

**Summer Training at
Fortis Hospital, Mulund, Mumbai
(April 1-May 30, 2014)**

- **Study on Over Boarding in the Emergency Department.**
- **Closed File Audit of M.R.D.**

**By
Akanksha Chouhan**

**Under the guidance of
Dr. Suresh Joshi**

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



**The IIHMR University, Jaipur
2014**

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CERTIFICATE

This is to certify that **Dr. Akanksha Chouhan** has undergone her summer training in **Fortis Hospitals, Mulund Mumbai** from 1st April, 2014 to 31st May, 2014. The candidate herself carried out below mentioned studies related to her summer training. Her approach to the study has been scientific and analytical.

Studies are:-

1. Study on Over Boarding in the Emergency Department.
2. Closed File Audit of M.R.D.

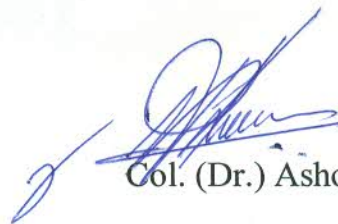
The summer training is partial fulfilment of the course requirement recommended for the award of Post Graduate Diploma in Hospital and Health Management.

I wish her success in all her future endeavours.


Dr. Suresh Joshi

Professor

IIHMR Jaipur



Col. (Dr.) Ashok Kaushik

Dean (Academic & Student Affairs)

IIHMR Jaipur

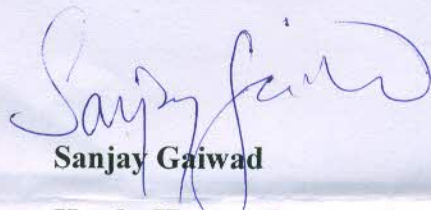
Date: 23rd May, 2014

To Whomsoever It May Concern

This is to certify that **Ms. Akanksha Chouhan** student of **Institute of Health Management and Research Jaipur** has successfully completed her internship, specializing in **Process Mapping in Emergency Department** with our organization during the period 1st Apr 2014 to 31st May 2014 in the Medical Services Department as a part of her PGDHM course.

During the period of this internship she was found to be punctual, hardworking and inquisitive. We wish her all the best in her future endeavors.

Yours Faithfully,



Sanjay Gaiwad

Head - Human Resource

Fortis Hospitals Limited

Acknowledgement

Successful completion of the internship and the project involved guidance, assistance and support from different people and I consider myself fortunate enough to have these people around to guide me all through the internship.

Firstly, I would like to thank Col. (Dr.) Ashok Kaushik (Dean Academics and Student Affairs, IIHMR,Jaipur) for providing such a great opportunity. I am also thankful to my mentor Dr. Suresh Joshi for guidance and support all through the time.

I would like to pay my gratitude to Dr. Narayani (Facility Head Fortis Hospitals, Mulund, Mumbai) for allowing me to have the exposure and help in increasing the knowledge of hospital working. i am highly thankful to Dr. Supriya Amey (head Medical services Department, Medical superintendent) and Dr. Amol Vaidya (assistant medical superintendent) for the help and support in the two months, and guidance over the projects and increasing my understanding of the departments.

I am also very thankful to Dr. Sandeep Gore for the help in the emergency department, and all of the staff of fortis hospital, for providing me with the details and information I needed to complete my project and to understand better the work in each department.

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Acronyms/ abbreviations

AMC – Annual Maintenance Cover

BMW – Bio Medical Waste

CMC – Comprehensive Maintenance Cover

CSSD – Central Sterile support Department

E.N.T – Ear Nose and Throat

ER – Emergency Department

ICU – Intensive Care Unit

IPD – In Patient Department

LASA – Look alike Sound Alike drugs

MSW – Medical Social Worker

OPD – Out Patient Department

OT – Operation Theatre

OTIS – Operation system information System

USG – Ultra sonogram

INTRODUCTION

Fortis Hospital, Mulund, Mumbai is a 300 bedded hospital multi-specialty tertiary hospital, taken over in 2005 from wokhardt hospital.

Comprising 38 Departments

Fortis Mulund has focused on clinical excellence, quality and as a result has been instrumental in saving and enriching many lives.

Anesthesiology

Clinical nutrition and dietetics

Colorectal surgery

Cosmetic surgery

Critical care

Dental

Dermatology

Diebetology

Endocrinology

E.N.T

Foetal medicine

General medicine

General surgery

Gynaecology and Obstetrics (women care)

Haematology

Holistic medicine

Infertility

Internal medicine

Mental health medicine

Neonatology

Neuroradiology

Nuclear medicine

Oncology
Ophthalmology
Paediatrics
Pathology
Physiotherapy
Plastic & reconstructive surgery
Podiatry
Psychiatry
Psychology
Pulmonology
Radiology
Rheumatology
Sports Medicine
Thoracic Surgery
Transfusion Medicine
Vascular Surgery

Accreditations and awards

Some of the quality accreditations and achievements:

- Three times JCI accreditation (quality as per international standards)
- 1st NABH accredited Blood Bank in India
- Three times NABL accredited Pathology Lab
- Best Orthopaedic Hospital (Indian Healthcare Awards 2011)
- FICCI Healthcare award for Operational Excellence (consecutively twice, 2012 & 2013)
- National Energy Conservation Award bestowed by Honourable President of India (2012)
- Best Patient Safety Initiative (Healthcare Leadership Awards 2014)

DEPARTMENTAL DETAILS

CSSD – central sterile services department

- Supportive, non medical service department
- Provides sterile devices, equipments, to the departments like operation theatre, cath lab and others

Service utilization

- 80% to the OT
- 10 % to cath lab
- 10% to ophthalmology and E.N.T department

Divisions of the areas

- Receiving area (connected to the OT)
- Washing area
- Decontamination area
- Sterilizing area
- Sterilized area

Process flow

- receiving
 - checking the list and the number of equipments
 - signed received
- cleaning
 - through tap water
 - dismantled
 - soaked in enzymatic solution for 10 minutes in two different containers

- machine cleaning
 - dismantled equipments put into the ultrasound machine (for lighter equipments)
 - dried after ultrasound machine for 10 mins
- washer disinfecter
 - for heavy machinery and trays
 - washed and dried in the machine
- Sterilization
 - Reassembled, checked by the list
 - Packed in a tray
 - Double packed in inner sterile cloth outer normal cloth
 - Put on a name coded sticker with a temperature color bar(to check for expiry)
 - Put in to sterilizer

1. autoclave

- 50 mins – 1 hr 10 mins
- Pressure 2.2 at 134 degree for 7 minutes
- Pressure 1.1 at 121 degree for 21 minutes - for materials made of rubber or plastic which cannot tolerate high temps

2. Gas sterilizer

- 16 hours
- Plastic materials needing sterilizing at a slower temps

Number of procedures done

- 20 cases
- Depending upon the cases in operation theatre

Machine maintenance

- 6 months CMC - 1 yr AMC

Requirements

- Enzymatic solution – 5ml per liter of water for cleaning
 - 200 ml every 8 hrs i.e. per shift
 - Soaking 160ml + 160ml

Man power

- 15 staff
- 6 house keeping
- Minimum of 5 people for every procedure
- One stand by person
- Requirement – 20 -25 staff

Staff Training

- A month training before the person joins the department
- Once on floor, supervised for another month
- Continuous classes are organized

Practices found

- Only authorized personnel allowed
- Separate sterilized area
- Only trained persons are kept in the dept
- Double checking of the list determines quality of the services
- Once a month different expired packings are sent in for the culture for detection of any growths on them.
- No growth detected till now

Recommendations or gaps found

- Understaffed
- No area in case of expansion
- No stand by autoclave present in case of any problems with the currently running machines
- No air exchanges

CATH LAB

Procedures done – Angiogram, PTCA, ballooning, stunts, pacemakers, EPS

- Diagnostics
- Therapeutic

Time taken

- Diagnostic – 30 mins – 45mins
- Therapeutic – 1 -2 hrs

Number of procedures

8 – 10 procedures done in a day including emergencies

Preparation time

- Bed prep time 15 mins
- No patient preparation needed as procedure is done under local anesthesia

Consent form

- Filled at the time of admission in case of day care procedures, on the table in case of emergency, and in wards in case of IPD patient
- 2 types of consent forms needed
- For angioplasty – includes information about the risk of blood clotting and emboli related risks
- For angiogram – only difference in the form is of the point describing dangers of stroke, renal failure and other major conditions involved

Human resource involved

- 15 staff
- 15 visiting cardiologists
- 2 full time cardiologists

Report dispatch time

- Same day for diagnostic procedures
- Angioplasty patients are in the hospital for 3 more days so the report can be given a bit late

Booking of the cath lab

- Done by doctors
- Appointments a day prior

OPERATION THEATRE

Number – 6

Rooms –

- Doctors lounge
- Changing rooms male/female
- In charge room
-
- Discussion room for relatives and doctors
- Recovery area
- Mini store
- Dining area
- Dirty utility room

Turnaround time depending on the procedure + $\frac{1}{2}$ our preparation time

OTIS for information of bookings of the OT again color coding is done

- Green – tentative patients
- Blue – blocked for renovation
- White available

Number of nurses – 35 nurses for 9 ots including ophthal OT

A schedule is handed over to the doctors or ot incharge a day prior to the surgeries

Special requirements, if any are noted in the schedule itself at the time of booking

A different color is given to the schedule in case of infected patients

Waste management after every surgery seal packed and put into the dustbin of different colors.

Equipments are sent to cssd just after the surgery with a list

Indent

- Necessary drugs and consumables are kept
- A list of required drugs and consumables for every surgery is made
- Store keeper hands out the list to the check nurse
- Check nurse checks the list and the things in the cart
- After the surgery used/unused/returned is given signed by nurse, and then again by store manager
- Expiry is checked by the store keeper every month
- Drugs and consumables are taken out before three months of expiry

Store

Mini store maintained inside the cath lab

According to the consumption in a month divided by 4 +5 is maintained in the store,

A different HIV kit is kept including shoe cover, gown, syringe and other requirements

High risk drugs

Linen, scrubs, and lead gowns

Records

- Computerized records of the patients are kept for 5 yrs in the hard disk of the control room computers
- Constant backups taken
- Indent used/unused drugs and other materials

Quality indicators

- Patient tracking system for calculating the delay time
 - : the time patient comes in the cath lab
 - : the time patient is taken in
 - : the time patient goes out to the recovery or back to the ICU/IPD
- Number of cases cancelled in a month
- Only qualified personnel allowed in the cath lab
- Waste collection and disposal after every shift

Managerial Issues

- Waiting lounge is too far from the CATH LAB, causing unrest in relatives in terms of prolonged procedures.
- No or Lack of information given to the patient relatives.

Recommendations

- Waiting area for the relatives, or sitting arrangement.
- Family should be updated on the status of the surgery, so that they don't have to come in every time they are worried.

High dependency unit

High Dependency Unit

11 beds

Patient to nurse ratio 2:1

ALOS for a bed: minimum 3 days maximum a month

Maximum patients come in from the emergency room.

Staff -10

- 1 Registrar – on duty doctor
- 1 Head Nurse + 6 Nurses per shift
- 2 Housekeeping

Patient file maintained filled

- with forms of consent
- patient history assessment form
- doctors notes
- icu checklist
- nursing checklist
- daily doctors visit list
- nutritionist chart
- physiotherapy chart
- treatment plan – with drugs (In Capitals) and dosages

store

- indents made according to the cases admitted
- high risk drugs
- LASA Drugs with a list of the same on the board behind nursing station.
- Registers maintained.
- triple checked by nurse, in charge , and on call doctor
- indent used/unused updated daily on the HMIS

Quality Indicators

- all the CLABSI, CAUTI, FOLLEY'S reported in a year, is charted
- number of incidents in a yr
- chart of last 5 yr is on Display

Daily rounds of the concerned Doctors, customer relationship manager, asst superintendent are carried out, for any problem that is there in the ward to the patient or the staff.

Infrastructure

- All the beds fitted with monitors
- Pedestal fans for patients needing back care
- Smoke alarms
- Beds are separated by sliding curtains, allowing privacy to the patients at the same time open enough to keep a check on the patients by the nursing staff.

Managerial Issues

- Lunch Times are same for everyone, leading to lack of staff during that time.
- Patient relatives are allowed in the HDU, leading to crowding.
- No proper sitting arrangements for the nurses.
- Low security inside the ward, as constant in & out flow by the patient relative is maintained.
- Doctor's visit is mostly delayed as the time for rounds, OPD and OT clash a lot many times.

Recommendations

- Separate lunch times for Nursing and Doctor so that the patients are in complete supervision all the time.
- Limited relatives should be allowed in.
- Availability of stools should be made, for relatives.
- CCTV cameras to ensure security specially at nights.

Dialysis unit

Day care procedure

Bed Turnaround time for a procedure 5 hrs

Patients -110 patients currently served by the department.

- 80 patients thrice a week
- 30 twice a week

Requirements

- 14 machines
- 1 stand by
- Electrolyte solution 10l /pt
- 10 l/ pt RO water.

Inflow of patient

- Mostly O.P.D
- I.P.D

FLOW CHART

Staff

- 7 technicians
- 8 nurses

Doctors – urologists visiting

ICU

Total Bed-23

Isolated bed -1

Cardiac Surgical ICU

Staff-

Nursing staff – 69

Each shift – 14-15 Nursing staff

Nurse / Patient ratio- 1: 2 Mostly

Qualification of Nursing- Bsc , GNM

ACLS and BLS Trainings are provided to staff every 2 years.

Intensivist 24 Hours available.

In charge -1

ICU Supervisor-1

MD Anesthesia available 24 Hours.

Physiotherapists

Documentation- is proper

Infection control measures are taken properly, They have maintain check lists like Clabsi bundle ,Cauti bundle so all measures taken by staff are not that we can come to know.

This daily assessment is done by Infection control Nurse.

All consents are taken properly.

All vitals are mentioned properly – Graphical form of record there i=s one critical care Flow sheet.

Management of Medication:

There is proper mention of medication and put properly.

High alert medicines are put differently.

There is separate store room for Nonmedicated Items.

Intubation materials are kept differently.

There are no verbal following orders of doctor , they have to sign after Prescription of drugs.

Highly concentrated Medications are put differently.

All drugs which require certain temperature requirements that are mentioned properly on fridge.

BIOMEDICAL WASTE MANAGEMENT

Separate buckets are kept on each and every bed for BMW.

Portable – X-ray and USG Facilities are available

Safety measures-

Coding- All codes related to Hospital are mentioned properly.

Fire extinguisher- 2

Proper maintenance of electrical facilities.

Trainings-

ACLS –Every 2 years.

BLS- Every 2 years

Induction- for 14 days for new staff

Infrastructure-

Proper

There is less space in between to attachment areas.

Curtains are there on each bed.

Process – all patients are generally came here from cath lab.

Mostly cardiac surgery patients are admitted.

Postoperative care of Patients.

Information-

All information is mentioned properly.

INFECTION CONTROL MEASURES

Infection control Committee-

It includes

1. Microbiologist
2. OT In charge
3. Representing Physicians,
4. Nurses
5. Surgeons,
6. Intensivist and
7. Management

A meeting is conducted on every second Friday of the month.

IMMUNIZATION-

They provide Hepatitis- B Vaccination to staff on every second and fourth Thursday.

On HIS they mention date of Immunization so the staff is well informed about the next immunization schedule.

STERILISATION OF Operation theatre and ICU –

Housekeeping staff do terminal cleaning with Disinfectants every week.

Training to staff-

Each and every staff is trained regarding infection control. Hospital has maintained a calendar to provide training to different staff.

Sharp safety Campaign – Staff is trained in this campaign, about the hazards of Sharps.

Visitor area infection control measures.

There are no such special control measures for visitor area. It is done by Housekeeping staff what normally done.

Hospital Acquired Infections.

If Hospital has some suspicion regarding infection of patient which is hospital acquired it is confirmed by concerned Consultant of Patient.

Patient is asked to For constant follow ups, his reports are monitored constantly.

And in case of out breaks, the entire staff is tested, and treated.

Laundry and Linen Cleaning Infection Control Measures:

Infected and Non infected Linen is separated.

Infected Linen- in white plastic

Non infected Linen- in Blue

Infected Linen is disinfected in 1% Hypochloride solution and then send to normal washing.

Non infected Linen is send for Normal Washing.

Role of Infection Control Nurse-

She ensure all entries of checklists related to infection in ICUs.

She ensures hand hygiene of all staff.

She Documents all past positive cultures of all patients.

Proper Biomedical Waste management.

Bio Medical Waste Department-

All biomedical waste is collected in 4 small buckets which emptying time to time to large buckets by Housekeeping staff.

This waste is sent to concerned Biomedical waste disposer and time to time audit is done.

Food services-

Every month audit of food department and audit staffs control measures for infection.

ISOLATION-

Maintain Negative pressure of air which will prevent infection.

Three types of Isolation maintain.

Contact Isolation- Blue coding-

Red-

Negative Isolation.- Staff is provide N95 Mask

Positive Isolation.

Patient and relative education-

To control infection they are educated regarding different disease

Dengue

Hand Hygiene

Malaria

Respiratory tract infections.

Antibiotic Policy-

Following 4 antibiotics are restricted

Imipenam

Meropenam

Dorapenam Colistine

MSW DEPARTMENT AND TRANSPLANT ACTIVITIES

Staff-

Total-2

Qualification - MSW

Role –

1. Charity related works,
2. Organ Transplant activities,
3. Medical Social Work
4. Transplant coordinator
5. HIV Counseling
6. Arrange camps

Responsibilities of Transplant Coordinator-

Who is donor?

What is his relation with recipient?

To make sure all legal requirements of Organ Transplantation.

To make sure of all forms are filled or not.

To give all information to authorized person.

To work as a facilitator for Donor and Recipient.

To do proper Identification who is donor.

To confirm all cross matching data of patient.

What document should make in case of International patient.

Local Authorization Committee for Transplantation-

1. Head of committee
2. Registered Medical Practitioner – 2
3. External Member- 2
4. Government Representative- 1

Transplant related Legal Documents-

Form 1(A, B and C) - It is related to donor and recipient information.

Form 2

Form3- It is related to Cross matching

Form 10-

Form 11 – It is related to facilities

Training – To staff is provided by Zonal Transplant coordination centre annually.

MSW Staff also give training to Transplant related junior staff.

Website – No website updating related to transplant activities

Charity-

It is provided by Salman Khan Foundation

Child care organization

Siiddhivinayak

Ratan Tata Foundation

Transplant extracted organs are sent to other Hospital who are in need by communicating with

Concerned Department like Skin Banks for skin Donation

Camps

Pediatric camps are managed quarterly.

Sweet Samarian – In this Doctors provide information to patient in lecture form

Patient have to register by SMS Format in this lectures.

RADIOLOGY AND USG DEPARTMENT

Staff-

Total -16

Radiology Technician

USG Technician

Qualification –

Diploma in radiography

Services-

Sonography

X-ray

Mammography

All tests are available in this department

All services available 24 hours.

Safety related Measures-

Batch is provided by BARC so that they can come to know how radiation affects staff.

Every 3 months this is checked by BARC.

Lead Apron

All **information** are mentioned properly like related to PNDT Act.

Registration Form mentioned.

Safety measures for pregnant woman mentioned example not to enter in Xray Department.

Timing-

9 am – 8 pm

Radiologist-6

Legal requirements -

All information mentioned related to PNDT Act.

All machines are registered.

Training-

Training are provided to staff.

Safety related Trainings are provided.

Radiation safety Officer- Dr. Sonali Maniar

Infrastructure- Proper

Space in-between is less.

Waiting area is proper.

Report Timing-

Patients are provided reports within half an hour.

Charges are according to report.

Machines-

X Ray machines- 2

USG Machines-3

Calibration-

Calibrations of machines are not done.

Policies for decreasing Report waiting time of patient-

If patients do not receive report within half an hour they will provide coupons of 25% value of original bill.

Quality Measures-

All staffs are trained regarding NABH Standards and JCI Standards.

Facility for Shifting Patient-

Proper

Problems with the Department-

Reception desk is very small.

Space in between two walls is congested so if we want to shift patient on stretcher it is very difficult.

NON DRUG CONSUMABLE STORE, GENERAL STORE AND PURCHASE DEPARTMENT

Process-

1. Goods Receive
2. Goods Receive Note
3. Issue material

Detail-

Receive Goods after stamp of security Department

|

Proper checking of received goods by staff according to purchase order.

|

Keep one copy of Bill /Challan with department and give other to supplier

|

HIS Entry of all received goods .

|

Providence of goods according to indent of different departments of Hospital.

(Days are fixed for indent for different departments)

If department want emergency material they have to fulfill above criteria.

QUALITY TOOL

They used ABC Analysis for purchase order of different goods.

Staff having knowledge of NABH/JCI Standards.

How Goods are stored.

Alphabetically racking of different goods.

Easy availability and accessibility.

Proper racking.

Staff-

Non drug Consumable store- 3 stores officer

General Store-1

Qualification- Graduation

Requirement-

All are fulfilled

Maintenance of temperature proper

Fridge- 1

Space in-between rack is proper.

GENERAL STORE:

This store fulfills all stationery requirements of hospital which are used in wards and different department of Hospital.

Process of work flow is same as that of the Non consumable store.

PURCHASE DEPARTMENT:

Process-

Purchase order prepare by Stores Department by ABC Analysis.

|

Receive Purchase Order of Goods.

|

Order Goods according to requirement from suppliers

|

QUOTATION-

If there are new goods there is Negotiation with suppliers at Delhi (Suppliers are local)

|

Payment to suppliers according to their condition of payment regarding time limit.

Problems with all above departments-

All above departments are away from Wards, in emergency it will leads to more consuming.

ADMISSION PROCESS OF HOSPITAL

Process-

Patient admitted from OPD or after Doctors consulting at other place.

|

Patient comes to admission department.

|

UHID (Unique Hospital ID) is created. Old patient have already UHID.

|

Automatically IP No. of patient created. IP No. is change whenever patient admitted although same patient.

|

All patients related data is entered in HIS for example Name, age, email id, religion, occupation, education etc.by Admission Officer.

|

Admission officer takes consent of patient related to Admission fulfillment of criteria and patient came to know rules and regulations of Hospital.

|

He checks which bed is vacant on which level bed is vacant.

|

He informs to ward personnel for preparation of bed.

|

Patient admits in ward.

Admission form includes-

1. Patients Information- Which includes Patient related all information Age , Address, Cell No., Religion etc.
2. Consent- It includes signature of patient/Relative.
3. Inpatient Information Sheet – It includes all rules and regulations of Hospital so that they can know how to behave in Hospital.
4. Patients Instructions related to HIV.

Color coding system:

In HIS there is coding system for availability of bed in ward so Admission officer can easily come to know which bed is vacant.

Vacant bed- Blue color

Filled bed- Pink

Housekeeping – Green

Staff-

Admission officer- 3

Qualification- Graduation.

On admission desk they also provide attendants pass of patients.

DISCHARGE PROCESS OF HOSPITAL

Average time taken to discharge patient after Doctors order-

In noninsurance Patients- Half an Hour

Cashless Patients- 5 Hours

Process of Discharge-

Doctor discharge Patient

|

Billing Officer give information regarding intimation of bill to wards of patients.

|

Billing officer made bill directly through HIS System there is no requirement of file.

|

If it is cashless billing is done according to that requirement

|

Payment mode – 1.Cash 2. Cashless 3. Credit card

|

If patient is from some company Bill is pay by concerned Company for example BARC Patient.

Hard copies and other documents are sending directly to company.

|

Patients are discharged after confirmation of by payment according to entry in HIS.

Problems-

In cashless patients Discharge process take very long time so it should be decrease by contact with concerned Cashless Insurance Company.

PROJECT

MEDICAL FILES ANALYSIS (MEDICAL AUDIT)

The analysis of indoor files was carried out as part of the project to study “Management of Medication” standard of NABH.

The main purpose of the project was to study the indoor patient files to analyze the completeness and compliance with NABH standards. The total indoor patient for month of MAY 2014 was 540 patients as informed by medical record executive. In order to make study valid 100 samples (medical files) comprising 20% of total indoor patients were meticulously studied. To assess the completeness, checklist was prepared whereas the history and physical document was examined for 34 variables

The checklist comprised of following parameters:

1. Patient details (name, registration)
2. Date and time
3. Consultant identity
4. Final diagnosis
5. Proper complete consent
6. History and physical examination sheet
7. Progress notes
8. Treatment/medication chart
9. Investigation chart
10. No use of abbreviation
11. Legible handwriting

The 34 variables studied in history and general physical examination sheet included

1. Name of patient
2. Registration number
3. Treating consultant
4. Informant

5. Marital status
6. Chief complaints
7. History of present illness
8. Treatment history
9. Investigation history
10. Family history
11. Personal history review of systems
12. Built
13. Height
14. Weight
15. Temperature
16. Pulse
17. Respiration
18. Blood pressure
19. Pain score
20. Pallor
21. Icterus
22. Cyanosis
23. Clubbing
24. Provisional diagnosis
25. Plan of investigation
26. Plan of treatment
27. RMO Name
28. RMO ID
29. RMO signature
30. Consultant name
31. Consultant identity
32. Consultant signature

METHODOLOGY

Universal frame – indoor patient department

Sample frame - 20 % of monthly Indoor Patient files i.e. 100 in number

Method: Observations of medical files and compare it with checklist (medical audit).

Analytic tool: MS EXCEL

OBSERVATIONS

The entire set of indoor patient files under study had duly labeled patient name and registration number both MR numbers as well as indoor patient number. All the files clearly mentioned the attendant consultant's name.

Treating consultant's name

The fourth parameter that is informant name or self was studied and following observations were made

58 forms had duly filled informant and 42 had left the column blank as shown in following table

58 history and general physical examination documents did not mentioned the marital status of the patient whereas remaining 42% were duly filled.

The chief complaint of all the patients were recorded properly and only one patient's history of present illness was missing

Family history of only 12 patients were not recorded in contrast to 88 duly filled.

Only 5% of documents were observed to be without personal history. It was observed 14% files had missing review of systems in contrast to 86% duly mentioning the same.

In only 34 % documents had recorded built of the patient as compared to 66% which had no such record.

63% of the documents had duly filled height and weight columns as part of general physical examination, whereas rest 37% of files failed to document the same.

Another important parameter of general physical examination is the febrile status of the patient which is done by temperature recording.

However it was observed that 35% of documents were without temperature recording and 65% with the same.

Pulse of the patient is integral part of the general physical examination. During study it was observed that 83% of files recorded the pulse of patient in contrast to 17% files which had no such entries.

The respiratory rate was documented in 74% of the cases and was observed to be missing in rest 26% ie almost one fourth of the sample.

Blood pressure another vital aspect of general examination was not recorded in 18% of documents.

Pallor, icterus, cyanosis and clubbing was observed to be written in 79 files and was missing in another 21% of files.

The observations regarding provisional diagnosis was classified as documented, not documented and usage of short forms. It was observed that 91% of the files comprised of well documented provisional

diagnosis , 7% of files had it written in short form and 2 files were without and provisional diagnosis

73% and 74% of files had well documented plan of investigation and treatment. However more than one fourth of the files documented “as advised” in the above columns.

The parameters studied regarding to consultants was their name, signature, identity and mentioning of date and time. It was observed that all the documents were signed by the consultant, however invariably none mentioned the identity number or date and time.

Similarly resident medical officer’s name, identity and signature was studied and following observation were made

More than 90% of files were complete in terms of above discussed parameters.

INTERPRETATION AND ANALYSIS:

The first part of the above studied document comprised of the demographic data and various medical histories of the patient and the second part deals with general physical examination, provisional diagnosis, investigation and treatment plan of the patient.

1. In the initial part demographic details like patient, name, identity, date and time were found to be duly filled and complete. However 42% of the files missed the informant and marital status of the patient. In case the patient is unconscious or not in condition to inform about the complaints, the name and relation of the informant could have legal implications in cases of claim and medico legal.

2. In regard to chief complaint and history recording all the files contain duly written chief complaints and 99% were complete in terms of history of present illness. Only 12% did not recorded family history and another

5% were without personal history. Family history is decisive in arriving at final diagnosis in diseases like diabetes and hypertension, therefore missing it could lead to impaired decision regarding treatment of the patient. Also personal history like smoking and alcoholic history further guides us in treatment and therefore cannot be afforded to be missed.

3. The general physical examination part start with recording built, height and weight of the patient. These parameters help the consultant to decide upon the dosage of the medication to be prescribed to the patient. During study period it was observed that 66% of the files did not have documented built and another 36% did not mentioned the height and weight of the patient.

4. The integral part of general physical examination is recording of vitals like pulse, blood pressure, and temperature and respiration rate. During study period it was observed that 35% of files lacked temperature recording, another 26% were without respiratory rate, 18 % didn't mentioned blood pressure of the patient and 17% were without pulse recording. Pulse and blood pressure examination alone can prove to be live saving in cases of cardiac failure, septic shock and hypotension. Hypo and hyperthermia cases can land up in severe complication and thus temperature recording is vital in all the patients. Recording respiratory rate gives the consultant idea about the underlying lung disorder and therefore should not be missed.

5. Recording of pallor, icterus, cyanosis and clubbing gives us signs of underlying cardiac, lung or and other related disease. Therefore documenting these is of paramount importance. However during medical audit it was observed that 21% of the cases went without recording the same.

6. On the basis of history and physical examination the consultant arrives at the provisional diagnosis. During study period it was observed that 91% of the files mentioned the clear and legible diagnosis, whereas

7% documented it in short form and only 2 files were without the same. Provisional diagnosis is of critical importance and upon depends the future course of action, therefore it needs to be made as accurately as possible and documented in legible handwriting.

7. Once the consultant arrives at the diagnosis, the plan of investigation and treatment are chalked out. The proper and timely documentation of the same is of great significance and according to NABH standards the plan needs to be clearly and legibly be mentioned in the file. As part of study it was observed that in around 25% of files, in these two columns it was written “as advised”, instead of writing complete investigation and treatment plan.

8. The residents mentioned their name, identity and signatures in more than 90% of the files which is in sync with requirements of the NABH standards.

9. On the other hand the name and identity column of most of the consultants were blank. However all the documents were duly signed by them.

10. In most of the files it was observed that short forms like OD, bid were written in progress notes, in contrast to medication/treatment chart where full forms were written for the same.

11. In the entire sample it was observed that all the formats of checklist like Patient details (name, registration).

- ☐ Date and time
- ☐ Consultant identity
- ☐ Final diagnosis
- ☐ Proper complete consent
- ☐ History and physical examination sheet
- ☐ Progress notes
- ☐ Treatment/medication chart
- ☐ Investigation chart

All were in proper format except the two written below and discussed above.

- ☐ No use of abbreviation
- ☐ Legible handwriting

RECOMMENDATIONS

1. The induction training of the resident medical officers to train them in history taking and general physical examination.
2. Consultant need to be sensitized to mention their name and identity along with signatures. Else staff nurse/RMO /medical record executive should do the same.
3. Vitals are most important part and it is missing in more than 30% of cases therefore residents should be emphasized to mention the above invariably in all records.
4. Hospital is well known to handle cardiac cases and pulmonary unit has also been started recently, therefore to help the consultants in above departments residents should be strictly told to clearly mention the pallor icterus, cyanosis and clubbing status of the patient in general physical examination.
5. The use of short forms need to be strictly monitored and erring persons need to be sensitized not to continue the practice.
6. Instead of writing “as advised” in investigation and treatment plans column, residents should write complete investigation and treatment plan.

STUDY ON OVERBOARDING IN EMERGENCY
DEPARTMENT

INTRODUCTION

As increasing number of patients stay back in the ER occupying a bed even after the primary stabilization, increases the waiting time for the other potential emergency patients. Leads to overcrowding in the waiting lounge/area, or even sending away the patient to some other facility.

Over-boarding As defined as the time taken to shift a patient after stabilization from an emergency department to the inpatient or out patient department.

LITERATURE REVIEW

Long patient waiting time in the emergency department has become a challenge in providing timely and high quality care to the people in need of emergency care which has created dissatisfaction with the patients and their relatives. An extrapolation from a report provided by the WHO on emergency medical cases indicates that by 2020 road crashes will be a major killer in India accounting for 5,46,000 deaths, more over registered deaths due to other medical emergencies such as stroke, cardiac arrest, natural calamities, terrorist attacks are also mounting. All these above statistics call for well established emergency services which will have the capacity of accommodating the emergency cases.

Emergency department (ED) crowding was first described nearly 20 years ago. The Input-Throughput-Output conceptual model has become a widely accepted paradigm to understand the various causes of crowding and long waiting times. Modern conceptions of crowding suggest that crowding in the ED reflects broader hospital crowding and inefficiencies in bed and resource management.

According to Crowding Resources Task Force of 2002 an ED is considered crowded when the identified need for emergency services is greater than the available resources in a ED. If the emergency management is not upto mark upon this and if bottlenecks exist then it

becomes a matter of continuous dissatisfaction for the patients, their relatives as well as for the staff.

A 2003 report from the Government Accountability Office (GAO) and a 2006 report by the Institute of Medicine (IOM) note that bottlenecks in output, such as the inability to transfer admitted patients to inpatient beds, are a leading cause of crowding and long waiting time of patients coming to the emergency department.

RESEARCH QUESTION

1. Number of patients waited to be shifted to the ward or ICU after stabilization.
2. What were the major reasons behind the waiting periods.

OBJECTIVES

- To Find out the delays in
- shifting the patients from ER
- Finding out reasons of over boarding.

TOOLS AND TECHNIQUES

- The patient data for the month of April was collected and analyzed.
- Based on the parameter of a delay of more than 2hrs for a patient to be shifted to out/in patient dept.
- Cases classified on how many cases waited for how many hours.
- And the major reasons behind the wait were calculated.

RESEARCH METHODOLOGY

Data collection period – 30 days.

Type of sampling-Non-probability sampling

Study area– Emergency Department of Fortis Hospital Mumbai.

Respondents- Doctor in-charge ER, Nurses and staff.

STUDY SAMPLE

Patients visiting ER in the month of April

Total patients: 1000

Study cases:333

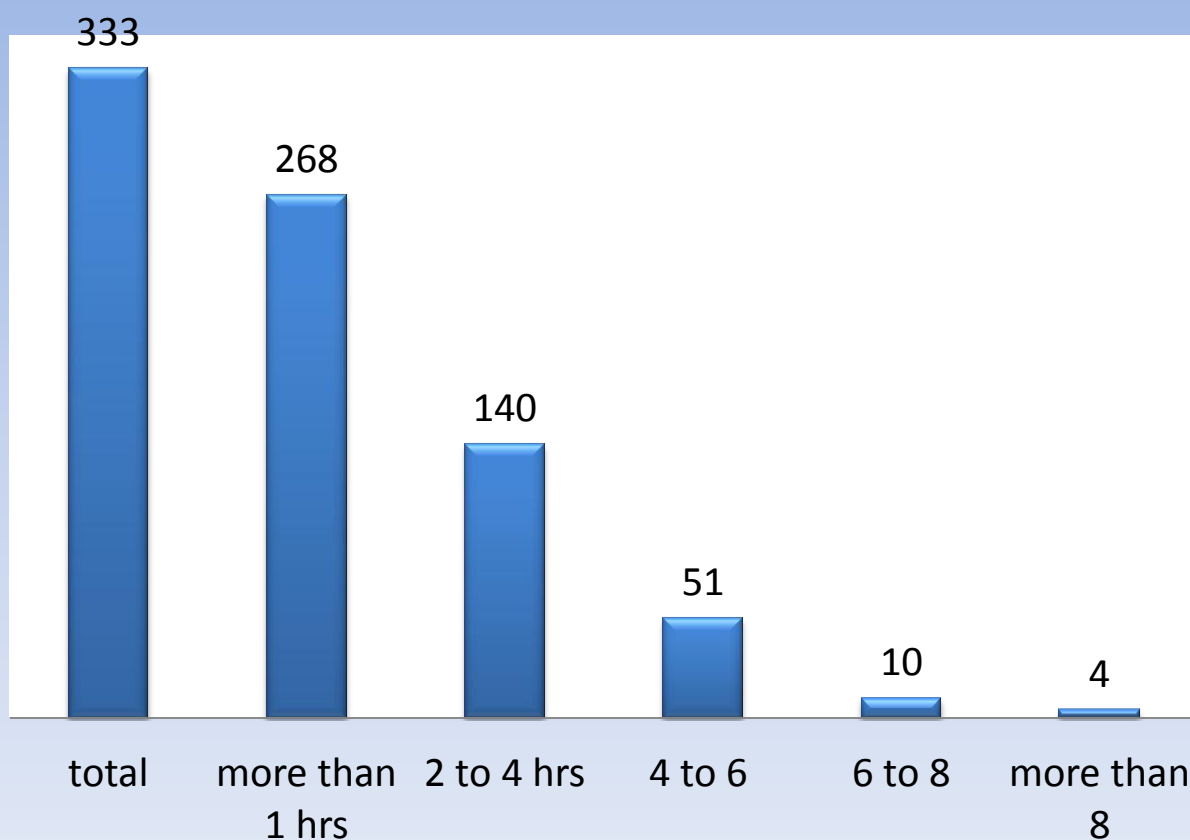
Inclusion criteria: patients admitted in the ER

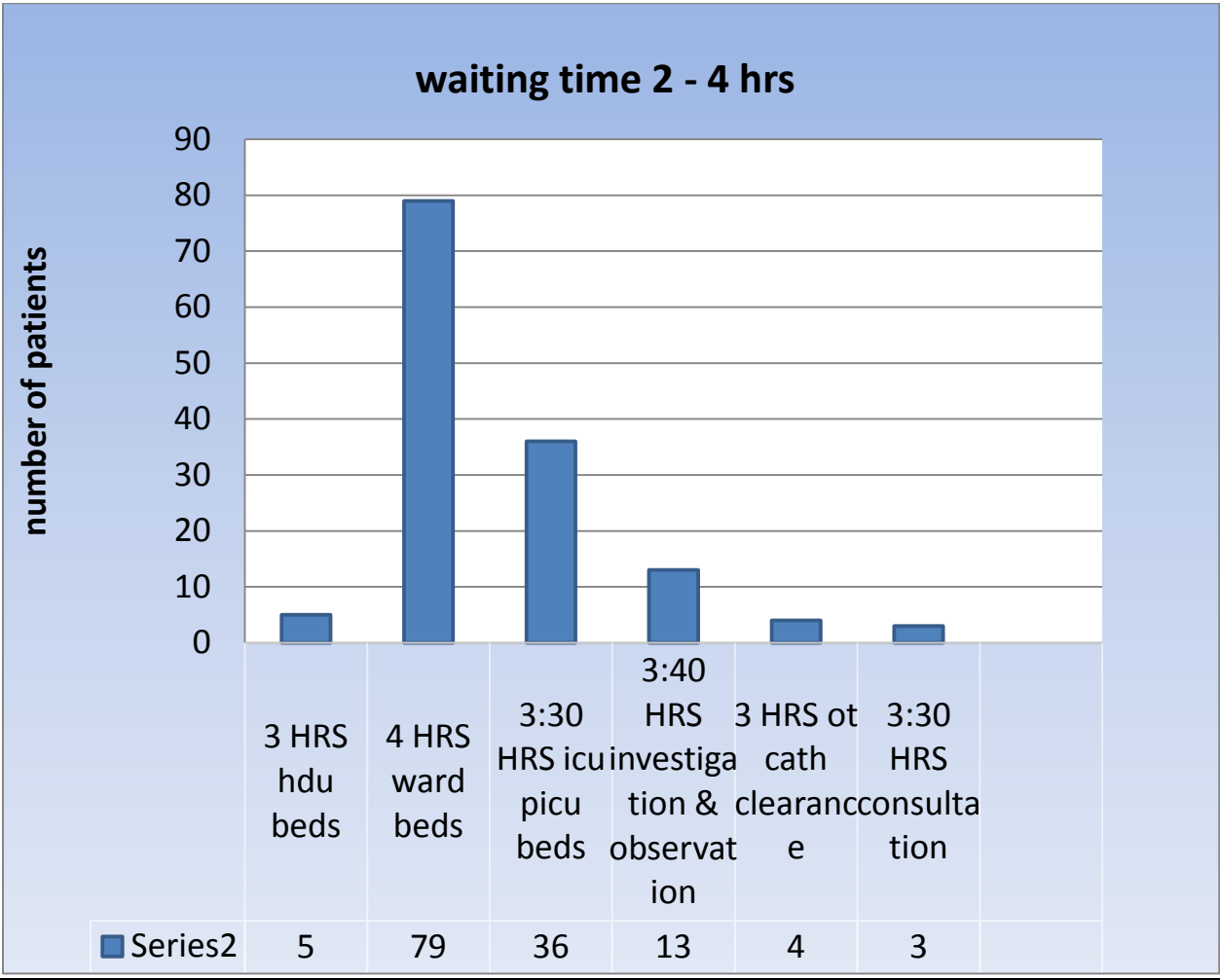
Exclusion criteria: patients came in for only for immunization, or small procedures.

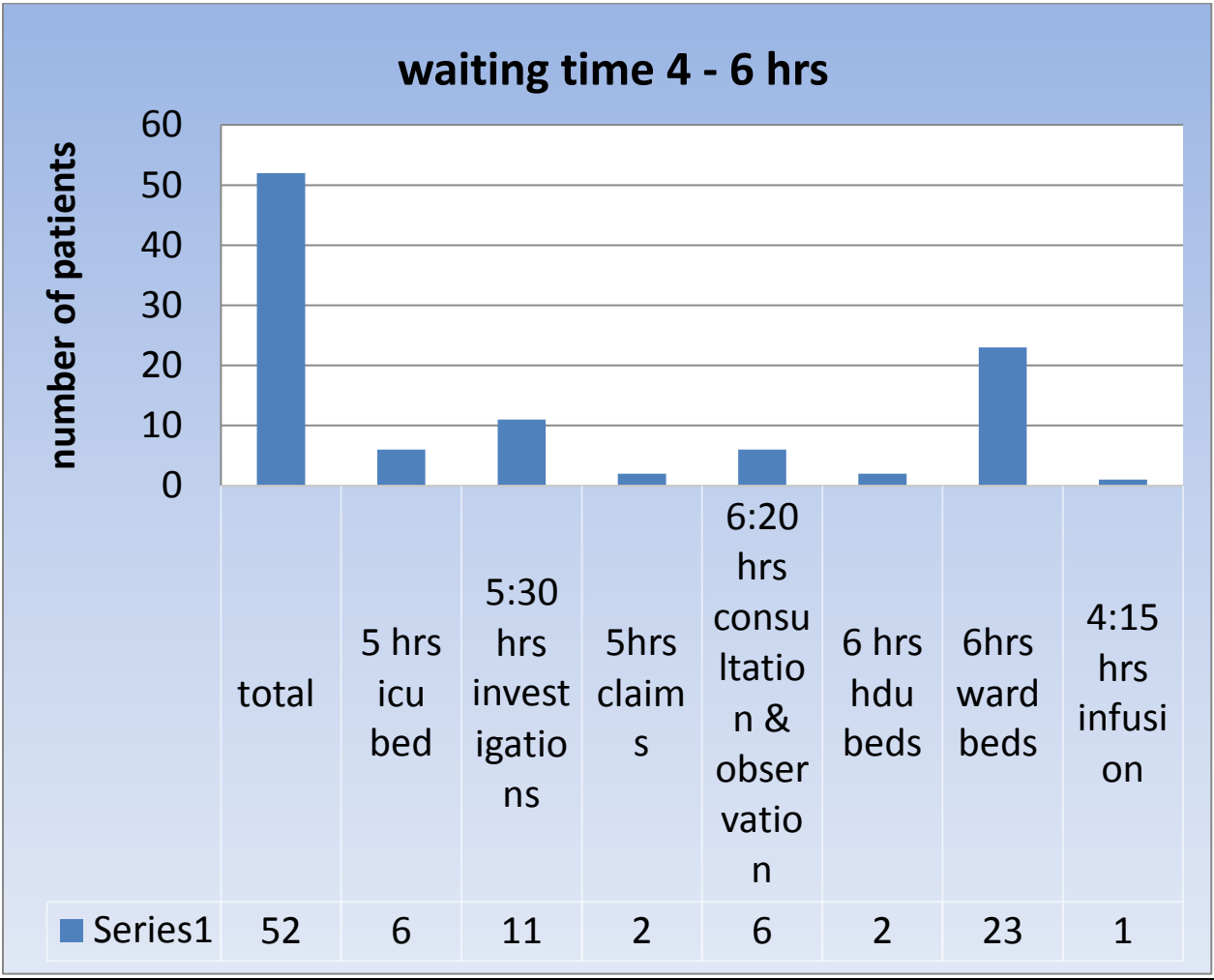
FINDINGS

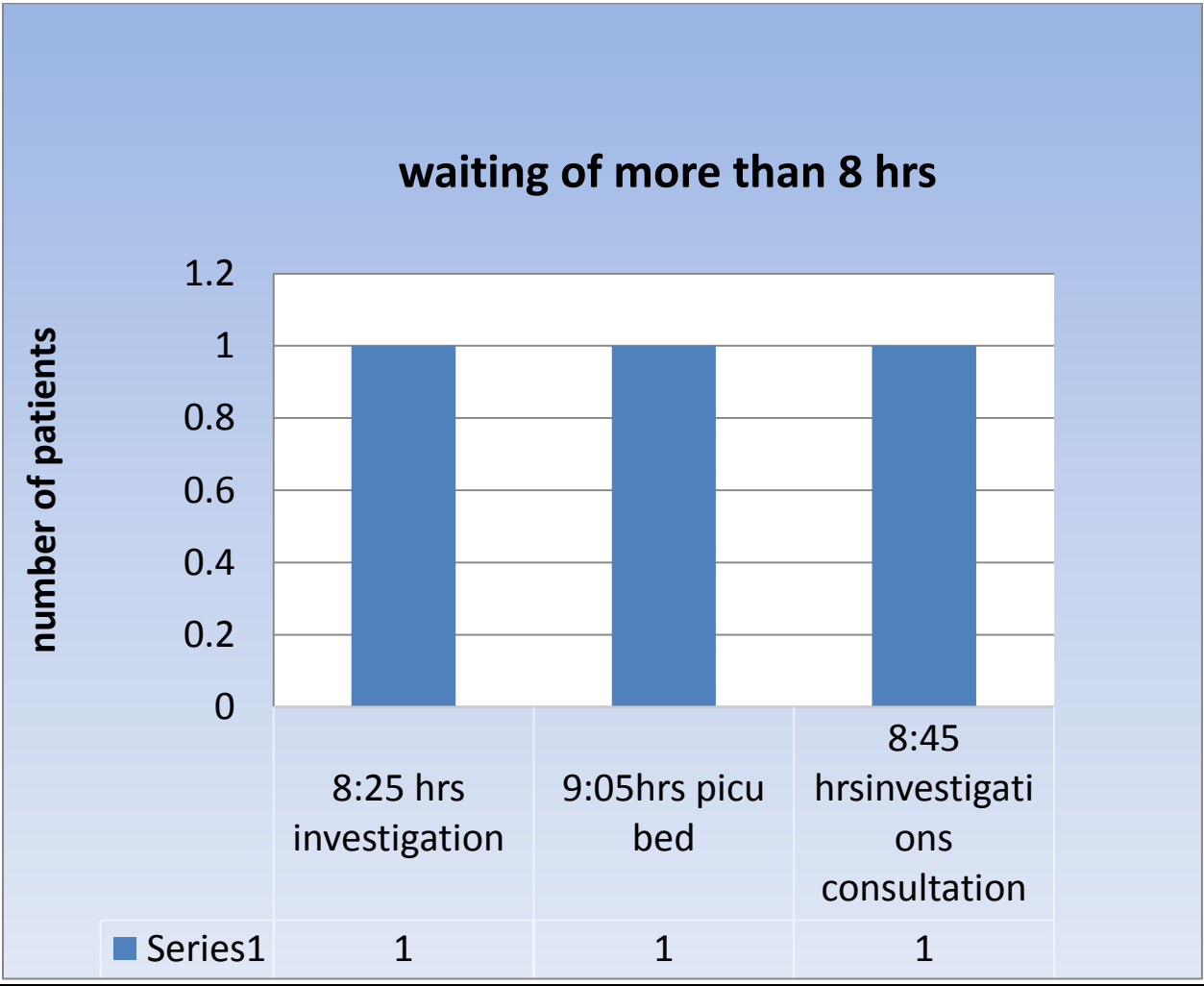
- Pts waited for
- 2 - 4 hrs : 140
- 4 – 6 hrs : 51
- 6 – 8 hrs : 10
- More than 8 hrs :4

PATIENT WAITING TIME IN ER









REASONS OF OVER BOARDING

1. Prolonged Discharge process.
2. Billing estimates delay, incases of TPA & charity cases
3. Medico legal formalities.
4. Settlements of claims cases.
5. Patients own reasons.
6. Delay in investigations specifically XRAY, CT-MRI as all the OPD, IPD , ER patients taken at the same time.
7. Delay in reporting of investigations.
8. Short staff for sample collection.

RESULTS

Delays–Ward beds : 7 hrs

Investigations : 9 hrs

ICU beds : 9 hrs

LEARNINGS

- 241 bedded Multi-specialty Hospital.
- 38 departments
- Emergency Department staff 21
- No portable diagnostic equipments caused over-boarding.

- Prolonged discharge process was another big issue.
- Better processing and work management of TPA or charity can help in easy and early discharges.
- Better coordination between the consultants and the ER staff was required.
- Prompt and timely transfer of blood and urine samples can decrease the investigation time.

Recommendations

1. Non Emergency Department staff should not ‘gatekeep’ access to the Emergency

Department. *Level 5 Recommendation*

2. Emergency Departments should have systems that can monitor crowding. *Level 5*

Recommendation

3. A patient who attends an emergency department is entitled to an assessment. *Level 5*

Recommendation

4. Streaming patients does not help with Emergency Department crowding if the cause of crowding is inadequate hospital capacity. *Level 4 Recommendation*

5. Investigations should be ‘front loaded’ to reduce delay to admission decisions. *Level 3*

Recommendation

6. Senior doctors should be involved with rapid assessment and treatment. *Level 3*

Recommendation

7. Hospitals with Emergency Departments should have a hospital wide escalation policy for when the Emergency Department becomes crowded with locally agreed triggers.

Level 4 Recommendation

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