

**Summer Training at
Breach Candy Hospital Trust, Mumbai
(April 1–May 31, 2014)**

**Study on Evaluation of TAT of Diagnostic Report in Preventive Health
Check-Up and Process Mapping and TAT of Medicines Issued at Pharmacy
Department**

**By
Sakshi Gambhir**

**Under the guidance of
Col. (Dr.) Ashok Kaushik**

**MBA- Hospital & Health Management (MBA-HM)
2013-2015**



**The IIHMR University, Jaipur
2014**

CERTIFICATE

This is to certify that **Ms. Sakshi Gambhir** has undergone her summer training at **Breach Candy Hospital Trust, Mumbai** from 1st April, 2014 to 31st May, 2014.

The candidate has successfully carried out the project on “**A study on evalauation of TAT of diagnostic report in Preventive Health Check-Up and Process Mapping and TAT of medicines issued at Pharmacy Department**” assigned to her during summer training and her approach to the study has been scientific and analytical.

This summer training is partial fulfilment of the course requirement..

I wish her success in all her future endeavours.



Maj.(Retd.) Vinod Kumar SV
Associate Professor
IIHMR Jaipur



Col.(Dr.) Ashok Kaushik
Dean(Academic & Student Affairs)
IIHMR,Jaipur

BREACH CANDY HOSPITAL TRUST

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TO WHOM IT MAY CONCERN

Date: 2nd June 2014

This is to certify that Ms. Sakshi Gambhir from Institute of Health Management & Research, Jaipur has completed her 2 months summer training at Breach Candy Hospital, Mumbai from 1st April 2014 to 31st May 2014.

During her training period, she observed the managerial aspects and the overall functioning of the hospital and has successfully completed her project titled "A project on Evaluation of TAT of diagnostic reports in Preventive Health Check Up" and "Process Mapping and TAT of Medicines Issued from Pharmacy Department"

During her training, she was found to be sincere and hardworking.

We wish her success in future.



Mr. Pravin Talekar
Manager Administration
Breach Candy Hospital Trust

ACKNOWLEDGEMENT

The Project training at **Breach Candy Hospital Trust**, Mumbai, 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 Mr N Santhanam, **CEO** for providing me an opportunity to do internship at **Breach Candy Hospital**.

I want to express my gratitude and sincere thanks to my mentor **Mr. Pravin Talekar**, Manager Administration, for his constant support and invaluable time-to- guidance and king 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 **Col. (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 staff, especially of Health Check Up and Pharmacy Department at Breach Candy Hospital, Mumbai, who supported me in successfully completing this project.

SAKSHGAMBHIR

May 2014

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In order to undertake this crucial project it was important for me to understand set protocols and find the gaps, if any, while implementing these protocols. It was of utmost importance for me to understand the processes, however small, to come to any conclusion.

Aims.

- ❖ To understand working of whole of the hospital and to seek opportunities that will provide wholesome experience.
- ❖ To study process flows of IPD/OPD as well as other departments.
- ❖ To Study Hospital operations/medical services department in detail.

The primary objective of my Summer Internship program is to have experience and knowledge on the management and operational aspect of the hospital.

To accomplish these objectives I have participated in a variety of day to day activities in the hospital. I worked significantly with the co-workers and was involved in managerial activities broadly classifying the various aspects of patient's safety.

Since the Modern day health care institutions are multifaceted and multi dimensional dynamic organizations, so the primary role of the hospital is to provide efficient and quality patient care of international standards while maintaining the patient's safety on all aspects.

Abbreviation	Full form
IT	Information Technology
HIS	Hospital Information System
BCH	Breach Candy Hospital
MLC	Medico-legal certificates
IPD	In Patient Department
OT	Operation theatre
GDA	General Duty Assistant
PHC	Preventive Health Check Up
TAT	Turnaround time

Hospital Profile

Breach Candy Hospital Trust has been a beacon of light for the suffering for over 50 years. Situated on the coastline of South Mumbai, the hospital is renowned for its medical expertise, excellent nursing care and quality diagnostics. Specialists on the hospital's panel of doctors include some of the most distinguished names in Indian medical profession. Many procedures in routine use including Coronary Angioplasty, Magnetic Resonance Imaging, Critical Care ICU and Hysteroscopy were first performed here. The hospital has earned national recognition as a leader in interventional cardiology. For patients it's a sanctuary for the healing of mind and body.

The other services offered are Out Patient Clinics, Preventive Health Checks, Dialysis Unit, Physiotherapy, Ante natal classes, Dentistry, Endoscopy, Non Invasive Cardiology, Pulmonology, Visa Check ups and others.

The hospital has a dedicated Charity Wing where eligible patients are treated at nominal charge or free of cost.

Our Philosophy

Quality Policy

To anticipate and exceed the expectations of our patients / care seekers through professional excellence, ethical behaviour, team work by way of prompt, efficient response in a friendly environment and through continuous improvement in systems.

Vision

To be recognized as a trusted leader in providing high quality healthcare with a reputation for patient care, performance and sustained growth

Mission

To offer comprehensive State of the Art healthcare services in an environment where compassion, quality, safety and cost effectiveness are integral to care, where we are proud to serve patients; where

meeting the challenges of complex medical needs is viewed as a defining competence.

Value

- Compassion
- Respect & Trust
- Ethical behaviour
- Customer focus
- Integrity
- Transparency & Fairness
- Quality
- Growth

SWOT of the Hospital

❖ Strengths

- Exclusive centre for Cardiology and Oncology
- Core Specialities are cardio, neurology, oncology, nephrology, gynaecological cases
- Ambience and homely environment
- Cutting Edge Technology
- Internationally renowned faculty
- International Quality Protocols
- Patient Centric Approach
- Healthy and friendly environment
- Separate PCS team for Registration , Billing & Handling Queries

❖ Weakness

- Low availability of beds to transfer emergency cases in ward

❖ 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
- 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(10 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

Services at Breach Candy Hospital

- Blood Bank
- Cardiology
- Cardio thoracic surgery
- Dermatology
- Dental
- ENT
- Endocrinology
- Endoscopy
- Gastro enterology
- General Surgery
- Haematology
- Internal Medicine
- Immunohistochemistry
- Laboratory Services
- Maxillo Facial Surgery
- Medical Oncology
- Nephrology
- Neurology
- Neuro Surgery
- Neonatology
- Nutrition and Dietetics
- Ophthalmology

- Orthopaedics
- Obstetrics and Gynaecology
- Paediatrics
- Paediatric Surgery
- Pain Management
- Physiotherapy
- Plastic and Cosmetic Surgery
- Psychiatry
- Preventive Health Check ups
- Pulmonology
- Radiology
- Oncology
- Urology
- Emergency Medical Services
- Dialysis Unit
- Critical Care Units
- High Dependency Units
- Day Care
- Wards / In door services
- Charitable Wing
- OPD Clinics

Diagnostic

❖ Imaging Services

- 64 Slice CT Scanner
 - 3.0 Tesla MRI Scanner
 - PET- CT
 - Bone Densitometry (DEXA)
 - Digital Mammography
 - 4D Ultrasound
 - 4D Colour Doppler
 - Dual Head Gamma Camera
 - Fluoroscopy
 - Laboratory Services
 - Neuro Lab NCV
 - EEG, EMG
 - Non-Invasive Cardiology stress Echocardiography TMT & Holter Monitoring
-
-

Work Culture

The HRD of Breach Candy Hospital is continuously striving to develop a sustained atmosphere of transparency, integrity and respect to enhance employees morale and satisfaction. We believe that every employee has the ability to contribute to his / her potential. We have foolproof system of selection of employees and merit is the basis of selection for all the categories. We all work together and welcome suggestions for continuous quality improvement. We are focused on various competencies and building a productive work environment.

Breach Candy Hospital provides equal opportunity to all the employees and they can approach the CEO and other Senior Managers for any work related problems. The management of the hospital consider its human resource as the greatest assets. We conduct Induction Programme for all the new employees which covers Philosophy, Vision and Mission of the hospital. We are also providing training at all levels as per the requirement of the job. Here, we are using all our human resource parameters to enhance our service standard to the international level and giving training to our manpower as per the requirement of the patients.

Infection control Department

Overview:- Infection control department takes care of the microbial level of the hospital and especially of the critical areas .The teams conducts weekly audits of different areas.

Location:- Lower Ground Floor

Manpower:- Department Head 1 (MD Microbiology)
Nurses 2

Findings:- Maximum infections were found to be needle stick injuries among the GDAs(General Duty Assistants) during bio waste disposal and UTI among the patients. But the rate of hospital acquired infections among patients is very less.

Audits:-

Week 1 Air Culture of the OT(random)
Week 2 Hand Swab of the ICU staff (random)
Week 3 Hand Swab of the OT staff (random)
Week 4 Hand Swab of the Food and beverages staff (random)
Random collection of environmental samples of different critical areas

Infection control methods:- Fogging or fumigation of OT done once a week on Saturdays and frequency is increased if number of infected cases is more.

Chemicals used:- Cidex,Cipirit,Virex,Renalin,Clean and Sept, EnviroSAFE,SterisolSaniscrub, Microshelf, SanisquadSoftcare etc.

Training:- Every Thursday training of nurses as per the training calendar in Bio waste management, Hand Hygiene etc taken by the infection control department .Apart from this, the new staff has a detailed infection control training given as part of their orientation program. The head of infection control plans a training schedule/CMEs for the clinicians periodically.

Dialysis

Location:- Lower Ground Floor

Layout:- 9 cubicles with one bed and a TV each (8 operational and 1 kept for emergency plus 3 additional units in the ICU) .All the cubicles are segregated for patient privacy Other rooms: Clean utility, dirty utility, Workroom, Doctors room, RO plant room

Manpower:-Doctors 4(1 HOD nephrology + 2 associate consultants+1 resident)

- Technicians 4
- Nurses 4
- (2 technicians & 2 nurses in every shift & there are two shifts of 6 hrs each & at night they have on call service in case of emergency)

Timings:- 8:00 am to 9:00 pm

Communication:- Through HIS and Phone

Equipments Present:- 9 dialysis unit of Frezenius, crash cart and other basic things.

Procedures done:- Peritoneal and Renal dialysis.

Process

- Registration of the patient is done on first contact and GNID number is given
- Scheduling of the dialysis procedure is done and patient is given appointment from one of the shifts(8to 12,12:30 to 4:30,5 to 9)
- Consent form is taken and details are entered in HIS
- Blood tests done before the dialysis to check HIV, HbsAg and CBC
- Tubes of infected patients are not reused but for other non-infected cases they can be reused after cleaning with renalin .This saves 700rs of the patient and can be reused 3 times
- Biomedical waste Management is followed and infection control policies are followed

Patient flow: - 1000 patients per month (24 to 28 patients per day)
.Dialysis is done in 3shifts of 4hrs each.

Special Features

- UPS power back up is present
- RO plant: Dialysis unit has its own taking in about 10,000 litres of water per week each patient requiring around 120 litres.

Complications:- Improper maintenance of AV fistula leading to blockage as well site infections, electrolyte disturbance with regular checking of potassium and other level, air bubble and cardiac arrest.

Prices:- Each dialysis session per patient would cost about Rs. 2700/-, this would not involve the price of the erythropoietin inj that may be required for patients which would cost another 1700/-

CSSD

- ❖ **Location:-** Lower ground floor
- ❖ **Manpower:-** 9 (3 per shift including one supervisor and 2 technicians)
The technicians have a diploma in CSSD
- ❖ **Layout :-** Small Hallway which leads to the door of dirty zone .It is the point of receiving of soiled instruments from the OPD and IPD personnel.
- ❖ **Zones:-**
 - Dirty Zone
 - Clean Zone
 - Sterilized zone
- ❖ **Timings-** For receiving : 8:30am to 9:30am & 2:00pm to 3:00 pm
(from OPD and IPD)
24 hrs (from OT, ER, ICU, CathLab)
- ❖ **Connectivity:-** It is connected to the OT through the lifts(dumbwaiters)
- ❖ **Protocol followed**
 - **Prewashed:** All instruments are prewashed at their respective depts. before they are sent to CSSD.
 - **Dirty Zone:-** Instruments are received, checked, sorted according to checklist

❖ **Equipments present**

Name of the Equipment	Function	Duration
Automatic washer	It cleans the instruments in 5 stages at 82 degrees i.e. prewash, washing , enzymatic, rinsing and drying .It has capacity of 250 litres (6-7 trays) .The enzyme used is Rapid Multi enzyme low foam and 80ml is used per cycle.	1 hr runs 8-9 cycles per day
Large ultrasonic washer with air gun	Used for large and delicate instruments respectively. After cleaning of instruments with rapid cleanser in the ultrasonic bath they are rinsed in running water.	15-20 minutes
Small ultrasonic washer		
Dumbwaiter	To bring down the soiled instruments from the OT	

- The instruments of HIV patients come in a red bag which are washed with hypochlorite before putting in ultrasonic bath
- There is a trolley wash area for cleaning the trolleys also.
- There is no pressure difference between the dirty and the clean zone.

❖ **Clean Zone**

After washing, the instruments are carried to the clean zone. The packing of instruments is done in this zone in linen.

Equipments Present

Name of the equipment	Functioning	Duration
Autoclave (750 lit)	Used for instruments in bulk (121 to 134 degree Celsius and 32 psi	30 to 50 min
Autoclave (250 lit)	Used for instruments required in emergency .It can autoclave one tray in a short time.	15 to 20 min
Boiler	Supply to both the autoclaves	

ETO (Ethylene Oxide) zone:

Equipments present

Name of the equipment	Functioning	Duration
ETO unit	Used for instruments which are sensitive to high temperatures like cautery, plastic objects etc.. These are sterilised at 50 degree Celsius using ethylene oxide gas in a 100ml cartridge. The process releases CO gas which is exhausted from a 6 ft pipe on the 6 th floor. The instruments are packed in medical grade paper before sterilisation. It is also attached to a air filter to remove moisture.	Cycle of 16hrs (valid after 48 hrs after check by infection control dept.
Packing unit (automatic and manual)	For sealing of instruments packed in medical grade paper.	1 to 2 minutes

Sterilized zone

All the sterilized instruments are kept in this zone and from here they are sent to OT and ICU through dumb waiter. Some instruments are kept in loan format as backup for emergency. It is a positive pressure room and has a temp of 22 -27 degree Celsius. The temperature and pressure are maintained by the biomedical engineering department.

In this room Validation of sterilisation is

- Normal packing : OT : 3days & Wards: 7 days
- Medical Grade Paper: 6 months for all instruments

Cleaning of the Dept: Virex (10 ml in 5lit) for the floors twice day and Cleanex tablets (500mg for 2 lit) for counter tops. Fumigation is done once every month

Quality indicators use: Chemical and biological indicator tests, Strip test, Autoclave tape, Bowie Dick indicator. The infection control department team comes for monthly audits to collect swabs and make culture reports.

Chemotherapy

- **Location:** Lower ground floor. It faces the outside greenery with full length glass windows making for a calming ambience.
- **Layout:** It has 7 segregated cubicles with a clear view of each bed from the nursing station.
- **Manpower:** 8 (including one doctor and 7 nursing staff. 5 of the nursing staff stay in day care unit and two stay in the IPD.)
- The staff is very good in hospitality and makes the patients comfortable. Counsellors also come for the patients when required.
- **Patient flow :** 6 to 17 per day
- **Timings** .It runs from 8:00 am to 8:00 pm while the new admissions close by 4:00 pm. There are 3 shifts of 6hrs each.
- **Process:** Patients have to get pre cycle tests of LFT, KFT and CBC. If tests are fine they undergo the cycle and are given the next appointment. Patients also come for the flushing of chemo port and PICC line every 21 days with heparin. Chemo port is usually inserted by the CTVS team after an appointment. The precaution to be taken with them is to avoid blockage as well any infection at the site. Careful surveillance of the line is usually done by the nursing staff
- Chemotherapy and dialysis unit have a common crash cart and fire extinguishing system.

Prices Per cycle is on an average 5000

Food & Beverages

Outsourced from Sodexo

Location : Lower Ground Floor

Accessibility : Lifts and Staircase

Layout : One entrance which leads to the cooking area(Unilateral Flow)
Cooking area is divided into four sections

- Liquid Section
- Bulk cooking section for the staff
- Patient food section
- Chopping section (colour coded boards for chopping veg and non veg)
- Packing counter

Storage section

- Cold Storage room
- Separate Fridges for the veg and nonveg food
- Chest Freezers

Washing Area

- For Large and Small Utensils
- Ceiling made up of stainless steel with hoods present in them for air circulation and fire alarms and sprinklers.

Menu : 8 cyclic menus

Services offered	Type	Timings
1 st	Early morning tea	6 am
2 nd	Breakfast	8am
3 rd	Mid morning soup	10:30 -11:00 am
4 th	Lunch	1 pm
5 th	Evening tea	3:30 pm
6 th	Evening soup	5:30 -6:00 pm
7 th	Dinner	8:00 pm
8 th	Bed time milk	9:30 pm

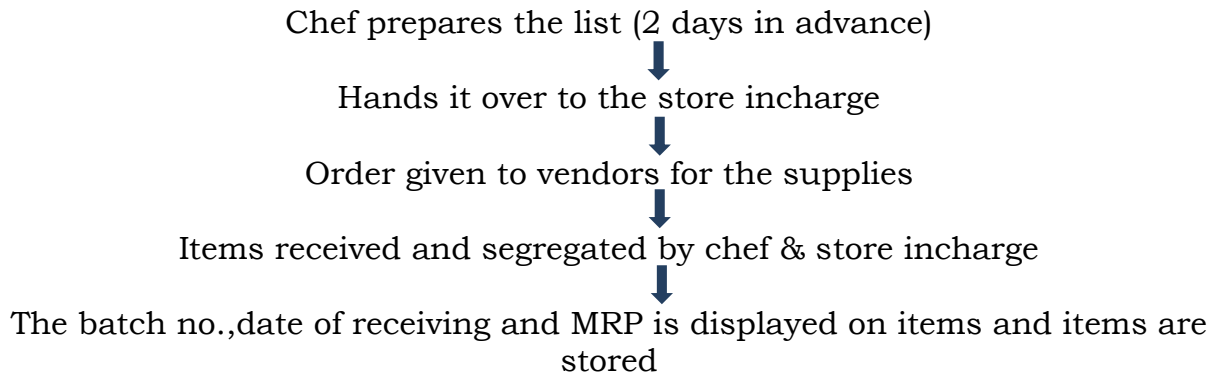
Clearance done after 30 minutes of service

Manpower: 82 outsourced from sodexo ,4 administrative staff from Breach Candy Hospital hospital and 4 dieticians on shift basis

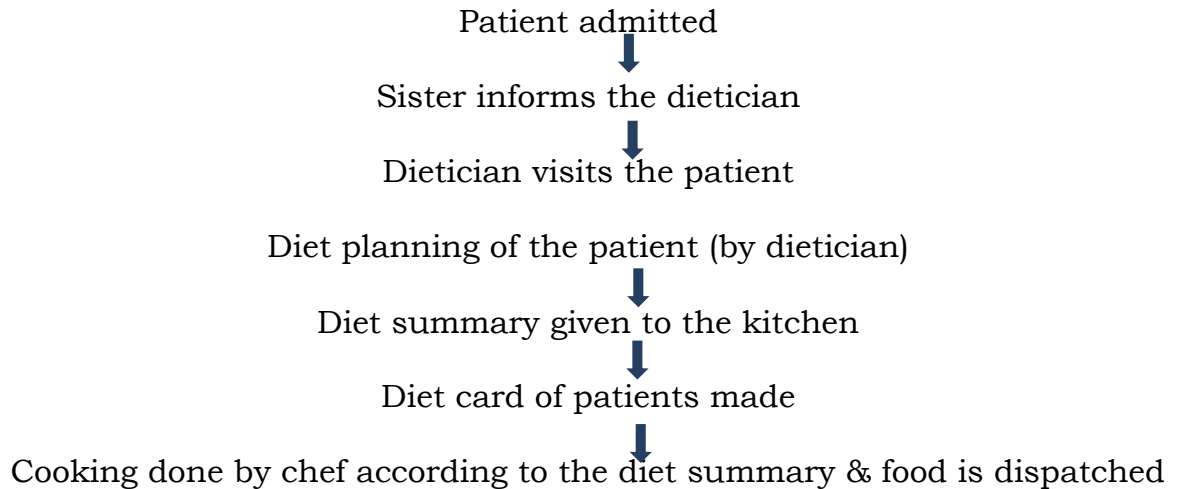
Policies and Procedures

- PFA accordance displayed
- Quality control measure taken
- Approval from Food Adulteration Department
- HACCP guidelines followed
- Colour coded chopping boards :Red meat, White bread , Green vegetables ,Blue fish
- Colour coded dusters : white for service area , green for all hot and cold objects ,
- blue for walls and tiles
- Colour coded buckets : Red for sodium hypochlorite and orange for clean water
- Hygiene audits held and hygiene cards of all employees checked regularly.

Process of inventory



Process of food delivery to the patient



Prices 325 rs for whole day for the patient

Biomedical Engineering Department

❖ **Location** : 2nd floor

❖ **Layout** : Single room

❖ **Manpower** :1 team leader

- 3 Engineers
- 1 Engineer (of Philips Company)

❖ **Responsibilities**

- Deal with the new requirements of different departments. The concerned department sends request for new equipment which may be Capex(newtechnology) or Opex (routine new equipment) to the Bio engineering department(BED) .BED forwards it to the purchase dept. The purchase dept. calls the meeting of vendor, purchase dept personnel and biomedical engineering dept. person. The vendors give a demo to the users (doctors,nurses etc.) and feedback is taken from them. According to the feedback and the quotations of the vendor the equipment is bought.
- **Maintenance**
 - AMC Annual Maintenance Contract including only the labour cost and is1 % of the total cost of the product
 - CMC Company Maintenance Contract including the labour cost and the cost of the spare parts.
 - PMS Preventive Maintenance Services are done quarterly depending on the type of the equipment.
- **Training**
 - Training of the staff every Tuesday regarding the use of the equipment.
- **Quality indicators** : PMS, Downtime ,Response time to a call ,AMC

Blood Bank

Location : Ground floor adjacent to the emergency (open 24 by7)

Layout :

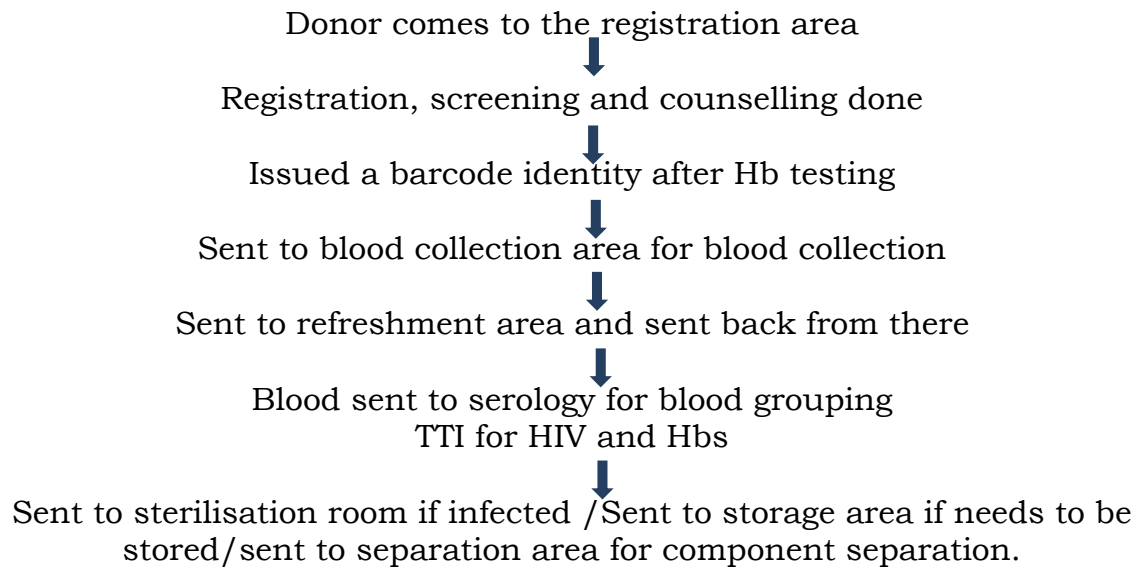
- **Donor Registration and screening area**
 - In this area the donor is registered and his height, weight and Hb is tested .It includes three rooms for the consultants,1 for Hb testing and a separate registration counter
- **Blood collection area**
 - Whole blood donation area
 - Aphaeresis room
 - Refreshment room
 - Waiting area
 - TTI (transfusion transmitted infection) testing room
 - Serology room for blood group testing
 - Issue counter (also has Pneumatic shoot)
 - Sterilisation room for discarding blood
 - Storage section
 - Component separation room
 - Record section ...Records of donor maintained for 5 years

Equipments

Room	Equipment room
Blood collection room	2 couches
aphaeresis room	2 couches with attached component separating unit of Fennuel Baxter.
TTI	2 Elisa testing machines (for HBcAg,HIV,HCV,HbsAg,Malaria.
Serology room	Incubator Water bath Blood group testing unit
Sterilisation area	Autoclave for sterilising infected blood before discarding
Storage section	2 Quarantine freezers 2 Deep freezers Platelet agitator Cryobath Pharma fridge Cold storage

Component separation room	C3 3000 baxter Amicus machine and 2 separators which can separate 3 components at a time.
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- Temperature of 22 degrees is maintained all through out
- **Manpower** 11 technicians 3 doctors 6 nurses
- Calibration of instruments done every morning.
- **Process flow**



- **Quality Indicators:** Transfusion reactions ,TAT for issuing and blood collection,Component usage, Rate of discarding blood, Expiry of Product.
- **Standards:** You need 20 units per bed per year. So 6000 units per year and 500units per month and 40 units of every blood group. Discarding rate is 1% for RBC20% for Platelets 80-85% is used. Viability of RBC is 42 days,1 year for plasma,5days for platelets.

Labour delivery room section

- **Location :**First Floor
- **Layout :** 6 LDR rooms with four facing the sea side
10 bedded NICU (separate for premature and sepsis patient)
Nursery
Nursing station with billing desk and waiting area
- **Manpower** 4 nurses in LDR 1 in IPD and 1 in OT
- **Quality indicators :**Cases of haematoma, bed sores, infant swapping ,infection control.
- **Equipment in LDR :**Hundley beds which can be converted to labour table,CTG machines, Crash cart ,Lithotomy table
- **Patient flow** 70 to 80 patients per month out of which 70% are C - Sections

Cath Lab

Location :First Floor

Layout :

- Hallway having male and female change room ,directors room and cath recovery room.
- Cath unit having control room with C arm, Clean and dirty utility room and Cath pharmacy.

Manpower : 2 nurses and 2 technicians and 3 doctors in 2 shifts

Patient flow 350 patients per month (200angio and 100 of implants)

Time taken for angiography is 15 to 20 min

Prices

- Angiography 15000
- Angioplasty 1 lakh

Patient's Care and Safety:

“First, do no harm” is the cornerstone of medicine. However, unintentional harm and error does occur at all levels of the health system. Patient safety is the absence of preventable harm to a patient while seeking health care.

- Understanding whether, how, why, and how many patients are harmed through their respective organisation is essential to form the health policy agenda in the hospital and to adopt the most effective and efficient interventions.
- Studies suggest an estimated rate of 8% out of which around 50% is judged to be preventable. Out of this around 0.2%-5% result in death all of which however is not preventable.

IPD (In patient department) and its process related to patients safety

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 color 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 the fifth 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 than 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.
- As soon the patient is admitted to the ward he is asked to wear the patient's dress. A white colored 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. 20-25min.
- A medication chart is prepared by the doctor and medicines are given to the patient on the standardized timings according to the dosage prescribed by 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 his 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 he uses 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.
- 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 the patient 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.

Infection control practices in the hospital:

Following steps are taken by the infection control staff nurse on regular basis:

- Infection control Nurses comes for audit once in a week wherein they take the hand swab and environmental swabs of the staff nurse to check for any harmful micro-organism contamination.
- It is also checked whether the hand and hygiene protocols are very well followed by the staff on each and every floor especially for those who comes in direct contact of the patient or not.
- Patient on catheters are monitored regularly so as to avoid the UTI. The nurse manually writes the date on the catheter. They keep an eye on it so that it is changed after 14 days by the ward nurse.
- Follow up of patients with canula is done and the nurse makes sure that it is changed every 3rd day after insertion. The date of insertion is mentioned on the canula manually by the staff nurse.
- They also keep a check on saline bottles so that it gets consumed within 24 hours.
- They make sure that hand scrub is present on every patient's bed side and also hung outside the room.
- They have set hand hygiene compliance for the nursing staff especially in the critical care unit.

- In order to keep a check on hospital acquired infections, clinical manifestations are monitored e.g. Patient who is on catheter and is having fever, it shows the probability of UTI so the tests required to diagnose it, are done.
- Protocols of isolation of patients who are suffering from communicable diseases for e.g. TB, H1N1 and Chicken pox etc are regularly monitored.
- On the job weekly training is given on the care of the patients who are on invasive devices.
- Blood spillage policy: To ensure that the spillage gets clean and the area is decontaminated the hospital follows the set protocol which is described below.

Acc to the policy here, the body fluids including blood are treated as infectious and handled cautiously. The cleanup procedures is done by an experienced person. The spillage kit consists of 2 pair of disposable rubber gloves, mask, gloves and a plastic apron and gum boot. Spillage is covered with disposable paper towels. Sodium Hypochlorite solution is used for decontaminating spills. This is effective against HBV, HCV and HIV. A freshly prepared chlorine Concentration of 1% is used and is discarded after 24 hours.

Paper towels are saturated with freshly prepared 1% Sodium hypochlorite solution. E.g.: - If the available hypochlorite is 10% then one part of 10% hypochlorite and 9 part of water would provide a 1% concentration ie, 10000 ppm. The disinfectant-soaked paper towels are kept over the area for 30 minutes. After 30 minutes the entire material is picked up with the help of dustpan and squeeze and disposed in the yellow garbage bag. The area is cleaned properly with detergent (carried separately) and hand mop and ensured that the area is dry.

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

Medication errors:**Nurses will give the drug after cross checking:**

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

If there is any error while recording the above mentioned points then it is termed as medication error. Such events may be related to patient's safety measures including prescribing, order communication, product labeling, packaging and nomenclature compounding, dispensing, distribution, administration, education monitoring and use.

Hospital error includes illegibly written orders, dispensing errors, monitoring errors and administering errors. Physicians, pharmacists, and nurses can be involved in the occurrence of medication error.

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 caregivers 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.

Despite their seriousness as a medical event, needle stick injuries have been neglected. Most go unreported and ICD-10 coding is not available. Their prevention has become the subject of regulations in an effort to reduce and eliminate this preventable event for patient's safety.

Accidental removal of line:

Accidental removal -This is more likely to happen with percutaneous lines, which are only held in place by dressings and adhesive tapes.

Sentinel Events: It includes:

- Surgery on the wrong individual or wrong body part.
- Surgical instrument or object left in a patient after surgery or another procedure.

Sentinel events happens and most of the time cannot be prevented. The thing which can be done is identifying the specific sentinel events, their underlying causes, and steps to prevent recurrence.

Health Check Up Department Breach Candy Hospital Trust

• INTRODUCTION

Preventive health check-up today is the most important need of the hour for health conscious people. In these times of high stress lifestyle, unlimited working hours and irregular food habits begin to take a toll. Health check up department is a part of Breach Candy where package wise plan of health checkup are categorized to ensure prevention and early diagnosis in case of any form of sickness to ensure that the patients are treated at the right time and right place.

An increased level of stress and a sedentary lifestyle is causing a number of health problems which adversely affect their appetite, sleep quality and eventually begin to affect the entire body. Breach Candy believes that good health is the foundation for success in life. With this in mind medical team has formulated the Health Check up packages which can be further tailor-made & tailor-costed to suit one's requirements.

• AIM

To ensure that the best health care diagnostic facilities are provided to detect disease in its earliest form.

❖ Health Plan A: Comprehensive Medical Check Up

- Physical Examination
- ECG
- Pathology Lab tests
 - CBC
 - ESR
 - Lipid Profile
 - Kidney Profile
 - Liver Profile
 - PSA
 - Vit. B12 Levels
 - Vit D3 Levels
 - Blood Group
 - Blood Sugar Fasting and Post Prandial
 - Routine Urine
 - Routine Stool
- X- Ray Chest
- USG of abdomen & Pelvis
- Echo/Stress Test
- Lung Function Test
- Gynecological Examination (for Ladies)
- Dental Check-Up
- Pap smear
- Mammography (for Ladies)
- Package Price : Rs. 9,000/- (for Gents)
Rs. 12,000/- (for Ladies)

- ❖ Health Plan A+:
 - Ladies plan A
 - Dexa BMD
 - T3T4TSH
- Package Price : Rs. 14,000/-

- ❖ Health Plan B: Executive Health check Up
 - Physical Examination
 - ECG
 - Pathology Lab Tests
 - CBC
 - ESR
 - SMA 12+2 (14 Biochemistry Tests)
 - Blood Group
 - Routine urine
 - Routine Stool
 - X-Ray Chest
 - Stress Test
 - Lung Function Test
 - Dental Check-Up
- Package price : Rs. 3,500/-

- ❖ Health Plan C: Pre-employment Medical Check Up
 - Physical Examination
 - ECG
 - Pathology Lab Tests
 - CBC
 - ESR
 - Blood Group
 - Blood Sugar Fasting and Post Prandial
 - Serum Urea
 - Serum Cholestrol
 - Routine Urine
 - Routine Stool
 - X-Ray Chest
- Package Price: Rs. 2,500/-

Additional Option

- HIV

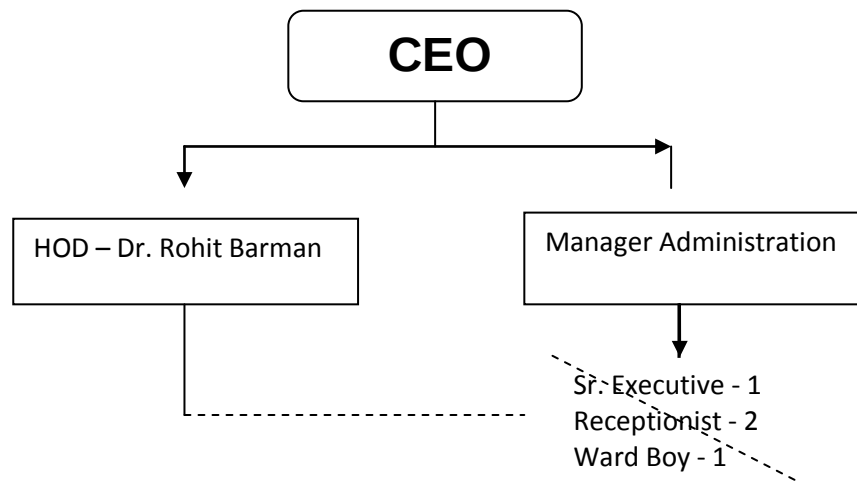
- ❖ Health Plan D: Well Woman's Package
 - DXA,BMD

- Mammography
 - USG of Abdomen & Pelvis
 - Gynaec Examination
 - Pap Smear
- Package Price : Rs. 7,500/-

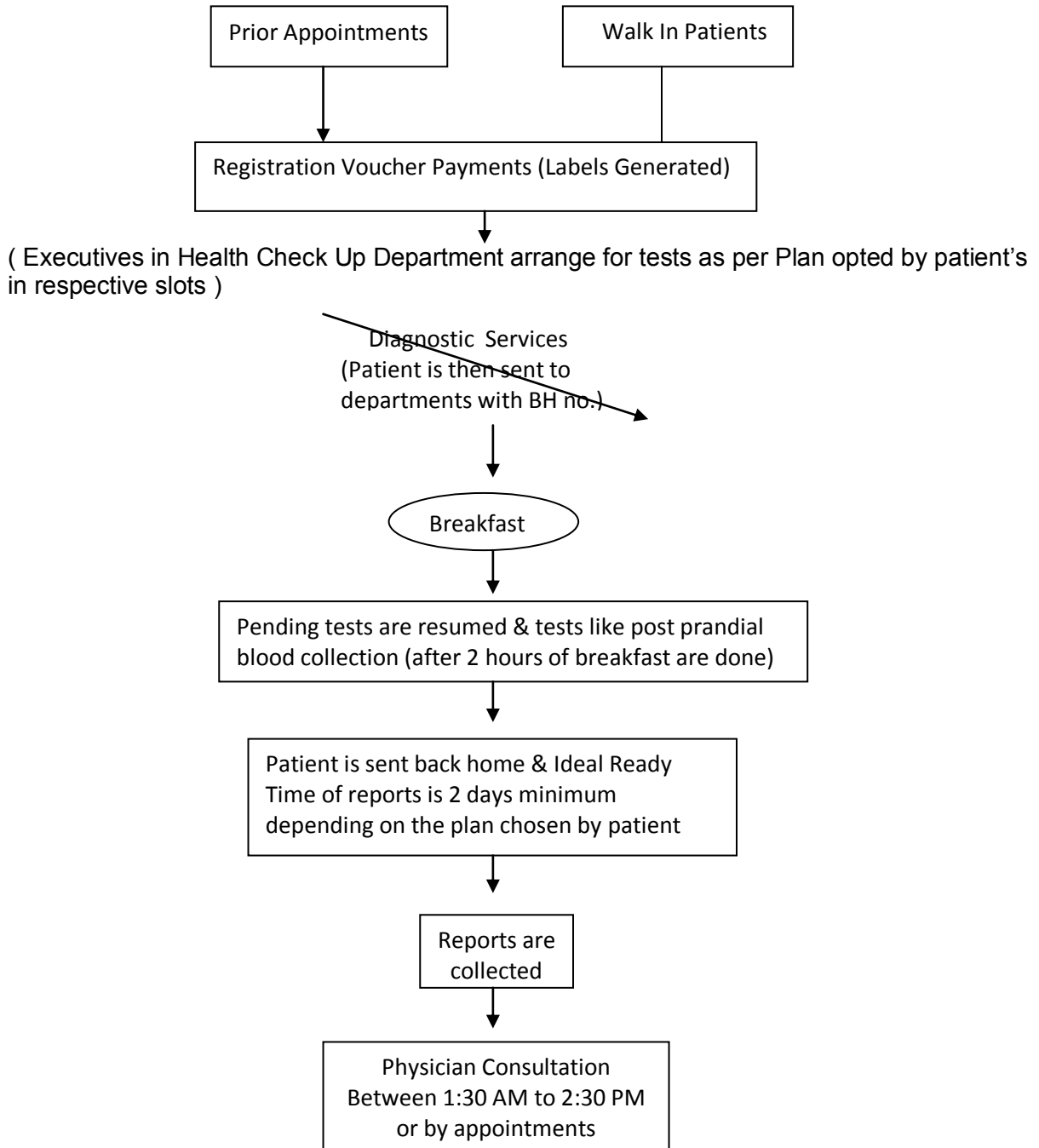
- **CORE VALUES**

- ✚ Care for the customers
- ✚ Respect for Associate
- ✚ Excellence through teamwork
- ✚ Always Learning
- ✚ Trust Mutually
- ✚ Ethical Practices

ORGANOGRAM



PROCESS FLOW



PROJECT ON DIAGNOSTIC SERVICES IN PREVENTIVE HEALTH CHECK UP DEPARTMENT

Turnaround time (TAT) is one of the most noticeable signs of diagnostic service and is often used as a key performance indicator. It aims to provide a consolidated source of benchmarking data of one month useful in setting TAT goals and to encourage introduction of TAT monitoring for continuous quality improvement.

Department Guide : Operations / Medical Services

Introduction :

Quality can be defined as the ability of a product or service to satisfy the needs and expectations of the customer. TAT is one of the most important sign of a primary health care service and diagnostics. The department head takes care of the whole plan and package appointments and its documentation part is very well organized. Through them I have learned that planning, organizing and controlling is paramount. The patients come into the hospital expecting the services to be of very high standards and it is their right to get it. Yes, not always we can be 100% efficient, but we still have to go out of our way in an effort to do so. The staff in the department is the first point of contact with the patient in the hospital for the delivery of health care and error here would definitely increase the probability that the patient's quality of care can be compromised.

Objectives:

- To study process flow of Health check up as well as departments inter-related.
- To find the number of hours/day delay in reports and determine the root cause for them.
- To streamline the quality care and promptness in reports delivery.
- To study the incidents that might result in substandard consequences.

Methodology:

- Data source: Data has been collected on routine basis from health check up department of patients taking the package at the time of study.
- All the analysis and graphical depictions were done with the help of MS-Excel.
- Type of study: Analytical study.
- Study area: Health Check Up Department, Breach Candy Hospital, Mumbai
- Time duration of study: 16th April- 20 May, 2014.
- Sample size: Patients (248) at the time of study
- Sampling Method: Simple random sampling.
- Source of data: Primary data.

Primary data includes:

- Direct observations of the subjects walk in.
- Interaction with staff.

Observations:

Hereby has been discussed few observations during the process of study in preventive health check up in detail as mentioned below:

1. Information on safe and effective selection of plan about health care is adequately informed. The name of doctor and other staff or department directly involved in care is made to be known to patient.
2. All the employees of the department treat the patients respectfully.
3. The privacy is respected with regards to consultation, case discussion, examination and treatment.
4. The patients' spoken and unspoken wants and needs are taken care of.
5. The department tries to build and develop a quality and service by collectively aiming towards customer satisfaction.
6. Department takes an initiative to send a reminder in respective laboratory departments where the delay in report delivery is.
7. Promptness in assembling and filing report and informing patients about it.

Overview:

THE APPROACH-

This project conducted was within the timeframe of eight weeks (from April to May 2014). 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 resources to achieve desire result.
- The highlighted part of the delay in reports was taken to be the concern area.
- First whole process of preventive health check up was understood. Process map for how to go about it was developed and track of activities taking place were monitored.

Health Check Up Process:

- Appointments for health check ups are made in person or on phone. Appointment have to be made at least a day in advance.
- To make an appointment department is open between 8 A.M. and 4 P.M. from Monday to Friday (Saturdays 8 A.M. to 12 noon).
- A minimum of 12 hours fasting is essential prior to check up. Water can be consumed till the commencement of tests.
- Alcohol should be avoided for at least 12 hours prior to check up.
- Patients are advised to wear loose clothing, minimal jewellery and easily removable shoes for health check up.
- Any type of medicines (hypertension or diabetic) should be avoided on the morning of health check up. The same can be taken before or after the breakfast that is provided by the health check up department.
- Patient comes for review consultation with doctor 1-2 days later, with an appointment.

The study was done on the ground floor to track activities during the health check going on when happens on the floor and records maintained manually by tracking every report which comes to department, its time and its delay in time to accomplish this task.

Sample size of 248 patient were taken by simple random sampling method and a analytical study was done so as to understand to the system flow taking place then determining what needs to be done in the loop found.

Data collection-

To know about the delay in reports from diagnostics, a study on the process flow of preventive health check up was done to analyze the various programme's done by the department on the patient as it goes about its daily routine duties in effective and efficient way and plays a decisive role in making the hospital's image. The study purpose is to determine if there are any delays in time of reports to look over the quality and ensuring the good health of patients. The study tries to set up workspace in such a way that a worker can perform routine duties quickly and proficiently. As far as the hospital industry goes, it seems that one would use this to determine optimal areas for various implementations.

Stages:

Survey to study the patient's reports focusing on time of delivery.

Study of scheme's process in department.

Survey to study the expected time of service given to the laboratory by the service provider and collecting the data for the same.

Compilation of the data and analyzing it.

Presenting the observation.

Finding the bottlenecks in service delivery and proposing the recommendations.

Exclusion Criteria:

Certain patients do not take some tests on time at their own will. For e.g. if they don't have time or if the patient has to go early for personal reasons leaving some tests pending until next appointment is scheduled. For women if they are in menstruation, Pap smear cannot be conducted.

DATA ANALYSIS:

ACTUAL TIME OF REPORT :

PFT-Same Day

ST- Same Day

USG-Next Day 10:00AM

MAMO/PAP-Next day at 2:30 PM/After 48 Hours

DEXA-Next day at 10:00 AM

ECHO-Same day or by 10:00AM next day

U/S-Next Day

ECG- Same day or by 10:00AM next day

Lab- Same day

Imaging- Same day

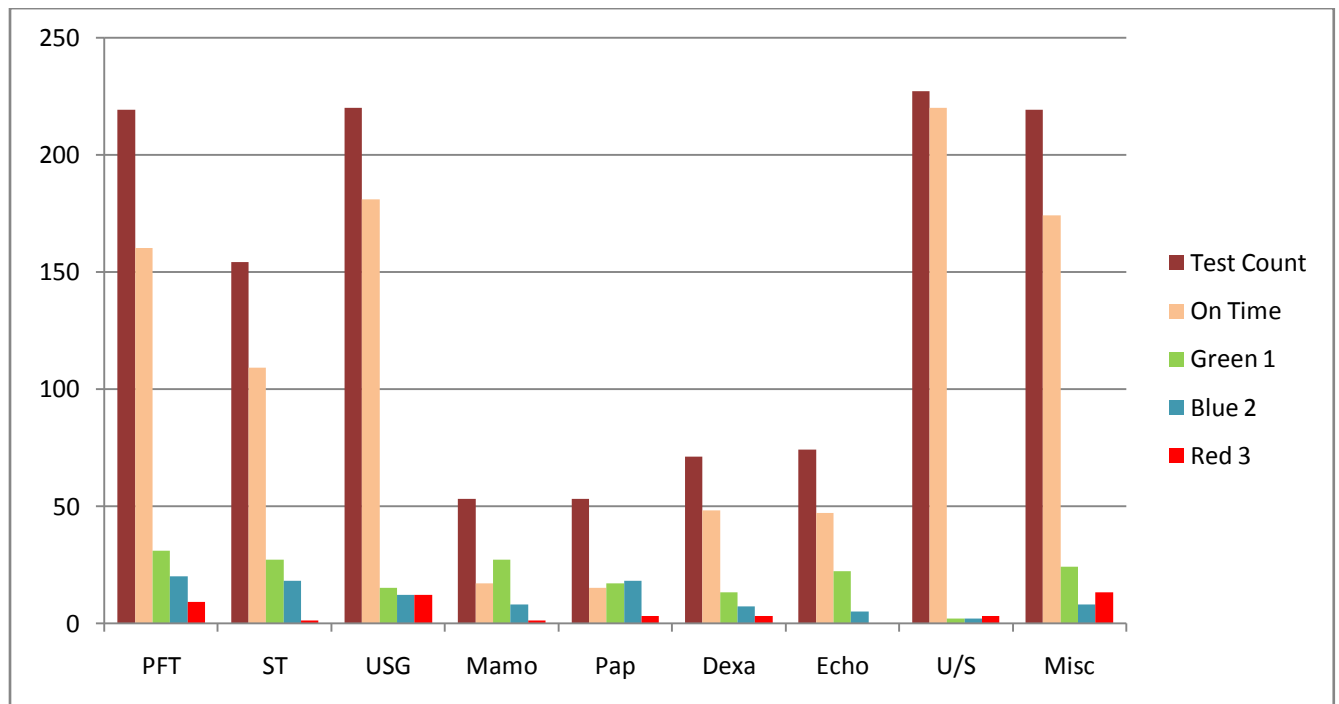


Fig. 1

The graph depicts the total test count done in departments with respect to number of reports on time followed by delay of days represented in color coding.

Table 1.1

	PFT	ST	USG	Mamo	Pap	Dexa	Echo	u/s	Misc
Normal %	73.05%	70.77%	82.27%	30.90%	28.30%	67.60%	63.51%	96.91%	79.45%
Green 1	14.15%	17.53%	6.81%	50.94%	32.07%	18.30%	29.72%	0.88%	10.95%
Blue 2	9.13%	11.68%	5.45%	15.09%	33.96%	9.85%	6.75%	0.88%	3.65%
Red 3	4.10%	0.64%	5.45%	1.88%	5.66%	4.22%	0%	0.44%	5.43%

Out of total normal % in respective departments :

1) Day 1 Delay :

Mamo > Pap > Echo > Dexa > ST > PFT > Misc > USG > u/s

2) Day 2 Delay :

Pap > Mamo > ST > Dexa > PFT > Echo > USG > Misc > u/s

3) Day 3 Delay :

Pap > Misc > USG > Dexa > PFT > Mamo > ST > u/s > Echo

From the result shown in table it is found that :

A. Maximum 1 day delay is in Mamo

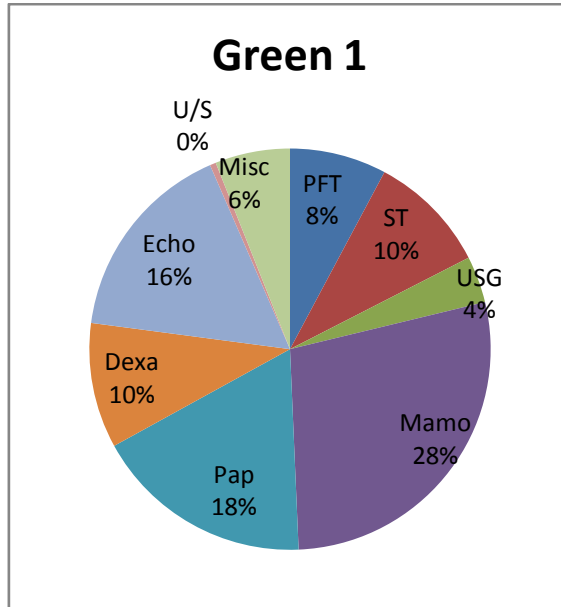
B. Maximum 2 day delay is in Pap

C. Maximum 3 day is in Pap

Hence, Mamo,Pap, Misc is the department in 3 zones of delay that requires monitoring of reports on time . Since Misc contributes both to ECG and Additional Tests , the percent coverage of ECG in that section is maximum.

Pathology reports were always on scheduled time of all the departments , also X-ray reports from Imaging department were on time except 1 or 2 incidences.

DATA INTERPRETATION:



So as far as the patient with regard to efficient services and satisfaction is concerned the key area which needs to be improved is the timings at which the reports are given. And also there is no well defined roles for reminders to prevent confusion and thus overlapping of responsibilities occur.

The senior executive need to introduce efficiency amongst them with respect to other department operations in regard to speeding up patient reports to ensure overall credibility of department.

Recommendations:

- A job profile must be defined to give a reminder call after 12 Noon so that delays are managed. Clear definitions of acceptable and unacceptable delays based on valid reasons.
- Establishment of a protocol for monitoring of delay using available data.
- Department should be well informed if the delay is for some reason. Regular contact between the inter department.
- Ensure minimum report turnaround time by adopting quality control measures (taking patient's feedback).
- Documentation part should be more ethical as in the staff should enter the exact time at which they have received and it can be cross checked at any point of time by the admin.
- More specialized packages should be included in preventive health check up (Maternity or Cancer focused)

CONCLUSION

The study done helped to understand policies and protocols of Preventive Health Check Up. The main objective of the study was to analyze different aspects of tests done, reports sent by the department on a day to day routine and then to find out the amount of delays occurring. From the

analysis it was found that there are various delays occurring in the department in the whole process which may affect the patient's satisfaction and the main reason was found to be the workload on staff involving less of direct patient care in health check up and more of other work (IPD/OPD). The other factors were lack of communication and promptness amongst the employees.

The training from this hospital was very helpful for me to improve my knowledge and skills. 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. I conclude my report wishing all success to the Breach Candy hospital by meeting world class benchmarks in the delivery of medical care.

PROCESS MAPPING AND TAT OF MEDICINES ISSUED FROM PHARMACY DEPARTMENT

Introduction

Pharmacy is the science and technique of preparing as well as dispensing drugs and medicines. It is a health profession that links health sciences with chemical sciences and aims to ensure the safe and effective use of pharmaceutical drugs.

The scope of pharmacy practice includes more traditional roles such as compounding and dispensing medications, and it also includes more modern services related to health care, including clinical services, reviewing medications for safety and efficacy, and providing drug information.

One of the major aspects of the In patient pharmacy is to provide the right drug at the right time and of the right strength to the patient. The study helps in understanding and improving the efficiency of patient care.

Turnaround time (TAT) is the time taken right from the time the nurse indents the medicines to the time the medicines are delivered to the nursing station. The standardized turn around time set by the hospital for the process is 65 minutes.

Guidelines have been established to define such terms as "STAT", "Priority", and "Routine".

Every attempt was made to process orders according to this policy. Unless an order specifically states that a medication is "STAT", Now, ASAP, or is a missing dose, the order will be processed as routine. The physician should assign the priority of an order during the order entry process in the HMIS, in

certain instances the nurse has the authority to upgrade the original order from routine to STAT, by informing the Pharmacist of the need. The upgrade may be communicated using the telephone and walk in boy to pharmacy.

STAT - A medication with an immediate onset of action that is needed in a potentially life threatening, emergency situation or when there is severe discomfort. Missing doses should also be considered STAT medications. Turnaround Time = 15 minutes.

Non-STAT Orders - A medication requested is not of urgent need and will be processed within their own runners to obtain the needed items from the pharmacy. Turn Around Time = 2 hours 30 minutes

The Pharmacy outcomes are

- cure of a disease
- elimination or reduction of a patient's symptomatology
- arresting or slowing of a disease process
- preventing a disease or symptomatology.

A drug therapy management system requires.....

1. Timely recognition of drug indications (uses) and other signs and symptoms relevant to drug use; and accurate identification of underlying disease
2. Availability of safe and effective drug products
3. Appropriate prescribing for definite objectives
4. Dispensing and (patient) advice
5. (Patient) participation in care
6. Monitoring (problem detection and resolution)
7. Documentation and communication system
8. Product and system performance management system.

Hospitalized patients may receive delay in care because of delay in medication . If drugs don't reach the patient on time, the situation can be disastrous to patient health.

In the new age of technology, hospitals have started using Hospital Management Information System (HMIS) to make this process faster and further streamline it.

About Breach Candy Pharmacy :

All medicines needed by outpatients and inpatients are stocked by the hospital pharmacy for easy availability.

Utilisation of indicators

1. Quality improvement
2. Benchmarking: comparing performance with peers
3. To improve patient outcomes
4. Education of pharmacists/physicians
5. Provides evidence to third party payers
6. For management/improve efficiency
7. To help set and meet standards of care/practice
8. To lower costs of care
9. To identify fraud and errors
10. To increase professionalism among pharmacists

Aim:

To study the drug turnaround time in the inpatient pharmacy.

Objective:

- To find the causes of delay in the drug delivery process, if any
- To decrease the drug delivery turnaround time.

Rationale:

Patient care is the paramount responsibility of a hospital. Drug delivery is also an important part of patient care. By carrying out this study, the Turnaround time can be further improved which would ultimately aid and improve patient care.

Research Methodology:

It was a descriptive type of study as all the steps in the process was observed. This study was done in the in patient pharmacy. Under the study, all the touch points with respect to the drug dispatch were studied. The touch points include Patient medical bills at pharmacy, medicine dispatching pharmacist, nurses receiving medicines. The sample size taken was for 20 days as suggested by the management . The data collection method was by observation. The data analysis was done using MS Excel.

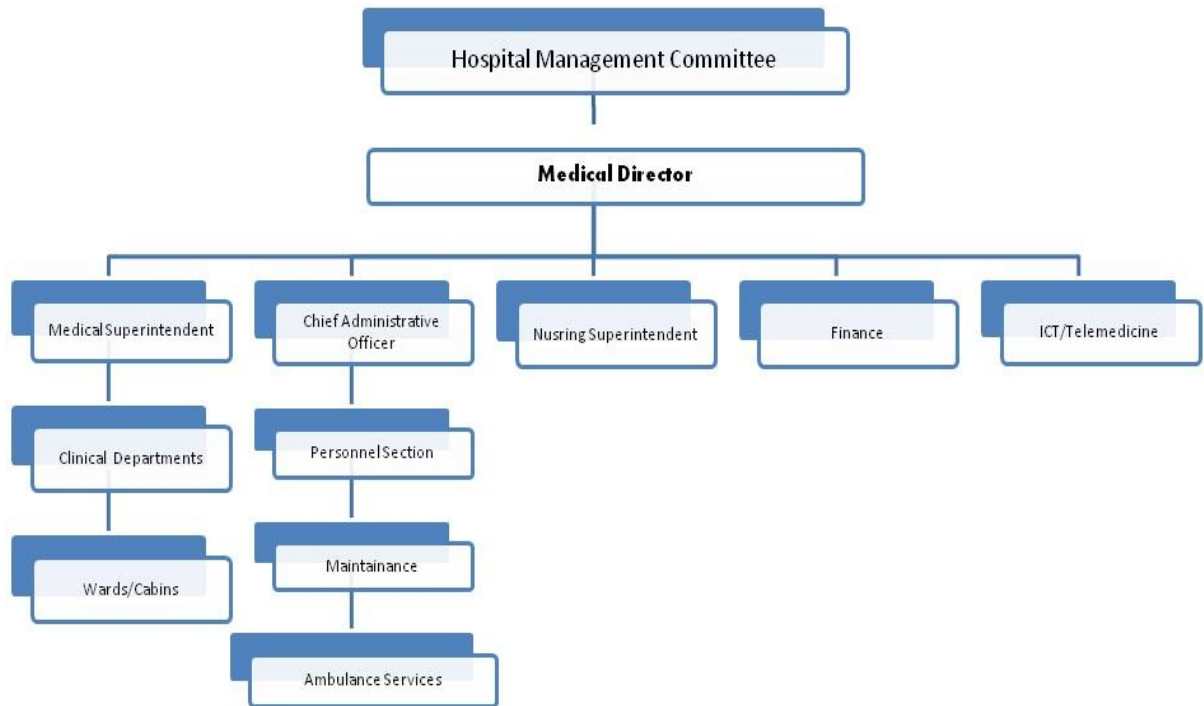
Day care admissions and was excluded. Non- probability sampling technique was followed. The indents were divided into three sub groups:

1. 8 Am to 11 Am
2. 11 Am to 3Pm
3. 3Pm to 6Pm

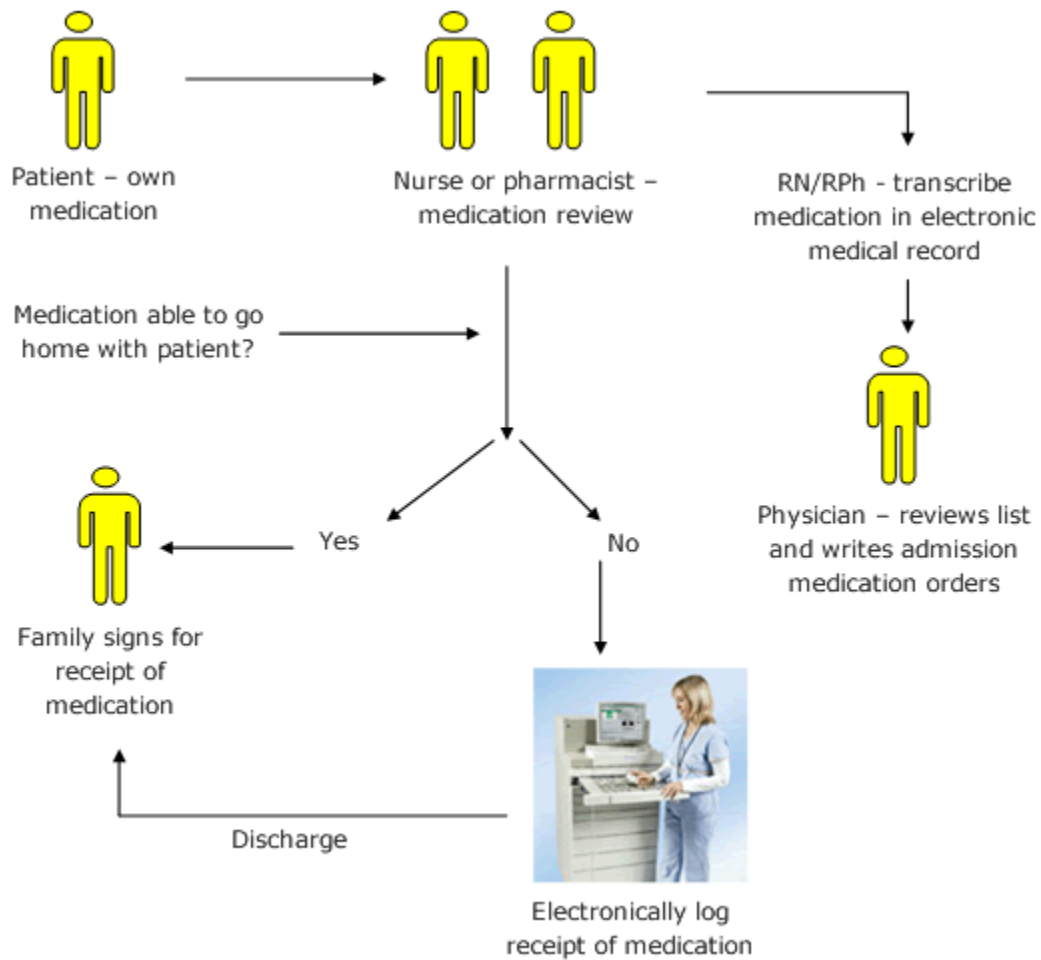
Agendas in focus:

- Quality improvement
- Internal accountability
- External accountability
- Consumer information

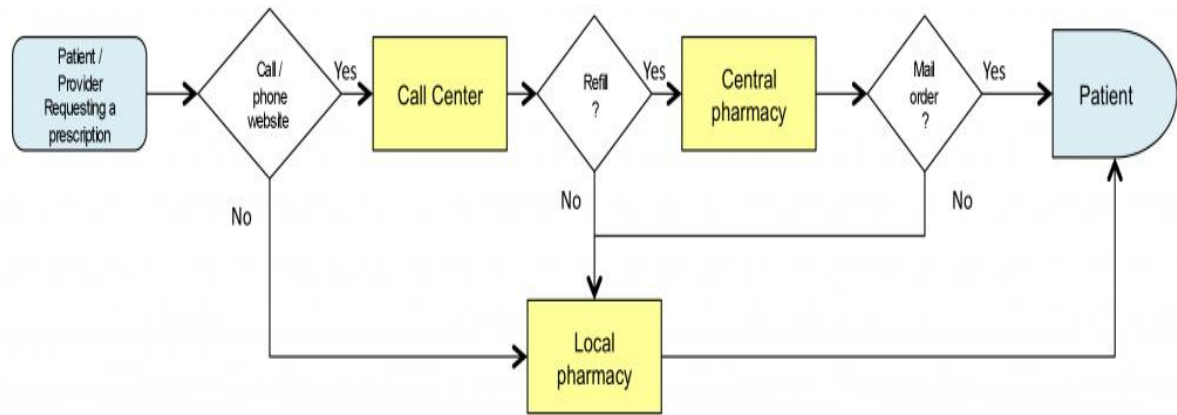
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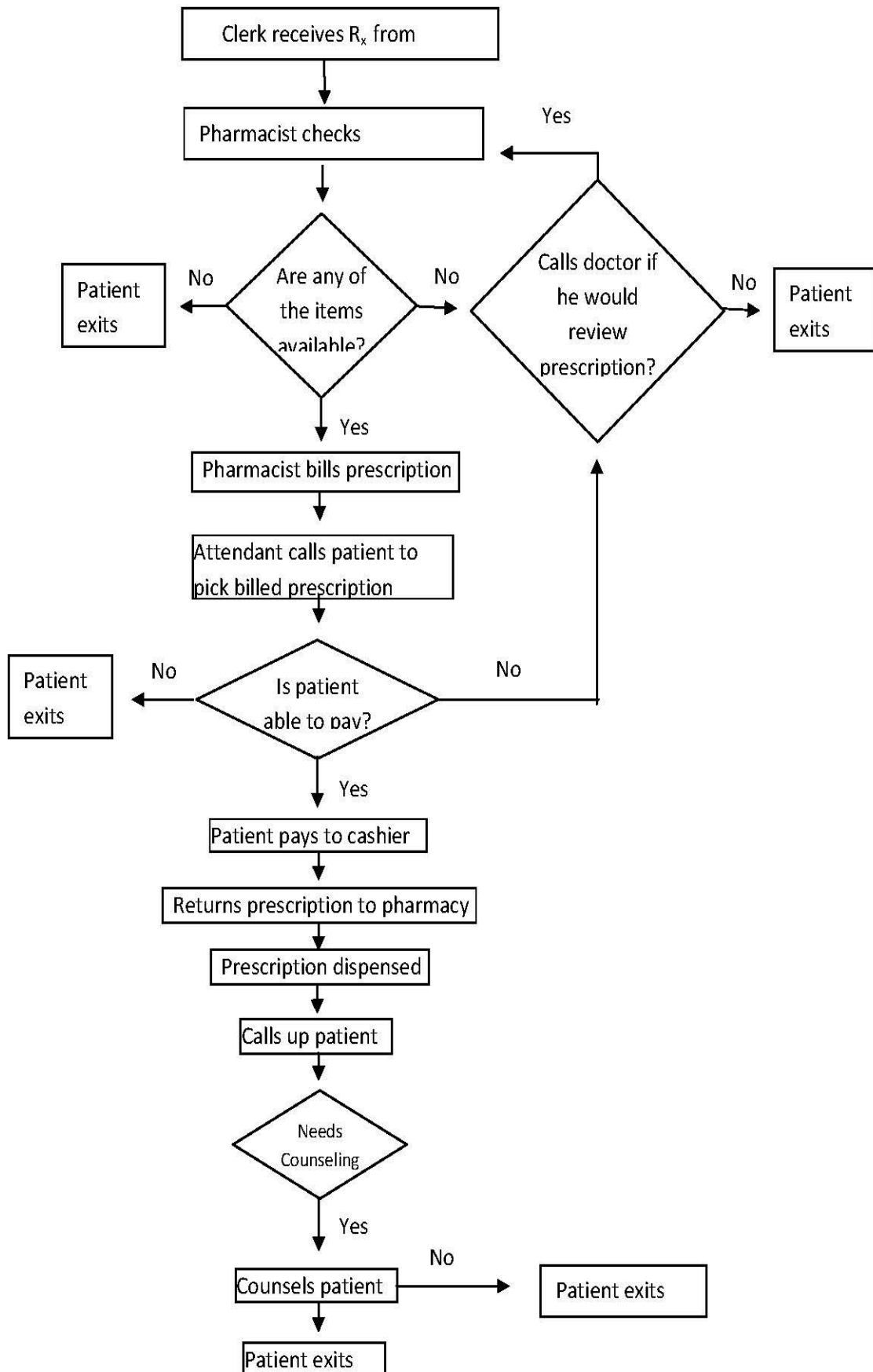


PROCESS FLOW



STAT PROCESS FLOW





Data Interpretation and Analysis

Sample Distribution

The figure shows the percentage of the three sub groups out of a sample size of 3 time indents . This was done to understand the segregation of the percentage of number of indents indifferent categories

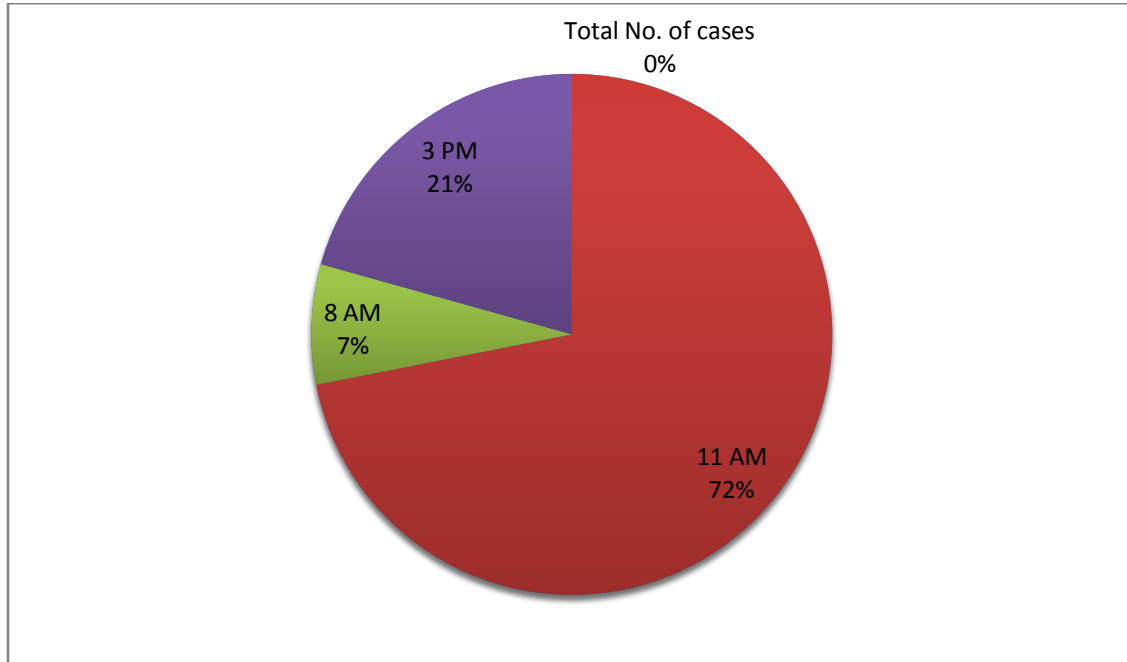


Figure 3.2: Pie chart of total number of case distribution

Time Load Distribution curve

To find the peak time of the number of indents the following time load distribution curve was made, which is shown in the figure below

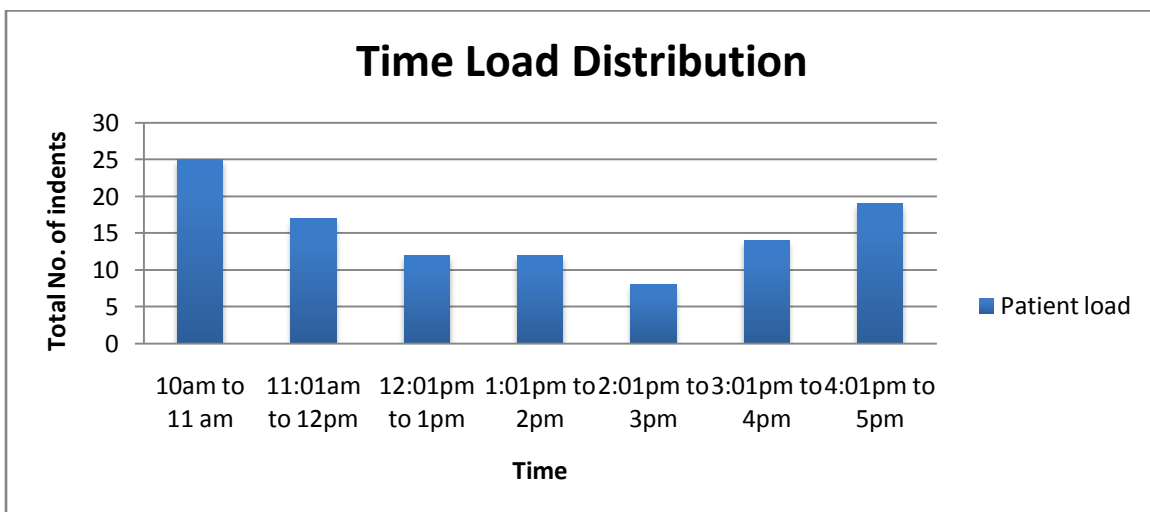


Figure 3.3: Graph of Time load distribution

In the previous curve it is visible that the highest number of indents comes in the morning, which generally is after doctors rounds, but after a steady decline, the curve again goes up in the evening. This means that the indent of medicine are being given as and when possible, which results in excessive number of indents in the evening.

STAT based Time Delays

The below curve shows that it takes about 10 minutes at an average for an urgent package to be taken by the department . This is majorly because urgent is not mentioned on the bill or the boys gives the pharmacy the slip and leaves for the other pending work they have.

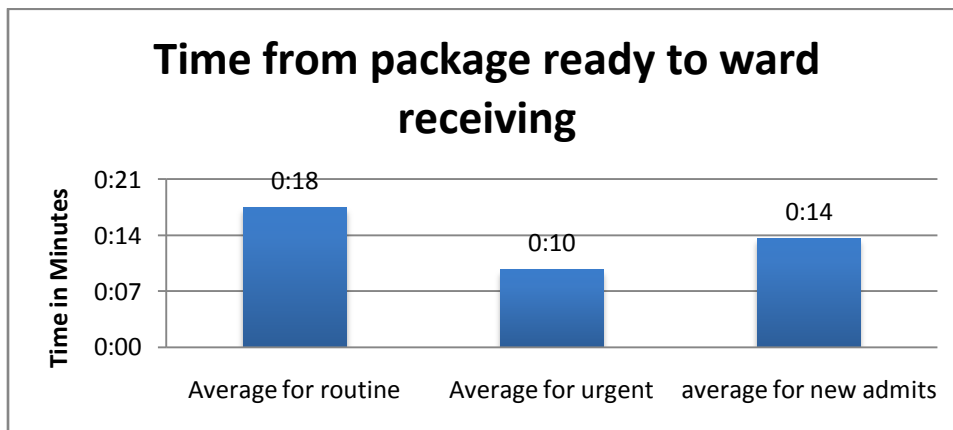


Figure 3.4: Graph showing time from package ready to ward receiving.

Comparison of time take by different process based on type of requirement.

The following curve shows the comparison between the standard and calculated TATs.

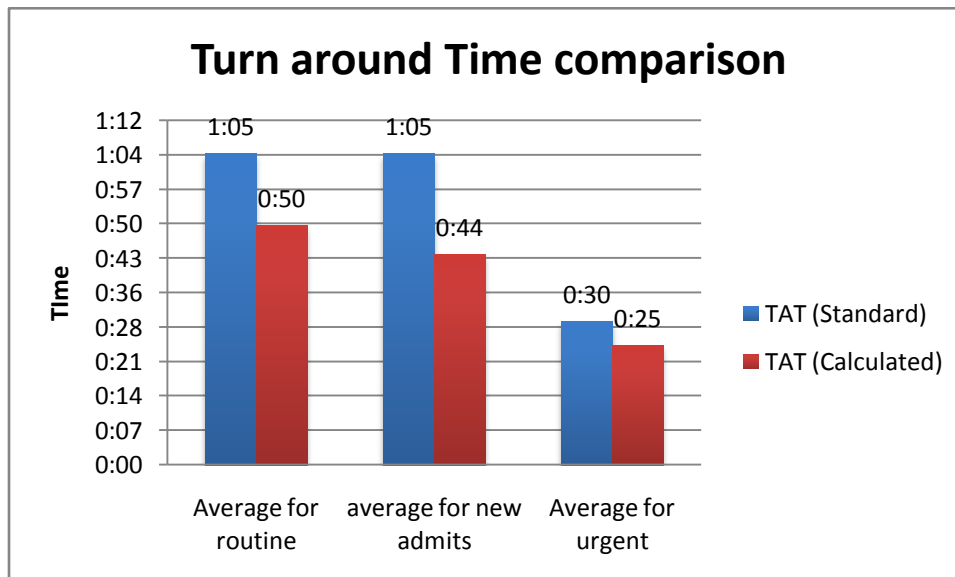


Figure 3.6: Graph on turn around time comparison

The pharmacy is performing better than expected by delivering drugs in less than scheduled time. The following comparative graph shows how much time it is taken by the pharmacist in rechecking and also for the nurse receiving.

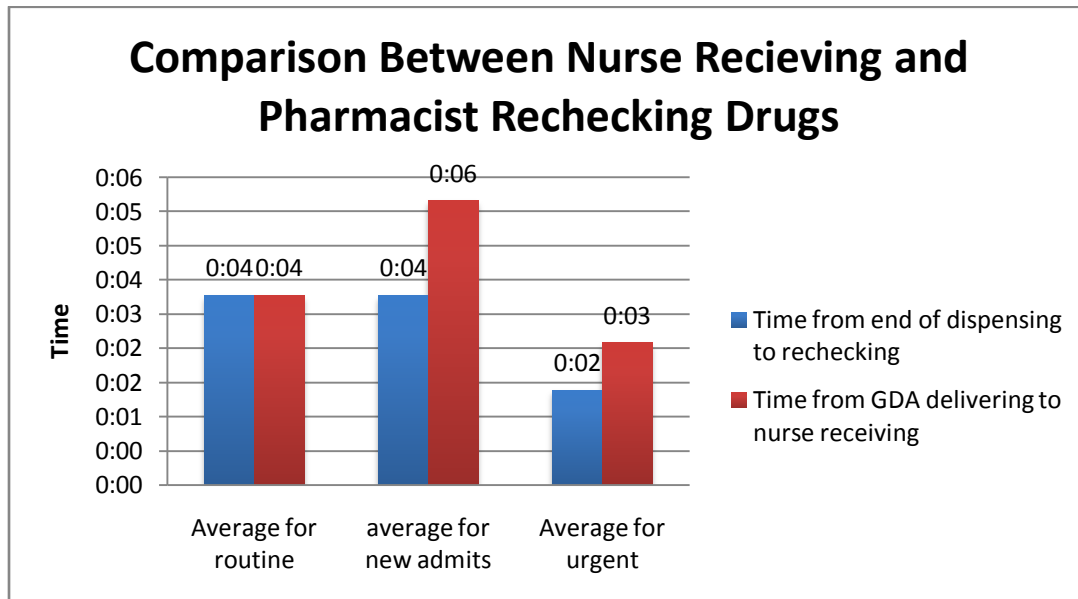


Figure 3.7: Graph showing Comparison Between Nurse Receiving and Pharmacist Rechecking Drugs

The above mentioned curve shows that nurses take equal time in receiving medicine which is generally due excessive workload. This might affect the quantity and strength of medicine being received, ultimately affecting the patient.

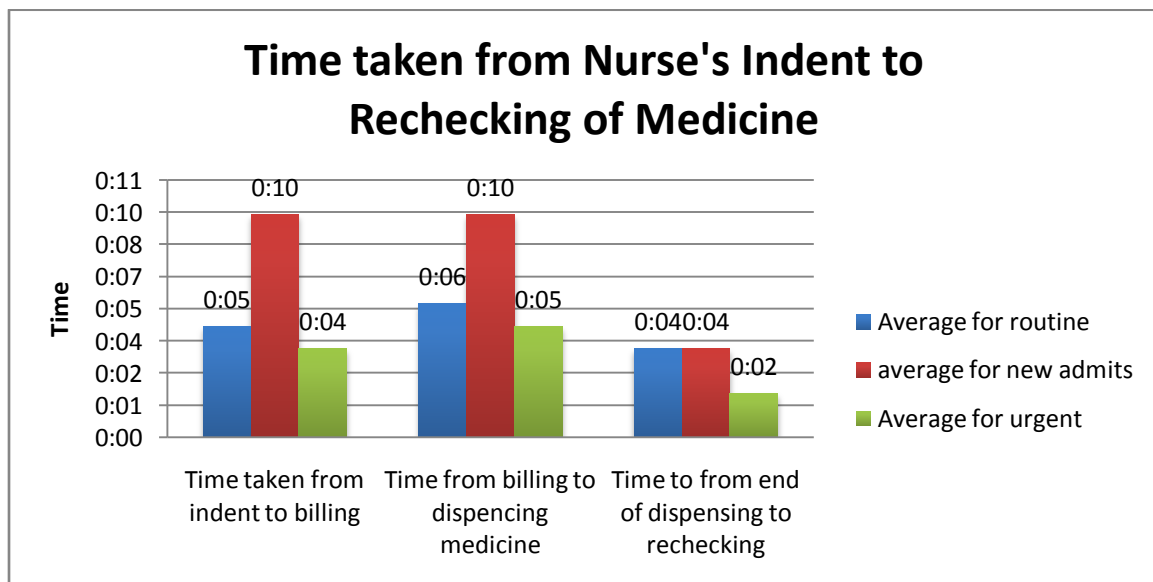


Figure 3.8: Graph showing time taken from nurse's indent to rechecking of medicine

The above curve shows that it takes comparatively more time for new admission than routine indents till the time the package is ready. This is majorly because of the size of a single indent, which delays the billing, dispensing of medicine and rechecking the indent.

Recommendations

1. The type of indent(routine, urgent, new admission) should have a separate colour code on the HMIS and should also be mentioned on the patient bill printout.
2. An algorithm should be in place in the HMIS which can classify the medicines based on the way they are stacked in the pharmacy. This would reduce unnecessary movement of the pharmacist.
3. The indent size should be limited to a single digit number so that by the time the next set of items are entered by the same nurse, the process of the previous indent can begin. Also it would result in easier receiving of medicine by the nurse
4. A certain time period should be provided to the nurses for their routine indents, so as to reduce the load on the pharmacy in the evening.
5. Routine or new admissions indents should have a first in first out process instead of the indents getting mixed.
6. If the patient is being shifted from the ward he was admitted in, the HMIS should indicate the change so that medicine reach the correct place.
7. Auto-refreshing of the indent window could help in speeding up the process of indents.
8. It should be the dispensing pharmacist responsibility to start fetching the medicines the moment the printer prints the bill. In place of stacking up of indents on the printer.
9. The drug delivery sheet can be created on the HMIS in such a format that the medicine mentioned would directly go in the form of an indent to the pharmacy and the dosage can be monitored by the RMO in a better and easier way.
10. Pneumatic shoots is a good proposition as it can save a lot of time and cost.

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Annexure

RIGHTS:

- To know the complete procedure.
- To know the diagnosis & plan of PHC.
- To know the cost of package.
- May refuse a treatment.
- May ask for second opinion.
- May ask for medical records.
- May ask for change of consultant.

- Patient's privacy and confidentiality is preserved.
- Right to safety.
- May ask for bill updates.
- To be told about the alternative plan of treatment if allowed/possible.
- To know the approximate duration for full reports.
- To know the risks and benefits consequent to certain drugs.
- To be briefed about the medication along with the timeline.
- To be briefed by the consultant regarding patients progress.
- To be educated about preventing infections.
- Timely delivery of services from pharmacy.
- Patient may complaint to hospital authorities.
- Right to know information regarding facilities.
- They are taught in a language and format that they can understand.

RESPONSIBILITIES:

- To follow consultant's instructions.
- To understand the treatment plan and follow up.
- To pay up the hospital bills as per the policy.
- To get actively involved in the treatment plan.
- To follow hospital's rules and regulations.
- To respect both the consultant and the hospital staff.
- To agree or disagree with diagnosis.
- Not to carry any weapon in the hospital.
- To ensure all consent forms are thoroughly understood.
- To give consent for treatment or procedure.
- To take own decision and clarify all doubts prior to treatment.
- To maintain the hospital decorum and help the authorities to do the same.
- Not to take any kind of intoxications like alcohol etc and to follow the guidelines.

