

**Summer Training at
Kokilaben Dhirubhai Ambani Hospital/Organization
(April 1–May 31, 2014)**

- **Business Process Reengineering of Cashless Process at KDAH**
- **Out Patient Pharmacy-Study on Availability of Drugs**
- **Study on Turnaround Time of Laboratory Reports**
- **Closed File Audit of M.R.D.**

**By
Pragya Sharma**

**Under the guidance of
Dr. Arindam Das**

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



**The IIHMR University, Jaipur
2014**

**INSTITUTE OF HEALTH
MANAGEMENT RESEARCH**

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CERTIFICATE

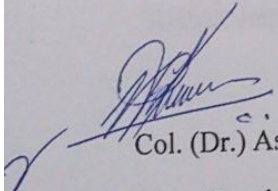
This is to certify that **Dr. Pragya Sharma** has undergone her summer training in **Kokilaben Dhirubhai Ambani Hospital, Mumbai** from 1st April, 2014 to 31st May, 2014. The candidate herself carried out below mentioned studies related to her summer training. Her approach to the study has been scientific and analytical.

Studies are:-

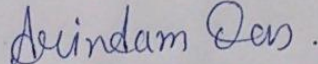
1. Business Process Reengineering of cashless process at KDAH.
2. Out Patient Pharmacy: - Study on Availability of Drugs.
3. Study on Turnaround Time of Laboratory Reports.
4. Closed File Audit of M.R.D.

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.


Col. (Dr.) Ashok Kaushik

Dean (Academic & Student Affairs)
IIHMR Jaipur


Prof. Arindam Das

Associate Professor & Associate Dean
Research
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30 May, 2014.

To Whom It May Concern.

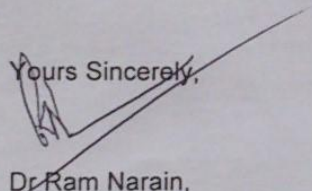
Dr Pragya Sharma, a First Year student of the Post Graduate Diploma in Hospital Administration at The Institute Of Health Management Research in Jaipur, India did her Summer Internship for 2 months at The Kokilaben Dhirubhai Ambani Hospital, Mumbai, India from 1st April, 2014 to 30th May, 2014.

I found her to be a meticulous and hard working student who did high quality work in projects assigned to her. Her attention to detail was impressive.

She will go a long way in her career in the Hospital Industry and would be an asset to any Organization.

I wish her all the very best in the future.

Yours Sincerely,



Dr Ram Narain,

Executive Director.



Acknowledgements:

With immense pleasure I express my heartfelt gratitude to the Director of IIHMR Jaipur, Dr.S.D.Gupta, and Dean, and my mentor Col.Ashok Kaushik for having given me this opportunity to undergo training.

I am extremely indebted to all the professionals at Kokilaben Dhirubhai Ambani Hospital (KDAH)for sharing generously their knowledge and precious time which inspired me to do best during summer training .I owe a great debt to chief executive officer (KDAH) for providing me an opportunity to work as a training in their organization. I would like to thank Dr. Md.FaisalPervez(senior manager, clinical administration),mentor for the summer training in KDAH, without whose help it would not have been possible for me to understand the hospital to the extent as I have now. I am highly grateful to all the staff of cosmetology department for their cooperation which enabled me to complete my special assignment in the department.

I am also grateful to all the department heads and staffs for giving me time in spite of their hectic schedule .Without their active cooperation and participation it would not have been possible to accomplish my task.

Table of Contents:

Sr. No.	Content	Pg. No.
1	Preface	7
2	Introduction and organizational profile	8
3	Hospital Infrastructure	14
4	Clinical Services	18
5	Clinical Support Services	34
6	Clinical Administrative Services	41
7	Administrative Services	45
8	Project Report -1st Business process re-engineering of cashless hospitalisation process in KDAH	50
9	Project Report-2nd Out-patient pharmacy: - study on availability of drugs	63
10	Project Report-3rd A study to analyse and improve the tat for lab reports	68
11	Project Report-4th Closed medical record audit form	73

Acronyms/Abbreviations:

- **A&E - Accident and Emergency**
- **DAMA -Discharge Against Medical Advice**
- **HCA -Health Care Assistant**
- **ALOS -Average Length Of Stay**
- **CMD – Chief Medical Director**
- **COO – Chief Operating Officer**
- **CGHS – central Government Health Scheme**
- **CSSD – Central Sterile and Supply Department**
- **CT – Computerized Tomography**
- **ECG – Electro Cardiogram**
- **TMT – Treadmill Test**
- **EEG – Electro Encephalography**
- **EMG – Electro MyoGraphy**
- **FMO – Front Office Manager**
- **FOE – Front Office Executive**
- **HOD – Head Of Department**
- **HRD – Human Resources Department**
- **ICU – Intensive Care Unit**
- **IPD – In-patient Department**
- **KDAH – Kokilaben Dhirubhai Ambani Hospital**
- **MRD – Medical Records Department**
- **MLC – Medico Legal Case**
- **NICU – Neonatal Intensive Care Unit**
- **OPD – Out Patient Department**

About Summer Training:

The Post Graduate Diploma in Health and Hospital Management (PGDHM) program of Institute of Health management Research (IIHMR) aims at preparing professionally trained managers of health care organizations and hospitals to meet the increasing need for managerial skill. It involves a eight week summer placement for the first year students to provide them with a first-hand experience of the hospital system or environment. As a part of the program I had the privilege to undergo my practical training at Kokilaben Dhirubhai Ambani Hospital, Mumbai to get a first-hand knowledge and experience about the functioning of the hospital. I worked all through under the operations team there from 1st April 2014 to 31st May 2014. The main aim of the summer training was to get exposed to operation of all the hospital in general, and an in-depth insight of the Third Party Administrator, Pharmacy, medical Record Department and Laboratory in the hospital in particular.

Objective:

The summer training program had the following objectives:

- To have a basic orientation of the hospital set up.
- To study the functioning of the hospital as a system and its departments as subsystems of the hospital.
- To observe all the department in terms of their location, work plan and staffing pattern.
- To study about the staffing pattern and job responsibility of staff.
- Doing a project which is helpful to me in understanding hospital working in a better way and to the organization.

METHOD OF DATA COLLECTION:

The data collected was primary and secondary data.

Primary data was collected by:

- Personal observation during the summer training and department visits.
- Further information was gathered by discussion with the department heads and staff on the basis of unstructured interview.

Secondary data was collected from:

- The past records and hospital management information system (HMIS).

Profile of KDAH

The Institution

Kokilaben Dhirubhai Ambani Hospital & medical Research is India's newest, most advanced tertiary care facility. As the flagship social initiative of Anil Dhirubhai Ambani group, it is designed to raise India's global standing as a healthcare hub, with emphasis on excellence in clinical services, diagnostic facilities and research.

A vision to strength en healthcare in the communities we serve and empower patients to make informed choices was at the genesis of Kokilaben Dhirubhai Ambani Hospital &Medical Research Institute.

Inaugurated in January 2009, The Hospital is a significant CSR initiative from Reliance Anil Dhirubhai Ambani Group. It is designed to raise India's global standing as a healthcare hub,with emphasis on excellence in clinical services, diagnostic facilities and research activities.

It is the only hospital in Mumbai to function with a FULL TIME SPECIALIST SYSTEM that ensures the availability and access to the best medical talent around-the-clock. The 750-bed hospital has over 103 full-time doctors,520 nurses and about 200 paramedical and growing.

It represents a confluence of top-notch talent,cutting edge technology,state of art infrastructure and most important, commitment .KDAH offers doctors and patient's cutting edge diagnostic and surgical solutions as well as the latest in IT systems. In many cases,they represent the first of their kind in the region.

KDAH is fully geared in terms of talent ,technology, structure and spirit-to reshape perceptions regarding hospitals and redefine the concept of caring,Indeed,this globally benchmarked institution marks the beginning of a new era in Indian healthcare.

History

The hospital project was initiated in 1999 by Dr. Nitu Mandke as a large scale heart hospital. Dr. Nitu Mandke was born in 1948 in a middle class family. He was first in the family to choose medicine as a profession with a determination to become a heart surgeon.

He joined B.J. Medical College; Pune from where he passed his M.B.B.S in 1970 came to Mumbai for further studies and completed his super specialty course in Cardiovascular Surgery. He spent close to 8 years working with world renowned figures in cardiac surgery like Dr. MagdiYacoub in England and Dr. Kirklin and Dr. Pacifico at the University of Alabama in the United states. He was an all-rounder with exemplary proficiency in sports , arts, languages , mathematics and so on.

In his lifetime he won the heart of many and repaired many more through unerring surgery. He won various social awards like : “ The Rajiv Gandhi Gold Medal of merit “ 1992 , “ Indira Gandhi sadhbhawna Award “ 1999, “ Outstanding Man of the 20th Century “ 2000 , “ Pride of India”2001, “ Sarvashri “ Gold Medal 2000 and “ Maharashtra Gaurav Award to name a few.

With great passion Dr. Mundke built a substantial portion of the hospital building. Sadly his dream was cut short by fate when he succumbed to a massive heart attack in May 2003 ; leaving adream unfulfilled and unfinished.

The Management of Mandke Foundation approached Reliance ADA Group, who graciously took over this project and developed it into one of the most modern and state –of-the-art multispecialty tertiary care hospital; naming the institution as – Kokilaben Dhirubhai Ambani Hospital & Medical Research institute.

In honor of initiator, the hospital’s Medical Convention Centre has been aptly dedicated to the memory of Dr. Nitu Mandke.

VISION

We aim to be a global healthcare institution that combines the best in medical treatment with strong ethical principles and a culture of care and compassion.

VALUES

Integrity: To deal with all stakeholders – patients, partners, employees, vendors and the community – in a spirit of fairness and integrity

Transparency: To respect the patient's right to know at every touch point by providing information that is clear, concise relevant and easy to understand.

Maximum Care: To re- evaluate every hospital system, Process and procedure to ensure that patients and their loved ones receive maximum care and comfort.

Self – Improvement: To instil a process of learning and self – improvement at every level through continuous training, focused research and peer review.

Patient Dignity: To safeguard the dignity of patients by protecting their individuality and privacy at all times.

KEY STATISTICS

Encompassing 10 lakh Sq.Ft.of space spread over 17 floors and two basements. Its intelligent framework allows for hospital staff to optimize utilization of space and resources.

Accommodates over 750 in – patient beds, allows optimal utilization of resources and ensures privacy, dignity, comfort, convenience and the best healthcare to every patient. However the smooth and seamless movement of people & staff guaranteed.

Critical care unit is the largest number of critical care beds in Mumbai, with 130 ICU beds. Special technical features in ICU including ceiling mounted, dual arm pendants which ensure that the space around the patient is not cluttered. Another unique feature is dedicated air supply that keeps the critical care free of any kind of contamination and infection.

It has a total of over 140 Full time consulting clinics, with the capacity to handle over 6000 outpatient consulting every day.

Movements in the hospital is managed by 30 elevators – the largest elevator bank for any hospital in India capable of transporting 7500 persons per hour, with different elevators for inpatients , outpatients, staff and catering.

Two dedicated elevators ensure quick transfer of patients to operation Rooms and ICUs.

The hospital's laboratory is housed on a single floor spread over an area of over 40,000 sqft offers over 3000 routine and highly advanced diagnostics, genetic and molecular biology test and will serve as a referral Centre for second opinions.

UNIQUE IN MUMBAI

Mumbai's first slice PET CT Scanner that combines computed tomography and positron emission tomography technologies into a single machine.

140 ICU beds, Largest number of critical care beds in Mumbai.

Hospital's laboratory housed on single floors spread over an area of over 40,000 sq ft. It offers over 3,000 routine and highly advanced diagnostics, genetic and molecular biology tests.

Hospital is having Mumbai's Largest OT complex with 22 operating theatre.

Largest dialysis Centre in Mumbai.

Full – time Specialist System: All doctors are attached and available only at Kokilaben Hospital.

Level I Accident and Emergency Center.

UNIQUE IN INDIA

Encompassing 10 lakh sqft of space spread over 17 floors and two basements. Its “intelligent framework” allows for hospital staff to optimize utilization of space and resources.

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HOSPITAL INFRASTRUCTURE

1. Lower basement

- Biomedical Engineering
- CSSD
- MRD
- Nuclear medicine
- PET CT
- Radiation Oncology
- SRS

2. Upper basement

- Car Parking
- Central security office
- Mortuary

3. Ground floor

- Main Reception
- Admission counter
- Discharge and billing
- Pharmacy & Medical mall
- Gift shop
- Prayer hall
- Business centre
- Fine dining
- Food court
- ATM
- Central report collection centre
- Beauty Salon
- Accident and emergency

4. Mezzanine Floor

- Administration
- Library
- Staff dining

5. First Floor

- Clinical administration
- Radiology & Imaging (X-Ray, MRI , Ultrasound, CT scan)
- Health check up program
- Sample collection
- Centre for cardiac sciences
- Centre for bone and joint
- Centre for pulmonary and lung medicine
- Multi-specialty OPD

6. Second floor

- Centre for children
- Centre for brain and nervous centre
- Dental clinic
- Centre for cancer
- Ophthalmology clinic
- E.N.T clinic
- Gastroenterology clinic
- Dialysis centre
- Blood bank
- Urology clinic
- Nephrology clinic

7. Third floor

- OT complex 1 (8 theatres)
- Catheterization lab
- ICU (Neuro and surgical)
- Interventional radiology

8. Fourth floor

9. Fifth floor

- Ambulatory surgery
- Day surgery
- ICU (cardiac)

- OT complex 2 (7 theatre)
- Refuge Area

10. Sixth floor

- Rehabilitation centre
- Convention and exhibition centre

11. Seventh floor

- IVF centre
- Cosmetology and aesthetic surgery
- Laboratory medicine and pathology
- Nursing College
- Tissue and bone bank

12. Eighth floor

- Birthing complex (labour and delivery)
- ICU (pediatric and neonatal)
- Birthing Suites
- OT (obstetric)
- Wards

13. Ninth floor

- Inpatients (pediatric)

14. Tenth floor

- High dependency unit
- ICU (Medical)
- Refuge area

15. Eleventh floor

- General ward
- Nursing College

16. Twelfth to sixteenth floor

- Inpatient

DEPARTMENT IN THE HOSPITAL

The following departments function in the hospital

Clinical Services	Clinical support services	Clinical Administrative Services	Administrative services
Accident & Emergency	LABORATORY MEDICINE	Ambulance services	Human resources
OPD	Imaging	Nursing department	Materials
Anesthesia	CSSD	Food & beverages	Marketing
Critical Care	Biomedical waste	Security	Finance
OT	Housekeeping	Mortuary	Engineering
IPD	Pharmacy	Laundry	IT

CLINICAL SERVICES

ACCIDENT AND EMERGENCY

An Emergency Department (ED) is also known as Accident & Emergency (A & E), Emergency Room (ER), Emergency Ward (EW), or Casualty Department is a medical treatment facility, specializing in acute care of patients who present without prior appointment, either by their own means or by ambulance. Due to the unplanned nature of patient attendance, the department must provide initial treatment for a broad spectrum of illnesses and injuries, some of which may be life threatening and require immediate attention.

Layout

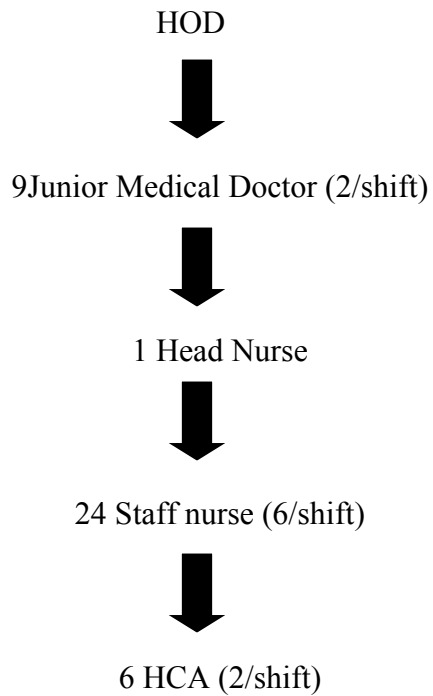
- 11 bedded (6+3 triage + 2 isolation)
- Each bed is separated with curtains to maintain patient privacy and is equipped with the following:
 - ✓ Oxygen supply
 - ✓ Suction Pump
 - ✓ Syringe pump
 - ✓ Cardiac monitor

Minor Operation theatre

- Machines in minor OT are as follows:
 - ✓ Anaesthesia machine
 - ✓ ETCO2 machine
 - ✓ Cautery machine
 - ✓ OT table
- Procedures done in minor OT
 - ✓ Lumbar puncture
 - ✓ Biopsy
 - ✓ Bone marrow aspiration
 - ✓ Suturing

This department has got its own billing and discharge counter.

Staff



Equipment:

- Defibrillator-2
- Portable ECG – 2
- Nebulisation machine -2
- Portable sonography machine-1
- Trolleys :
 - ✓ Procedure trolley
 - ✓ Induction trolley
 - ✓ Adult crash cart
 - ✓ Dressing trolley

Ambulance:

There are 2 types of ambulance:

- a) Non-cardiac ambulance
- b) Cardiac Ambulance

Equipment in the ambulance are as follows:

- Ambulance cot
- Portable Ventilator (cardiac ambulance)
- Portable oxygen unit
- Portable suction unit
- First aid kits
- Traction splint
- Auxiliary Stretcher
- Transfer sheet
- Airways (nasal, oropharyngeal)
- Obstetrical Kit
- Sphygmomanometer
- Stethoscope
- Fire Extinguishers
- Burn Kit
- Others
 - ✓ Sterile and non-sterile gloves
 - ✓ Face mask
 - ✓ Blankets
 - ✓ Towels
 - ✓ Bed pan
 - ✓ Tongue depressors
 - ✓ Cold packs instant chemical type
- 1 HCA in non-cardiac ambulance
- 1 HCA + 1 nurse + 1 cardiac consultant in cardiac ambulance

OUTPATIENT DEPARTMENT

Kokilaben Dhirubhai Ambani Hospital has 140 independent consultant clinics with a capacity to handle over 6000 outpatient consultations every day. These clinics are organised

as “functional clusters” representing a specialty, with each cluster containing its own examination room, phlebotomy room, and in instances, rooms for specialized medical equipment unique to the cluster. A day care dialysis unit, an endoscopy theatre complex, radiology suites and a blood bank support outpatient service are co-located on the same floors as the self-contained outpatient area. The hospital outpatient services offer specialist consultation services across 42 different specialities including six centres of excellence.

The six centre of excellence are as follows:

- Centre for neurosciences
- Centre for cancer
- Centre for physical medicine and rehabilitation
- Centre for cardiac sciences
- Centre for bone and joint
- Centre for children

The specialists included are Anaesthesiology, Critical Care Medicine, accident and emergency, gynaecology and obstetrics, imaging, laboratory medicine and pathology including biochemistry, molecular biology, haematology, histopathology, microbiology, clinical pathology, transfusion medicine and blood bank, genetics, tissue and bone bank, dermatology, endocrinology, gastroenterology, clinical nutrition, internal medicine, nephrology, psychiatry, pulmonary medicine, rheumatology, geriatric medicine, surgery including dentistry, ENT, general surgery, ophthalmology, plastic and reconstructive surgery, urology, surgical oncology, cosmetology.

a) Access to OPD services:

All patients who visit KDAH or free OPD for the first time for consultation/ other services are issued a card which gives each patient a UHID number. This UHID card is attached to the registration form. With the help of this number, medical records of patients can be assessed. Allotment and control of UHID number is the responsibility of the admission staff desk.

b) OPD Appointment:

Appointments can be fixed over telephone to all from the call centre or personally across the reception counter. Fax and e-mail facilities are also available.

Following services are offered in the OPD

- Medical / Surgical consultations
- Preventive Health check-up packages
- Laboratory investigations
- Imaging services
- Cardiology investigations
- Neurology investigations
- Pulmonary investigations
- Pain management
- AKD
- Gamma knife
- Endoscopy
- Bronchoscopy
- Urodynamic study
- Physiotherapy
- CDC
- ENT
- Ophthalmology
- Dental procedures
- Oncology
- Radiation oncology

HEALTH CHECK UP

- The executive check-up department, a part of OPD services, is a wing of this multispecialty hospital dedicated to the diagnostic and preventive side of patient care. It is a place where healthy patients come for prognosis of disease or to know about the preventive and curative aspect of conditions they may already have.
- This system facilitates the patient to get all the required investigations/consultations done without having to pay for either consultation and/or for each individual item of pathological or imaging investigation. It is the centre point where the potential customers come directly in contact with hospital services. This department can

therefore be a point to draw in patients to become in-patients or for them to come even for follow up OPD consultation.

- The packages in the program have been developed by a team of highly qualified and experienced medical personnel and are designed to offer a complete medical checkup and within their limitations detect any latent health problems. In additions, these packages are offered at special discounted rates that make them truly worthwhile. At the end of the day, candidates leave the hospital with all their reports.
- This department is dependent on various other hospital departments and consultants to ensure a smooth process flow. Therefore co-ordination is a key factor in smoothly running the department. The departments in co-ordination are: pathology, radiology, cardiology, ENT, ophthalmology, dental etc. the visiting consultants are from following department; medicine, surgery and gynecology.

OPERATION THEATRE:

The aim of department of anaesthesiology and OT facility is to provide the highest quality of care to patients undergoing various types of surgeries. The OT facility is positioned as a tertiary care centre of excellence providing complete services for various surgical specialties. The department is staffed with highly experienced and trained anaesthesiologist, surgeons, technicians, nurses and other support staff. Their services have state-of- the-art technology and equipment with highest level environment and quality controls. For each OT there are two scrub nurses and one circulating nurse. Protocols based on approach for quality pre-operative, intra-operative and post-operative and follow up care of the patients. The complex is divided into three zones: sterile, semi sterile and non-sterile zones. Complete services to the following surgical specialties are provided.

- Cardiac surgery
- Neuro surgery
- Onco surgery
- Orthopaedic surgery
- General surgery
- Gynaecology and obstetrics surgery
- Paediatric surgery

- GI surgery
- Uro surgery
- Plastic surgery
- ophthalmic and ENT surgery
- Transplantation surgeries

The OT complex has a pre and post-operative monitoring room for continuous monitoring of patients (recovery rooms). The facility includes 22OTs, 600 square feet area, pendants in all OTs and surgical control panels.

IN PATIENT DEPARTMENT

The IPD provides the detailed pre-procedure needs their completion and coordination with the diagnostic to arrive at the diagnosis and completion of treatment regimens, comprehensive care in the pre-operative and follow up care, rehabilitative, and nutritional regimen and their scientific amalgamation as per the progressive patient care need. IPD wards are located on floor numbers 9,10,11,12,13,14,15 & 16 The IPD rooms are of the following types: single room, twin sharing, deluxe room and suits. Each floor has three zones, east, west and central and each wing has a separate nursing station. The various types of rooms with their features as follows:

- **GENERAL WARDS**
 - 5beds/room
 - Air conditioned
 - Bed head panels with medical gasses
 - Nurse call systems with 2 way communication
- **SINGLE ROOMS**
 - Area of 320 sqft
 - Separate patient zone and attendant zone
 - Nurse call system with two way communication
- **Twin Sharing**
 - Bed head panels with medical gasses

- Television sets
- Couch for each patient relative
- Nurse call system with two way communication

- **Suits**
 - Area of 750 sq. ft.
 - Terrace garden
 - Exclusive visitor area and guest rooms
 - Nurse call system with two way communication

The nurse: bed ratio is 1:5 for general ward, 1:2 for single rooms, 1:3 for twin sharing, 1:1 for suits. The various other rooms are clean utility, dirty utility, janitor room, AHU (air handling unit), sluice room, I.T. room, and service elevator.

INTENSIVE CARE UNIT

The ICU cater to patients with most severe and life-threatening illnesses and injuries requiring constant close monitoring and support from specialist equipment and medication to ensure normal bodily functions. There is Adult ICU consisting of SICU & MICU, Paediatric ICU, Neonatal ICU, Transplant ICU and Paediatric Cardiac ICU. The nurse patient ratio for critical patients is 1:1 and for stable patients is 1:2. The ICU co-ordinates with CSSD, Laboratory and the Radiology department. Strict aseptic techniques are used. Pressure zones are created to control infection rate.

The ICU has highly dedicated and trained medical, nursing and allied staff. There is a system of closed ICU in KDAH .The space per bed is 320 sq feet in the patient care area

Bed Capacity in each ICU

<i>ICU</i>	<i>BED CAPACITY</i>
<i>SICU 1</i>	11

<i>SICU 2</i>	10
<i>PCICU</i>	11
<i>PCICU-HDU</i>	2
<i>PICU</i>	7
<i>TRANSPLANT ICU</i>	7
<i>NICU</i>	8
<i>NICU-HDU</i>	5
<i>MICU</i>	28
<i>MICU</i>	25

Human resource of the ICU

- Intensive care doctors
 - ✓ 1 Chief Intensivist for all ICU
 - ✓ Junior consultants (12 hour shift)
 - ✓ Clinical registrars (8 hours shift)

- Intensive care nursing staff
 - ✓ 1 Director General Manager for ICU
 - ✓ Nurse in charge (8 hours shift)
 - ✓ Team leader (8 hours shift)
 - ✓ Senior nurse officers
 - ✓ Junior nurse officers

- Allied staff
 - ✓ Physiotherapists
 - ✓ Dieticians
 - ✓ Biomedical Engineers

- ✓ Health Care Assistants

Shift timings:

For doctors

- ✓ Morning : 8 am - 4 pm
- ✓ Afternoon : 2 pm - 10 pm
- ✓ Evening : 10 pm - 8 am
- ✓ Overlapping hours : 2 pm - 4 pm

For nurses, HCA and housekeeping staff

- ✓ Morning : 7 am - 3 pm
- ✓ Evening : 3 pm - 11 pm
- ✓ Afternoon : 11 pm - 7 am

Visiting hours: 11 am – 1 pm

5 pm – 7 pm

- ✓ Only 1 relative at a time is allowed

Records and Registers

- Admission and discharge register
- Handing and Taking over/Team leader sheet
- Assignment book
- Leave book
- O.T booking register
- Critical care flow sheet
- Narcotic drug register.

Equipment's:

MONITORING EQUIPMENT	CARDIOVASCULAR THERAPY	RESPIRATORY THERAPY	LABORATORY EQUIPMENT
Bed side and Central Monitors ECG Recorder Pulse Oximeter Spirometer ECG Monitor Temperature Monitors Blood Glucose Meter	CPR Trolley Defibrillators Infusion Pumps and Syringes	Ventilators Intubation/ Tracheostomy Trolley Nebulisers	Blood gas Analyser Electrolyte Analyser

Miscellaneous Equipment

- Crash Cart
- Dressing trolley
- Procedure trolley

Management Information System

<i>ICU</i>	<i>LOS (days)</i>
Adult ICU	4
PCICU	6.5
PICU	5.6

PAEDIATRIC INTENSIVE CARE UNIT

The PICU looks after all critical pediatric patients. It is located on 8th floor. The ICU is split into 2 zones for outpatients and inpatients. The various other rooms include Ante room, equipment room, clean utility and dirty utility room. The average length of stay of each patient is approximately 1 week.

NEONATAL INTENSIVE CARE UNIT

The NICU is 18 bedded and located on the 8th floor. The department is divided into 2 zones – outpatients and inpatients. There are 2 isolation rooms. The nurse ratio is 1:1

DEPARTMENT OF RADIATION ONCOLOGY

The department of radiation oncology at KDH is a state of the art unit having the latest technology and equipped personnel, delivering services of international quality. The department has the first installed TRILOGY and NOVALIS Tx in the country. It is capable of performing all the high end treatment like IMRT, IGRT intracranial stereotactic radio surgery and radiotherapy, extra cranial stereotaxy, total body radiation, total skin electron treatment. There is a facility of brachytherapy for all sites in the form of remote afterloading HDR brachytherapy system with 3D planning facility. The department works in close coordination with surgical oncology and neurosurgical subspecialties' (e.g. head and neck, thoracic, breast, urology and gynae oncology, neuro-oncology) maintaining a high quality evidence based practice for the particular sub suite.

CENTRE FOR REHABILITATION

- The centre is located on a dedicated floor with 30,000 square feet area and exclusive inpatient service, first of its kind.
- The department is located on 7th and 8th floor of hospital.\
- It has got its own billing desk.
- It also consists of a daycare centre for those patients who need 4-5 sessions in a day.
- **Staff of the department consist of**

HOD



40 physiotherapists



1 Asst. nurse



3 Nurses



5 HCA

• **Following therapy services are available :**

1. Neurological Rehabilitation
2. Musculoskeletal rehabilitation
3. Cardiac Rehabilitation services
4. Pulmonary Rehabilitation
5. Paediatric Rehabilitation
6. Cancer Rehabilitation
7. Pain management
8. Women's health
9. Geriatric Rehabilitation

The therapy services offered in the department :

- 1) Physical therapy
- 2) Occupational therapy
- 3) Electrotherapy
- 4) Speech and language pathology
- 5) Exercise physiology
- 6) Psychology

- 7) Rehabilitation nursing
- 8) Orthosis and prosthesis

IVF CENTRE

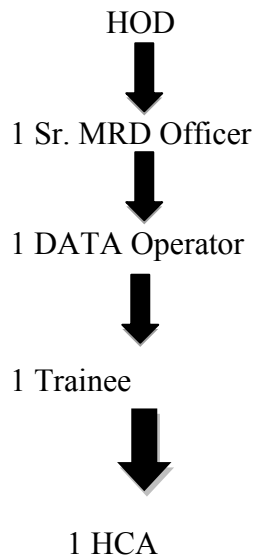
- Centre for reproductive endocrinology and fertility (CREF) is located on the 7th floor of the hospital and has dedicated space for out-patient care and day care of patients with infertility and reproductive endocrine problems, and for medical acupuncture and mind body program.
- CREF is staffed by a full time consultant reproductive endocrinologist and infertility specialist, embryologist and infertility issues and a health care assistant.
- A full-fledged laboratory and radiology department offering a comprehensive range of tests including some newer cutting edge tests under one roof only compliments our services at CREF, but is also extremely convenient for patients.
- Medical conditions addressed at CREF:
 - ✓ **Reproductive endocrinology**
 - ✓ **Midlife health care**
 - ✓ **Bone health**
 - ✓ **Adolescent gynaecology**
 - ✓ **Infertility treatment**
 - ❖ Fertility drugs to induce / enhance ovulation (pills or injections)
 - ❖ Intrauterine insemination
 - ❖ Assisted reproductive therapy (ART) procedures:
 - In vitro fertilization (IVF)
 - Intracytoplasmic sperm injection (ICSI)
 - Assisted hatching(AH)
 - Blastocyst transfer
 - Pre-implantation genetic diagnosis (PGD)
 - Embryo cryopreservation
 - Sperm cryopreservation
 - Testicular tissue cryopreservation
 - Third party reproduction
 - Donor oocytes

- Donor sperm
- Gestational surrogacy
- Donated embryos
- Other facility:
 - ✓ Diagnostic tests
 - ✓ Billing and registration
 - ✓ Phlebotomy services
 - ✓ Ultrasound facilities
 - ✓ Andrology and embryology laboratories
 - ✓ Operating room, pre-op and recovery room facilities
 - ✓ Counselling and support services

CLINICAL SUPPORT SERVICES

MEDICAL RECORD DEPARTMENT

- The main functions of the department are :
 - 1) Storing file for future reference.
 - 2) Research.
- Staff:



- Open and close audit is done of all files before keeping them storage.
- The arrangement of files is done in following ways-
 - ✓ Year wise and UHID wise.
 - ✓ Also on the basis of their type :
 - a) Regular files
 - b) DAMA files
 - c) MLC files
 - d) OT recovery files
 - e) Chemotherapy files
 - f) Dialysis files
- Apart from files few forms and records are also store in this department:
 - ✓ Consent form
 - ✓ OT papers
 - ✓ A&E papers

- Certificates issued from the department :
 - ✓ Patient fitness certificate
 - ✓ Fit to fly certificate
 - ✓ Leave certificate
- All files are stored in the department for the following time period:
 - ✓ Reports -1.5years
 - ✓ Death, DAMA & MLC files 20 years
 - ✓ Regular files-5years
- ICD-10 coding is done for storing files:
 - ✓ Red-Death, DAMA & MLC
 - ✓ Black-Oncology
 - ✓ Yellow-Gynecology& obstetrics, IVF files
 - ✓ Dark blue-General medicine, critical care, Nephrology, Endocrinology, Gastroenterology, Pulmonary medicine, Dermatology, Dental, Psychiatry, rehabilitation, Rheumatology.
 - ✓ Light blue- Pediatrics
 - ✓ Orange- Neurology, CVTS, Cardiology, orthopedics
 - ✓ Green-ENT, general surgery, ophthalmology, Urology, Cosmetology, Interventional radiology.
- This department has to notify Bombay Municipal Corporation(BMC) about following things on regular basis:
 - ✓ Birth and death report (once in a week).
 - ✓ Notifiable disease which includes cholera, dengue, plague, yellow fever, TB, polio, meningococcal meningitis, leptospirosis, viral encephalitis (once in a week).
 - ✓ Maternal mortality (once in a month)
 - ✓ MTP &PNDT (once in a month)
- Retrieval- for easy retrieval of files tracer cards are used when files are given to patients or sent outside the department.

LABORATORY

The salient features of the department are as follows-

- CAP (College of American Pathology) accreditation
- Central processing laboratory is spread over 40,000sq. Ft. which follows strict internal quality compliance for all analyzer.
- Exhaustive menu of tests from routine to esoteric.
- Excellent laboratory management system which handles both pre-analytical and post-analytical aspects.
- Dedicated courier and logistic services
- 24 hrs. sample collection facility
- Stringent quality control monitoring which satisfy the quality assurance elements elaborated by GLP and GCP and readily available documented evidence of quality assurance and quality proficiency schemes.
- Constant improvisation and technology innovation using over 150 state of the art equipment.
- Quality control and quality assurance executive that monitors pre-analytical and post-analytical processing of the samples.
- Customized management report (MIS-management information system)
- An active IRB and ethics committee which oversees clinical trials proposed when required.

BLOOD BANK

Transfusion medicine is a multi-disciplinary area concerned with the appropriate use of blood and blood components in the treatment of human disease. The mission of KDAH is to make available appropriate adequate quantity and high quality of safe blood and blood component to “anyone, anytime, anywhere” in medical community. KDAH adheres to quality norms and focus on the donor satisfaction standards and technique and quality control are precisely and meticulously maintained as per norms given in the drugs and cosmetics acts, by the regulatory authority, director drug controller (India), ministry of health and family welfare, Govt. of India, and also internationally recommended methods. The department runs round the clock and blood and its products are supplied as and when requested. Blood donation is accepted from voluntary blood donors and relatives and friends of the patient. Autologous blood donation (blood donation for one’s own use) is also accepted. The blood donors are informed and

educated about the infections transmitted by transfusion of blood components 100% of collected blood is processed into component like red cells concentrate, platelet concentrate, fresh frozen plasma (FFP) and cryoprecipitate. The use of the components is better and cost effective. The blood bank at KDAH is equipped with state of art equipment, which enables use of advanced techniques for processing/screening of blood and its components. All the mandatory screening for the transfusion transmissible disease like HIV, HBV, and HCV is done with the more sensitive and specific CMLIA and ELISA methods. All units are screened for VDRL and malaria parasite. Red cells in an additive solution (RCA) like, SAGM or ADSOL is a product which is used in variety of indication like surgeries, anemia, trauma, child birth etc. as a thumb rule one unit would increase the hemoglobin by 1 gm.%.

IMAGING

The imaging department consists of radiology services. The investigations performed in these departments include:

- CT Scan
- MRI
- X-Ray
- Ultrasonography
- Mammography

The HIS has a system for appointment scheduling for each of these investigations. The appointments are given by Call Centre. There are 4 X-ray machines, 5 ultrasonography machines, 1 mammography machine, 1 CT Scan machine, and 2 MRI machine of which one is 3 Tesla located in the radiology department and the other is 1.5 Tesla IMRIS (intraoperative magnetic resonance imaging suit) is a movable machine attached to the ceiling that is located in the OT. It is basically used for MRI scanning during a surgery. They are working on its complete utilization.

CENTRAL STERILE SUPPLY DEPARTMENT

The central sterile supply department (CSSD) plays a key role in providing the items required to deliver quality patient care. Centralizing the reprocessing of reusable devices

helps ensure uniform standards of practice, while also providing for improved workflow (soiled, to clean, to sterile). This also facilitates the training and education of skilled technicians who must be aware about the standards, complexities, challenges, risks and technicians associated with the CSSD function. Every CSSD task must be performed for the welfare and safety of patients, co-workers and the community.

CSSD is the heart of hospital infection control and the most important unit of clinical support services. CSSD's main functions are cleaning and drying, assembly, packing, sterilizing, storing and distributing instruments (both multi use and single use devices), as per well delineated protocols and standardized procedures.

INFRASTRUCTURE

It is divided into 3 zones

1. Decontamination area
2. Assembly area
3. Sterile storage area

STAFF

1 manager / department head

1 executive

1 senior technical officer

4 technical officers

6 junior technical officers

10 trainees

16 health care attendants

MAJOR TECHNOLOGIES

Ultrasonic cleaner

Washer disinfectant

Dryer

Steam sterilizers

Plasma sterilizer

ETO(ethylene oxide gas sterilizer)

Dry heat sterilizer.

RECORD MAINTAINED:

- Manual issue and receiving OT
- Manual issue and receiving all departments
- Sterilization records

PHARMACY

Central pharmacy indents to IP, OP and LB. it is of 2 categories: capital and consumables.

SCOPE OF INVENTORY MANAGEMENT:

- INDENTATION
- RECEIVING
- STORING
- DISTRIBUTION

The staff consists of:

- 5 manager
- 1 executive
- 8 senior officers
- 24 officers
- 7 junior officers
- 6 trainee assistants
- 1 trainee HCA
- 16 attendants
- 21 HCA

HOUSE KEEPING:

The objective of housekeeping is exceptional standards of cleanliness, sanitation and hygiene of the entire hospital. Housekeeping services are outsourced to ARA MARK services.

The staffs include:

- Housekeeping manager
- Assistant manager
- Housekeeping executives
- Supervisors
- Houseboys & house girls

Functions of housekeeping department are:

- General facility cleaning
 - ✓ Routine cleaning of patient's rooms
 - ✓ Patient's common areas
 - ✓ Washrooms
 - ✓ OT
 - ✓ Laboratory
 - ✓ Consultant's office
 - ✓ Glass windows and doors
 - ✓ Ceiling etc.
- Handling of biomedical waste.
- Pest control-It includes spraying every 24 hours for mosquitoes, cockroaches, flies, rats, lizards and termites.
- Garbage disposal- The housekeeping staff collects garbage collected in specified color coded bags from all garbage bins existing inside the hospital premises and disposes the garbage at the designated area within the hospital, which is the biomedical waste room. The general waste is sold to the junk dealer and healthcare waste is handed over to government approved vendor "synergy waste management".
- Horticulture- It is responsible for maintenance of in house plants & terrace gardens, flower arrangement during hospital functions.

The performance indicators are B.M.W. color code compliance, B.M.W. collection, pest control efficiency and sanitization of the hospital premises.

CLINICAL ADMINISTRATIVE SERVICES

STORES

Material stores functions in order to supply the right material in right quantities at the right time at the right price. The IP departments put up requests for the required materials by uploading indents in the HIS. The store manager raises a purchase order to be sent at the central procurement stores. The supplies received are inspected on the basis of quantity and expiry in the incoming material inspection area. The items are stored as per the storage norms. Departmental issues are made for non – medical consumables as per requirement. Stock is reviewed periodically for non-moving items and short expiry items. Stock audits are carried out twice/year. Any variance is reported to the higher management. For inventory control, ABC and VED analysis is carried out. FEFO (first expiry first out) is followed. The staff includes:

- Assistant Manager
- Executive store
- Assistants
- 2 Health care assistants

The key performance indicators are no stock outs, zero errors in maintenance of accounts, zero error in billing processing, maintain minimum inventory maximum efficiency, maintaining stores as per the NABH = ISO standards, submission of bills accounts within 4 working days, expired items on the shelves should be zero, minimize emergency purchase, TAT suture and lab kits (19 days), instruments (8 weeks) and other items (2 days)

LINEN AND LAUNDRY

The objective linen and laundry is the availability of clean uniforms for patients and staff. Soiled linen when collected is kept in the dirt utility room in a hamper trolley. Infected linen are collected and put in a red bag at the source of generation. The red bag is sealed and labeled for infection. At the end of each shift, the dirty utility linen is carried in the hamper trolley to the collection room. At the collection point, it is segregated, counted,

and sent to the laundry for washing. The performance indicators are laundry pending, turnaround time for laundry cleaning, percentage discarded linen.

BIOMEDICAL ENGINEERING DEPARTMENT

The main objective of the department is to facilitate the usage of latest technologies in the diagnosis, treatment and care of patients. It is also responsible for proper usage and quality performance of these costly equipment and tools inside the hospital

The department maintains an updated asset register of the hospital equipment, conduct daily rounds to ensure that the equipment is functioning smoothly, responsible for facilitation and identification of equipment requirements, planning technical comparison, ordering installation and deployment units and new projects, conduct regular preventive maintenance servicing for all the equipment at regular intervals, facilitating equipment replacements and condemnation, whenever required, conducting regular training programs for hospital staff, on usage of hospital equipments. The staff consists of HOD, 5 biomedical engineers and 2 biomedical technicians and 4 medical gas technicians.

FOOD AND BEVERAGES

The objectives of food and beverages department are to deliver healthy and nutritious meals coupled with a wonderful experience of hospitality services to all IP, OP and staff. The cafeteria is outsourced to Java Green. The main functions of the department are as follows:

- Inpatient meal management
- Purchase of fruits, vegetables, milk, pulses, whole grain and other dietary consumables
- FIFO is followed

The purchased items are unloaded in the receiving area, where they are inspected and then washed with water and anti-bacterial liquid before bringing it in the kitchen premises. It is followed by storage of perishable and non-perishable items in refrigerator and dry storage area respectively. Diet planning and counselling is done by the dietician according to the patient's condition, food allergy and taste and general preference. The diet summary is handed over to the supervisor in the form of meal sheet cum ticket. According to this, the

food is prepared and laid out on trays. The meals are served in the patients' rooms and clearance is carried out after 2 hours. Food/meal/diet for a patient admitted in the hospital is decided by the doctor admitting the patient depending on his/her medical condition. On doctor's recommendations, the dieticians plan the meal that is best for the patient's speedy recovery. The staff includes:

- Regional head of support function
- F&B manager cum chef
- Assistant manager F&B
- Executives
- Senior Dietician
- Other F&B staff

SECURITY

Services rendered by security department are surveillance and patrolling of the infrastructure and material, access control (in restricted areas like IT, MRD, LSS, Mortuary, Pharmacy, Electric control panels), control of movement of traffic in premises, reception and conduct of visitors and attendants, assistance in fire control and emergency plan, vigilance and intelligence, liaison with sensitive areas, carry out verification, hold records, issue passes, and generate reports on security matters. It is equipped with modern equipment like CCTV's metal and explosive detectors, alarms, security, lighting and walkie-talkies, etc. The staff members are:

- HOD
- Senior officer
- Security supervisor
- Sr. security assistant
- Security guards

The performance indicators are TAT, theft percent, code related incidents.

EDUCATION AND TRAINING FACILITIES FOR NURSES

In line with the vision of continued commitment toward education and training in the field of healthcare, particularly the preparation of highly competent nursing professionals dedicated to patient care, the board of management has upgraded its School of Nursing to a full KDA College of Nursing.

ADMINISTRATIVE SERVICES

ADMISSION AND BILLING:

The admission and billing staff includes 1 H.O.D. and 12 employees. The services offered by the department are registration of a new patient, booking/reservation-bed and O.T, admission, billing, discharge work.

Front office:

The front office is the first point of contact at KDAH. It is manned by duty manager, deputy duty manager, and patient care executive and patient care coordination. There are total 7 front offices in KDAH and there are 2 help desks.

Functions:

- Respond and answer telephone calls from patients and clients (call center).
- Registration of outpatients, in patients and executive health checkup patients for various investigations (registration counter).
- Admission, billing and discharge of in patients.
- Direct the patients and their relatives to the outpatient services and the inpatient wards (helpdesk and welcome desk).
- Report receiving and handling over to the patient (dispatch counter).

Third Party Administrator Desk:

T.P.A. staff includes one executive clinical administrator and 4 Customer care officer.

Functions:

- Counselling.
- Pre-Authorization.
- Cashless admission.
- Query handling.
- Final approval.
- Maintain privacy and confidentiality.

INFORMATION TECHNOLOGY DEPARTMENT:

It is implied that there is central database for entire hospital. Services rendered by the IT department are as follows:

- IT support to location users for hardware and software as per SLA (service level agreement).
- Installation of new IT equipment.
- Helping biomedical department in configuring the medical equipment with HIS.
- Installation of appointment scheduling programs.

The IT staffs include:

- Chief information officer
- Manager IT
- Executive IT engineers.

The performance indicators are calls resolutions within a time limit, strict data security, zero percent variance, in hardware and software variance, minimal occupational hazard and proper e-waste disposal.

ENGINEERING DAPARTMENT:

Engineering and maintenance department is manned for 24 hours for keeping round the clock vigil on proper functioning of plant engineering equipment coming under the purview of department. This covers maintenance of major supplies to the hospital such as power, water, which form the life line to the hospital's activities. The responsibilities of the department include operation and maintenance of plant equipment installed in the basement of main building and various other areas to support the normal functioning of the hospital and repair work of equipment related to the department's responsibility. The policy of the department is to serve well with safety and it time, continuous improvement, cost saving, optimum utilization of manpower and equipment, optimum utilization of inventory and teamwork.

The major engineering services are:

- Electrical power supply- normal and emergency
- Air conditioning, ventilation and refrigeration.

- Steam and hot water supply.
- Water stations and cold water supplies- filtration system.
- Medical gases supplies
- Fire detection alarms and fighting system.
- Internal and external plumbing system.
- Civil works-Masonry, carpentry, glasswork, upholstery, painting, etc.
- PNG and LPG supply.
- Safety assessment of facilities.

MARKETING AND SALES

Marketing and sales department is concerned with business development, branding, promotions and advertisement of KDAH healthcare services. Marketing deals with organizing health check-up camps and awareness talks for corporate or PSU's and RWA, designing all the brochures and signage, conducting CME's/seminars. The sales department deals with PSU's and corporate tie-ups, pitching referral sales from nearby general practitioners and nursing homes, liaison with TPAs and managing the international patients (medical tourism).

FINANCE

The scope of services includes the entire hospital cash handling and cash disbursement in the form of salaries and vendor payment for stores, pharmacy and biomedical department. All the cash collected is deposited on daily basis in the bank. The TPA payment is collected through lump sum amount in the form of cheque at the end of the month. The staffs include :

- HOD
- Asst. Manager
- Senior executives
- Junior executives
- 2 cashiers

PURCHASING DEPARTMENT

Purchasing department is responsible for the procurement of function of the hospital the primary functions of the purchasing department are to:

- Procure the rights and services from the right suppliers at the right time for the right place.
- Receive, warehouse, issue & distribute stocks to hospital departments in accordance with KDH procedure.
- Hospital users and clinicians actively participate in product evaluation processes. The purchasing department is actively involved in cost analysis and supplier performance management. It is through all of these activities that the department manages the chain process.

HUMAN RESOURCE DEPARTMENT

The functions of HR department at KDA hospital are:

- Hiring
- Physician and nurse recruitment
- Employee orientation
- Personal management
- Benefits and compensation management
- Counselling
- Claims handling
- Training and performance monitoring
- Professional development programs
- State and federal regulations education
- Work place safety and sanitation
- Administration – employee meetings
- Staff morale and retention

Recruitment /selection:

- Identifying the key requirements areas(KRA)

- Drafting job description
- Recruitment through job portals and internal references
- Selection
- Medical examination of the candidate
- Offering letter to the selected ones

QUALITY CONTROL DEPARTMENT

The Functions of the department are:

- To analyze patient feedback forms.
- To analyze different parameters from different departments and compare them.
- Infection control of the hospital.
- Induction and training of hospital staff.
- Accreditations (NABH, JCI).

This department also maintains few quality indicators for hospital:

- Medication Errors
- Return of patient within 72hours.
- Return of patient to OT within 48hours.
- Return of patient to ICU within 48hours.
- Number of Needle sticks Injuries.
- Number of blood transfusion reaction.
- Number of Adverse Drug reaction.

Staff:

This department consists of one quality manager who reports directly to the director of hospital.

Project Report -1st

BUSINESS PROCESS RE-ENGINEERING of CASHLESS HOSPITALISATION PROCESS IN KDAH

BUSINESS PROCESS RE-ENGINEERING of CASHLESS HOSPITALISATION PROCESS IN KDAH

INTRODUCTION:

Health is a human right. It's accessibility and affordability has to be ensured. India has developed an extensive network of healthcare infrastructure. The system envisages availability and accessibility of public funded health care to all, regardless of their ability to pay. Due to the expansion in size and shortfall in budgetary support the public healthcare system has lagged behind in terms of its ability to meet the challenge of fulfilling the health needs of large segment of population(1). In private sector the escalating cost of Medical treatment is beyond the reach of common man. The proliferation of various healthcare technologies and increase in cost of care has necessitated the exploration of health financing options to manage problems arising out of increasing healthcare cost(2). Health insurance is a better option to manage these problems. The term health insurance is generally used to describe a form of insurance that pays for medical expenses

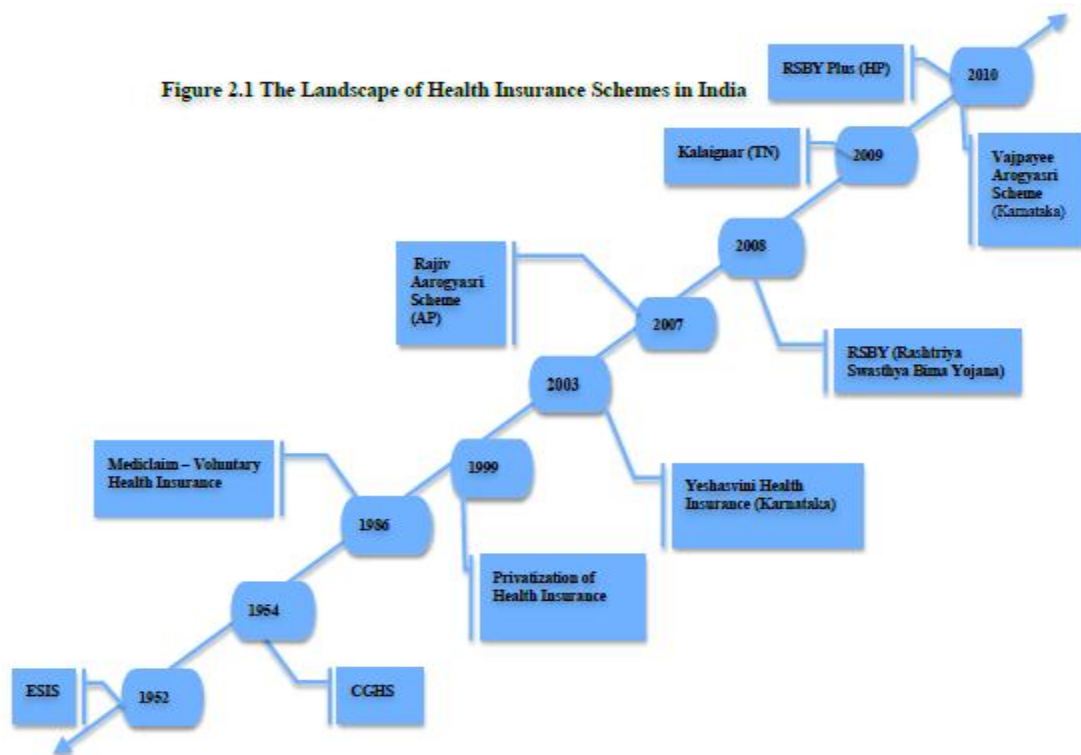


Figure: 1 Source: Handbook on Indian Insurance Statistics 2010-11 published by IRDA

With the advent of Third Party Administrator (TPA) health insurance sector got a new dimension. TPA was introduced by the IRDA in 2001. A **Third Party Administrator (TPA)** is an organization which processes claims or provides cashless facilities as a separate entity. Main function of TPA is to provide cashless hospitalization. **Cashless hospitalization** is a service provided by an insurer, wherein the insured is not required to settle the hospital expenses at the time of discharge from hospital.

At present cashless hospitalization has perceived some key challenges like low awareness among policy holders about the existence of TPA's, policyholders have very little knowledge about empanelled hospital for cashless hospitalization services.

RESEARCH TOPIC:

To analyse the Turnaround Time (TAT) of cashless discharge process

REVIEW OF LITERATURE:

HEALTH INSURANCE:

The term health insurance is generally used to describe a form of insurance that pays for medical expenses (3). Now health insurance in India is at booming stage and also contributes to a small proportion of the health expenditure. About 30% of the Indian population is covered under some form of health insurance, including government-supported schemes (4).

Type of health insurance:

- Voluntary health insurance schemes or private-for-profit schemes;
- Employer-based schemes;
- Insurance offered by NGOs / community based health insurance, and
- Mandatory health insurance schemes or government run schemes (namely ESIS, CGHS).

Health insurance segment has grown with a CAGR of 30% during past seven years. The share of four public sector insurers in the total health insurance premium was 61% in 2012-13.

While private insurers contributed 28% of the total health insurance premium, the rest 11% was contributed by four standalone health private insurers. Premium collected IN 2013-14 year is 16.57% (15701 Cr.) more than last year. Initiative taken by IRDA to develop health insurance sector:-

- Issued a circular for effective portability of health insurance policy.

- Authority gave direction to all insurers to not to repudiate genuine claims based on delayed intimation or submission of claim.
- Formed Health Insurance Forum
- Formed guidelines for standardization of health insurance.

National and State wise Health Insurance Coverage in 2010

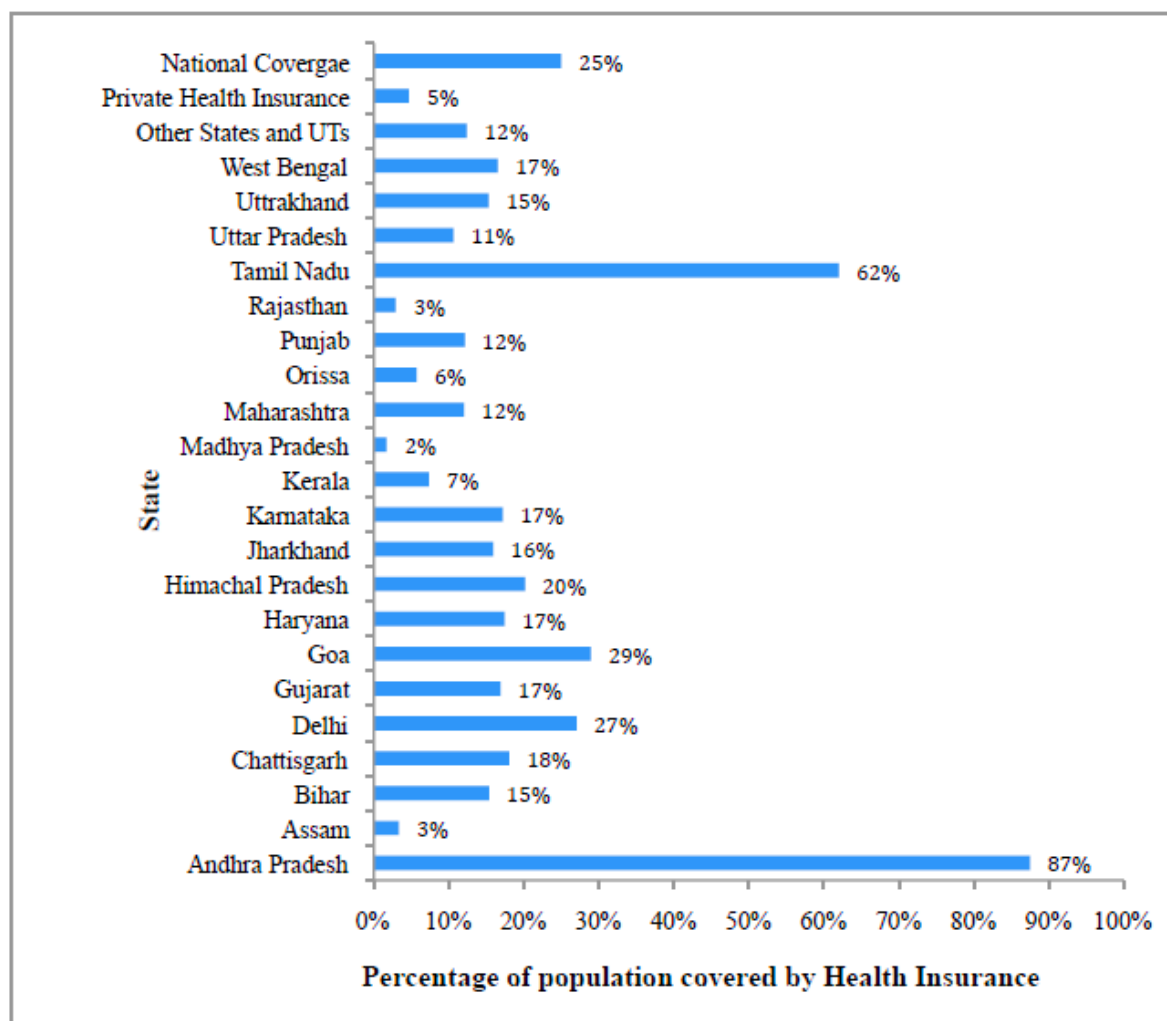


Figure: 2 Source: Handbook on Indian Insurance Statistics 2010-11 published by IRDA

Health Insurance:

Key Stakeholders of health insurance are Health Insurance Industry, Government, Distribution channel partners, NGOs / SHGs / MFIs, Media / Telecom, Customer, Insurance companies, TPAs, Health Providers.

Issues & challenges:

Issues & challenges faced by insurance companies includes Limited influence over healthcare delivery mechanism, High claim ratio (94.63%), Low level of consumer awareness, Limited product development, and Increase in claim amount due to moral hazard.

Third Party Administrator (TPA):

The Insurance Regulatory and Development Authority of India (IRDA) defines **TPA** as a Third Party Administrator who, for the time being, is licensed by the Authority, and is engaged, for a fee or remuneration, in the agreement with an insurance company, for the provision of health services. A TPA's role is to provide administrative support to the insurance companies for servicing their insurance policies. In some cases the insurance company sets up an entire department within their own company to act as TPA

TPA's role:-

TPA does Record maintenance of policies of an insurer, Issue identity cards to all the policyholders, provides 24 hour toll free line, build up a provider network, Tracks fraudulent claim cases, Issues Cashless facility to insured, Handle reimbursement claims, Manage payment to hospitals.

Role of TPA desk in hospital(Kokilaben Dhirubhai Ambani Hospital):

TPA desk in hospital does Counseling of patient/relative, takes Pre-Authorization from TPA companies, provides Cashless admission, handles Query, sends Enhancement requests, requests for Final approval, Maintains privacy and confidentiality.

Back Office work:-

After discharge of patient back office CCO Collects document like reports, bills, and discharge summary, Compile them and send them to finance department. Finance department –check and sign. Then this Couriered to TPA or TPA representative comes to collect. And they handle Query.

Issues & challenges:

Issues & challenges Faced by TPAs are Limited influence over healthcare delivery network, Delay and issues in claim processing, Limited funding support from insurance company, Process of acquiring approval by the TPA takes long time, Repeated query, Pre-authorization form filling procedure, Maintenance of all records, Claim settlement by TPA take time more than 60 days for some TPAs, and high Discharge turnaround time.

Cashless Hospitalization process:

Cashless hospitalization means, a Medi claim policyholder need not to pay the hospital bill and getting reimbursement later on, but the policyholder will be able to avail medical services at designated hospital and his bill will be settled through TPA. The settlement is done by insurance company directly but prior approval (Authorization) is required from TPA before the patient is admitted into the hospital.

List of T.P.A. affiliated with the hospital:-

- Dedicated Healthcare Services (India) Pvt. Ltd
- E- Meditek TPA Services Ltd
- MD India Healthcare Services TPA Pvt. Ltd
- Medi Assist India Pvt Ltd
- Medicare TPA
- Paramount Health Services Pvt Ltd
- Park Mediclaim TPA Pvt Ltd
- Raksha TPA
- United Health Care (parekh).

Insurance Companies (providing cashless admission)

- Star Health and Allied Insurance Co. Ltd
- Religare Health Insurance Company Ltd
- Reliance General Insurance
- Max Bupa Health Insurance Company Ltd
- IFFCO Tokio GIC Ltd
- ICICI Prudential Life Insurance Company Ltd.-
- HDFC Ergo General Insurance Company
- ICICI Lombard General Insurance Co. ltd
- Future Generali India Insurance Co
- Bajaj Allianz General Insurance Company Ltd
- Apollo Munich Health Insurance Co Ltd

For International Patients

- AXA Assistance -
- International SOS Services
- Vanbreda International

Whenever there is need for hospitalization the policyholder should obtain an authorization letter from TPA. In case of cashless hospitalization with network hospitals there could be two situations- planned hospitalisation or emergency hospitalisation.

Admission Process for Planned Hospitalization:

- The request for authorization for planned treatment has to be filled up by patient and concerned consultant. For that patient/relative come to TPA desk and collect Pre-Authorization form of respective TPA.
- Completely filled form has to be submitted at TPA desk four day before the planned admission.
- Customer Care Officer (CCO) at TPA desk sends the form with document to respective TPA.
- TPA responds to form by approval or query.
- In both cases Patient is informed and query answered.
- Patient gets admitted by paying the balance amount as a deposit.

Admission Process for Non-Planned Hospitalization:

- Patient gets admitted by paying the amount.
- Relative come to admission desk and collect the pre-authorization form
- Completely filled form has to be submitted at TPA desk four day before the planned admission.
- Customer Care Officer (CCO) at TPA desk sends the form with document to respective TPA.
- TPA responds to form by approval or query.
- In both cases Patient is informed and query answered.
- Patient pays the balance amount.

Cashless Discharge process:

- Consultant plans for discharge.
- CCO at TPA desk sends Discharge summary, final bill and reports of patients to respective TPA.
- TPA sanction amount (part or full of bill)
- CCO informs the Patient, in case of partial approval patient pays the balance amount and gets discharge.

RATIONALE OF STUDY:

Longer final cashless approval process time is leading to delayed discharges of insured patients leading to:-

- Patient dissatisfaction.
- Delay in admission of next patient.
- Unnecessary burden on staff.

RESEARCH QUESTIONS:

- What is the average duration of discharge process for cashless patients?
- What are the reasons behind delay in discharge process for cashless patients?
- What are the major Queries for cashless patients?

OBJECTIVE:

- To analyse cashless hospitalisation services.
- To identify the reasons behind the delay in cashless discharge process.
- To identify frequently asked queries.
- To find out time taken by TPA's to sanction final approval.

Operational Definition

- **Cashless Hospitalization:** - Cashless hospitalization is a service provided by an insurer, wherein the insured is not required to settle the hospital expenses at the time of discharge from hospital(5).
- **Discharge:-**Discharge is defined as, “a release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary” (6).
- **TAT of discharge:** - Duration of discharge process from pre-discharge time to the time when patient left the ward.
- **Pre-Discharge Time:-**Time when nursing staff make entry on HIS about the discharge.
- **TAT of TPA/insurance Company:-**Time taken by TPA/Insurance Company to sanction the final approval.

Research methodology:

Research Design:

Research approach adopted in the study is descriptive on the basis of analysis of DATA. The location of study is TPA desk and department of Kokilaben Dhirubhai Ambani Hospital.

Study is done in between 1st April, 2014 to 14th May, 2014. study covered All Cashless patients between data collection period.

Data Collection:

Primary data is collected through observation, and Secondary data through Records. For the purpose of DATA collection I have designed Observation Checklist (attached in annexure). DATA is collected through Observation. Data is collected between 15th April, 2014 to 15th May, 2014, which includes 206 no. of cases, and 266 no. of queries of 123 cases.

Results and discussions:

Average TAT of discharge process for TPA patient is 5hr 22min, in which 2hr 32min is taken TPA/Insurance Company. On an average hospital staff takes 2hr 20min to send the documents to TPA/Insurance companies from Pre Discharge Time.

Time taken to send discharge summary at TPA desk from the Pre-discharge time is 1hr 46min, and Time taken to send final bill to TPA desk from the Pre-discharge time is 1hr 12min, and Time taken by TPA desk staff to send the documents to TPA/Insurance Company is 19mins.

Queries are asked at time of Pre-authorization, Enhancement, and Discharge. Queries are of two types -Clinical query, and Non-clinical query. Maximum queries are asked at the time of Pre-authorization.

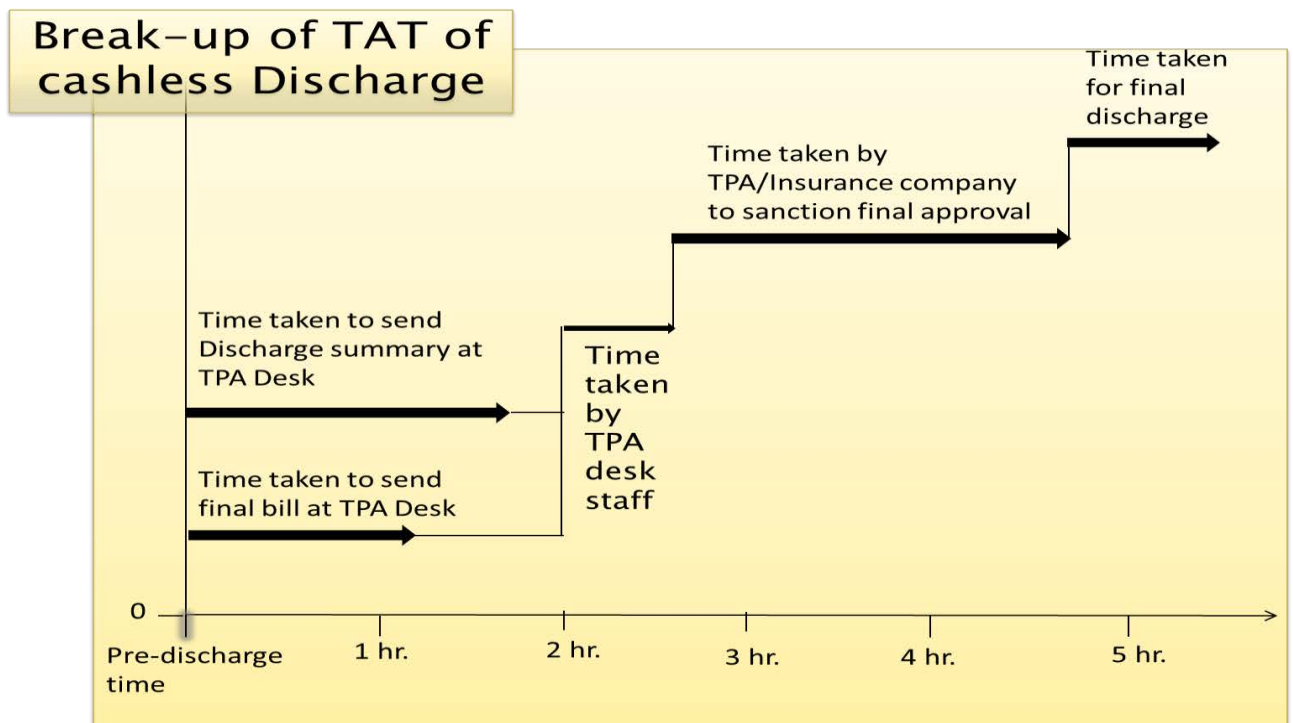


Figure: 3 Breakup of TAT of cashless Discharge process

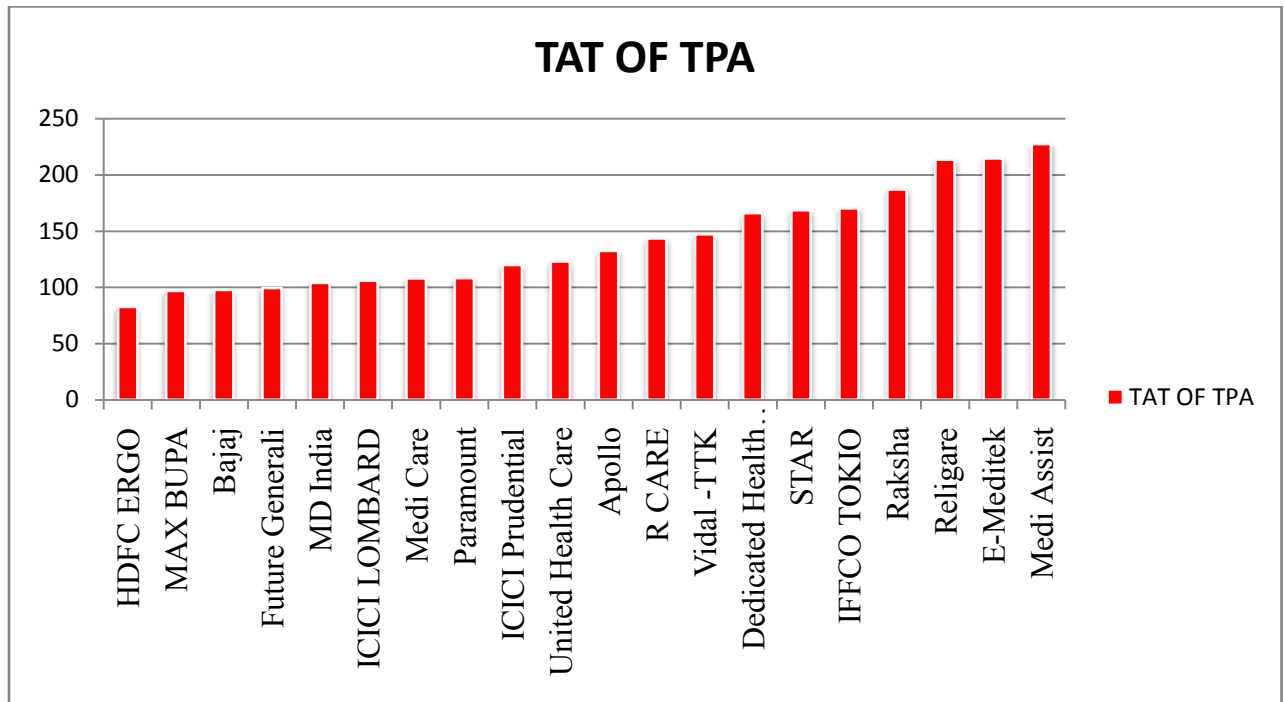


Figure: 4 Time taken to sanction final approval from Different TPA/Insurance Company

Analysis-Inference:

Medi-assist takes longest time to sanction the final approval which is 3hr 47mins. Minimum time to sanction the final approval is taken by HDFC ERGO which is 1hr 21mins.

Minimum Discharge time is 1hr 40 min after pre discharge time in which 27 min is taken by insurance company reliance care, and Maximum discharge time is 33hr from pre discharge time in which 30 hr is taken by TPA Medi-assist.

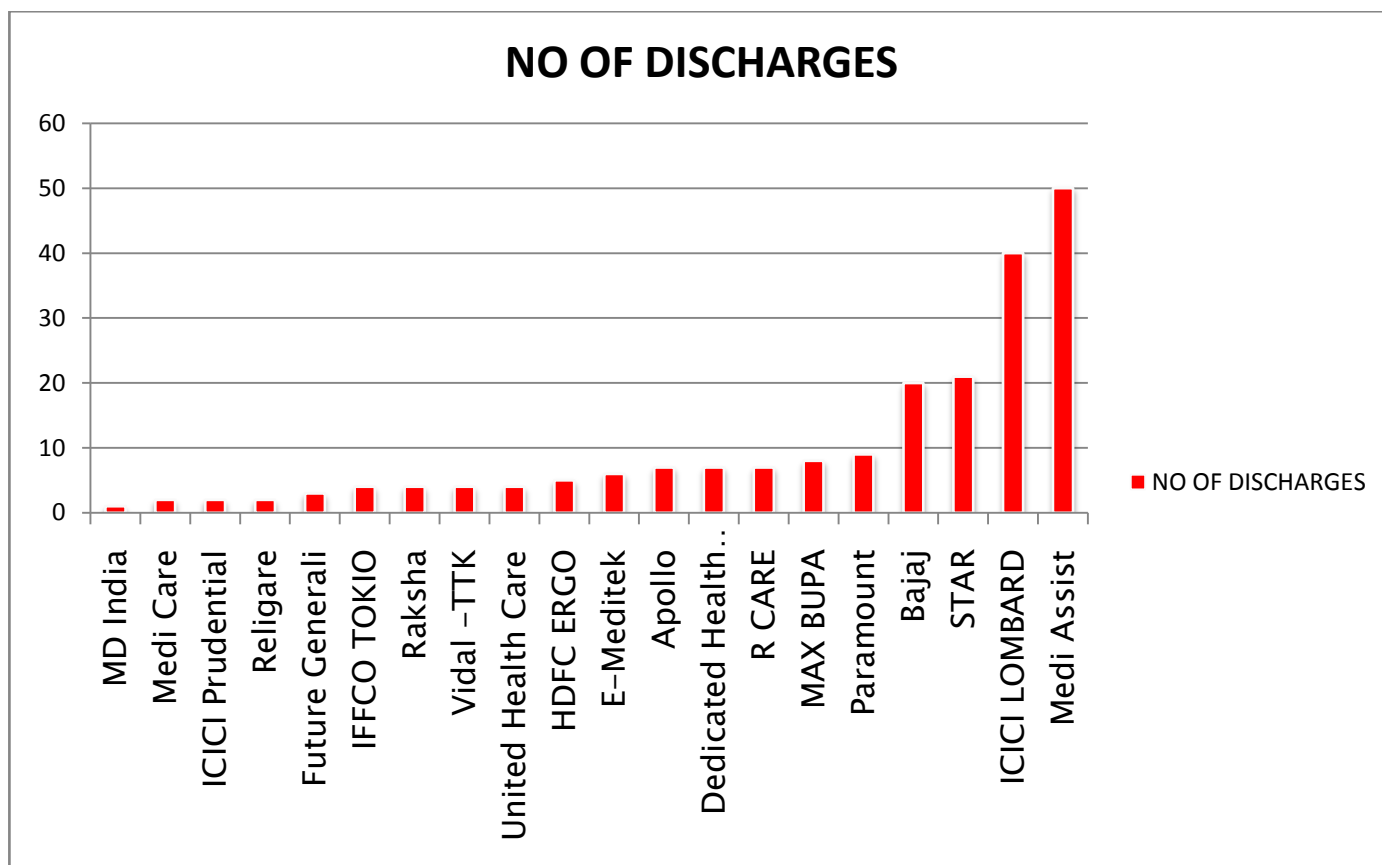


Figure: 5 No. of patient get discharged of Different TPA/Insurance Company.

Analyses:

Maximum no of patient are from Medi-Assist which are 50, and followed by ICICI LOMBARD which are 40.

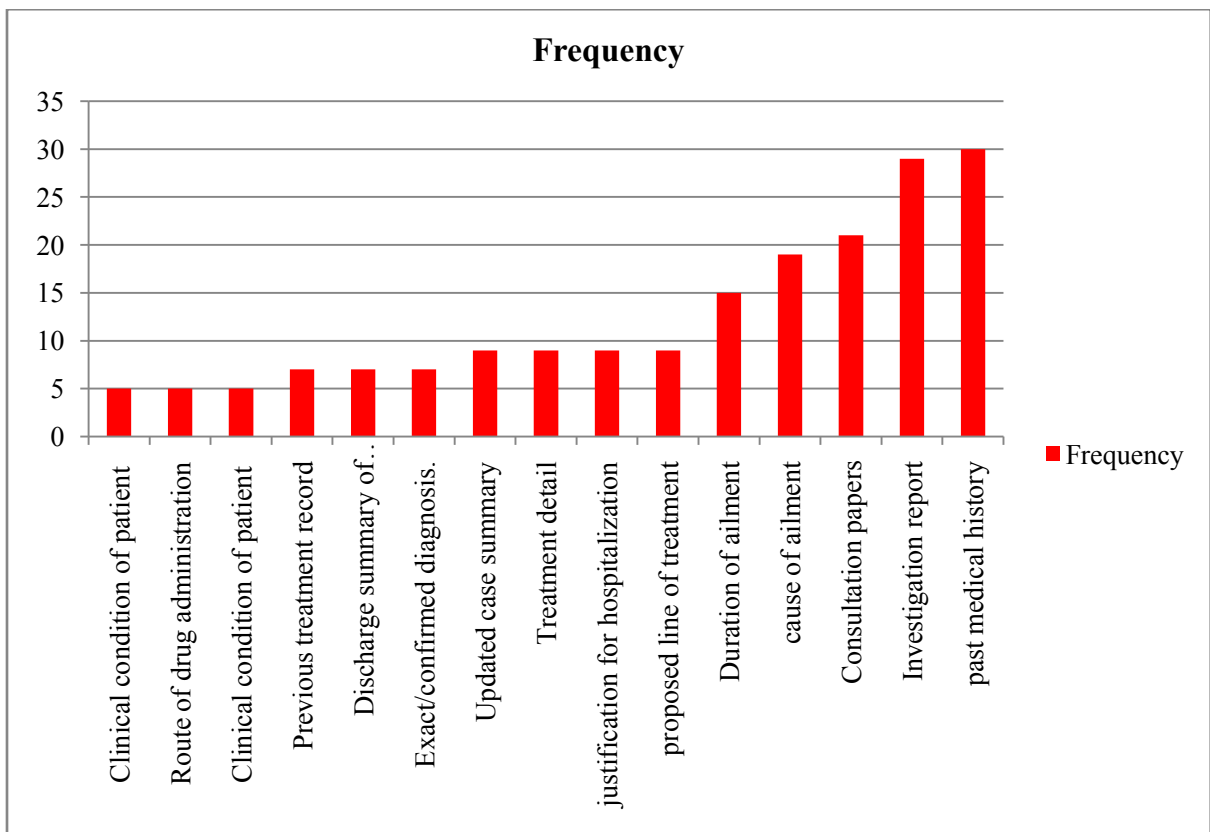


Figure: 6 frequently asked Queries.

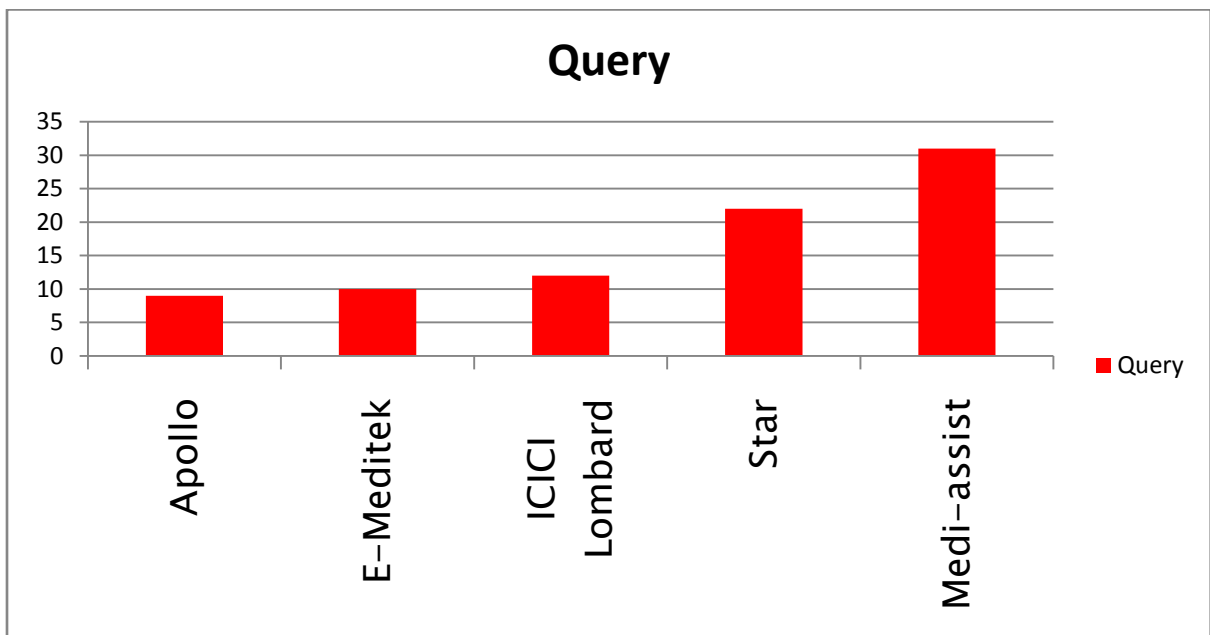


Figure: 7 No. of Queries asked by respective TPA/Insurance

Problem Areas:-

- Process of sending discharge summary to TPA Desk.
- Some TPA taking more time in final approval.
- Procedure of sending bill to TPA desk.
- Counselling of Patient/Relative.
- Time wasted in informing patient about approval and query.
- Errors in discharge summary.
- Clinical query handling process.
- TAT is higher for TPA compare to insurance companies.

Recommendations:

- Every consultant should put discharge summary online.
- Shared common folder for final bill with a pop-up.
- Information should be provided by message (ready templates or system generated message).
- Portal for TPA patient containing all information from pre-authorization to discharge.
- Dedicated counter for counselling.
- Patients previous consultation letter and past medical history should be mandatorily send with Pre-Authorization forms.
- Procedure to ask whether patient is insured or not at the time of admission at admission desk.
- Query handling can be done by RMO.

Project Report-2nd

**Out-Patient Pharmacy: - Study on
availability of drugs**

Out-Patient Pharmacy:- Study on availability of drugs

The major expectation from the pharmacy department in the hospital is to make right drug available at the right time. The delays or inability in delivering of drugs and medical consumables interrupt in the smooth functioning of pharmacy (1). If drugs prescribed by internal consultants are not available in hospital pharmacy it affects hospital's image and leads to patient dis-satisfaction. In each hospital there is provision of drug formulary and procedure to add drugs in that formulary. But if drugs which are listed in formulary and not present in pharmacy it affects consultants also because they need to change prescription ordered.

Problem Area:-

Un-availability of Drugs affects patient satisfaction.

Objectives:-

- To study the OPD pharmacy's efficiency in terms of availability of medicines.
- To understand the reasons for unavailability.
- To suggest certain steps to ensure the better efficiency in the availability of drugs.

Methodology

For the purpose of study data is collected from OP pharmacy in KDAH. Study Design includes mix of Quantitative and Qualitative data. Qualitative data includes inventory, drugs listed in formulary are collected from head of OP pharmacy. Quantitative data is collected through direct observation. Data is collected and analysed from 5th may, 2014-17th may, 2014, which includes Sample size of 450 prescriptions.

Data collection

Primary data is collected through direct observation for which we made observation checklist (attached in annexure).

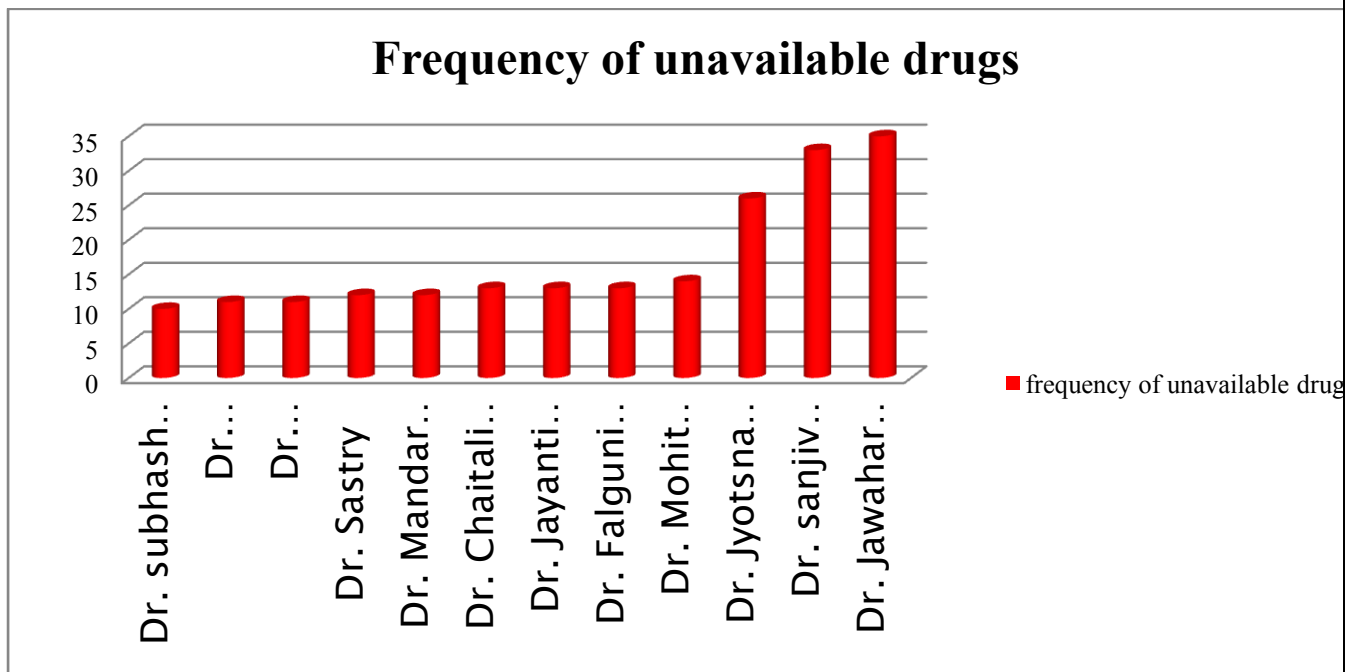
Data is collected from 5th may, 2014-17th may, 2014(10 days).

Data analysis

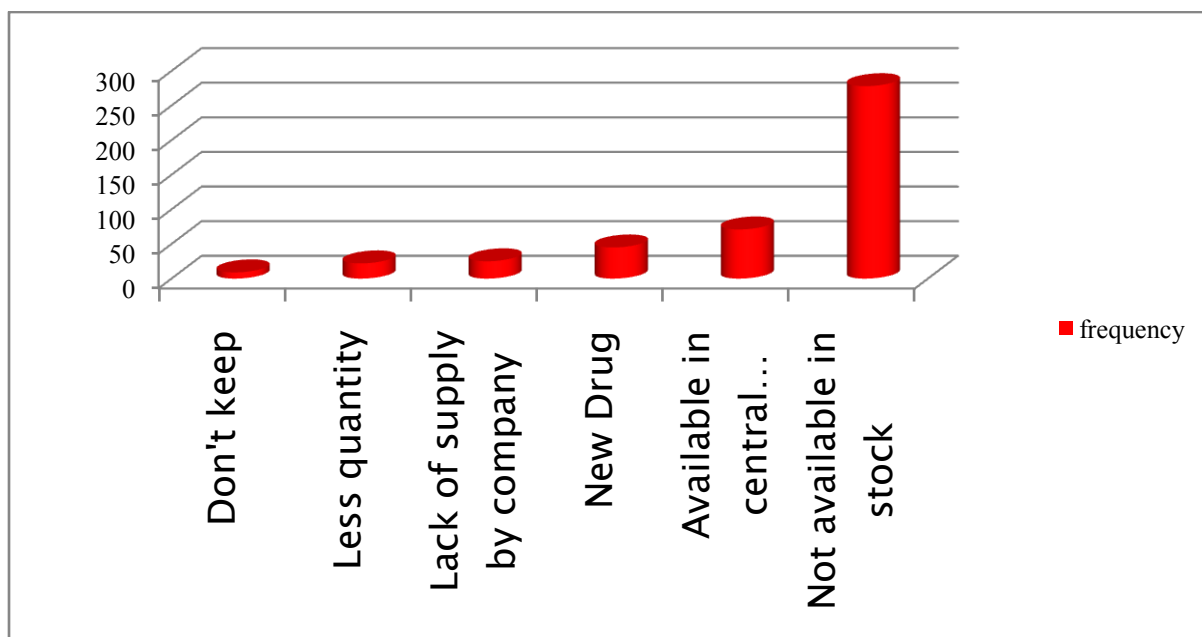
For the purpose of analysis of data we have analysed 1400 prescription in which 4213 drugs are prescribed. In which patient ask for only 3384 (91%) drugs. Average No. of drugs on each prescription is 3. During 10 days period OP pharmacy got only 49 outside prescription (3.5%). Out of 1400 prescription 450(32%) prescription contains one or more than one unavailable drug. In 450 prescriptions 503 (12%) drugs are unavailable. Out of 503 unavailable drugs 45 drugs was not listed in hospital formulary. Out of 503

unavailable drugs 71 (14%) drugs are available in central pharmacy. So 420 (82%) enlisted drugs are not available at all in hospital, in which only 119(23%) substitutes are provided.

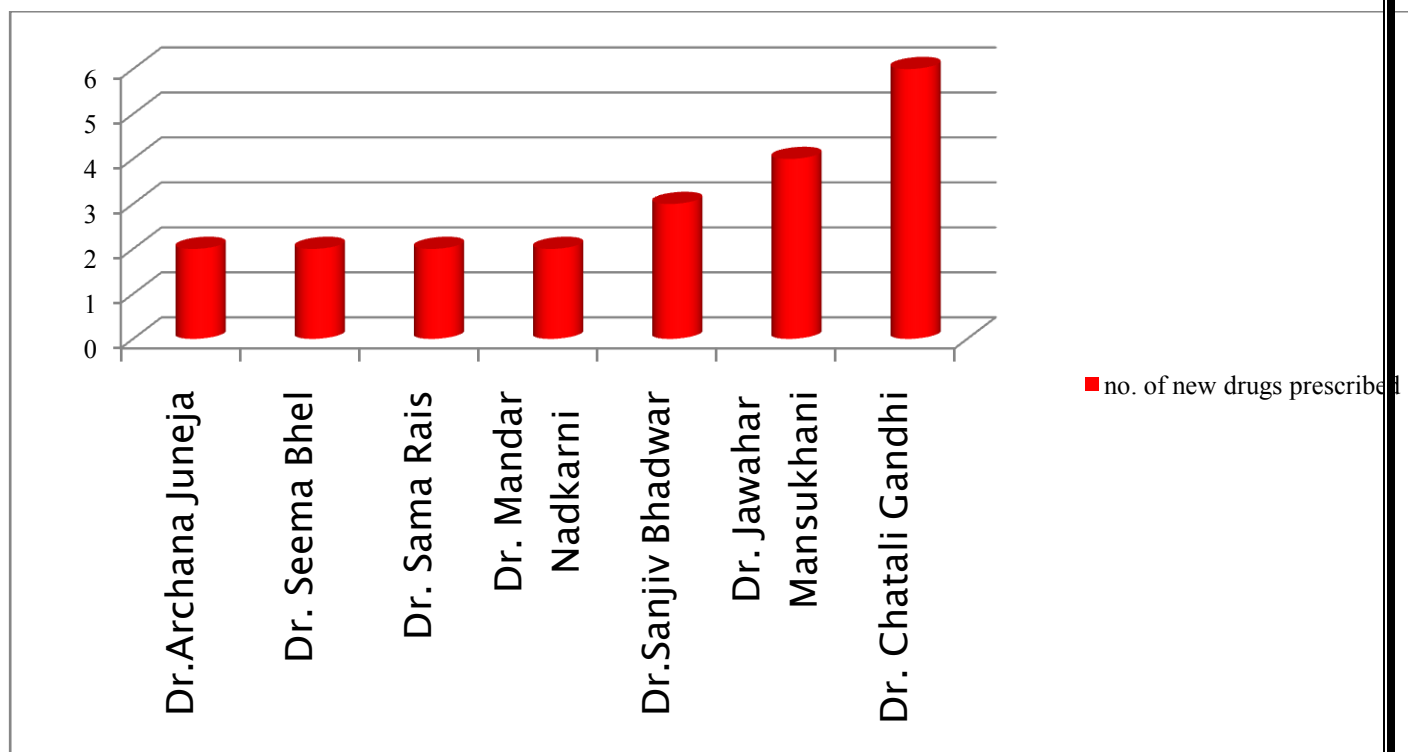
Consultants affected by unavailability of drugs



Reasons of unavailability



FREQUENCY OF NEW DRUGS PRESCRIBED BY CONSULTANT:



Critical Findings:-

Pharmacy staff doesn't keep stock at desired level. They don't keep proper check on inventory management. If drug is not present in OP pharmacy one of staff goes down in CP to collect drug from there which takes minimum of 20 minutes. Sometimes physical and online stock does not match and they keep on searching the drug. Some drugs are not supplied by company and repeatedly prescribed by consultants. If drug is not present staff call to consultant, which cause in-convenience and wastage of time. Many times staff does not take initiative to provide substitute.

Recommendations

Proper re-order schedule and system to maintain inventory can be made.

Stock of unavailable drugs should be update regularly.

Online and physical stock verification should be done at night time.

Consultants should be informed about the drugs which are not supplied by companies.

Pneumatic shoot can be installed in pharmacy to facilitate transport of drug from CP to OP.

Pharmacist should be motivated to provide substitute for unavailable drug.

Notice about substitute can be put in pharmacy with permission of consultants that all the substitutes available in OP pharmacy are authorised by consultants.

Project Report-3rd

A Study to analyse and improve the TAT for Lab Reports

A Study to analyse and improve the TAT for Lab Reports

INTRODUCTION:

Accuracy, precision, timeliness, and authenticity are the four pillars of efficient laboratory. In clinical laboratory, staffs sometimes overlook the timeliness as an important attribute and instead concentrate on improving the analytical intricacies of sample processing. However, timeliness which is expressed as the turnaround time (TAT) is often used by the clinicians as the benchmark for laboratory performance. If reports delivery is on time, it will lead to timely diagnosis of ailment and treatment. Despite advances in analytical technology, transport systems and computerisation, many laboratories have had difficulties improving their TATs. Assessment and improvement of turnaround times is essential for laboratory quality management as well as ensuring patient satisfaction.

RESEARCH TOPIC:

A Study to analyse the TAT for Lab Reports

RATIONALE OF STUDY:

- Delay in report generation leads to delay in diagnosis.
- Sometimes delay in report generation leads to delay in treatment which leads to further deterioration of patient condition.
- If patient doesn't get report on time it impacts patient satisfaction.

RESEARCH QUESTIONS:

- What is the average time taken in generation of reports for each test?
- What is the average process time for each test?
- What are the reasons behind the delay in report generation?
- What are the reasons behind the delay in sending the report to respective department?

OBJECTIVE:

- To know the time taken to generate a test report.
- To find out the time taken to send the reports to respective department.

- To identify the reasons behind the delay.

Operational Definition:

- **TAT of report generation:-**Duration of report generation process from sample registration time to the time when reports sent to respective department.

Research methodology:

Study Design: -we have selected Mix of Quantitative and Qualitative study design. Quantitative data includes no of test, time taken in procedures. Whereas qualitative data includes information regarding test processes. The location of study was Laboratory of Kokilaben Dhirubhai Ambani Hospital (7th floor). The study period was of 12 days starting from 19th May, 2014 to 30th May, 2014, Which includes 7 days data collection period. For the purpose of study we have taken 160 test reports as our sample size. Samples are selected from Haematology, Microbiology, and Biochemistry laboratory.

Data Collection:

Primary data collection was collected through observation and Secondary data through HIS. For the purpose of data collection we have prepared Observation Checklist (attached in annexure). We had selected frequently repeated tests includes: ABGA(arterial blood gas analysis), CBC (complete blood count), Electrolytes, LFT (liver function test), RFT (renal function test), Urine Analysis, and URINE CULTURE.

DATA – ANALYSIS:-

After receiving the sample, central receiving area staff distribute the samples to respective laboratories. Time taken to send samples to respective laboratory from central receiving area is 27mins in which minimum time is 5mins.

FOR **ABGA** (arterial blood gas analysis) process completion time is only 5 mins. But authorization of report by consultants takes 9hrs30mins in which minimum time taken is 1hr7min. After authorization staff takes 6 hrs on an average to print the reports in which minimum time is 32 min.

FOR **CBC** (complete blood count) process completion time is only 1hr. But authorization of report by consultants takes 12hrs 45mins in which minimum time taken is 1hr20min. After authorization staff takes 10hrs 45mins on an average to print the reports in which minimum time is 17 min.

FOR **ELECTROLYTES** process completion time is only 20mins. But authorization of report by consultants takes 18hrs 35mins in which minimum time taken is 4hr45min. After authorization staff takes 1hr 55mins on an average to print the reports in which minimum time is 1hr 9min.

FOR **LFT** (liver function test) process completion time is only 30mins. But authorization of report by consultants takes 23hrs 10mins in which minimum time taken is 6hr5min. After authorization staff takes 5hr 10mins on an average to print the reports in which minimum time is 1hr 12min.

FOR **RFT** (renal function test) process completion time is only 1hr. But authorization of report by consultant takes 20hrs 40mins in which minimum time taken is 11hr23min. After authorization staff takes 8hr 30mins on an average to print the reports in which minimum time is 1hr 15min

FOR **URINE ANALYSIS** process completion time is only 2hr. But authorization of report by consultants takes 10hrs 15mins in which minimum time taken is 50min. After authorization staff takes 28mins on an average to print the reports in which minimum time is 6min.

FOR **URINE CULTURE** process completion time is only 2-3days. But authorization of report by consultants takes 49hrs 15mins in which minimum time taken is 15hrs 15min. After authorization staff takes 2hrs 45mins on an average to print the reports in which minimum time is 3min.

After printing laboratory staff takes on an average 4hr 55mins to send reports to CRA in which minimum time is 5mins. After receiving reports C.R,A staff takes on an average 2hr 50mins to send the reports to respective wards where the patient is admitted or Report Collection Counter for OPD patients, and through courier to home. The minimum time taken for this process is 10mins.

Pneumatic shoot is used for transport of blood sample from collection site to CRA, and for dispatching the report to respective department.

Critical Findings

Through analysis of data it is found that report authorization takes longer time due to single shift of consultants. After printing laboratory staff doesn't send report on time to CRA, and wait for HCA (health care executive) of CRA to come and collect the report. After collection of reports from different laboratory CRA staff doesn't dispatch on time but wait for all the reports. Pneumatic shoot doesn't come on time to CRA from ward, CRA staff keep on asking the ward nursing staff to send the shoot.

Recommendations

Online Authorization:- the facility for online authorization of reports should be provide to consultant's to reduce the authorization time. One consultant should be present in lab in evening hours.

Reports should be dispatched as soon as they come in CRA. Report printing can be done in CRA.

Number of shoot container can be increased to reduce waiting time of shoot for sample and report transport.

Project Report-4th

Closed medical record audit form

Closed medical record audit form

Sl. No.	Criteria	Compliance (in percentage)
Admission and discharge record form		
1.	Final diagnosis mentioned	48.99
2.	Icd coding	37.58
3.	Cause of death	97.28
General consent for treatment		
4.	Signed , named , dated and timed by patient/ gurdian /relative	61.74
Discharge against medical advice		
5.	Signed , named by patient/ gurdian /relative	98.66
6.	Relationship of signatory with patient mentioned	99.33
7.	Date and time mentioned	100
Patient's history examination and plan of care record		
8.	Date/time written by doctor	71.81
9.	Name of informant with relationship of patient	18.79
10.	Vulnerable patient categorized	5.37
11.	Presenting complaints written	98.66
12.	History of present illness written	91.95
13.	Past history written	88.51
14.	Prenatal history(in case of pediatric patient) written	93.96
15.	Developmental history (in case of pediatric patient) written	95.97
16.	Immunizations history(in case of pediatric patient) written	96.64
17.	Feeding /dietary history(in case of pediatric patient) written	95.30
18.	Family history written	61.07
19.	Personal history written	51.01

20.	Gynae&obst history written (for female patient)	73.83
21.	Allergic history written	64.43
22.	Current medication list written	67.79
23.	Physical examination written	89.26
24.	Systemic examination written	93.29
25.	Provisional diagnosis mentioned	89.93
26.	Date / time written on plan of care	28.86
27.	Investigation order mentioned	42.28
28.	Initial nutritional assesment done	77.85
29.	Nutrition / diet order mention	75.84
30.	Plan of treatment written	45.64
31.	Any procedure / surgey need mentioned	34.23
32.	Preventive care mentioned	10.07
33.	Signature of consultant with name date and time written	14.77
34.	Plan of care countersigned by admiting consultant within 24 hrs	24.16
35.	Goals / desired results of treatment, care of service mentioned	11.41
36.	Doctor's orders dated , signed , timed and named	51.68
37.	All prescription orders are clear legible and written in uniform location	88.59
38.	Al procedure performed are recorded dated timed , signed and named	89.12
OPERATIVE AND OTHER INVASIVE PROCEDURES		
39.	All consent forms (surgery, anasthesia, special procedure) signed by patient/ gurdain/ relative	93.69
40.	Pre-anesthesia assessment done and documented	90.60
41.	Operative notes documented and authenticated by chief surgeon	95.30
42.	Post operative plan of care documented	93.29
43.	Surgical safety check list complete	92.62
NURSING RECORDS		
44.	Nursing initial assessment done and documented	98.66
45.	Nursing care plan documented	99.33
46.	Pain screening/assessment done	92.62
47.	Clinival chart completed	97.99

48.	Daily nursing record sheet complete	98.66
49.	Nursing notes legible, signed, named, dated	100.00
50.	Medication administration record completed, legible, signed, dated	96.62
51.	High risk medication administered after verification and signed by 2 staff	89.93
52.	Medication chart with error prone abbreviations	79.19
DISCHARGE SUMMARY		
53.	Copy of discharge summary attached	98.64
54.	Discharge summary is complete and signed by consultant	98.64
55.	Discharge summary contain follow up advice and other instruction in understandable manner	98.64
56.	Discharge summary mentions about when and how to contact in case of emergency	97.96
OTHERS		
57.	Informed consent form for special procedure are complete, signed, named & attached with patient file	100.00
58.	All consent form are legible complete, signed and named by doctor	91.28

References:

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