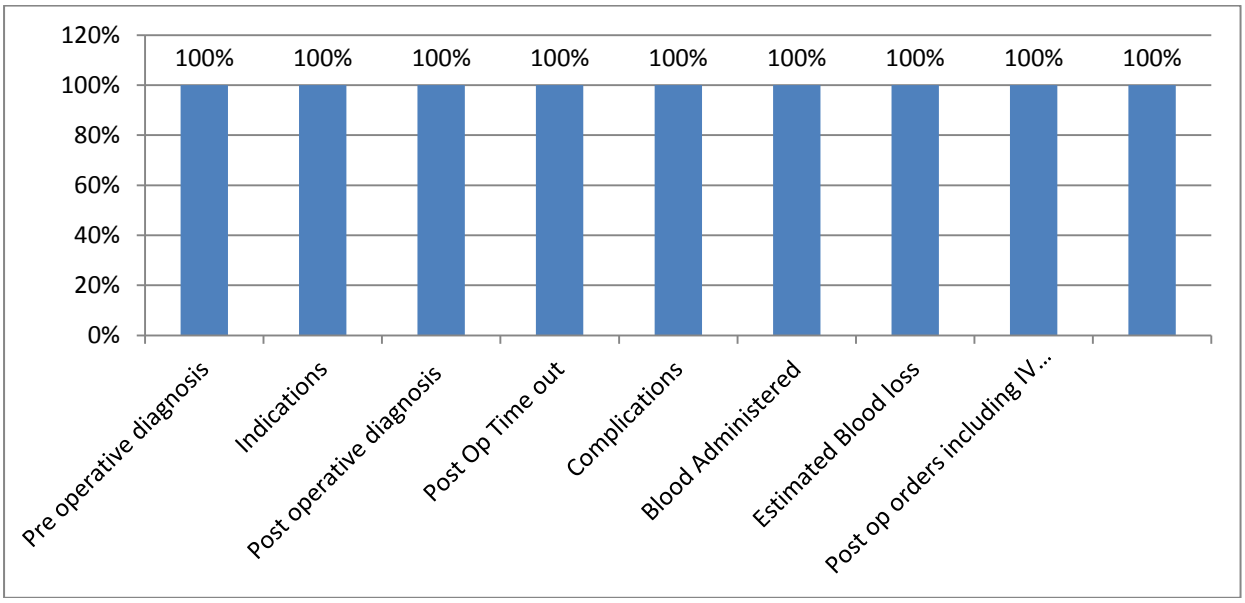


***Figure 45 shows the percentage of compliance of operative notes of Speciality C**

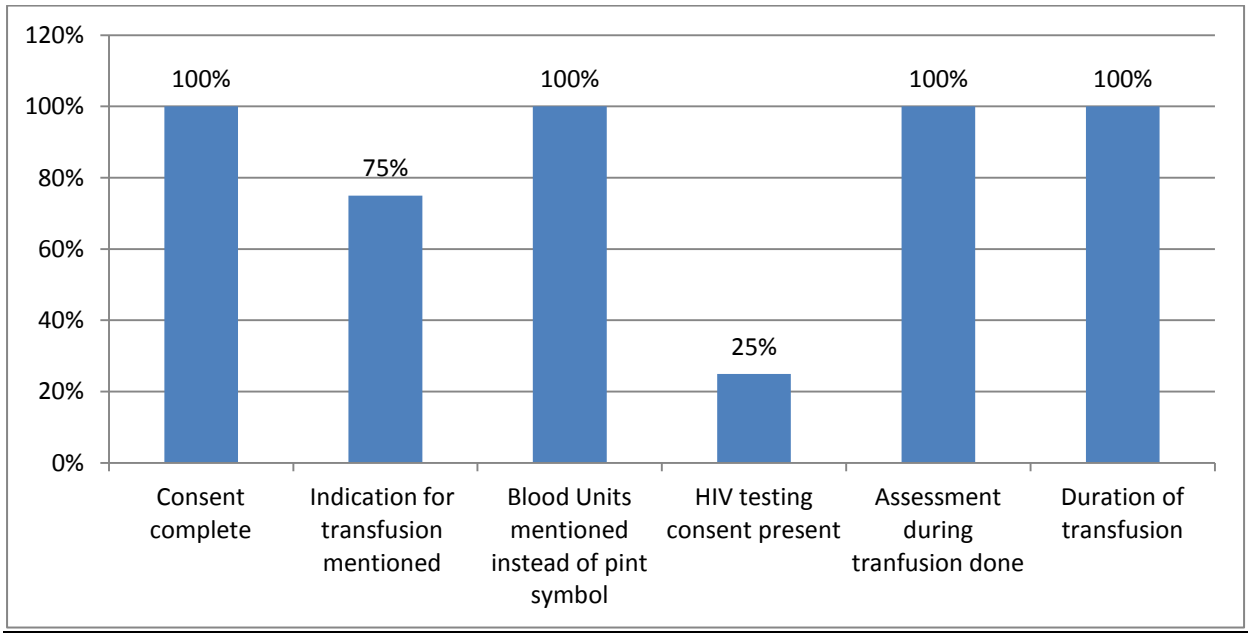


***Figure 46 shows the percentage of compliance if blood is received of Speciality C**

***Figure 47 shows the percentage of compliance of medicine administrative records of Speciality C**

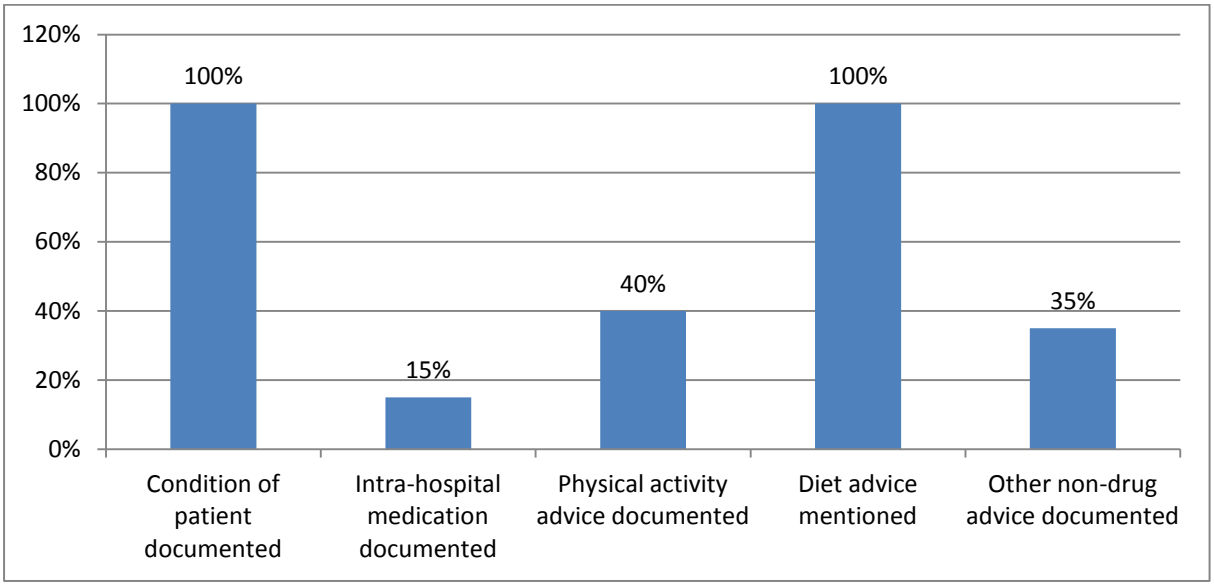


***Figure 48 shows the percentage of compliance of discharge summary of Speciality C**

Observations:

- Care plan goals are never written
- Progress notes of Speciality A are not mentioned timely.
- Pre anaesthesia forms are filled regularly
- Time of drugs to be given are not mentioned by the doctors
- Post op time after the surgery to be completed is forgotten to be noted
- In blood transfusion cases HIV testing is not done
- Intra hospital drugs and diet advise are not mentioned in the discharge summary
- PFE forms are never filled by the doctors
- Few components of consent forms is also missed

SPECIALITY D

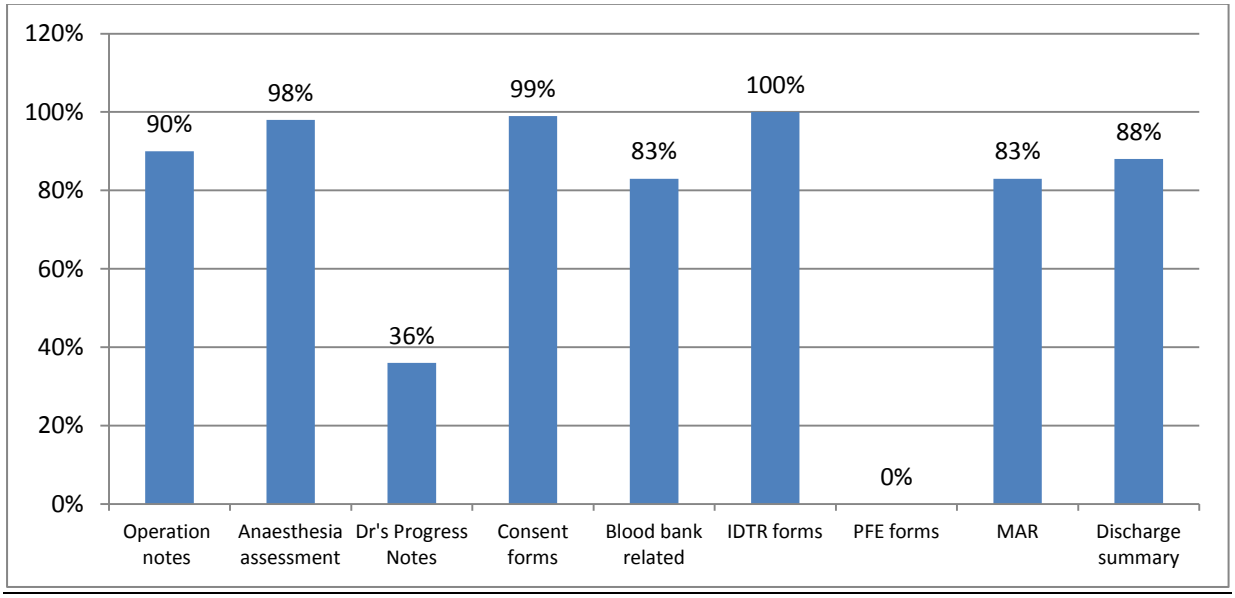


***Figure 48 shows the complete compliance percentage of speciality D**

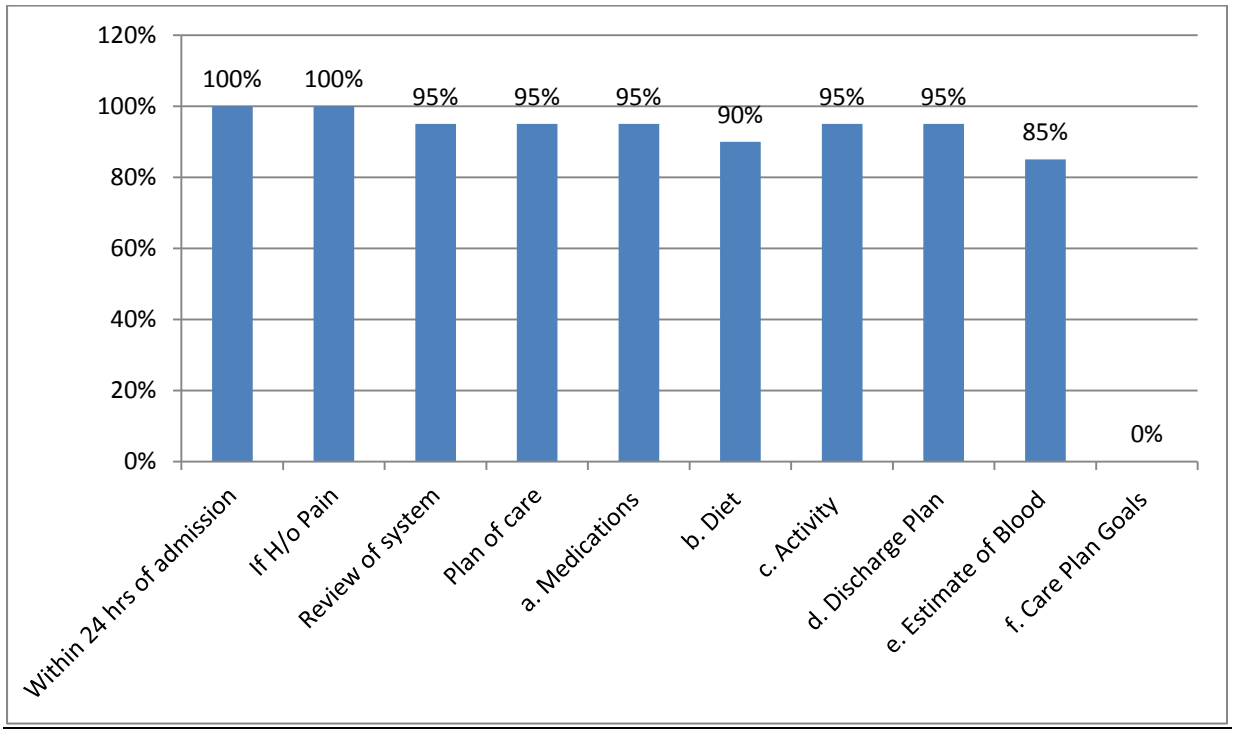


***Figure 49 shows the compliance percentage of initial assessment of speciality D**

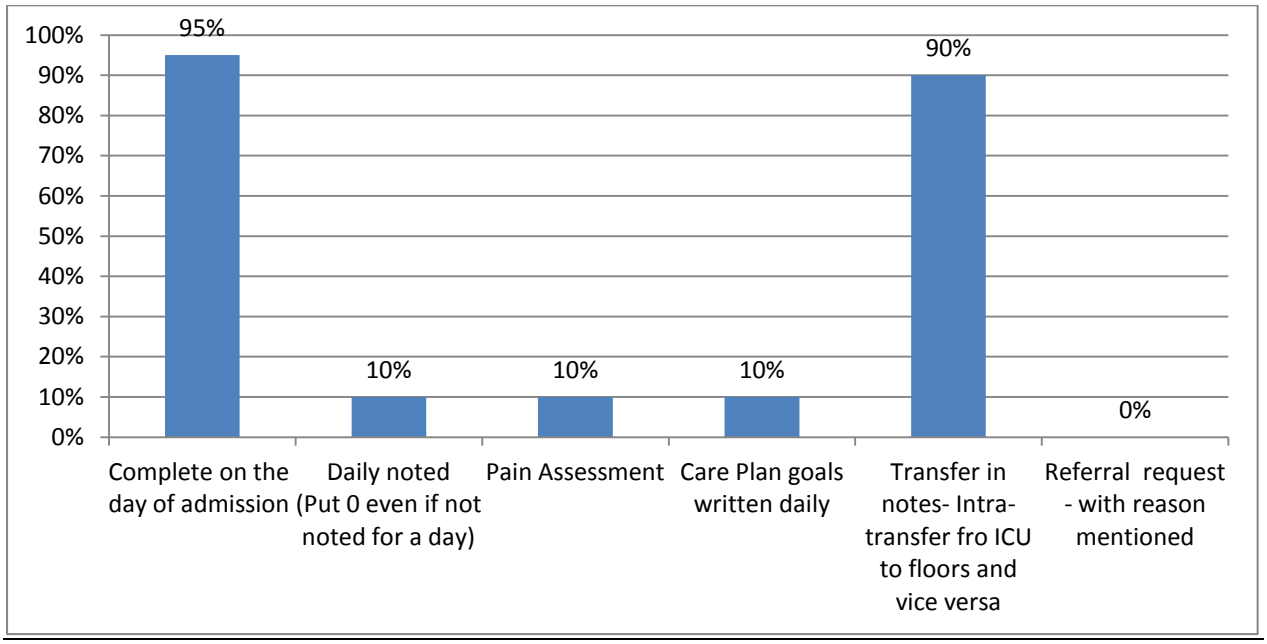


***Figure 50 shows the compliance percentage of Dr's progress note of speciality D**

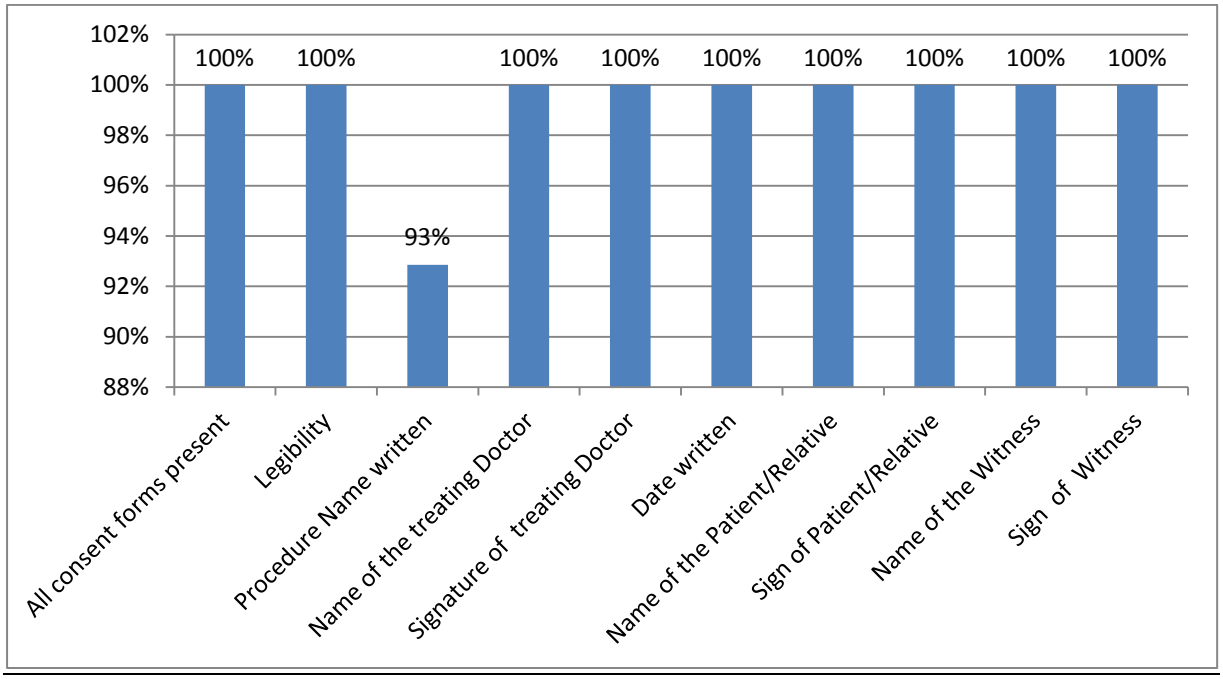


***Figure 51 shows the compliance percentage of consent forms of Speciality D**

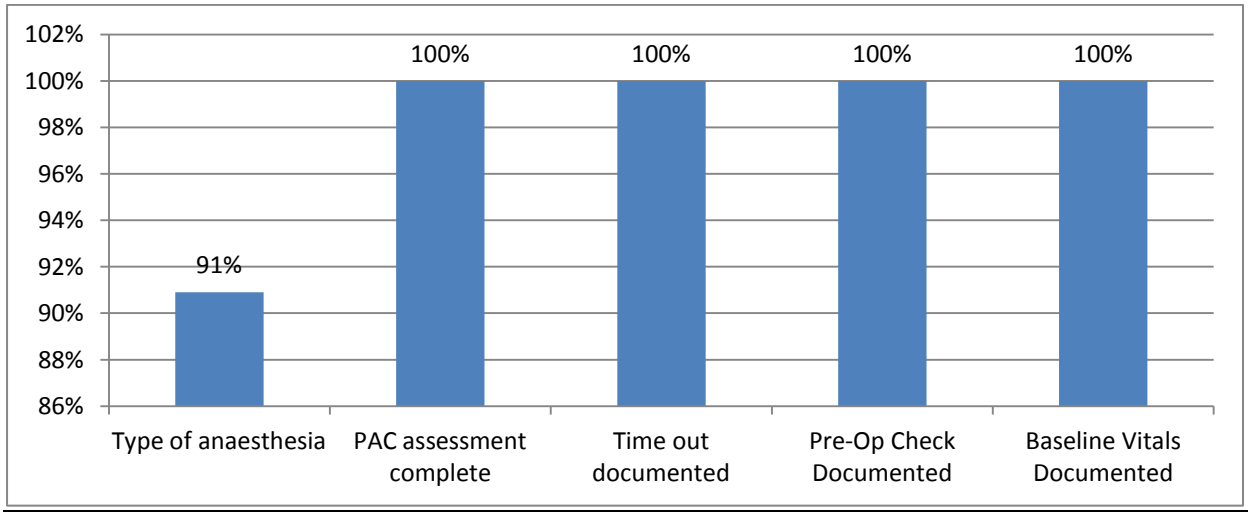


***Figure 52 shows the compliance percentage of anaesthesia assessment of speciality D**

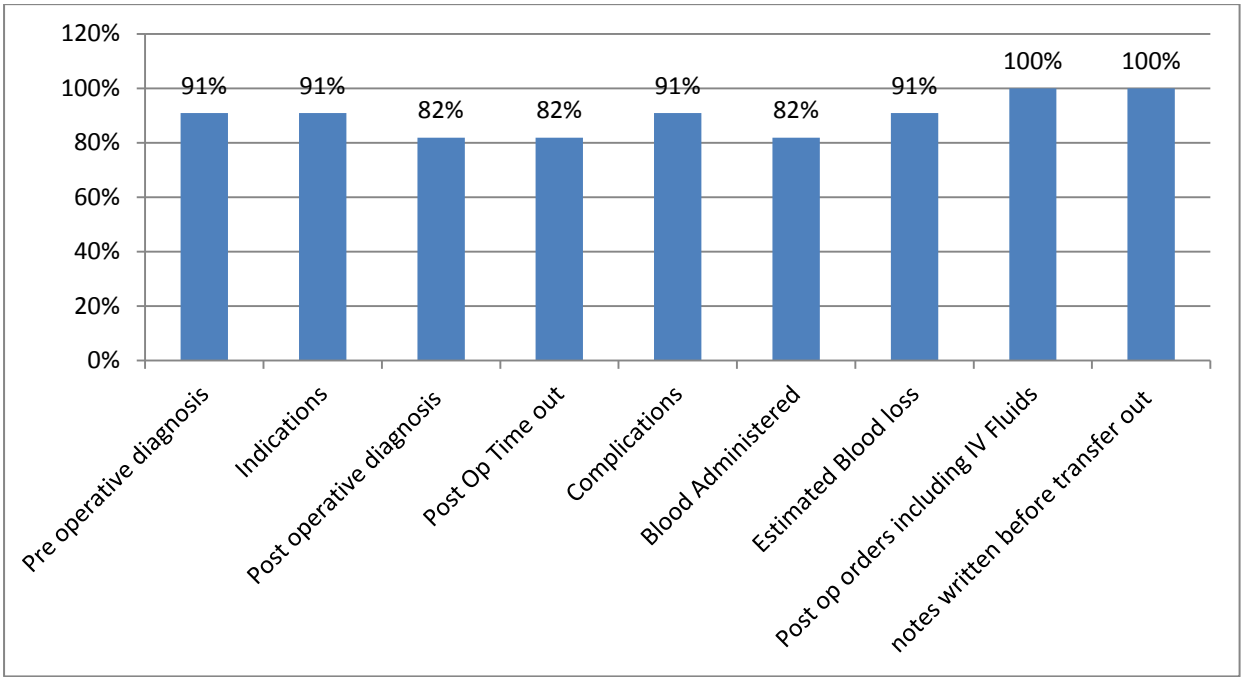


***Figure 53 shows the percentage of compliance of operative notes of Speciality D**

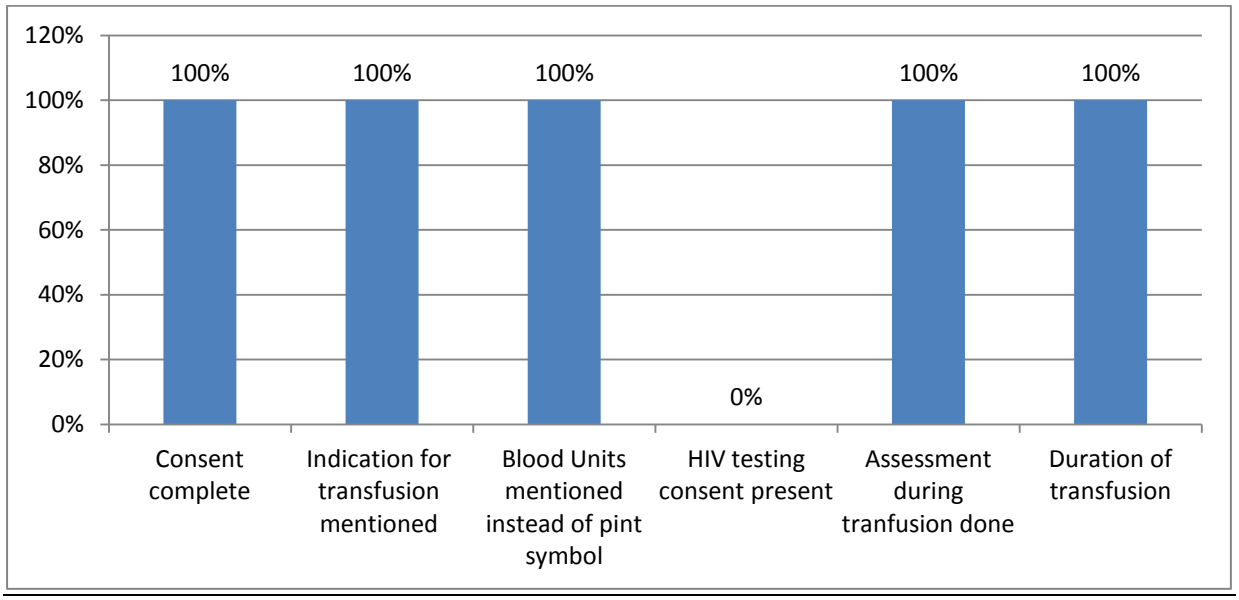


***Figure 54 shows the percentage of compliance if blood is received of Speciality D**

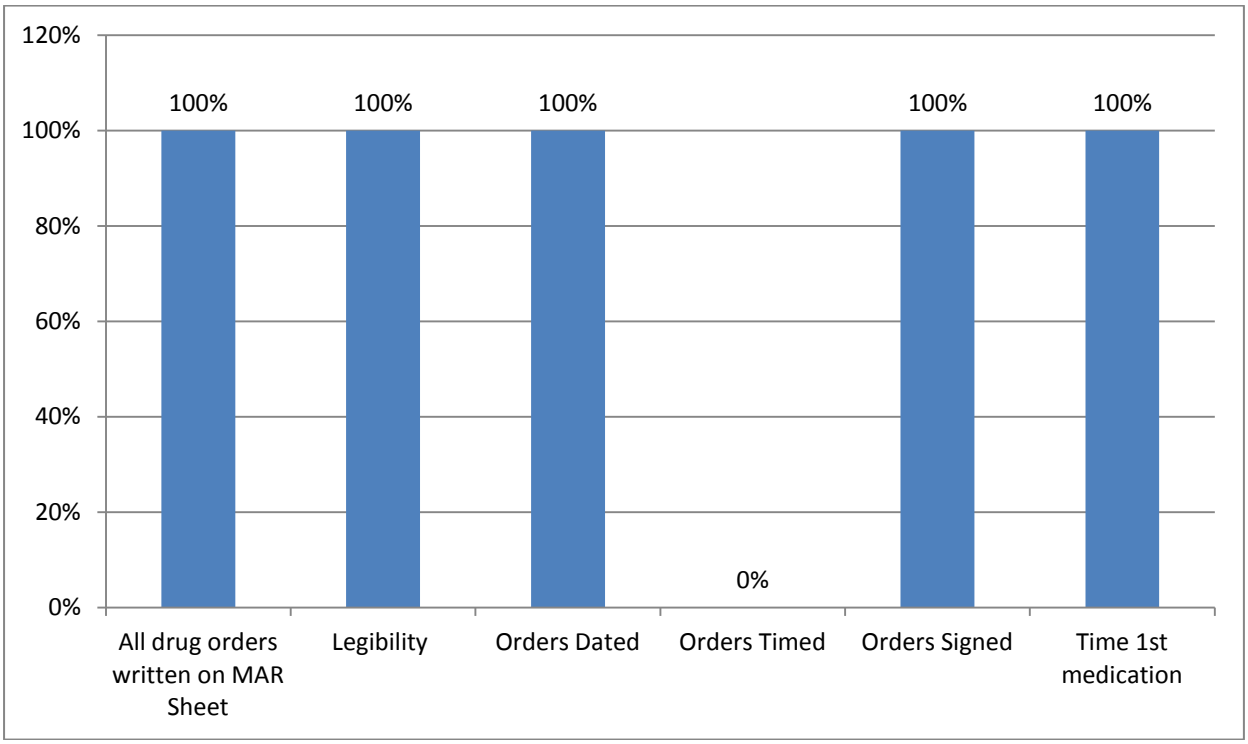


***Figure 55 shows the percentage of compliance of medicine administrative records of Speciality D**

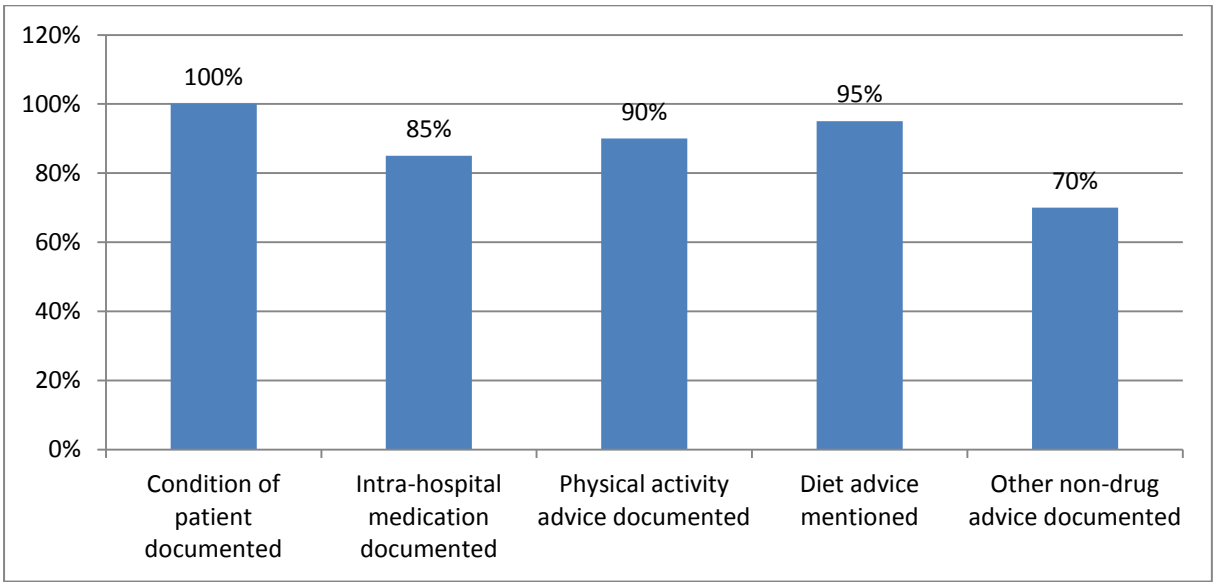


***Figure 56 shows the percentage of compliance of discharge summary of Speciality D**

Observations:

- Care plan goals are never written
- Progress notes of Speciality A are not mentioned timely.
- Type of anaesthesia is not mentioned regularly in this speciality in anaesthesia assessment.
- Time of drugs to be given are not mentioned by the doctors
- Post op time after the surgery to be completed is forgotten to be noted
- In blood transfusion cases HIV testing is not done
- Intra hospital drugs and diet advise are mentioned compared to previous specialities in the discharge summary
- PFE forms are never filled by the doctors
- Few components of consent forms is also missed

SPECIALITY E

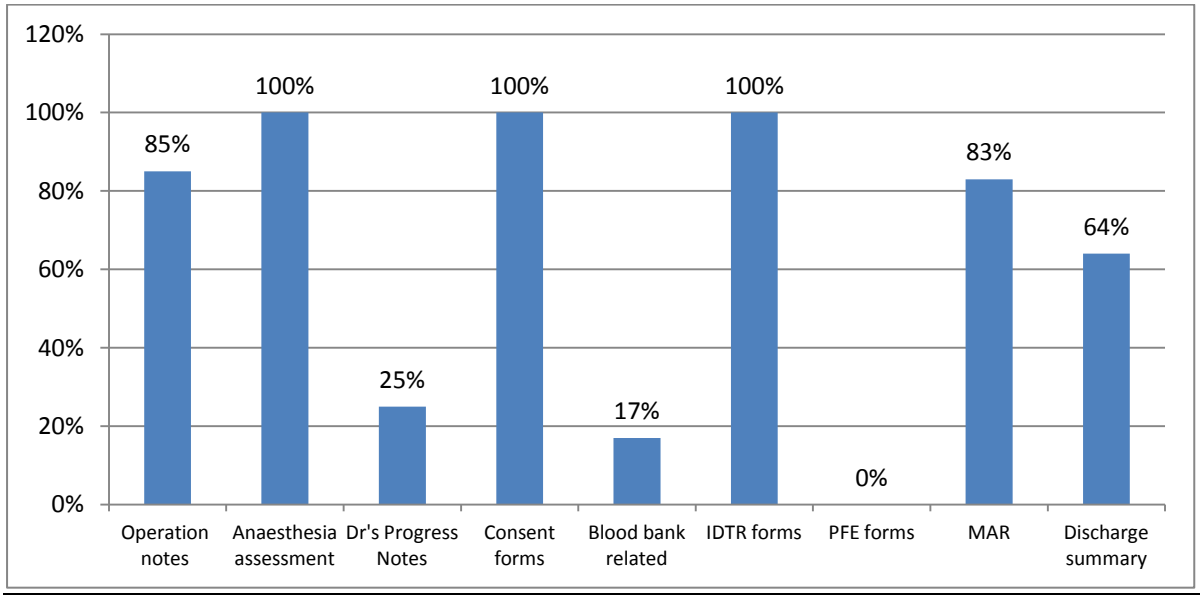


***Figure 57 shows the complete compliance percentage of speciality E**

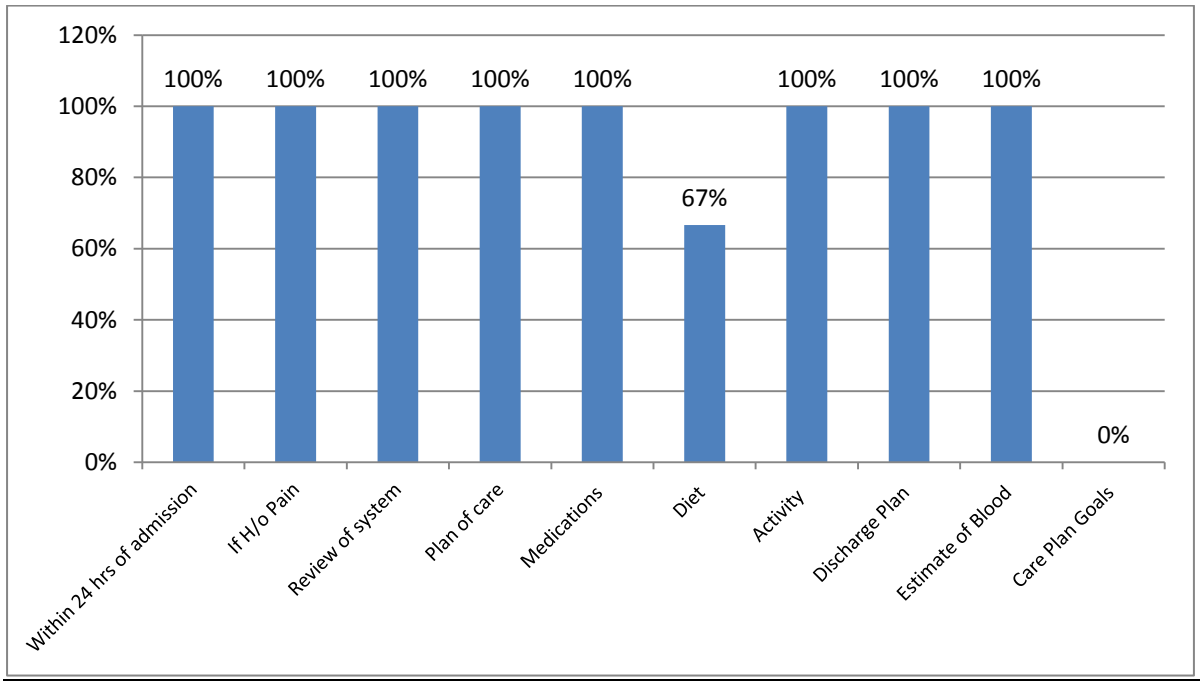


***Figure 58 shows the compliance percentage of initial assessment of speciality E**

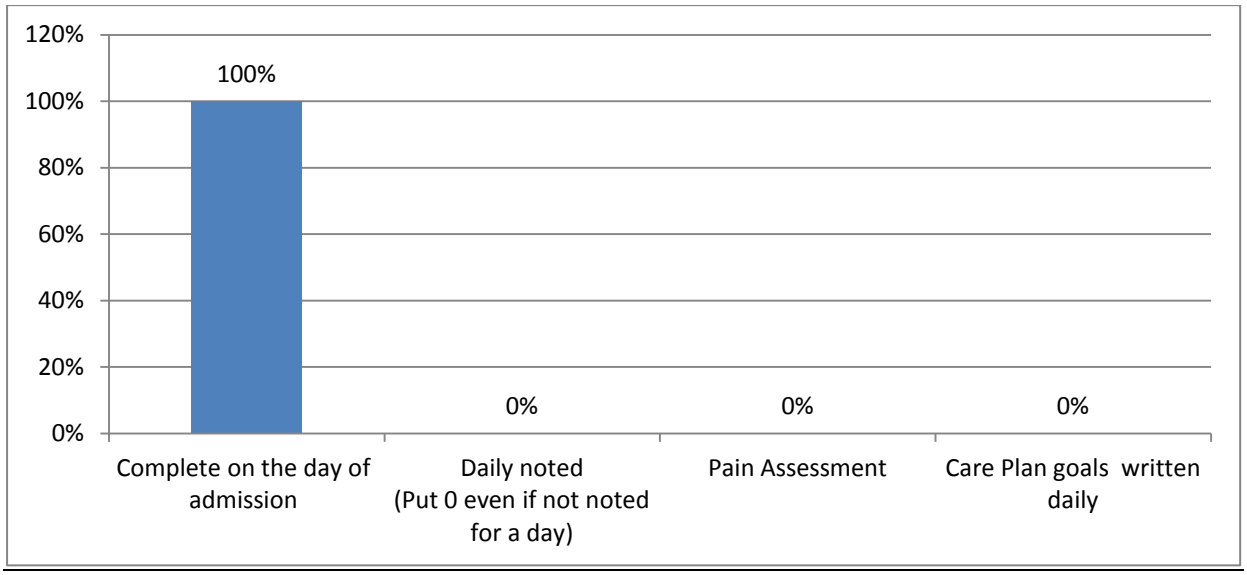


***Figure 59 shows the compliance percentage of Dr's progress note of speciality E**

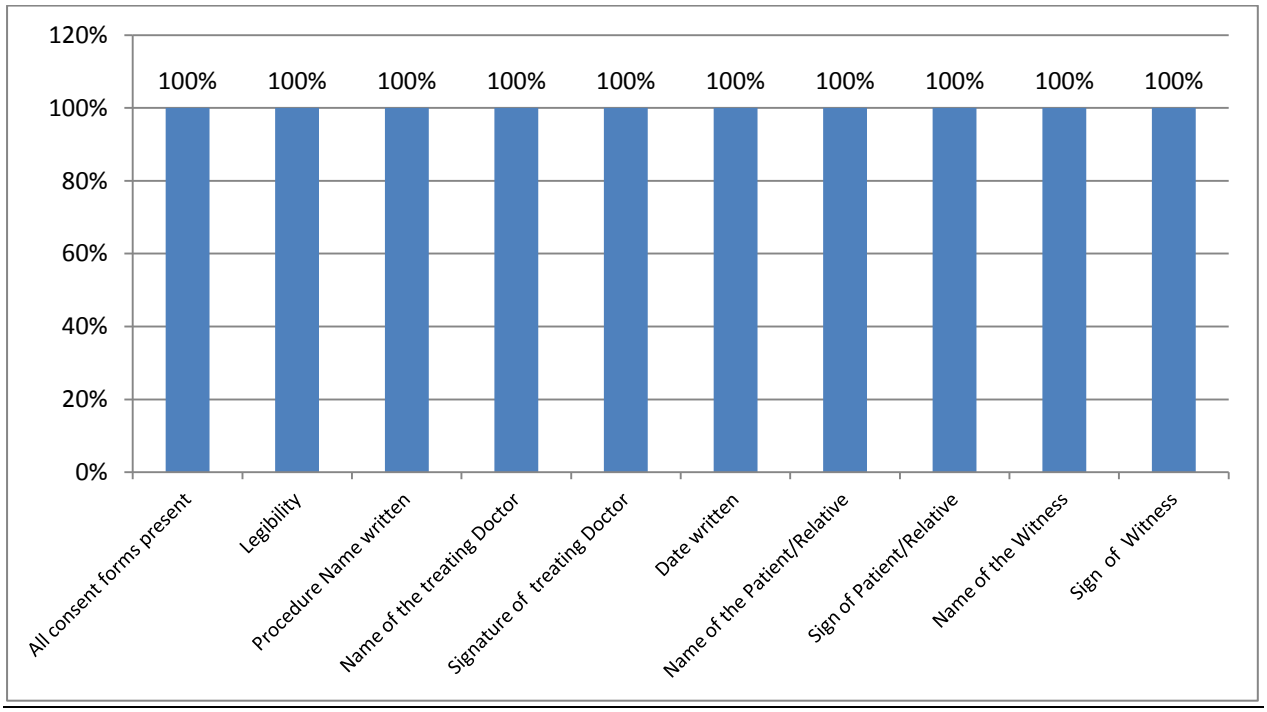


***Figure 60 shows the compliance percentage of consent forms of Speciality E**

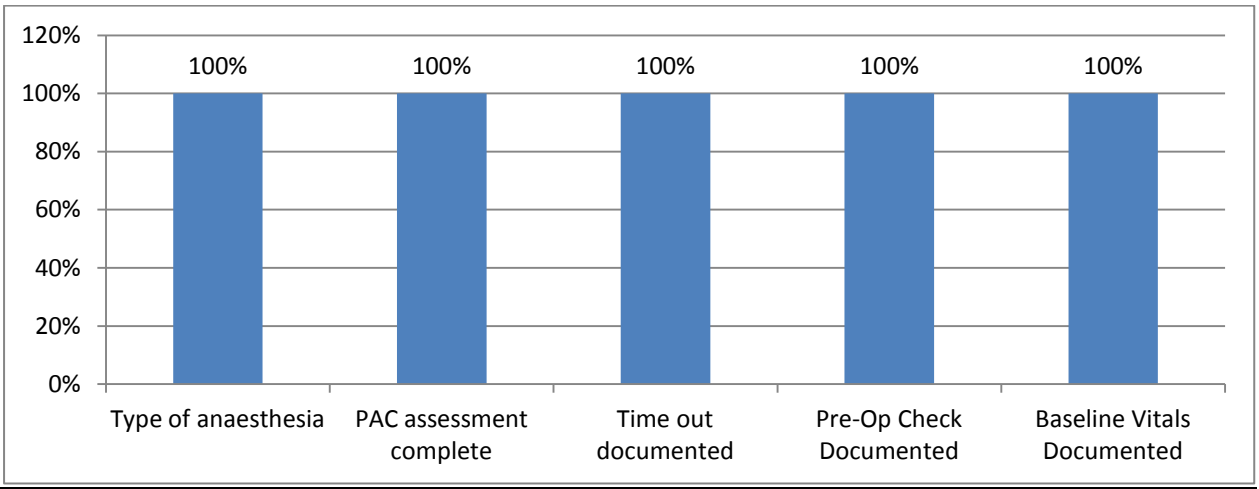


***Figure 61 shows the compliance percentage of anaesthesia assessment of speciality E**

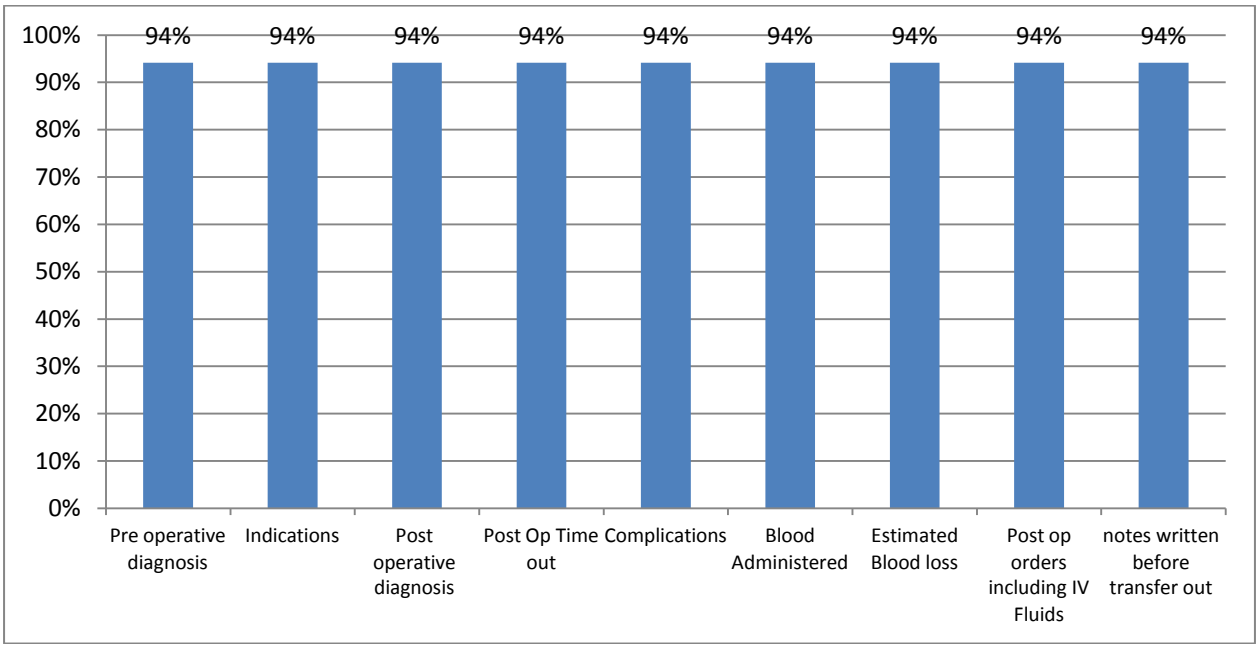


***Figure 62 shows the percentage of compliance of operative notes of Speciality E**

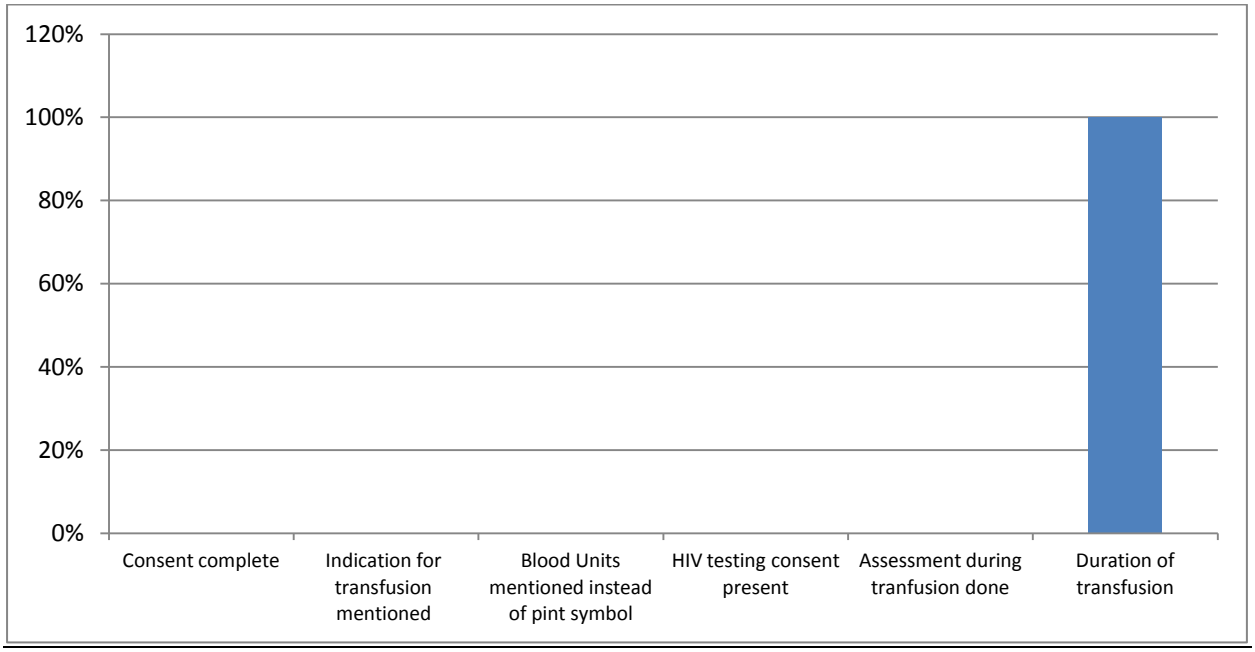


***Figure 63 shows the percentage of compliance if blood is received of Speciality E**

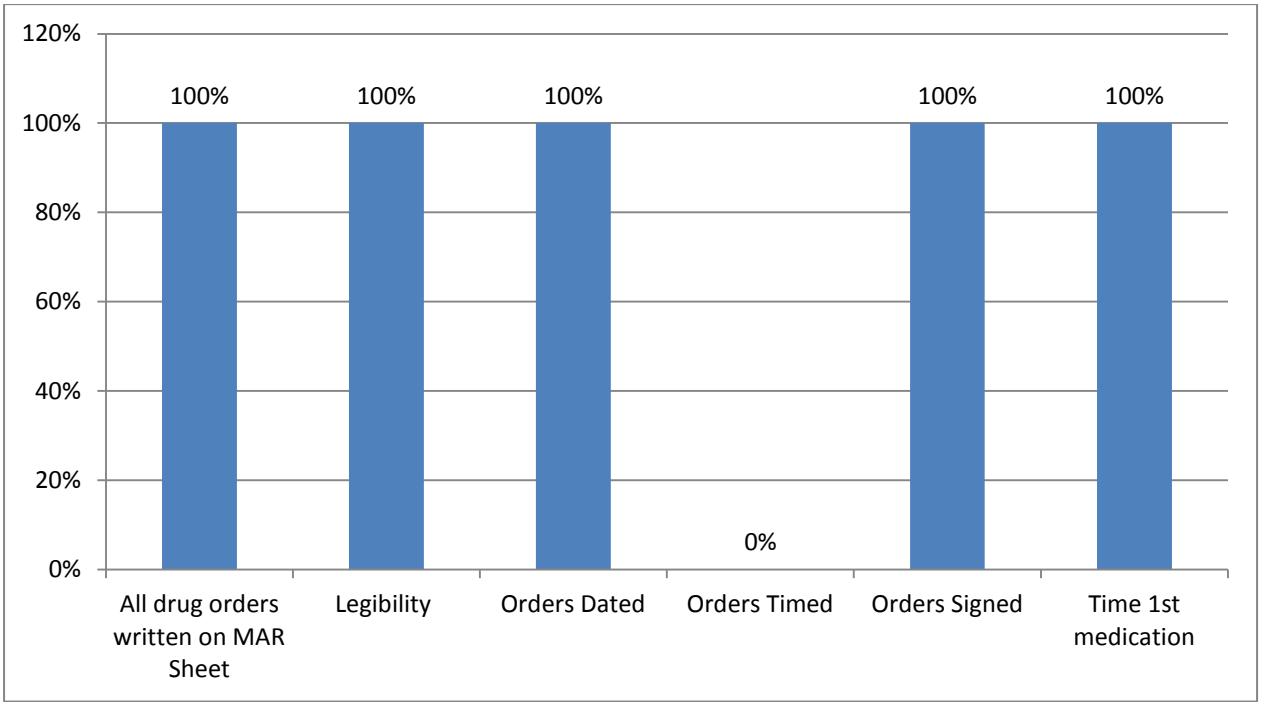


***Figure 64 shows the percentage of compliance of medicine administrative records of Speciality E**

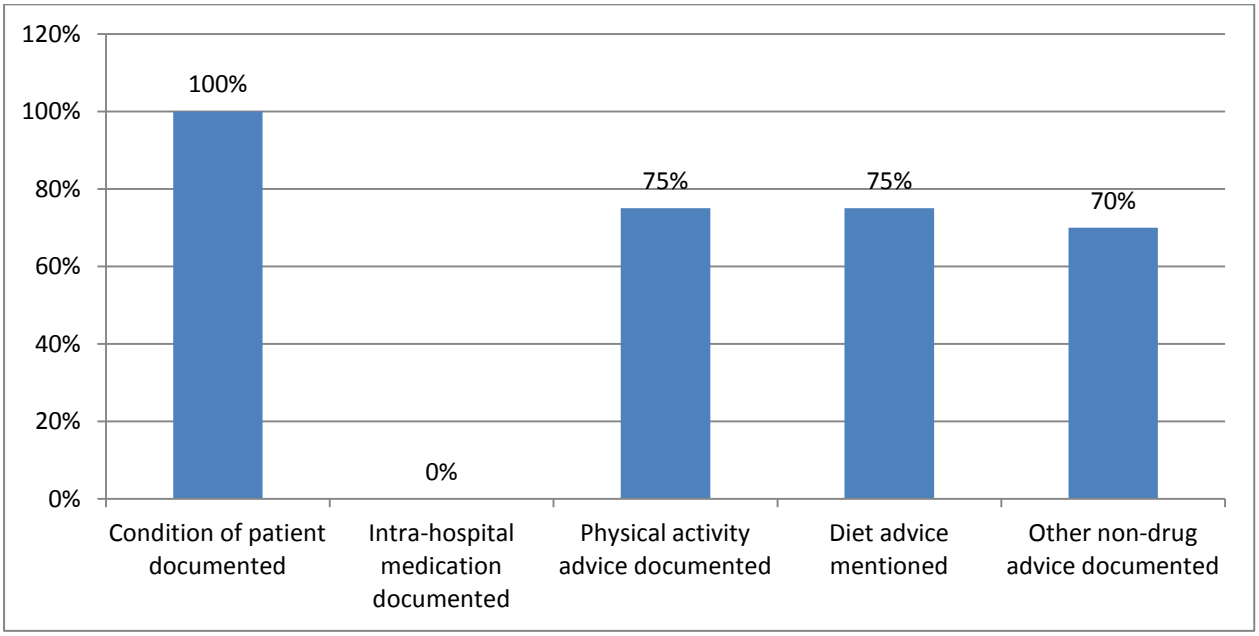


***Figure 65 shows the percentage of compliance of discharge summary of Speciality E**

Observations:

- Intra hospital drugs are not at all mentioned
- In this speciality most of the components related to blood are blank
- Care plan goals are never written
- Progress notes of Speciality A are not mentioned timely.
- Type of anaesthesia is not mentioned regularly in this speciality in anaesthesia assessment.
- Time of drugs to be given are not mentioned by the doctors
- Post op time after the surgery to be completed is forgotten to be noted
- In blood transfusion cases HIV testing is not done
- PFE forms are never filled by the doctors
- Few components of consent forms is also missed

Recommendation:

- There should be regular check of the records by the floor co coordinator at the floors to see if the clinical details are filled or not.
- Clinician should be made reminded again and again about the importance of maintaining the records and especially the areas where they tend to skip regularly.

Conclusions:

The main objective of the study was to analyze different aspects related to clinical files that need to be filled regularly. From the analysis it was found that there are various areas where there is lack in filling the components regularly.

The clinician in a rush forgets to write the notes at times. If the details are not mentioned a few components can be taken against the clinician. So the importance should be made understood to the clinicians by regular training.

I express my sincere thanks to all who helped me by giving their valuable information about the procedures.

Annexure

DISCHARGE INTIMATION FORM

GNID: _____ P N _____

Date of Admission: _____ Date of Discharge: _____

(To be filled by the doctor in charge)

Type of discharge: ☐ Planned ☐ Unplanned

Condition of patient at the time of discharge:

_____

_____

_____

_____

Drugs advised at the time of discharge: (ECHS- 5 days, TPA- 7 days)

_____

_____

_____

_____

_____

_____

Time doctor intimates the patient and staff for discharge: ☐

Name of doctor in charge: _____ Doctor Signature: _____

(To be filled by nursing station)

Time in charge nurse/ TL received the discharge summary: ☐

Time in charge nurse/ TL sent drugs for clearance: ☐

Time no dues received from pharmacy: ☐

Time sent for billing: ☐

If any delay, reason:

_____

Name of nurse in charge/TL: _____ Nurse in charge/TL signature: _____

(To be filled by pharmacist)

Time drugs received for no due: ☐ Time pharmacy clearance done: ☐

If any delay, reason: _____ Pharmacist signature: _____

(To be filled by billing counter)

Time no dues and discharge summary received: ☐ Time billing completed: ☐

Type of patient: ☐ Cash ☐ International patient ☐ ECHS/CGHS ☐ TPA

(If TPA time sent to TPA for final approval: ☐)

If any delay, reason: _____ Billing in charge signature: _____

(To be filled by Floor coordinator)

☐ **In time** ☐ **Delayed**

If delay, Reasons:

_____
_____
_____
_____
_____

Time that should be taken from the time of intimation of discharge:

Cash:

Total process: 2-3 hrs
Pharmacy clearance and discharge summary: up to 1 hr
Billing time: up to 1 hr

International Patient:

Total process: 3-4 hrs
Pharmacy clearance and discharge summary: up to 1 hr
Billing time: up to 2 hr

ECHS/CGHS Patient:

Total process: 3-4 hrs
Pharmacy clearance and discharge summary: up to 1 hr
Billing time: up to 2 hr

TPA Patient:

Total process: 5-6 hrs
Pharmacy clearance and discharge summary: up to 1 hr
Billing time: up to 4 hr