SUMMER TRAINING AT CALCUTTA MEDICAL RESEARCH INSTITUTE

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Patient discharge process in super-specialty hospital

By

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Under the guidance of

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MBA Hospital and Health Care Management

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CK BIRLA HOSPITALS | CMRI

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TO WHOM IT MAY CONCERN

This is to certify that Mr. Arka Kundu, student of Indian Institute of Health Management Research, pursuing Masters in Business Administration has successfully completed his Project at ourInstitute.

He was with the Institute from 10th May 2021 to 2nd July 2021 as part of the training Required for his academic endeavor.

During this period he has worked diligently in the assigned area and has shown keenness to learn.

We wish him success in all futureendeavors.

Thanking you,

For **The Calcutta Medical Research Institute**

Srijita Mukherjee
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50 YEARS

Acknowledgement

The outcome and success of this project titled “Measuring Patient satisfaction among in patients of a Multispecialty Hospital”, required a lot of guidance and assistance from many people.

Firstly I, Dr. Arka kundu must express my profound gratitude to my mentor DR. Daya Krishan Mangal, Professor, IIHMR, Jaipur for providing an opportunity to work on a project in The Calcutta Medical Research Institute , Kolkata, I am thankful for all the support and guidance throughout the project.

I wish to express my heartfelt gratitude and respect to my project guide Dr. Shailesh Kumar (Medical Superintendent, CMRI) and Dr. Shardha Ahluwalia (Assitant medical superintendent). They have shown interest on my project work and guided me untill the completion of my project by providing all the necessary information for developing a better system.

Also, I convey my sincere thanks to all the Calcutta Medical Research Institute staff for continuous encouragement, support and guidance throughout my internship period which helped me complete for constant encouragement, support and guidance throughout my internship period, which helped me complete my project work.

Dr. Arka Kundu

Acronyms / Abbreviations

CMRI	Calcutta medical research institute
PSAT	Patient satisfaction
NABH	National accreditation board for hospital and health care
NABL	National accreditation board for testing and calibration laboratories
NHS	National health service
IPD	Indoor patient department
OPD	Out patient department
LAMA	Leave against medical advice
CSSD	Central sterile service department
TAT	Turnaround time
TPA	Third party approval
PICU	Pediatric intensive care unit
NICU	Neonatal intensive care unit
MRD	Medical records department
HIS	Hospital information system
SCM	Supply chain management
DOA	Date of admission
DOD	Date of discharge
DS	Discharge summery
SOP	Standard operating time
MT	Medical transcript
MRN	Medical record number
OT	Operation theatre
LOS	Length of stay
GDA	General duty assistant

BLS	Basic life support
ACLS	Advance cardiac life support

Observational Learning

Hospital Profile

Introduction:

During the 19th century, only medical professionals were expected to maintain high standards. Decision making and decision making both powers were in the hand of doctors. Now the scenario has been changed as patients are more aware their health and they are more informed about the process. Additionally, the health care sector has become one of the fastest- growing industries in the country. So apparently patient has an opportunity to make a choice. Today's patient's expectation is higher compared to the earlier time. They want highest level of service that they ordinarily find in virtually all other retail buying. So, against this highly competitive environment and the growing consumerism patient satisfaction has become an impotent measurement for monitoring the healthcare performance of existing health plans. Patients are the best judge, since they accurately assess and provide inputs that can help improve healthcare provision.

The Calcutta medical research institute – one of the flagship hospital of the CK BIRLA group of hospital, has been a strong name in providing health care services for over 50 years. This multispecialty tertiary unit based on 3 key principles-

1. **Clinical excellence**
2. **Ethical conduct**
3. **Patient- centric**

Going past country-wide border Nepal, Myanmar, Bangladesh, Bhutan, this organization is a benchmark of clinical science.

Centrally positioned with 440 beds and nation of the artwork infrastructure, CMRI is an ISO 9001:2008 licensed medical institution accepted through the NABH, NABL, and CAP (College of American pathologists) diagnosed for its "Quality healthcare provider delivery".

Foundation of CMRI has been laid on three key principles which defines the ethos of our hospital:

1. Clinical excellence

- Delivery of affected person care: from prevention to remedy of the maximum extreme and complicated human disease.
- Use of global guidelines, protocols and care pathways to make certain first-class medical outcome.
- Institute of preference for the first-class medical and nursing expertise coupled with international magnificence infrastructure and equipment.

2. Ethical

- Honest and obvious in doing the proper element for our sufferers via means of enhancing effects and now no longer procedures.
- Adhere to the very best requirements of professionalism with clean conversation of remedy plan.

3. Patient centric

- Primary to consolation and comfort of sufferers and their families.

- Establish a sturdy affected person connection and consider through compassion and empathy.

- Inclusive in embracing and respecting exceptional all back grounds.

Achievements:

- More than 5lakhs of successful surgery
- Wide range of specialty , including diagnostic services under one roof
- One of the most trusted hospital in eastern India
- Popularized for its positive clinical outcomes
- Declared a model hospital by numerous PSU'S and state undertaking.

Vision To provide best of patient services and clinical excellence	Commitment towards quality To continuously update our human technological assets aligned with the nice international improvement in scientific science
Mission To create scientific facilities of excellence on a robust spine of research , Academic and evidence-based medicine.	Quality policy statement To preserve maximum well-known of fine with inside the offerings introduced on the hospital.

Departments and services

Medical departments

- Department of gastro science
- Department renal science
- Department of plastic, reconstructive and hand surgery
- Department of neuro science

- Department of orthopedic and joint replacement
- Department of cardiology
- Department of CTVS
- Department of dermatology
- Department of otorhinolaryngology
- Department of emergency and trauma
- Department of gynecology and obstetrics
- Department of hematology
- Department of oncology
- Department of physiotherapy and rehabilitation
- Department of neuro psychiatry
- Department clinical psychology
- Department of rheumatology
- Department of infection medicine
- Department of anesthesiology
- Department of critical care medicine
- Department of radiology
- Department of dental sciences
- Department of ophthalmology
- Department pediatrics
- Department of internal medicine
- Department respiratory medicine
- Department of general surgery
-

Other Departments

- Indoor department
- Outdoor department
- Operation theatre
- Intensive care unit
- Emergency services
- Diagnostic
- Endoscopy
- Dialysis
- Blood bank
- Pathology department
- Radiology department
- Medical record
- Human resource department
- Marketing department
- Housekeeping
- Dietary
- Maintenance
- Administration
- Pharmacy
- Cssd
- Store (receiving , storing and issuing the materials)
- mortuary

General findings of Calcutta medical research institute

1. **Front office**
   - The first contact point between the patients / their attendants coming to the facility
   - Gives direction to them about the location of various department
   - Helps in planning timely discharge a day before inquiring about the same from the concerned consultants
   - Does appointment scheduling of the patient
   - Performs inpatient and outpatient registration
   - Does registration and scheduling of preventive health checkup

2. **Out patient department**
   - OPD has a procedure room and its front desk
   - For all new patient post-registration patient is directed to the concerned department where doctors and nursing team takes medical history, do a physical examination and check vitals etc. thereby reducing the workload of the senior doctors
   - After an initial assessment, the patient is directed to the concerned OPD where specialist's doctor does further assessment of patient's condition and accordingly advice investigation, treatment on OPD or IPD basis as may be the case.
   - In the case of an old patient, for revisit patient is required to make an appointment for the particular doctor at the appointment desk.

3. **Admission**
   - Once the patient is advised admission in the hospital, the patient or the attendant has to go to the admission department, located on the ground floor, with a written order for admission by the consulting doctor.
   - These patient can be from OPD, emergency, those planned for surgery or transferred from another hospital.
   - Advise them to fill up the patient details and department of admission , admission request form, patient consent form , and

provided with financial counseling from with the estimated amount and an inpatient information sheet comprising of general instructions , billing policy, consultant visit hours ., mode of payments , discharge process a visiting hours .

4. In patient department

- Admission may be two ways, through the emergency department or OPD
- If the doctor decides patient needs inpatient treatment, patient will then be advised to visit in patient admission desk with the details of the kind of treatment and expected duration of stay of the patient.
- The doctor also inform patient about the estimated patient on given admission
- The patient then proceed to the admission counter situated on the ground floor.
- IPD is distributed from the 3rd to 7th floor.

5. Emergency department

- The emergency branch offer preliminary remedy for a large spectrum of infections and injuries, some a number of which can be existence threatening and require interest immediately. It is positioned on the ground floor with its own front and it operates twenty-four hours a day.

- Emergency branch guarantees speedy evaluation of affected person consistent with international concepts of triage and results in green control of essential patients.

- The branch is manned spherical the clock with the aid of using relatively skilled and skilled professionals, supported with the help of using the complete variety of incredible distinctiveness offerings such as trauma crew, cardiac devices and reconstructive and rehabilitation crew with relatively professional technicians nurses to make the sure shortest turnaround time for analysis and remedy making plans for trauma patients, saving the ones important moments which may be existence-threatening for patients, if now no longer controlled.

- Emergency is supported with the aid of using a fleet of well-prepared advanced cardiac existence help ambulance for delivery of affected person.

6. Operation theatre
   - Located on the 2nd floor, the complex has total of 9 OTs assigned to specialties such as gynecology, neurology, laparoscopic surgery, and orthopedics
   - Disinfection is via the HEPA filters and a unidirectional flow is maintained.
   - Each OT has an ot table, monitors and machines, multiple sockets, bins for bmw and patient chart. A proper coordination is maintained between OT and CSSD department regarding the requirement of sterilized instrument.
   - The ot adheres to surgical safety checklist under the supervision of quality department.
   - Pre operative beds
   - Scrub station
   - Post operative care
   - Storage room

7. Intensive care unit

   - The crucial care unit is an enormously specialized and committed unit of the health facility for sufferers requiring in-depth tracking of medical, surgical, and affected person care offerings.

   - The number one aim of crucial care offerings is to offer proper care on time through a committed ICU team.
   - Types of ICU
   - NICU
   - PICU
   - RICU
   - The special monitoring system enables the doctors and nurses and all the staff to manage all critical patients and provide acute necessary medical interventions .

Australian Triage scale :

ATS Category	Description category
Category 1 - Response Immediate, simultaneous assessment and treatment	Immediately – life-threatening conditions that are threats to life and require immediate aggressive intervention
Category 2 - Response Evaluation and treatment with in 10 minutes	Immediately existence threatening The sufferers situation is severe sufficient or deteriorating so hastily that there may be a ability chance to existence or organ failure , if now no longer handled inside 10minutes of arrival Or Important time essential treatment Or Very excessive pain
Category 3 - Response Evaluation and treatment within 30minutes	Potentially lifestyles threatening The sufferers' circumstance might also additionally development to lifestyles or limb-threatening or result in substantial morbidity if evaluation and remedy aren't started out within 30 minutes Or Situational urgency Or Human exercise mandates the relaxation of extreme discomfort Or Distress within 30 minutes

Category 4 - Response Evaluation and treatment within 60minutes	Potentially serious Patients circumstance might also additionally deteriorate , or detrimental final results might also additionally result , if evaluation and remedy now no longer began inside one hour of arrival in emergency department Or Situational urgency Or Significant complexity or severity
Category 5 - Response Evaluation and treatment within 120 minutes	Less urgent Patients circumstance is minor or continual sufficient that signs or medical consequences will now no longer be drastically affected if evaluation and remedy behind schedule up to two hours from arrival.

1. CSSD

- The branch gives smooth and sterile elements which assist in reducing contamination and enhancing the best of care.
- The branch provides contamination management education and teaching team of workers on bio clinical waste management

education to a team of workers on bio-clinical waste management, review surveillance data and figuring out reasons of intervention , communicable infections and institute suitable measures in every cases.

Biomedical engineering

- The department's installs commission and maintains all the medical equipment in an efficient and cost effective way and makes technical appraisal and recommendation for purchase of new equipment.

2. Finance

- The department provides accurate relevant and timely financial information necessary in making right business plan and decisions.

3. Information technology
   - The branch affords IT cost to cease customers with admire to their daily function. The unit affords offerings to numerous departments for IT infrastructure, hardware and network, antivirus offerings, net offerings.

4. Food and beverage

   - The branch presents meals and drinks to the esteemed clients and group of workers as well.
   - The departments plays each day audits of the shop and kitchen areas, take rounds of the whole carrier region with and after the carrier timing, tracking of service and income at group of workers cafeteria.

5. Pharmacy
   - Pharmacy branch each inpatient and outpatient placed at the ground floor. The purpose of the drugstore is you purchased and offer drugs and surgical equipment's to the patient.

- The pharmacy serves numerous regions of health facilities like day care, ICU'S, OT'S, IPD'S and biomedical.
- The branch provider encompass procurement and supplying drugs to the patient.
- The branch additionally supplies drugs to the ward like day care and collects the billing quantity from the attendant there itself.

6. Housekeeping

- To gain defects unfastened room with 100% hygiene and cleanliness to maximize affected person pride with minimum cost.

- The branch performs activities like cleaning, presenting room services and pest controlling and waste.

7. Quality department
   - The quality department is situated on the 8th floor.
   - This branch maintains all the quality indicators in every department to make sure standard is maintained.
   - This branch's capabilities to maintain and perk up the standards, excellent quality assurance , the activity of providing the evidence needed to establish quality in work and that require precise special great quality performed effectively.
   - All those planned or systemic actions must provide enough confidence that a product or service will satisfy the given requirements for quality.

8. Human resource department

- Human resource department located on the upper deck.

- To make sure availability and retention of first elegance know-how expertise to fulfill enterprise desires and objectives

- Overall increase and development of worker's orientation and practical training.

- The department seems into topics like attendance and go away management, appraisal and merchandising process, clinical benefits, worker welfare programmers, payoff management, complaint and grievance handling, clinical with the resource of the usage of through laws.

9. Medical record department

   - Medical record department is positioned on the ninth floor.
   - Medical record department is the custodian of all of the discharged / expired fitness document files.
   - The MRD frame of employee's confidentiality, preservation, garage and retention of the documents.
   - The department gives with file collection, codification , garage , analytical assessment and retrieval of facts if needed

Process	Details
Statics	1. Completing daily hospital census and reporting authorized personnel 2. Compiling OP and IP monthly statics
Maintenance of medical records	1. Systemic maintenance of records 2. Check deficiencies in the records and ensure proper assembling and filling according to MRN 3. Coding as per international classification of disease , 10th version in the system 4. Scanning all ip files, mlc forms , to the patient record. 5. Modification of patient demographic data
Birth and death certificates	1. Sending birth and death reports to municipal authorities. 2. Birth and death register updating
MLC	1. Maintaining hospital copy of all MLC intimations

	2. Receiving wound certificates from police 3. Handling over wound certificate to the police
Retention of records	1. Retention of records as per hospital policy
Training	MRD training for employees
Confidentiality	1. Shall follow the guidance of Indian medical council and mci code of ethics 2. Provide access to information in the medical record only to those so authorized. All staff will be permit to access patient information according to their role and responsibility, but only to the extend needed to complete those job responsibilities.
Others	1. Issues of medical records to authorized personnel for non-patient care purpose, audits and research purpose. 2. Issues certificates to external agencies / authorities required.

Statutory compliances :

1. Hospital medical records can be documentary evidence as per the Indian evidence act, 1872, as amended up to August 1, 1952,1961 medical records are generally sub opened to court in the following types of cases

- Personnel injury suits
- Criminal case
- Workers compensation act
- Lic cases
- Malpractice suits
- Patient will cases
- Authorization for operation
- Death claims

2. The body of the dead in the medico-legal cases need to be handover to the police only.
3. Patient discharged against the hospital against medical advice: if patient is being discharged against medical advice the signature of patient or relative should be obtained in prescribe from.

10. Radiological department
    - It is nicely geared up branch with the country of the artwork era which compares with world's quality.
    - A completely useful PACS with stable personal cloud storage in a whole virtual surroundings for all our diagnostics imaging offerings makes it a unique facility.
    - The radiological department provide services
    - MRI
    - CT SCAN
    - MAMOGRAPHY
    - USG
    - ALL TYPE OF XRAY's

11. Dialysis department
    - The dialysis department is situated on the 6th floor and is equipped with modern equipment'' 's equipment's and provides hemo dialysis every day without interruption.

Study on Delays in Discharge process:

As per NABH, “Discharge is a process by which a patient is shifted out from the hospital with all concerned medical summaries ensuring stability”

Improving the release system through any hospital ends in extra affected person delight with inside the hospital.

Delay in discharge ends in pointless occupied beds and rooms with inside the clinic which in flip ends in decreased hospital bed turnover rate.

It represents a waste of healthcare sources inside the hospital inflicting a upward push with additionally inside the hospital , inflicting a upward push with additional reasons dissatisfaction of affected person and own circle of relatives participants and pulling down the photo of clinic, even after a hit and pleasant treatment.

Fast and on time discharge system result in early availability of ward beds and decreases the ready time of recent admissions.

Health insurance is the insurances against the risk of incurring expenses among individual.

The benefits of a health insurance claims compensates the substantial hospital bill accrued in the event of a medical emergency and such as becomes the life of many individuals .

Different literature review done on the subject suggests, that the discharge process is a lengthy process and most of the time hospital management cannot match with the benchmark as stated on their SOP.

The postponement in discharge technique ends in affected person dissatisfaction and takes a toll on a picture of the hospital, even after a hit and quality treatment. this in the end hampers the generation of their sales.

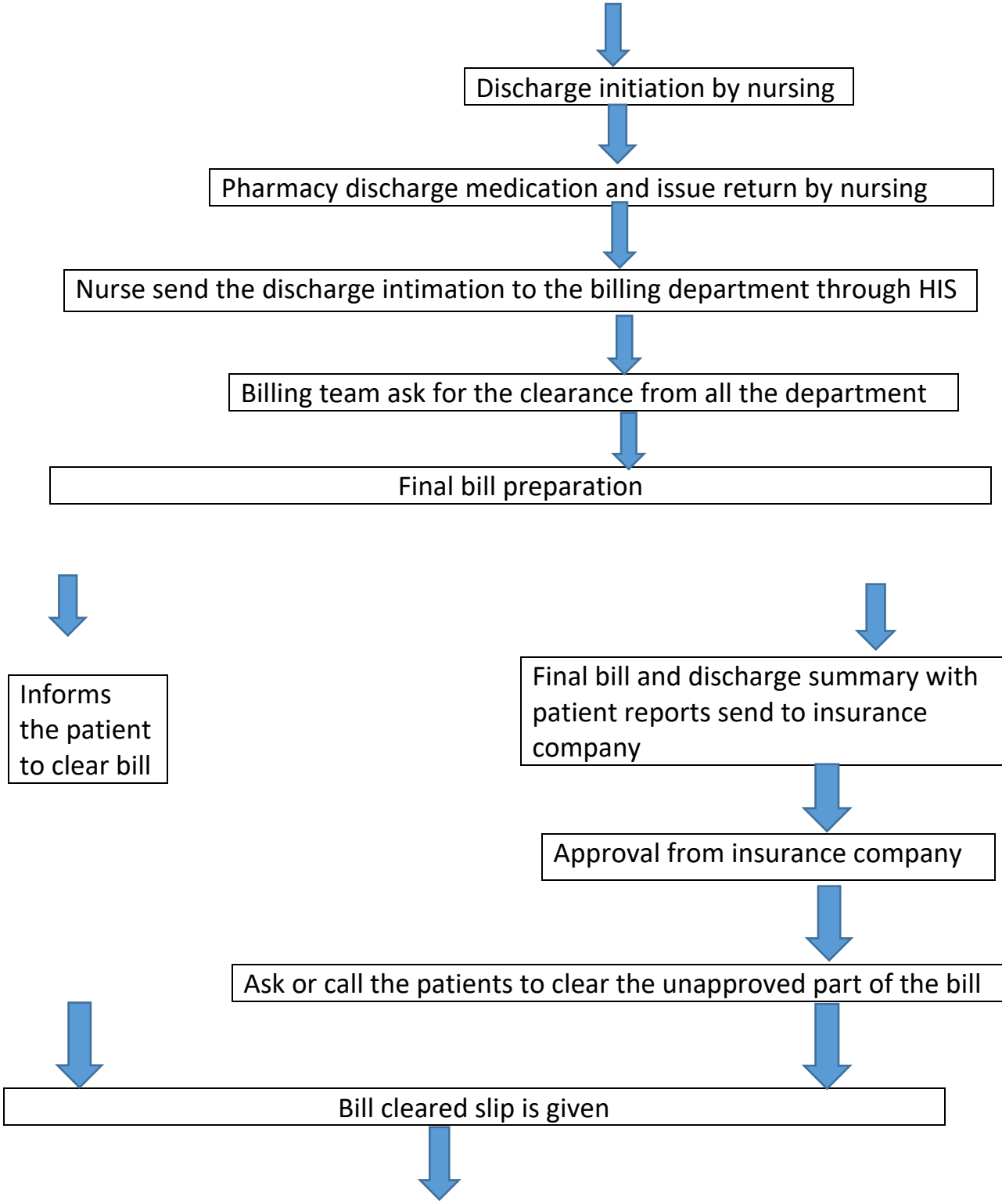
It was essential to carry out this study as the hospitals feedback form stated that most of their patients were not satisfied by the discharge process.

This study tries to map the discharge and estimate TAT by comparing it with their SOP.

A time motion study was conducted to know the bottleneck. This is a quantitative records series technique wherein an out of-doors observer captured specific records at length and moves required to perform particular work, coupled with an evaluation centered on enhancing quality.

Doctors intimation of patient discharge

DISCAHRGE PROCESS FLOW:



Slip hand over at nursing station and IP exit

Objective

- To know the reason for the delay
- To find the steps in the discharge process in which delay is occurring
- To study discharge process flow
- To estimate the time taken at each stage

Why evaluation of discharge process is required:

- It is a vital tool for continuous service improvement
- It is the component of organizational culture
- Patient satisfaction is the source of competitive advantage
- To evaluate the discharge process which represents how well the health care is working.

Methodology:

- Study approach – this was quantitative experimental study , that aimed to produce knowledge about the phenomenon's cause. This type of study emphasizes on statistical or mathematical analysis of data
- Study design – it was an observational descriptive cross sectional type of study (time-motion study) wherein a patient who got discharge during working hour 9am to 5 pm were sleeted daily for a period of two months and observed to know their discharge turnaround time in which the time gap in between consultant ordering discharge to the patient vacating bed was calculated and compared with the hospital SOP.

- Study participants - study participants were patient discharging from all IPD departments.
- Sample technique – non probability convenient sampling (a method where subjects are selected because of their convenient accessibility and proximity to the researcher)
- Tool for data collection – primary data – Observation . Everyday 2-3 patients were mapped and their data was collected using an excel tool .
- Sample size – 150
  Table of target Turn around Time for cash as well as TPA patients for the process and type of discharge :

Process	Metric	TARGET TAT for cash patients	TARGET TAT for corporate patients
Type of in patient discharge	No of planned v/s actualized discharge	50%	50%
Discharge initiation	Discharge summary preparation time	00.45	00.45
Clearance process	Lab clearance time	00.10	00.010
	Radiology clearance time	00.10	00.10
	Pharmacy clearance time	00.25	00.25

Bill preparation process	Cash bill preparation time	00.20	02.00
Bill payment	Bill payment time	00.10	00.10

Literature review

- A check was modified into performed in Iran to observe the preparation time for the discharge. The author SimaAjami, (2007) accrued the information the usage of questionnaires, observation and checklist. The accumulated knowledge was modified into analyzed the usage of SPSS and OR methods. Queuing model modified into used to check the reasons for put off with inside the discharges. Average prepared time for all the wards modified into placed to be 4.90 3 hours. As in step with health centre personnel opinion the precept reasons identified for the put off were put off for the discharge summary completion, lack of proper guidelines for the workforce involved with inside the release gadget and absence of Hospital Information networking systems According to JanitaVinayaKumari, (2012), the final levels of hospitalization i.e. the discharge and the billing gadget is more likely to be remembered thru manner of way of the affected character. A check modified into accomplished in a tertiary care training health canter to calculate the not unusual place time taken for the discharge of the affected character. For the reason of collection of information for the check registers were designed and saved in wards and the billing office. 2205 affected character information were analysed. The not unusual place time taken for the discharge of the affected character modified into 2 hours and 22 minutes. A time motion check accomplished in a health centre thru manner of way of SwapnilTak et al., (2013), found that there may be a put off for all the kinds of discharges i.e. insurance patients, cash patients, DAMA etc. with inside the health centre. The typical time taken for the discharge modified into in comparison toward the NABH standards. The typical time taken for insurance, self- price and DAMA patients modified into 278, 337

and 302 minutes respectively. As in step with the satisfaction survey accomplished thru manner of way of the author, 69.80% of the patients felt that the discharge gadget modified into extended and 61.53% of the patients believed that gadget can be speeded up. According to Silva et.al (2014), the precept reasons for discharge delays are the techniques and can be advanced thru manner of way of appropriate interventions. The check modified into accomplished in Teaching hospitals thru manner of way of reviewing the medical information of the affected character admitted to internal medicine ward. A pilot check modified into accomplished to determine the sample size. The delays in discharges that passed off in hospitals were 60% and 50.7% respectively. The major reasons identified for the put off were searching ahead to the check reports, delays in making scientific alternatives and in supplying specialized consultation As in step with the figure, about 49.1% of patients have been given discharged internal 100 80 minutes, 40.4% of patients have been given discharged amongst 181-361 minutes and about 10.4% of the patients have been given discharged above 362 minutes. Most of the patients are getting discharged after 100 80 minutes, it's mainly due to put off within side the release summary writing and extended billing gadget.

Problem statement :

- Based upon past complaints , increased waiting time for discharge process leads to inpatient dissatisfaction and delay in further availability of bed occupancy for emergency and elective admission.
- This delay in discharge impacts the brand image and revenue generation of hospitals respectively.
- The patient-centric hospital goal is to improve patient satisfaction through the discharge process.

Rationale :

- Realizing the importance of the discharge process as the prolonged delay leads to patient dissatisfaction due to longer waiting time.
- Delayed discharge can be depressing for patients as it can increase the patients exposure to hospital-acquired infection in some cases.
- Moreover it increase pressure on hospital beds , poor brand image , effect on per day revenue generation.

- It also impacts inpatient days calculation for complimentary hours stay.

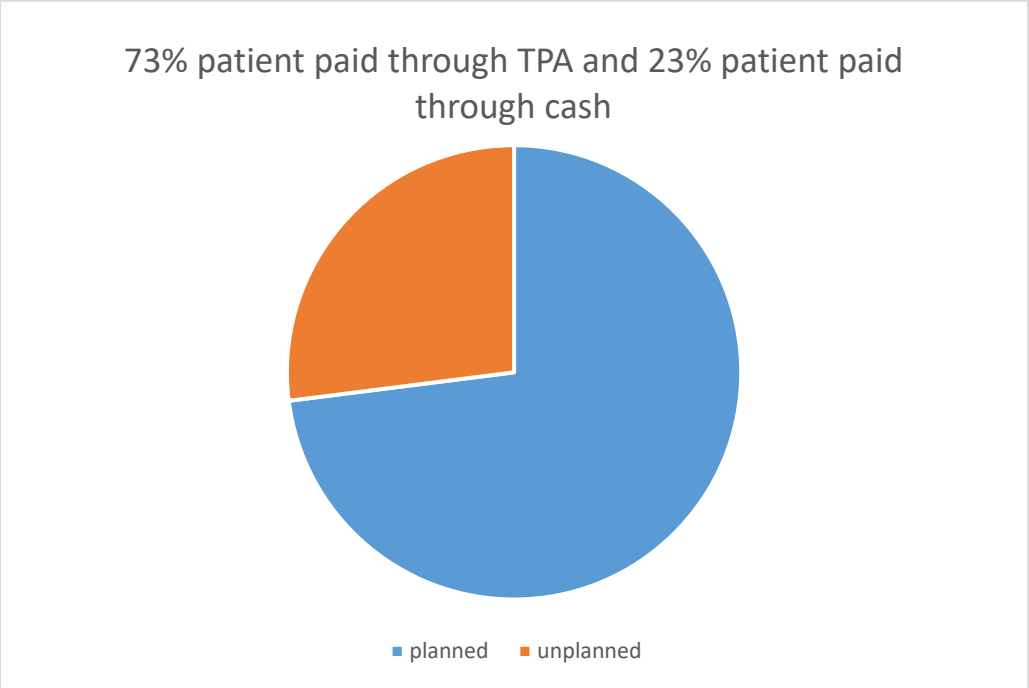
Plans of analysis :

- The total sample collected for month of May and June was 150 patients from HIS which were segregated into cash and corporate patients as well as unplanned surgery cases.
- The parameters taken under the discharge process were discharge summary preparation time, finance bill readiness time and bill clearance time .
- The average time is calculated for each parameter and compared with the target the of hospital.
- Also , the overall TAT was calculated for cash and corporate patients .
- Collected data was analyzed in excel using graphs.

OBSERVATION AN ANALYSIS :

GRAPH 01

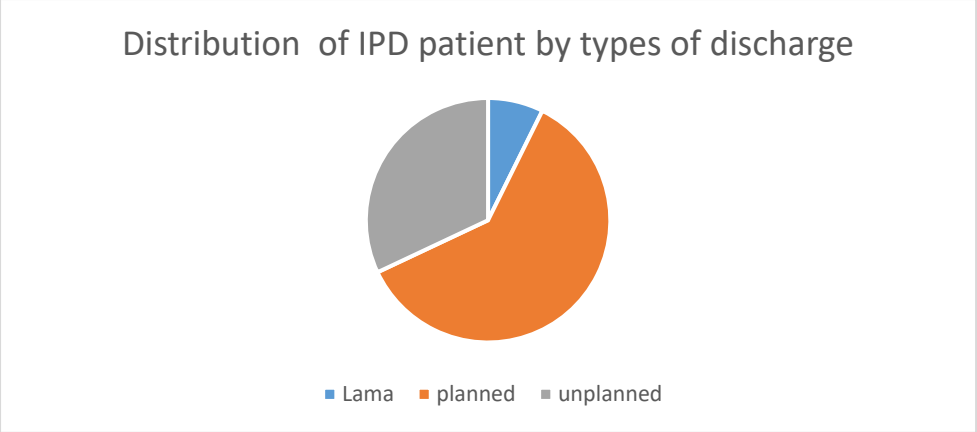
Mode of payment



Inference :

- In this study , process mapping of 150 patients was done of which 73% were TPA and 23% of patient paid through cash .

Graph 02.

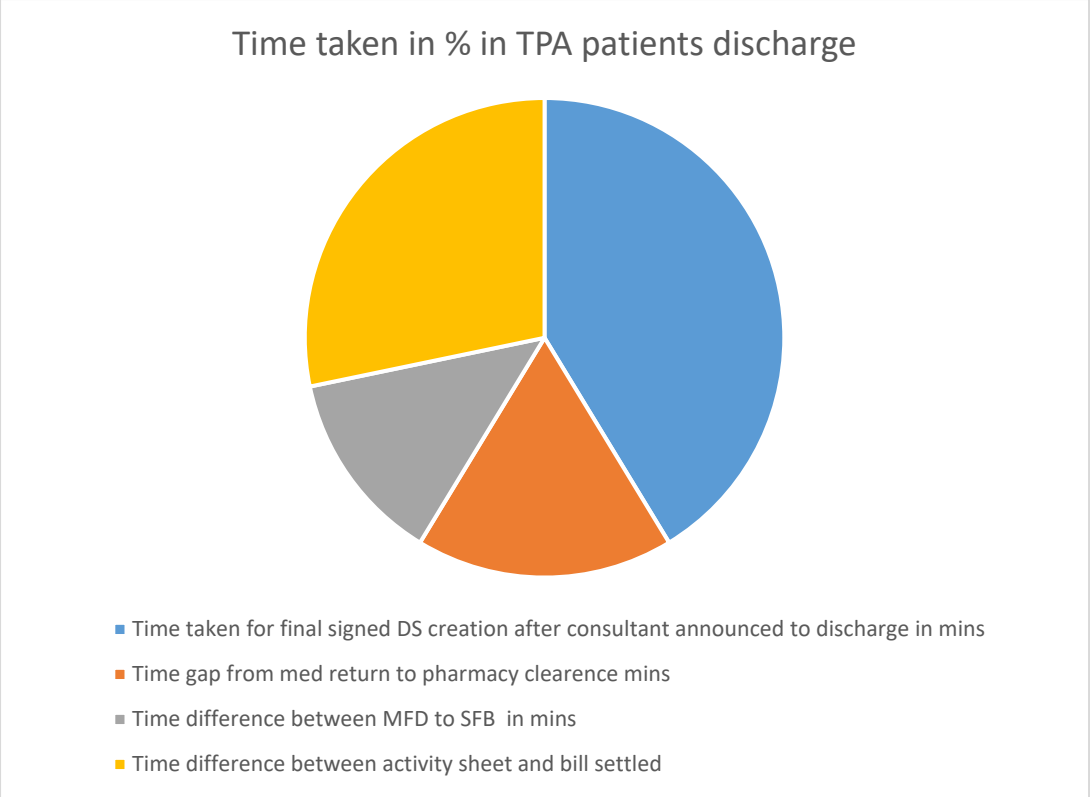


Interpretation:

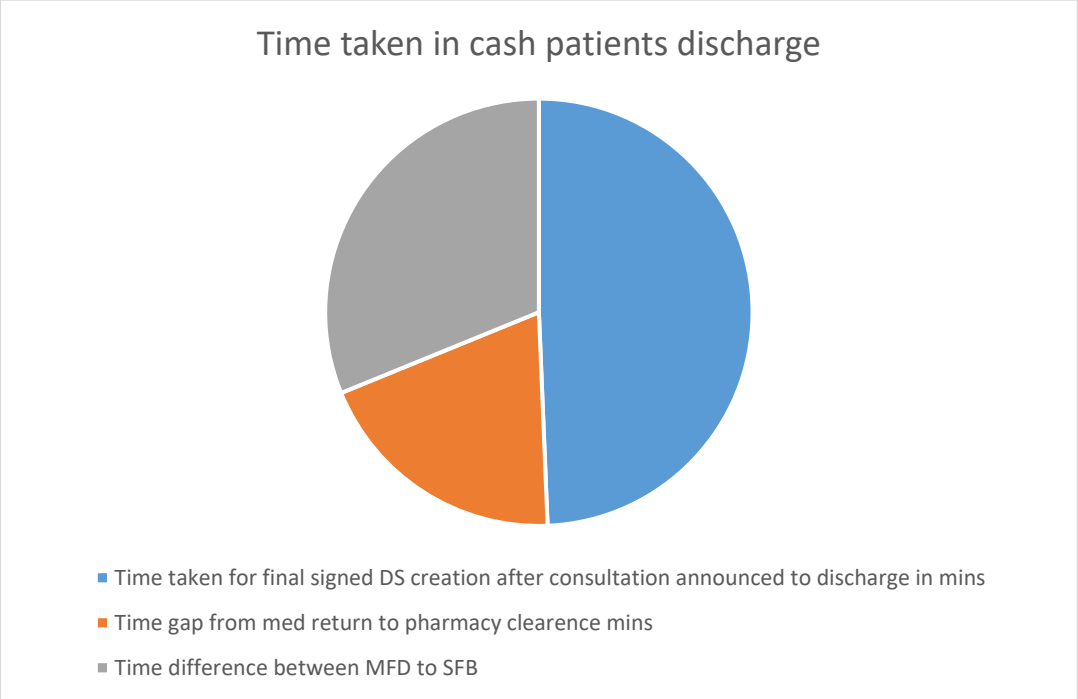
As seen in the graph, a number of planned (91) discharge is more as compared to that of unplanned (48) and lama (11) . Planned discharge results in reduction in a turnaround time.

Time consumed in making discharge:

TPA cases:



Cash cases:

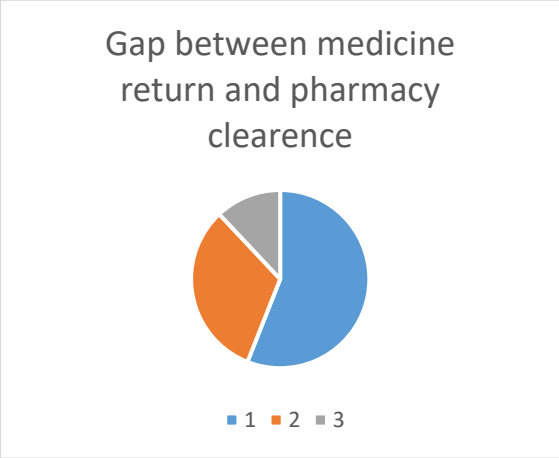


Interpretation:

It was observed that 38% of the total time taken in the discharge process goes in the preparation of discharge summary which accounts for on an average of 205.81 minutes in the case of TPA patients and 237.38 minutes in case patients.

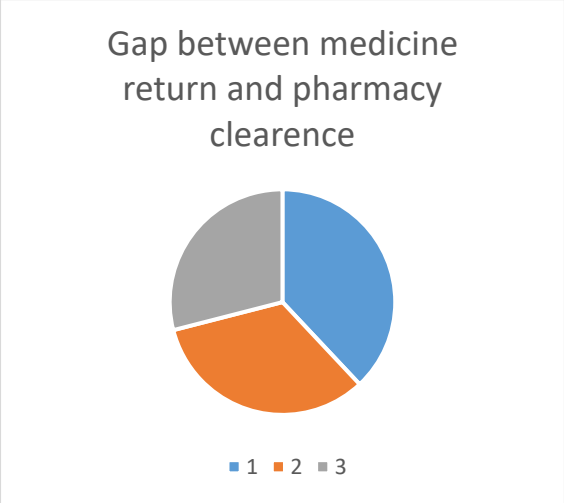
The gap between drug return by nursing staff on HIS and pharmacy clearance:

TPA Patients and cash patients



Interpretation :

1. In 56% of cases the gap between drug return by nursing staff on HIS and pharmacy clearance on HIS take 60minutes and less
2. While in 32% cases the time gap is between 60 minutes to 120 minutes where as 12% cases takes more than 120minutes.

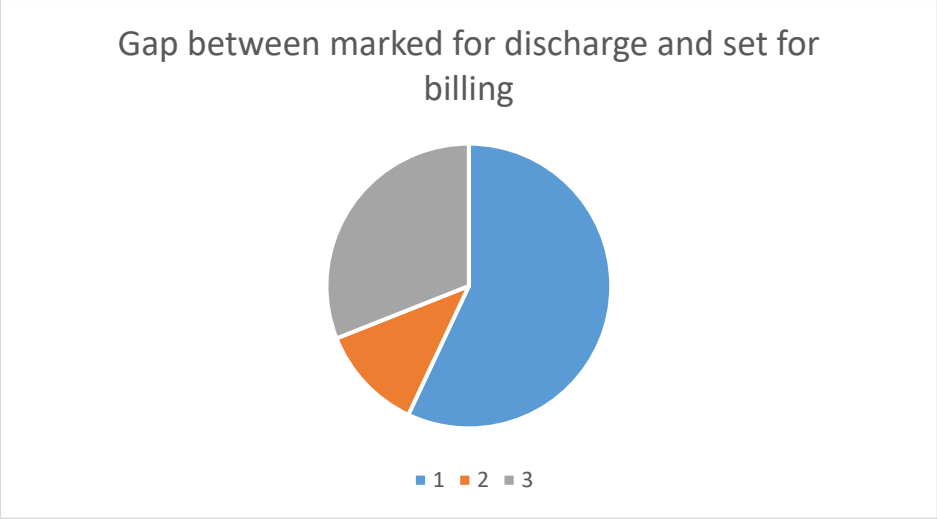


Interpretation :
In cash patients , 33% of cases take less than 60 minutes for returning unused drugs and clearance on HIS , followed by 38% and 29% cases taking 60 to 120 minutes and more than 120 minutes respectively

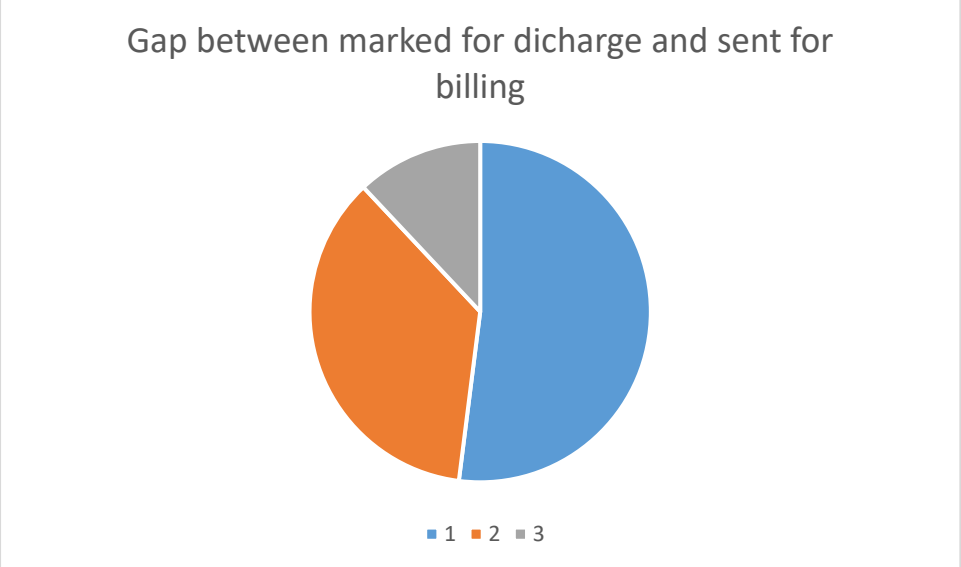
What NABH suggests?
According to NABH this step must be completed in 30 minutes

Gap between marked for discharge an sent for billing on HIS :

TPA patients :

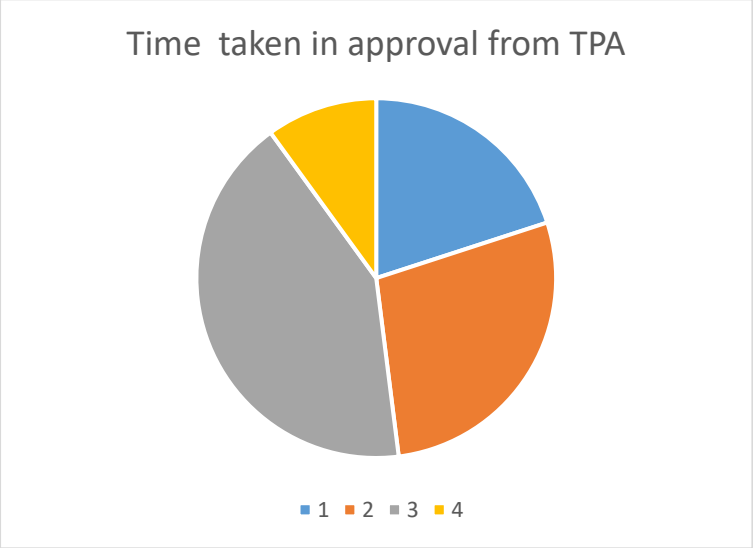


Interpretations :
Less than 30 minutes is taken in 67% of cases in TPA patients while 12% cases take 30 to 60 minutes and 21% cases take more than 60 minutes for marking “Marked for discharge” and “sent for billing” on HIS which is either the nursing staff us preoccupied in work , forget to mark or sometime because of engage system.
In long stay cases it takes time in service check while further delays the process.



Interpretation :
52% cases take less than 30 minutes , 36% cases take between 30 to 60 minutes and 12% cases take more than 60 minutes . The reason is the same as in TPA CASES i.e the nursing staff is preoccupied in work , forget to mark or sometimes because of engaged system.

Time taken in TPA clearance :

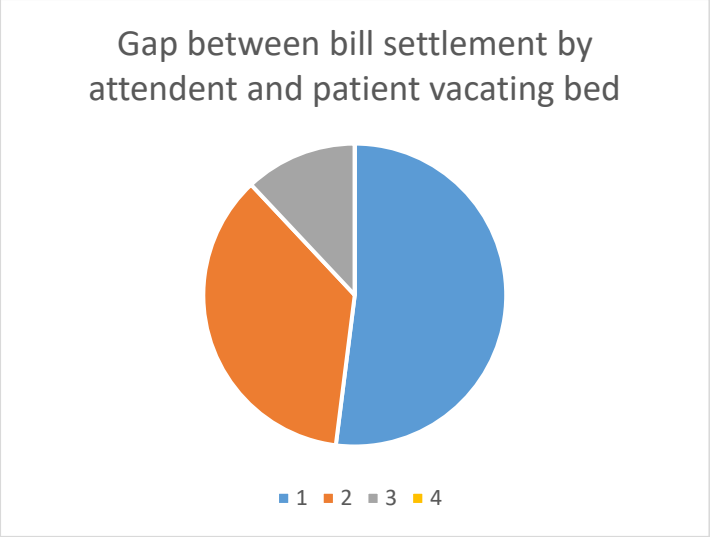


According NABH that it must take up to 30 minutes

Time taken In settlement of bill attendant and vacating bed :

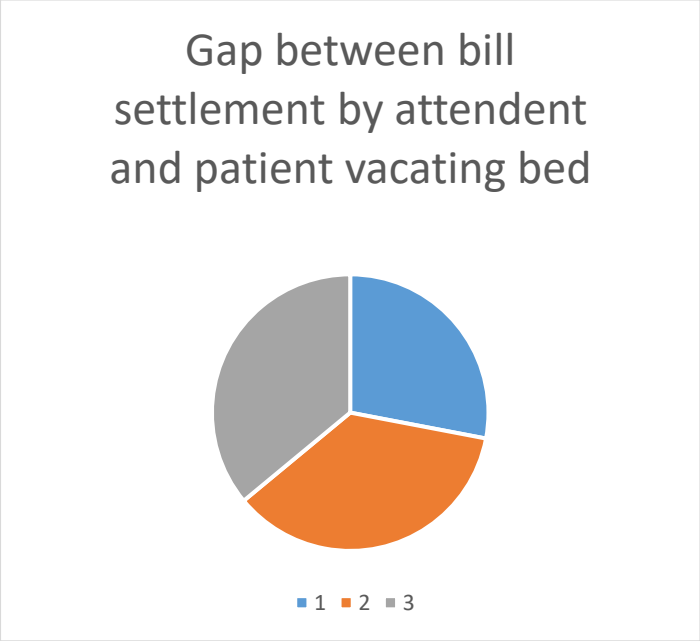
TPA cases :

Interpretation :
42 % cases take less than 60 minutes, for 28% cases between 60 to 120 minutes is taken, 20% cases take between 120 to 180 minutes and for the remaining 10 cases it takes more than 180 minutes.



Interpretation :
52% cases take less than 60 minutes , 36% cases take between 30 to 60 minutes and it was found that 12% cases take more than 120 minutes in the settlement of bill by the attendant and vacating bed. The reason for this is GDA staff and dressing staff preoccupied with work.

Cash case :



Interpretation :
28% cases take less than 60 minutes , 36% cases take between 30 to 60 minutes and it was found that 36% cases take more than 120 minutes in the settlement of bill by the attendant and vacating bed. The reason for this is GDA staff and dressing staff preoccupied with work.

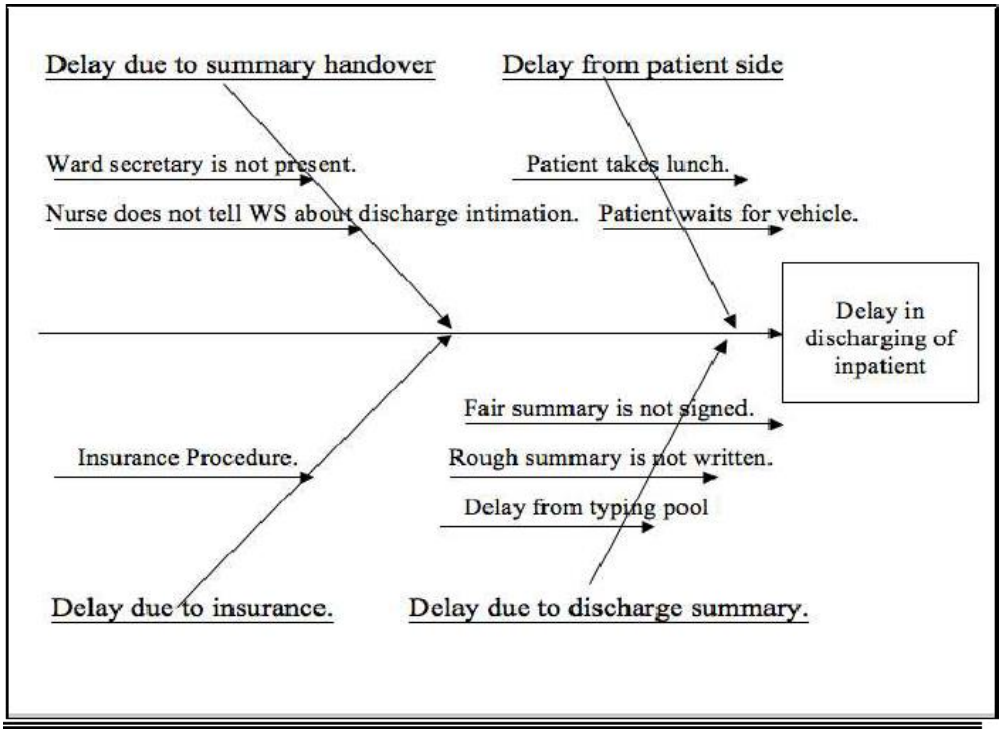
TPA case :

According to hospital SOP the time taken must be 4 hours , but it was found that the time taken varies from 2hours 15minutes to maximum of 4hours 30mintes in the TPA cases.

Cash cases :

According to the hospital SOP the total time consumed in the cash cases must be 3 hours but it was found that the time varies from 2 hours 15 minutes to 4 hours 30 minutes.

Fish Bone Diagram for Cause Analysis of Delay in Discharging Inpatient:-



Fish bone diagram helps in brainstorming to identify underlying factors of an adverse effect. The problem is displayed at the head while the contributing characteristics are shown at smaller bones.

Conclusion

- Out of 150 patients 73% were TPA patient and 27% were cash or self paying patients.
- Discharge summery takes 38% of total time in the discharge process
- According to NABH the gap between drug return by nursing staff on HIS and pharmacy clearance should be 30 minutes but is observed that in most of the cases exceeds from more than 45 minutes.
- It is observed that delay in preparation of Discharge certificate due to delay in discharge summary preparation in discharge pool.
- It is observed that radiological reports often do not provide In time due to this reason clearance is delayed while final clearing time.

Suggestions:

- The typing of discharge summary for each patient happen day to day basis, it will be better if discharge summary is prepared before night to avoid last minute chaos.
- Define time line for each activity in the discharge process which is not captured in HIS
- Online preparation of discharge summary
- Popup / alert when discharge TAT gets hampered in HIS
- Regular billing notification to attendant and bystander.
- Appointing discharge cell, to ensure seamless timely discharge
- Draft summary preparation for discharge
- The consultant should finalize the discharge summary before 12pm, to improve the delay in initial clearance, to minimize in patient days calculation, minimize in the patient days calculation and control the delay in patient days calculation bed occupancy rate effects.
- Weekly training should be given to the nursing staff to improve the discharge process flow
- In each unit a respective person should be allotted for internal clearance of the department to enhance the process.