

TIME IN THE OUT-PATIENT DEPARTMENT

**Internship Training
at
Apex Hospitals Pvt. Ltd. Jaipur**

**By
Swati Bapna**

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

**MBA Hospital & Health Management
2013–15**


**Institute of Health Management Research
Jaipur
2015**

**“STUDY ON REDUCING WAITING
TIME IN THE OUT-PATIENT DEPARTMENT “**

Dissertation

In

APEX HOSPITALS, JAIPUR

(March 1 – April 30, 2015)

By

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Under the guidance of

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MBA Hospital and Health Management

2013 – 2015



**Institute of Health Management Research,
Jaipur**

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Swati Bapna** student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone dissertation/internship training at Apex Hospitals, Jaipur from 1st March, 2015 to 30th April, 2015.

The Candidate has successfully carried out the study designated to her during dissertation/internship training and her approach to the study has been sincere, scientific and analytical.

The dissertation/internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.

Col. (Dr.) Ashok Kaushik
Dean, Academics and Student Affairs
IIHMR, Jaipur



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The certificate is awarded

DR. SWATI BAPNA

In recognition of having successfully completed her
Internship in the department of

Quality

And has successfully completed her Project on

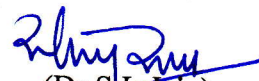
“STUDY ON REDUCING WAITING
TIME IN THE OUT-PATIENT DEPARTMENT “

1ST MARCH, 2015-30TH APRIL 2015

Apex Hospitals, Jaipur

She comes across as a committed, sincere & diligent person who has a
Strong drive & zeal for learning

We wish her all the best for future endeavors


(Dr. S.L. Jain)

Head-Human Resource

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "A Recommendation On Reducing Waiting Time In Out-Patient Department" submitted by Dr. Swati Bapna

Enrollment No.1513 under the supervision of Col (Dr.) Ashok Kaushik for award of MBA Hospital and Health Management of the university carried out during the period from 1st march, 2015 to 30th April,2015. Embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.


Signature

ACKNOWLEDGEMENT

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

I am extremely indebted to all the professionals at Apex Hospitals, Jaipur 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 for providing me an opportunity to work in their organization. I would like to thank Dr.Ruchi Khanna (Quality manager), mentor in Apex Hospital, 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 for their cooperation which enabled me to complete my special assignment in the department.

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Dr. Swati Bapna

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ABSTRACT

The main objectives of the Out-patient department of a hospital should include the reduction of patients' waiting time in the system, improvement on the services given, and better resource utilization. This study was carried out at Apex Hospitals, JAIPUR where the outpatient department serves 300 patients daily. The objective of the study was to find the waiting time and find the factors responsible. The sample size of the study was 100 which include patients coming to the outpatient department of the hospital and the staff of the hospital. The analysis was done using Microsoft Excel and found that the patients at the central registration counter, OPD waiting are and Doctor consultation has to wait for long. Inspite of infrastructural constraints the waiting time can be reduced to the large extent for which suggestions are given in the study.

Outpatient service is the most important service provided by all the hospitals as it is the point of contact between a hospital and the community. It is an ambulatory care centre which provides to all members of a community the whole scope of services that are needed to keep them in good state of health directly or by referral to more qualified institutions. OPD in a hospital serves the facility for diagnosis and treatment of patients. Many patients gain their first impression of the hospital from the OPD. In other words, the first impression will have lasting effects. A well managed, neat and clean hospital with necessary information boards and proper directions generally provide good image. Successful and efficient management of OPD can lighten the burden on the patient wards.

Nowadays OPD services of the majority of hospitals are having queuing and waiting time problem. Patients' waiting time refers to the time from the registration of the patient for appointment with doctor till they enter the doctor's chamber.

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**
- **ECG – Electro Cardiogram**
- **TMT – Treadmill Test**
- **FMO – Front Office Manager**
- **FOE – Front Office Executive**
- **HOD – Head Of Department**
- **HRD – Human Resources Department**
- **ICU – Intensive Care Unit**
- **IPD – In-patient Department**
- **MRD – Medical Records Department**
- **MLC – Medico Legal Case**
- **OPD – Out Patient Department**
- **HDU- High Dependency Unit**
-

Profile of Apex Hospitals

Apex Hospital is a NABH accredited multi-specialty, 200 bedded, state-of-art medical centre, in Jaipur (Rajasthan, INDIA).

Established in year 1994, Apex became one of the first institutes in India to attain ISO 9001 under the leadership of the Managing Director, Dr S.B. Jhawar, a renowned name in the field of medicine over the entire belt of Rajasthan. Dr. S.B. Jhawar, M.D. (Medicine), worked in different hospitals in Dept. of Medicine/Geriatric Psychiatry in England (1975-76). He is one of the first practitioners to start and pioneer Ultrasonography in Rajasthan.

From 1994, over the next few years, the hospital gained momentum by leaps and bounds as an impressive team of well known doctors joined in. Apex, since its beginning, set continual expansion and enrichment as its goal. Today, apex is one of the very few medical centres in the region with multi-specialty facilities for Cardiac care, Renal transplant, Joint replacement, Obesity surgeries etc. under one roof.

We are committed to deliver high quality medical care at an economic price. Apex hospital is authorized by state government and other institutes.

A quick glance at Apex Hospital

- **Large building with 30,000 sq. ft. built up area**
- **Total number of beds: 200**
- **Intensive Care Unit: 50 beds**
- **Fully equipped Neonatal ICU**
- **5 operation theatres**
- **200 full-time employees**
- **35 eminent consultants**
- **Cath labs & angiographies**

- **Kidney Transplants**
- **Obesity / Weight loss Surgery**
- **Medical Tourism Initiatives**
- **Featuring Tele-medicine**

VISION

To deliver quality conscious and technology driven contemporary healthcare across segments in an environment that is oriented towards patients and staff need with all endeavour to ensure continuous education and training for a multi-faceted personal and liner organisational growth.

MISSION

To provide holistic quality care at a minimal cost in a hygienic environment with perseverance, dedication 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.

HOSPITAL INFRASTRUCTURE

1. Lower basement

- Laboratory
- Inventory Department
- TPA counter

2. Upper basement

- Ultrasonography
- Multi-specialty OPD
- Radiology
- CT Scan
- Central report collection centre
- Discharge and billing
- Admission counter
- HRD
- Conference hall
- Health check up program
- Sample collection

3. Ground floor

- Main Reception
- Accident and emergency
- Pharmacy
- Prayer area
- Food court
- CSSD
- Mortuary

- Dialysis
- BMW
- Maintenance department

4. First Floor

- Clinical administration
- ACRI oncology centre
- Male ward
- Female Ward
- Labor room
- Dialysis

5. Second floor

- Deluxe rooms
- Private rooms
- Semi-private rooms
- ICU (Neuro and surgical)
- HDU
- Isolation rooms
- Catheterization lab

6. Third floor

- OT complex 1 (4 theatres)
- Bio-medical engineering

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

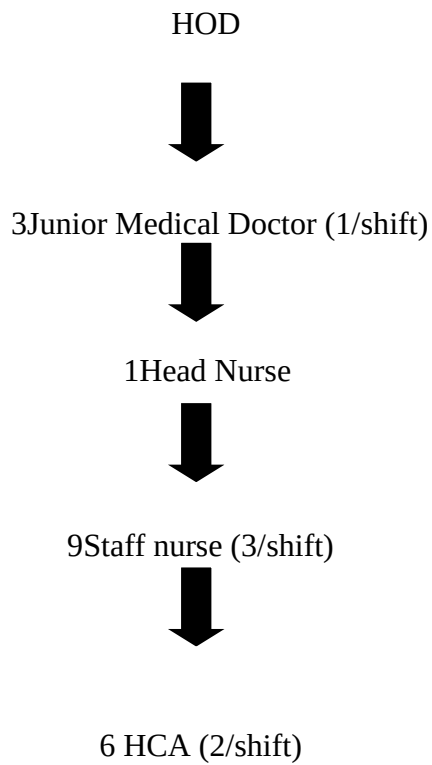
- 11 bedded (6+3 triage + 2 isolation)

- 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
 - ✓ Cautery machine
 - ✓ OT table
- Procedures done in minor OT
 - ✓ Lumbar puncture
 - ✓ Bone marrow aspiration
 - ✓ Suturing

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) BLS ambulance-1
- b) Cardiac Ambulance-1

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)
- Sphygmomanometer
- Stethoscope
- 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

OUTPATIENT DEPARTMENT

Apex Hospital has 20 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:

- *Cardiac care & Cath Laboratory*
- *Renal Science Department*
- Centre for neurosciences
- Centre for cancer
- Centre for physical medicine and rehabilitation
- Centre for bone and joint

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

a) Access to OPD services:

All patients who visit Apex hospital 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.

Following services are offered in the OPD

- Medical / Surgical consultations
- Preventive Health check-up packages
- Laboratory investigations
- Cardiology investigations
- Neurology investigations
- Pulmonary investigations
- Pain management
- Endoscopy
- Bronchoscopy
- Physiotherapy
- ENT
- Dental procedures
- Oncology
- Radiation oncology

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. 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
- ENT surgery
- Transplantation surgeries

The OT complex has a pre and post-operative monitoring room for continuous monitoring of patients (recovery rooms).

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 ground floor (male & female wards) and 1st floor private, semi-private and deluxe suites. The IPD rooms are of the following types: single room, twin sharing, deluxe room and suits

Shift timings:

For doctors

- ✓ Morning : 8 am - 2pm
- ✓ Afternoon : 2 pm - 8pm
- ✓ Evening : 8pm - 8 am

For nurses, HCA and housekeeping staff

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

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 THERAPHY	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

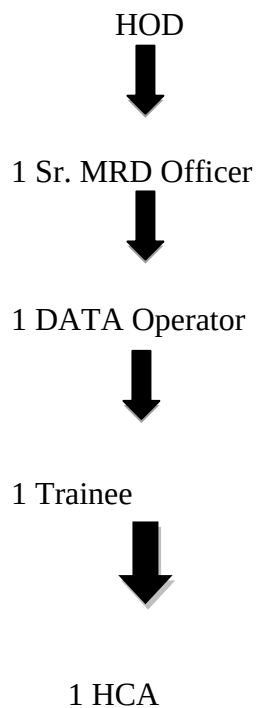
Miscellaneous Equipment

- Crash Cart
- Dressing trolley
- Procedure trolley

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

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 Apex hospital is to make available appropriate adequate quantity and high quality of safe blood and blood component to “anyone, anytime, anywhere” in medical community. Apex Hospital 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.. 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.

IMAGING

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

- CT Scan
- X-Ray
- Ultrasonography

The HIS has a system for appointment scheduling for each of these investigations. The appointments are given by Call Centre. There are 1 X-ray machines, 1 ultrasonography machines, 1 CT Scan machine. 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). 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

It is divided into 3 zones

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

HOUSE KEEPING:

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

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

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 source⁴ of generation. The red bag is sealed and labelled 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, 1 biomedical engineers and 1 biomedical 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

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.

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 APEX HOSPITAL. It is manned by duty manager, patient care executive and patient care coordination. There are total 2 front offices in Apex hospital and there are 1 help desks.

Functions:

- Respond and answer telephone calls from patients and clients.
- 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

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.

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 at the ground floor 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 Apex hospitals. Marketing deals with organizing health check-up camps and, 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 :

- Senior executives
- 1 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 Apex 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 Apex 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 analyse patient feedback forms.
- To analyse different parameters from different departments and compare them.
- Infection control of the hospital.
- Induction and training of hospital staff.
- Accreditations (NABH).

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.

Facilities:-

24 hours Emergency

- ▶ State of art advanced Cath Lab (Siemens Artis Zee) with fully equipped 8 bed CCU
- ▶ Fully equipped Neonatal ICU, Phototherapy, Radiant warmer, & Exchange transfusion.
- ▶ All vaccinations & Nebuliser therapy for asthmatic children
- ▶ Five highly equipped operation theatres with a separate labour room.
- ▶ Super deluxe & deluxe rooms (with A/C, Balcony, TV, Fridge, Telephone)
- ▶ Cafeteria, Dormitory with bath / toilet for the attendants
- ▶ 24 hrs. Medical shop, Ambulance, Laboratory and Radiology services
- ▶ Evening OPD (5- 7 PM): Dentistry, ENT, Gynecology, Medicine, Ophthalmology, Physiotherapy, Surgery.

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INTRODUCTION

An outpatient is another hugely important area for the majority of patient pathways. It is usually the step in the patient's pathway where the majority of different pathways intersect, diagnostic tests are reviewed and the decision to treat (or request additional testing) is made.

Most trust activity data is captured for outpatients. It is only when you try to wholly understand the outcome of an individual patient consultation that the current systems fail to inform, particularly if a patient is referred onto another centre for treatment. Records of this are often patchy and ad-hoc, as are dates when decisions are made to treat or not treat the patient. For the purposes of 18 weeks recording, it will be imperative to capture these additional dates in order to measure and calculate patient journey times accurately. Demand for outpatient consultations remains high and has increased over the previous year nationally. Frequently a high demand and stagnant capacity will drive waiting times higher. New ways of working and delivering services are required that differ from the more traditional methods along with regular validation and screening of referrals to manage demand at the source of referral. The outpatient waiting list is dynamic - the number of patients entering and leaving the lists at the various stages will differ between organizations, specialties and individual consultants of the same specialty.

Understanding the flows on and off the waiting list forms the basis of waiting list and activity modeling and monitoring.

Outpatient service is the most important service provided by all the hospitals as it is the point of contact between a hospital and the community. It is an ambulatory care centre which provides to all members of a community the whole scope of services that are needed to keep them in good state of health directly or by referral to more qualified institutions. OPD in a hospital serves the facility for diagnosis and treatment of patients. Many patients gain their first impression of the hospital from the OPD. In other words, the first impression will have lasting effects. A well managed, neat and

clean hospital with necessary information boards and proper directions generally provide good image. Successful and efficient management of OPD can lighten the burden on the patient wards.

Nowadays OPD services of the majority of hospitals are having queuing and waiting time problem. Patients' waiting time refers to the time from the registration of the patient for appointment with doctor till they enter the doctor's chamber to the laboratory, Radiology and finally Pharmacy department.

Various functions affecting the services of an OPD are:

- The patients' arrival pattern at the central waiting room.
- Time of services given at various clinics of OPD.
- Queue lengths at waiting rooms of clinics of OPD.

Since the numbers of patients are large and the treatment should be given within a day the bottlenecks occurred with respect to these constraints can be solved by an effective management design.

The Basics (First Outpatient Appointment) Process maps the service in order to understand the patient flow dynamic and potential bottlenecks.

- Understand the demand and capacity of the service.
- Understand the baseline levels of activity of the service.

Review the booking process in order to understand the administrative processes involved with these clinics.

Review the clinic templates and schedules for all staff that hold these clinics. Understand the baseline waits that patients experience and the overall variation.

Understand the Did Not Attend (DNA) rates, new to follow-up ratios and hospital clinic cancellation rates for each clinic and member of staff who hold these clinics.

Review the referral criteria and guidelines for the clinic in order to understand what patients are currently referred to the service. Discuss the service with all related staff – get a feel for how the service is viewed and used and also establish the current issues and challenges of the service.

Improved communication to GPs on the criteria is required in order to maintain the referral process along agreed pathways of care. □ It is clear that a ‘rapid access’ model of care for outpatients has a significant impact on overall pathway times. Trusts need to consider duplicating similar models for other high volume specialty conditions such as heart failure and arrhythmias. A review of diagnostic access for outreach clinics should be made (if relevant) to prevent the post-outpatient appointment (OPA) diagnostic scenario. The benefits locally accessible service versus overall service efficiency and the potential for reduced waits will need to be balanced.

It may be possible to continue these services based on tighter screening of patients requiring little diagnostic intervention. Some patients will experience multiple pathways of care at any one time and cross a number of specialist areas. Tighter integration of systems will be improve the efficiency of monitoring these patients, but particularly where stand alone data systems are used. Improve the utilisation and co-ordination of one-stop clinics (where diagnostics are held on the same day as the outpatient appointment) to maximise diagnostic activity during these sessions and avoid unused diagnostic slots. The Department of Health 18 week delivery trajectory will be challenging as maximum outpatient waits will need to reduce over the coming years. A system to identify and reduce backlog will need to be introduced that enables sustainability as opposed to a ‘quick fix’. □ There is often very little to distinguish the difference in average waiting times for urgent and routine outpatient appointments. Multiple slot types add inefficiency and reduce productivity so the trust will need to simplify clinic slot types as overall waits reduce. One of the major constraints on the efficiency of outpatients departments is the fixed nature of clinic rules. Consultants and their teams are allocated clinic sessions in much the same way as hospital beds used to be allocated. When a consultant (or member of their team) is not available for a particular clinic, it is then often cancelled

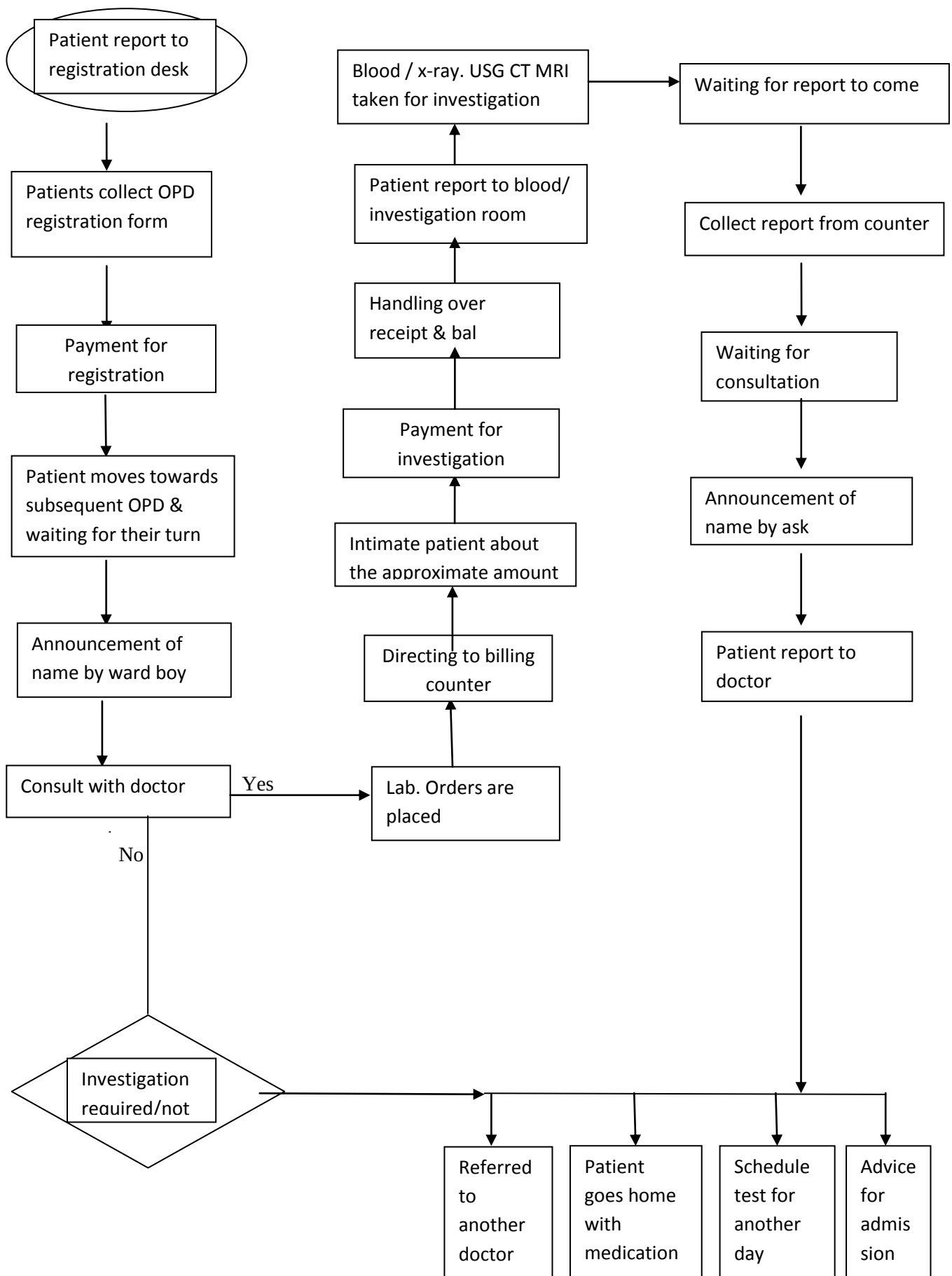
(or reduced). The number of patients seen by each consultant should be standardised in order to meet existing demand. The practice of over-booking should be reduced by clinic template review and modification which will lead to reduced cancellations.

For instance, inefficiency may incur during the clinic session and cause extra patient waiting time/clinic overtime. By ignoring the additional uncertainties, the proposed appointment schedules are unlikely to perform well in actual practice. Simulation is widely applied to simulate the complexity and uncertainties of outpatient clinic and to test the performance of different process improvement techniques applied simulation models in queue management in outpatient clinics.

Developed a simulation model to test the efficiency of different appointment schedules developed a detailed simulation model of an outpatient department. Various appointment schedules were examined to reduce patient waiting time. Studied the effects of patient and consultant punctuality on an outpatient clinic using a simulation model. [19] Compared different appointment schedules through simulation to minimize patient waiting time and clinic idle time in an outpatient clinic.

Conclusion was drawn from the simulation results that scheduling appointments with more variation toward the end of the schedule helped reduce both terms. New appointment schedules are then implemented by removing the detected factors. The implementation results show that new appointment schedules significantly outperform the original ones.

Process flow of OPD Patient:-



LITERATURE REVIEW

All patients get their first impression of the hospital from the Outpatient Department. It has been described as the first point of contact between the hospital and community and which, in many instances, can make or mar the reputation of the hospital. The importance of the Outpatient department lies in the following:

- An outpatient department is the first point of contact with the hospital and the entry point into the healthcare delivery system.
- It is an inseparable link in the hierarchical chain of healthcare facilities
- It contributes to the reduction in Morbidity and Mortality
- It's a stepping stone for health promotion and disease prevention
- It helps reduce the number of admission to inpatient wards, thus, conserving scarce beds.
- It acts as a filter for inpatient admissions, ensuring that only those patients are admitted who are most likely to benefit from such care.
- It's the "shop window" of the hospital." (Outpatient Management - VISION 2020 e-Resource)www.v2020eresource.org/newsitenews.aspx?tpath=news112007)
- The idle waiting time for consultation was reduced from 32 minutes to 14 minutes and 47 minutes to 25 minutes for scopy (UGI and LGI) services. The hospital was successful in converting 1300 patients without appointment to appointment patients in a month, that is, approximately 50 patients per day. The hospital established its profitability in terms of high patient retention, increased patient satisfaction followed by goodwill and enhanced reputation. (

Improving Turn Around Time (TAT) for Out Patient Department

a. Waiting time

Defined as the total time from registration until consultation with a doctor. There were two waiting times, the first is time taken to see a doctor and the second is time to obtain medicine. (Jamaiah Hj

Mohd Sharif and Suriani Sukeri 2003)

b. Registration time

Defined as waiting time from the moment patients submit a clinic appointment card or referral letters at the counter until getting a call from the counter

(WL Lim, MD, Manaes, 2001). During this time the payment process and record classification are made. Registration time is part of patient's waiting time.

(www.statistics.gov.my/portal/download.../Contents_Article_Hanaffi.pdf)

Am J Hosp Pharm. 1984 (6):1127-30.

The cost of various options for reducing patient waiting time in an outpatient pharmacy was studied through computer simulation. The time required to complete prescription filling tasks was recorded for a baseline of five pharmacy employees: technicians A, B, and C, a typist, and a pharmacist. A fixed factorial design of 12 configurations was used in which the number of pharmacy employees was varied (one, two, or three technician As; one or two typists; and one or two technician Bs).

Patient waiting time for each configuration was determined through computer simulation. Pharmacy Employee salaries were used to calculate the relative cost of six of the configurations that were predicted to reduce waiting time to less than 10 minutes. Configurations with additional technician Bs or typists, or both, exhibited reductions in total waiting time of comparable magnitude. One of these configurations was identified as the least expensive per daily hours saved. Without disturbing the operation of the pharmacy, computer simulation was found useful in identifying the least expensive method of reducing patient waiting time in an outpatient pharmacy. This report focuses on the dynamics of hospital performance: how hospitals achieve and sustain improvements over time. Case studies of four hospitals that made substantial improvements reveal a pattern: 1) a trigger such as a crisis or new leader serves as a "wakeup call" that prompts the hospital to make 2) organizational and structural changes such as multidisciplinary teams, quality-related committees, and technology investments, which facilitate 3) a systematic problem-identification and problem-

solving process, resulting in 4) new treatment protocols and practices, which in turn result in 5) improved outcomes. Success strengthens commitment to quality improvement and turns this temporal pattern into an ongoing cycle. The entire process reflects the establishment, growth, and reinforcement of a culture of quality.

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is a health economist with more than 20 years of experience leading health care research and consulting projects. He has directed in-depth health research projects for numerous foundations and conducted policy analysis and strategic planning for government agencies and clients in the business community. Dr. Meyer specializes in developing and evaluating proposals to cover the uninsured at both the national and state levels. He has also focused on initiatives of both private employer groups and government to improve quality and patient safety. Prior to joining HMA, Dr. Meyer was the president of the Economic and Social Research Institute Sharon Silow-Carroll, M.B.A., M.S.W., is a health policy analyst with nearly 20 years of experience in health care research. She has specialized in health system reforms at the local, state, and national levels; strategies by hospitals to improve quality and patient centred care; public–private partnerships to improve the performance of the health care system; and efforts to meet the needs of underserved populations. Prior to joining Health Management Associates (HMA) as a principal, she was senior vice president at the Economic and Social Research Institute (ESRI), where she directed and conducted research studies and authored numerous reports and articles on a range of health care issues. Following the Institute of Medicine (IOM) reports, *To Err Is Human* and *Crossing the Quality Chasm*, several studies were conducted to ascertain how quality within the hospital setting could be appropriately measured. Perhaps the most far-reaching of these studies was the “High Performers Special Study” (HPSS), supported by the Centres for Medicare and Medicaid Services (CMS). The goal of the HPSS was to develop and implement a methodology for defining quality performance and identifying high performing hospitals and the practices and characteristics that set them apart from other hospitals. Using

quantitative performance data on acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia, the researchers identified high performing and non-high-performing hospitals throughout the nation. Based on in-depth interviews with 110 key informants at six matched pairs of high and non-high performers, four common quality improvement models of high-performing hospitals were Differentiated according to various aspects of culture, technology, responsibilities, priorities, and targets. Within these four models, the researchers further identified specific basic and high-leverage “change ideas.” In addition to developing methodologies for scoring hospitals on their performance and levels of leadership effort and commitment to quality improvement, the authors found that achieving high levels of quality in hospital performance requires an approach that actively creates links between the quality improvement dimensions of responsibility/involvement/reward; communications; quality management strategies; clinical management strategies; and monitoring.

Factors behind Disparities in Quality Once major disparities in hospital quality were acknowledged, many researchers and clinicians have tried to understand why some institutions perform better than others. They have shed some light on the role played by a number of factors, or “ingredients.” For example, in a prior study we conducted for The Commonwealth Fund, we found that topperforming hospitals are distinguished from others in the following ways:

- They develop the right culture for quality to flourish;
- They attract and retain the right people to promote quality;
- They devise and update the right in-house processes for quality improvement; and
- They give staff the right tools to do the job. A number of hospitals and health systems have put such practices in place, often supported by information technology to assist physicians and patients. Others have instituted an explicit quality-related mission and aggressive quality-related targets; emphasized selective hiring, credentialing, and re-credentialing; instituted an iterative process of discovery follow corrective actions and accountability; and invested in tools to abstract medical records, analyse data, and facilitate the improvement process.

The outpatient services often are the first point of contact with a hospital. It is an extremely busy area as all the patients have to pass through this area. It is important it is well managed, as the first impressions get shaped during this process. This issue of Sitenews on the theme "eye care outpatient management" provides an overview of the various outpatient examination processes that are there for an eye hospital both at primary and secondary level. The next section provides an overview of e-resources to help plan the layout and the resource requirement of the outpatient department. Some of the major management challenges in outpatient management are waiting time, communication, employee behaviour for promoting service excellence, ambience for creating healing environment, and health education. Each of this is looked at to get different perspectives on how to address it in a patient friendly way. Another important aspect of OPD management is leveraging the use of information technology.

Workflow

The patients who attend the OPD may be new (who have come for the first time) or repeat patients. Majority of them pay in cash for the services whereas some corporate or insured patients avail cashless services. Health care providers are under a great deal of pressure to reduce costs and improve quality of services. In recent years, given the greater emphasis on preventive medicine and shorter lengths of stay, outpatient services are becoming an essential component of health care. Hospitals that cannot make their outpatient services more efficient and cost-effective find themselves in financially unviable positions in this fast-growing competitive industry. Over the years, population has increased several folds and the greater demand and expectations of patients from hospitals are far more than what is currently being perceived. As a result, it has become a constant rat-race to make our current systems faster. This brings about questions such as how do we measure such improvements? Is there a standard procedure?

C A Stone, J H Palmer, P J Saxby, and V S Devaraj in 2000:

Outpatient non-attendance is a common source of inefficiency in a health service, wasting time and resources and potentially lengthening waiting lists. A prospective audit of plastic surgery outpatient clinics was conducted during the six months from January to June 1997, to determine the clinical and demographic profile of non attenders. Of 6095 appointments 16% were not kept. Using the demographic information, we changed our follow-up guidelines to reflect risk factors for multiple non-attendances, and a self-referral clinic was introduced to replace routine follow-up for high risk non-attenders. After these changes, a second audit in the same six months of 1998 revealed a non-attendance rate of 11%--i.e. 30% lower than before. Many follow-up appointments are sent inappropriately to patients who do not want further attention. This study, indicating how risk factor analysis can identify a group of patients who are unlikely to attend again after one missed appointment, may be a useful model for the reduction of outpatient non-attendance in other specialties.

Fenghueih Huarng, Mong Hou Lee, (1996):

Overwork and overcrowding in some periods was an important issue for the out-patient department of a local hospital in Chia-Yi in Taiwan. The hospital administrators wanted to manage the patient flow effectively.

Describes a study which focused on the utilization of doctors and staff in the out-patient department, the time spent in the hospital by an outpatient, and the length of the out-patient queue. Explains how a computer simulation model was developed to study how changes in the appointment system, staffing policies and service units would affect the observed bottleneck. The results show that the waiting time was greatly reduced and the workload of the doctor was also reduced to a reasonable rate in the overwork and overcrowding periods

OBJECTIVES OF THE STUDY:

Setting the objective is like identifying the star. The objective decides where we want to go, what we want to achieve and what is our goal or destination.

1. To identify the average time spent by the patient in the OPD.
2. If the waiting time is high, then identify the factors those are responsible for high waiting time in the OPD.
3. To recommend appropriate suggestions to optimize the waiting time in OPD.

SCOPE OF THE STUDY:

OPD services are most important services provided by all the hospitals as it provides service to a large number of patients at a low cost. There is increasing concern to improve the quality of administration in the hospitals to meet the rising expectations of people. Apart from the quality of staff, equipments the main feelings and image carried by patients about hospital mainly depends on human aspect and the concern, sympathy and understanding shown by hospital staff. This study is mainly based on the reducing of waiting time of patients in the outpatient department at APEX HOSPITALS JAIPUR.

RESEARCH METHODOLOGY:

Research methodology in a way is a written game plan for conducting research. Research methodology has many dimensions. It includes not only the research methods but also considers the logic behind the methods used in the context of the study and explains why only a particular method or technique has been used.

RESEARCH DESIGN: - The research design will be used in this study on both 'Descriptive' and 'exploratory'.

DATA COLLECTION METHODS: The data will be collected using both by primary data collection

methods as well as secondary sources.

PRIMARY DATA: Most of the information will be gathered through primary sources. The methods that will be used to collect primary data are: • Questionnaire • Interview

SECONDARY DATA: secondary data will be collected through: • Text Books • Magazines Journals
• Website

METHODS USED TO PRESENT DATA:

Data Analysis & Interpretation – Classification & tabulation transforms the raw data collected through questionnaire in to useful information by organizing and compiling the bits of data contained in each questionnaire i.e., observation and responses are converted in to understandable and orderly statistics are used to organize and analyze the data:

- ♦ Simple tabulation of data using tally marks

- . ♦ calculating the percentage of the responses.

- ♦ Formula used = $(\text{name of responses} / \text{total responses}) * 100$ Graphical analysis by means of pie charts bar graphs etc. **NUMBER OF RESPONDENTS** Total samples of 100 respondents will contact who respond to the questionnaires. **SAMPLING TECHNIQUE:-** The technique will be used for conducting the study will convenience sampling technique as sample of respondents will be chosen according to convenience.

STASTICAL TOOLS:

The tools uses in this study will MS-EXCEL, MS-WORD. MS-EXCEL use to prepare pie charts and graphs. MS-WORD was used to prepare or write the whole project report

ANALYSIS & INTERPRETATION

Keeping in mind the objectives of the study, the surveys were being done & following interpretation were being drawn:

Evaluation:-

Keeping this point in view and to fulfilled the evaluation variants of which may form the basis for objectives of the studies an attempt has been made to segment the various respondents on the basis of some aspects collected from them through questionnaire. There are depicted through tables and graphs

The copy of questionnaire administered is enclosed and the sample size was 100 respondents are enclosed at the end of this project. All the calculations and numerical interpretations are for 100%

➤ **Uneven Patient flow during week day :-**

On Monday the number of patient are more as compare to other week days except Saturday (Tuesday, Wednesday, Thursday and Friday) but on Saturday the flow of patient are comparatively more.

The average number of patient over a week is 133.

Monday-162

Tuesday-146

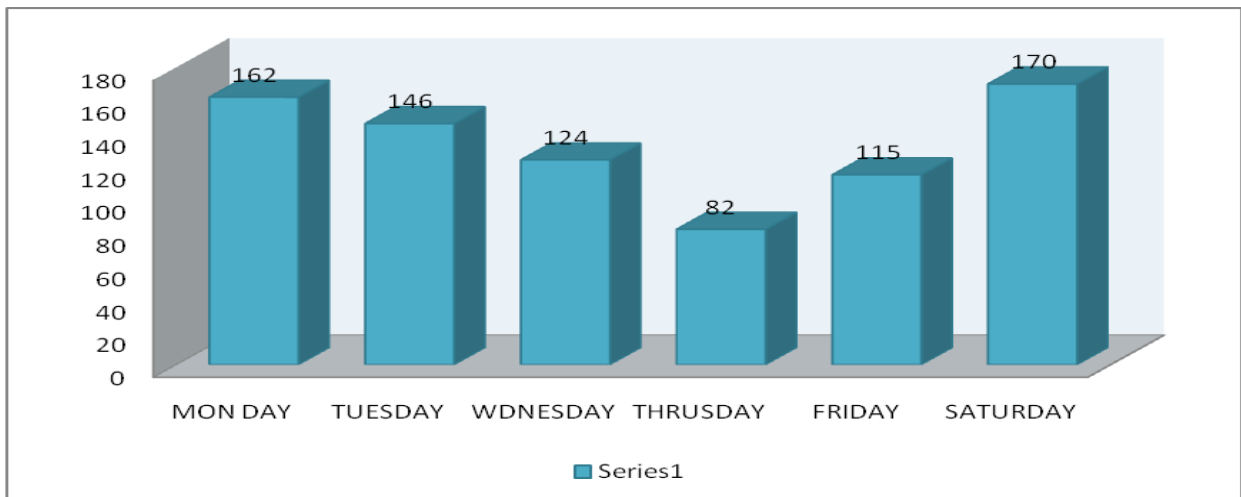
Wednesday-124

Thursday -82

Friday-113

Saturday-170

Graph 1.1

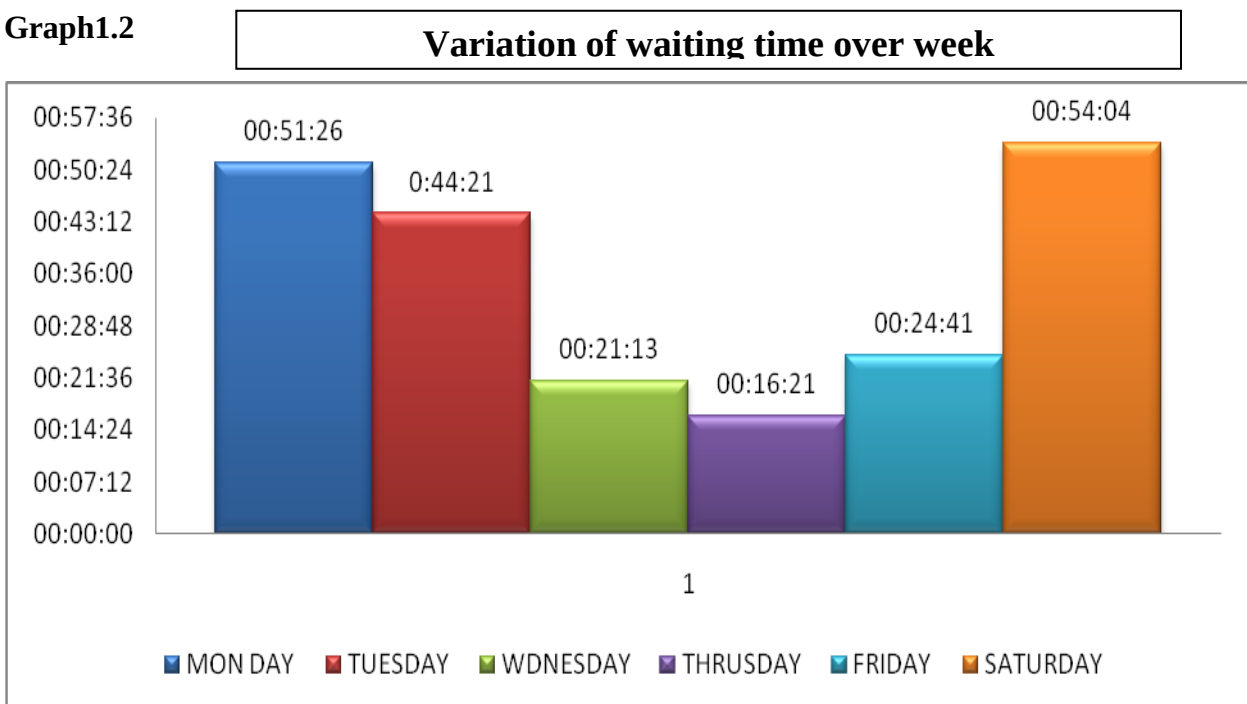


It shows that uneven patient flow over a week affect waiting time for OPD patients.

➤ **VARIATION OF WAITING TIME OVER WEEK**

This graph shows the variation of waiting hours over a week. On Wednesday and Thursday (21.13 & 16.21) the waiting time is less as compare to other days of week but on Monday and Saturday the waiting time is high (51.26mins & 54.04mins).

Graph1.2



The patient waiting time study was carried out with the help in the OPD patients between February to April. The data regarding the arrival patterns of the patients and the processing times at various stages was collected over a period of four weeks. Table1 is the data regarding the total time spent by the new patients in the system from the time of registration until the consultation by doctor (called as turn-around time or TAT).

Table 1.1

Sr.no.	Patient Name	Arrival Time (Registration counter)	Waiting Area	Doctor's Chamber in time	TAT	Remarks

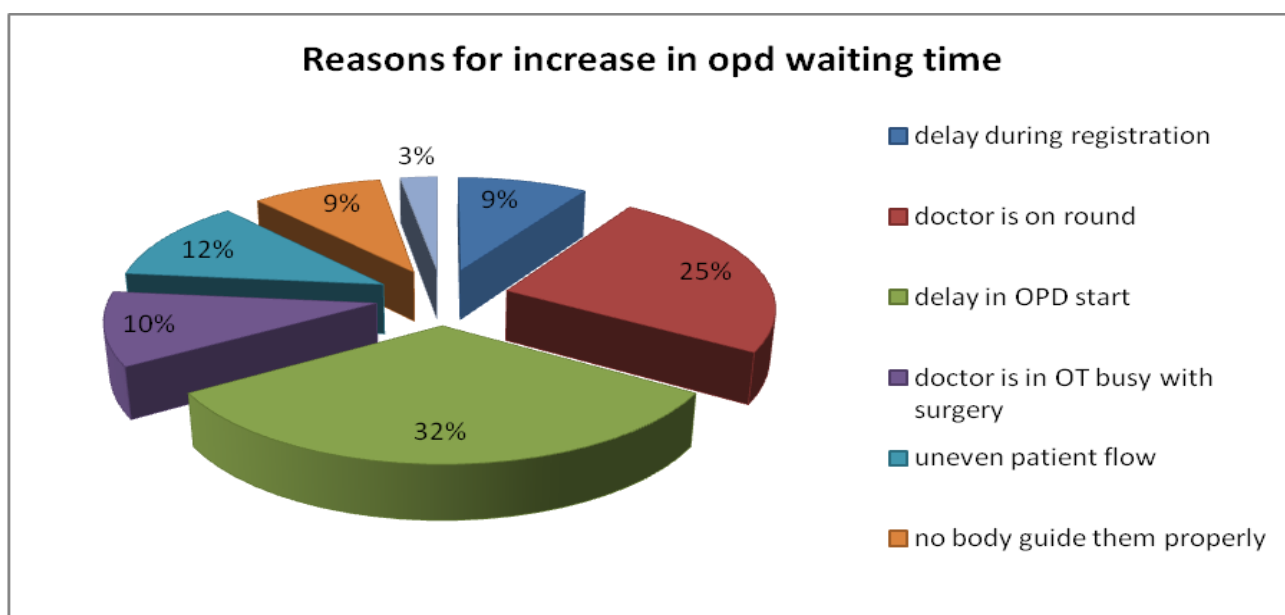
After tracking 100 patients, it is observed that the average waiting time for OPD patients is 63.41mins.

Average time to reach the OPD waiting area from registration desk:- 14.4mins

Average time to enter into the doctors chambers from OPD waiting area:-46.38mins. There are few reasons for increase in OPD waiting time for patients. That is as follow:

- Delay in start of OPD.
- Doctors are on leave.
- Delay at registration desk.
- Health care assistant are not available to assist the patient or not available to guide properly.
- Doctors are on rounds.
- For some emergency situations doctors have to move towards operation theatre.
- Sometimes surgeries are scheduled during OPD hours.

Graph 1.3 Reasons for increase in OPD waiting time:-



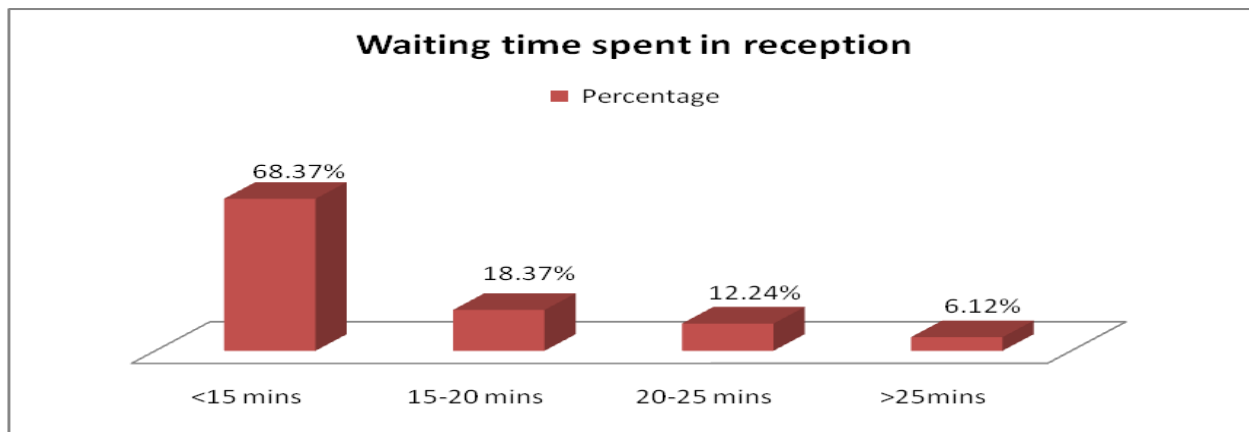
This pie chart shows that the frequency of cases in which maximum increase in OPD waiting time is due to delay in OPD start which is about 32% of total cases. 25% increase in waiting time is due to doctor is on round. 12% is due to uneven patient flow over a week (Monday and Saturday). 10% increase in waiting time is due to doctor are busy in OT or some emergency cases. 9% increase in waiting time is due to delay at registration counter and healthcare assistant are not available to help or guide the patients properly to doctor's chamber.

➤ **Waiting time spent in reception or registration.**

Table 2.1 shows distribution of patient view on waiting time spent in reception for registration

waiting time spend in reception		
Criteria	Frequency	Percentage
<15 mins	67	68.37
15-20 mins	18	18.37
20-25 mins	12	12.24
>25mins	6	6.12

Graph 2.1 distribution of patient view on waiting time spent in reception for registration



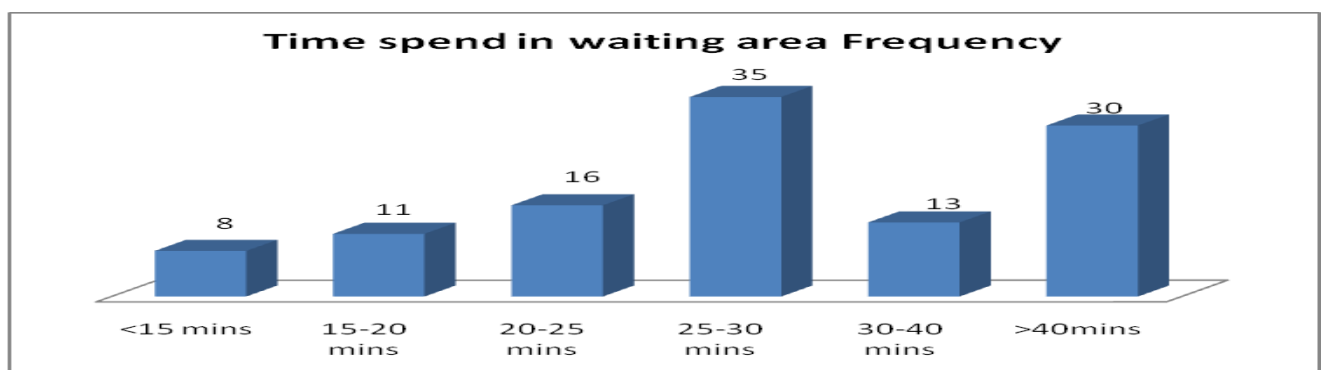
In this graph x-axis shows number of patients and y-axis shows time .It is evident from above table that maximum time spent by the patient in the reception. Out of 98 patient, 68.37% had to wait for less than 15 mins, 18.37% waited for 15-20 mins, 12.24% waited for 20-25 mins, and only 6-7 number of patient had to wait for more than 25 mins in the reception for registration.

➤ **Waiting time for consultation**

Table 2.2 shows distribution of patient view on waiting time spent in OPD for consultation

Time spend in waiting area for consultation		
Criteria	Frequency	Percentage
<15 mins	8	8.16
15-20 mins	11	11.22
20-25 mins	16	16.33
25-30 mins	35	35.71
30-40 mins	13	13.27
>40mins	30	30.61

Graph 2.2shows distribution of patient view on waiting time spent in OPD for consultants



In this graph x-axis shows number of patients and y-axis shows time .It is the evident from the above table that the maximum time spent by the patient in the OPD for consultation with the doctor. It shows that out of 100 patients, highest is 35.71% patient had to wait for more than 25-30 mins and lowest 8% patient waited for less than 15 mins. While 11% patient waited for 15-20 mins. 16% patient waited for 20-25 mins and 30% patient had waited for more 40 mins. In OPD for consultation.

Analysis Of Questionnaire

➤ The hospital OPD working hours were quiet convenient

Table no. 2.3 shows that the hospital OPD working hours are convenient for patients.

Questions	Continent OPD Hours.	Percentage
Excellent	4	5
V.Good	53	66.25
Good	23	28.75
Average	0	0
Poor	0	0

This table was on the basis of questionnaire filled by the different patients in the OPD each question is an indicator the questionnaire carry 10 question related to OPD. Out of 80 patient 4 patient give excellent to this particular question, 53 gave very good 23 say that facility is good for them.

Graph 2.3Graph shows that the hospital OPD working hours are convenient for patient

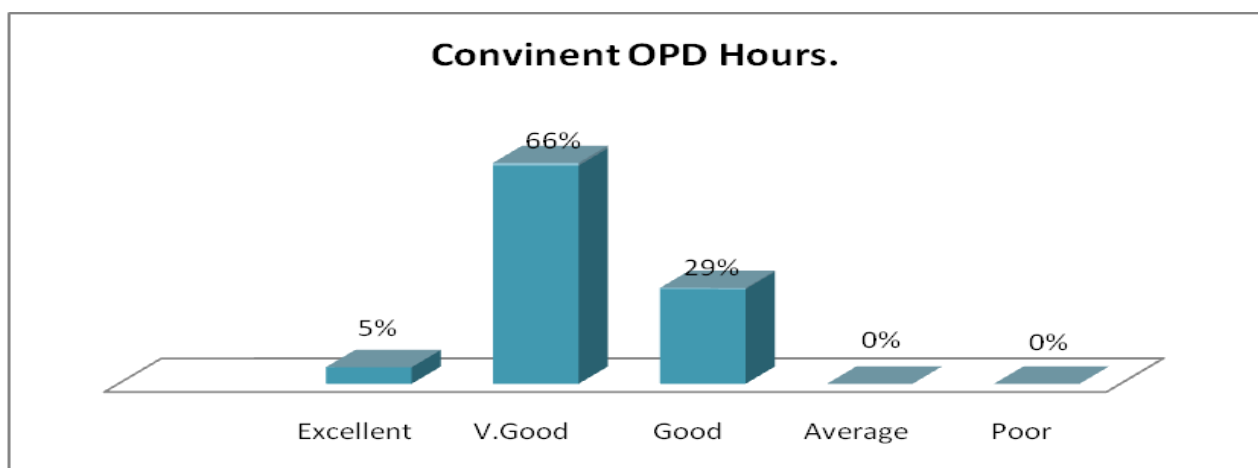


Table 2.3 and graph 2.3 shows the response of the patient and patient attendants regarding the OPD satisfaction. Out of 80 5% patients are highly satisfied with the OPD working hours and 66% patients are satisfied with the working hours of OPD these working hours are quiet convenient for them.

➤ **The hospital parking is quiet convenient**

Table 2.4 shows that the hospital parking is quiet convenient for the patient

Questions	Proper Parking Space.	Percentage
Excellent	10	13%
Very Good	25	31%
Good	37	46%
Average	6	8%
Poor	1	1%

Graph 2.4 shows that the hospital parking is quiet convenient for the patients

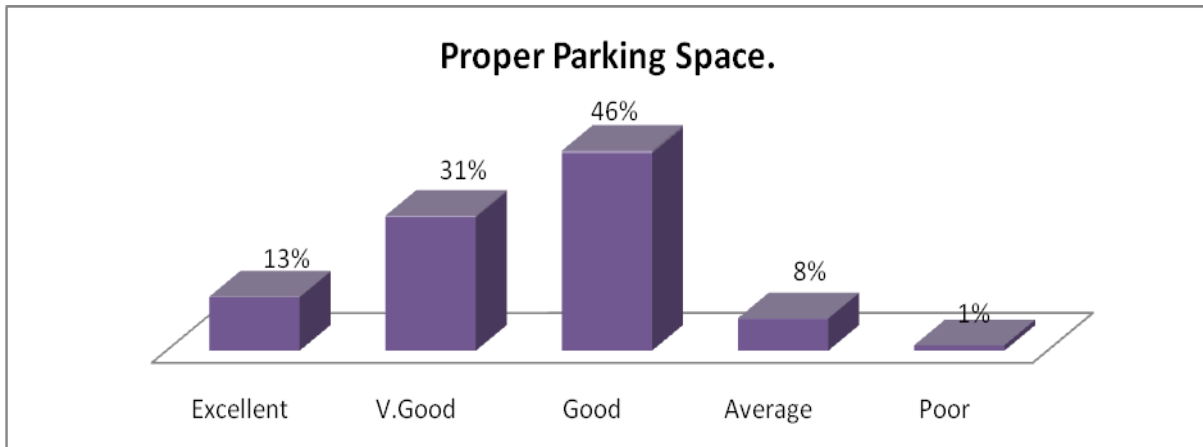


Table 2.4 and graph 2.4 as per shown in that the response of the patient regarding proper parking space available in the hospital premise. Out of 80 patients 10 (13%) say that parking facility in hospital is excellent, 25 (31%) respond to it is very good and 37 (46%) respond to it is good and rest 7 (9%) says that the parking in the hospital premise is average.

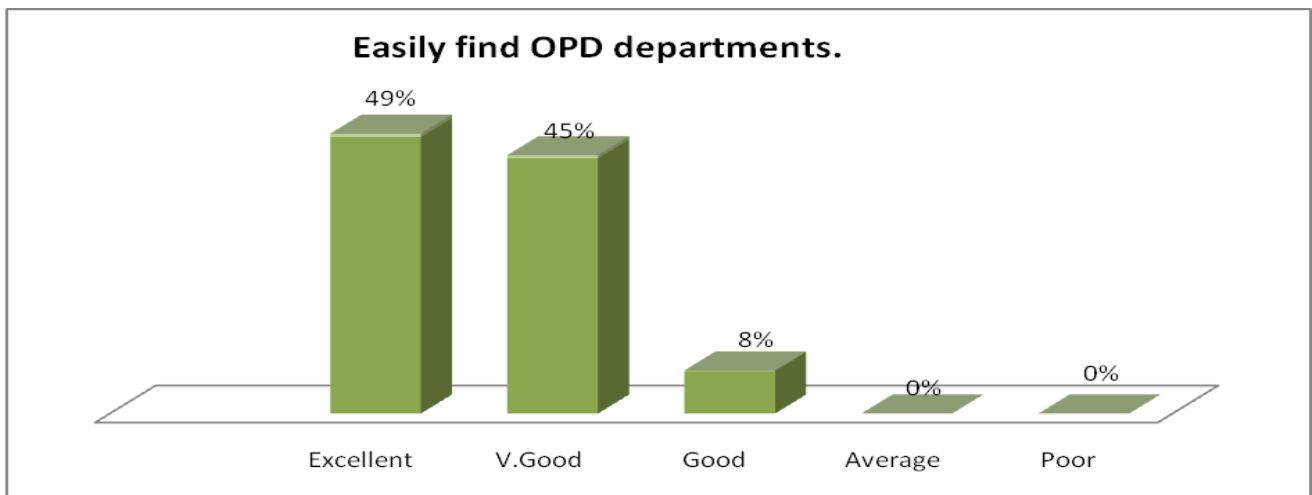
➤ **Did the patient face any problem in finding the department location**

Table shows the number and percentage of the patient who did/did not face any problem in finding OPD department location

Table 2.5

Questions	Easily find OPD departments.	Percentage
Excellent	39	49%
Very Good	36	45%
Good	6	8%
Average	0	0%
Poor	0	0%

Graph 2.5



As per shown in table 2.5 and graph 2.5 it is the evident out of 80 patient 49% patient respond excellent that they did not face any difficulty in finding the various departments, and 45% patient says very good that it is quiet easy for them to find the different department, and rest 8% patient are not satisfied with that they face bit difficulty in finding various departments in the hospital

➤ **The waiting area was clean and sufficient to sit**

Table 2.6 This table tells about the satisfaction level of patient in percentage that the hospital waiting area was clean and sufficient to sit.

Questions	Cleanliness of waiting area.	Percentage
Excellent	38	48%
Very Good	38	48%
Good	3	4%
Average	1	1%
Poor	0	0%

Graph 2.6

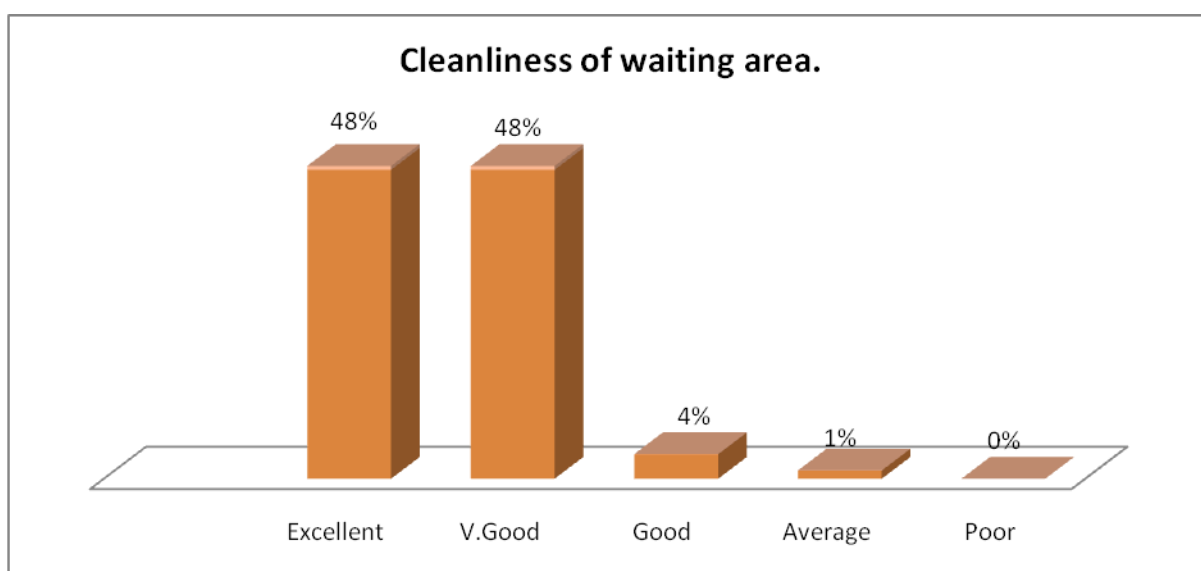
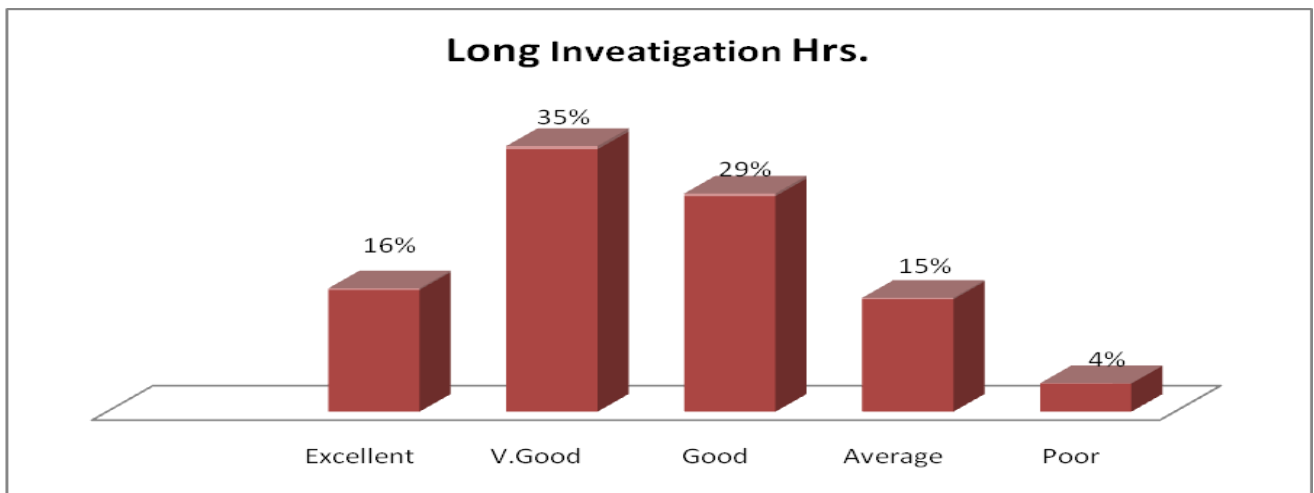


Table 2.6 and graph 2.6 explains about the cleanliness and proper sitting arrangement at the OPD waiting area. This evident shows that out of 80 patients 48% patient says that cleanliness and sitting arrangement are excellent in OPD waiting area, 4% patients respond that the arrangements are good and res 2% patients are not satisfied with cleanliness and sitting arrangement in the OPD area.

➤ **The patient had to wait too long for getting investigation done**

Table 2.7 show the segregations of patient percent wise that either they had too wait long for getting investigation done or they did not wait too long for investigation

Questions	Long Investigation Hrs.	Percentage
Excellent	13	16%
Very Good	28	35%
Good	23	29%
Average	12	15%
Poor	3	4%



Graph 2.7

This graph show the segregations of patient percent wise that either they had to wait long for getting investigation done or they did not wait too long for investigation towards the long investigation hours, that 13(16%)patient that this service of investigation is excellent that they didn't have to wait too long for investigation getting done, the response of 35% (28) patient were very good, 29% patient gives good and rest 19% patient are not satisfied with this they had waited too long for investigation getting done.

➤ **The doctor who consulted me was confident and focused**

Table 2.8 shows that patients are satisfied with the confidence of doctor.

Questions	Doctor is confident & focused.	Percentage
Excellent	62	78%
Very Good	18	23%
Good	1	1%
Average	0	0%
Poor	0	0%

It shows that (table 2.8) the evidence that number of patient are satisfied with the confidence level of doctors and how much time they spent with the patient and focused towards them.

Graph 2.8 This graph shows that patients are satisfied with the confidence of doctor.

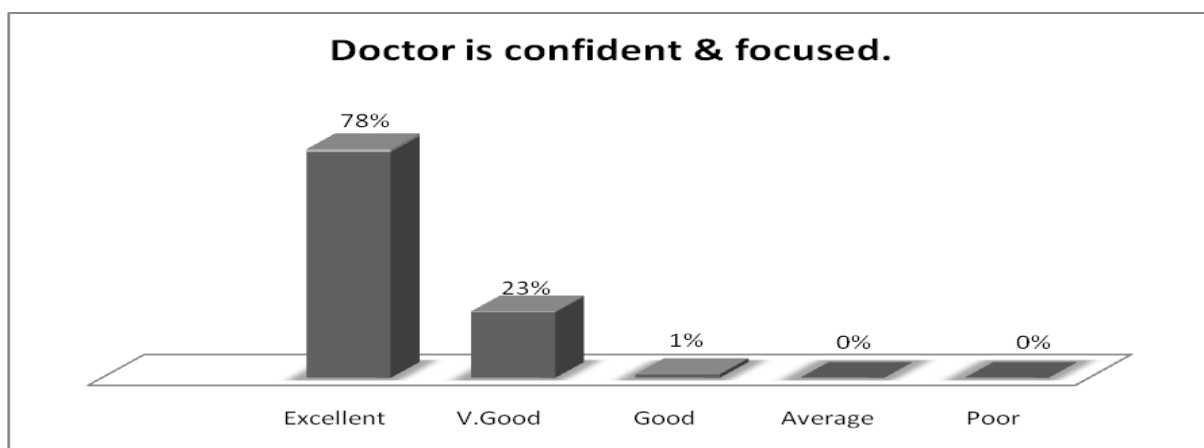


Table 2.8 and graph 2.8 shows the satisfaction level of patient towards doctor's confidence and how much they focused towards their patients. Out of 80 patients 62 patient were fully satisfied with doctors they says (72% patients) that doctors are confident and focused. 23% patient respond very good for that and very less number of patient that is 1% says is good.

- **Doctor explained the treatment properly and answer all questions whatever asked by patient**

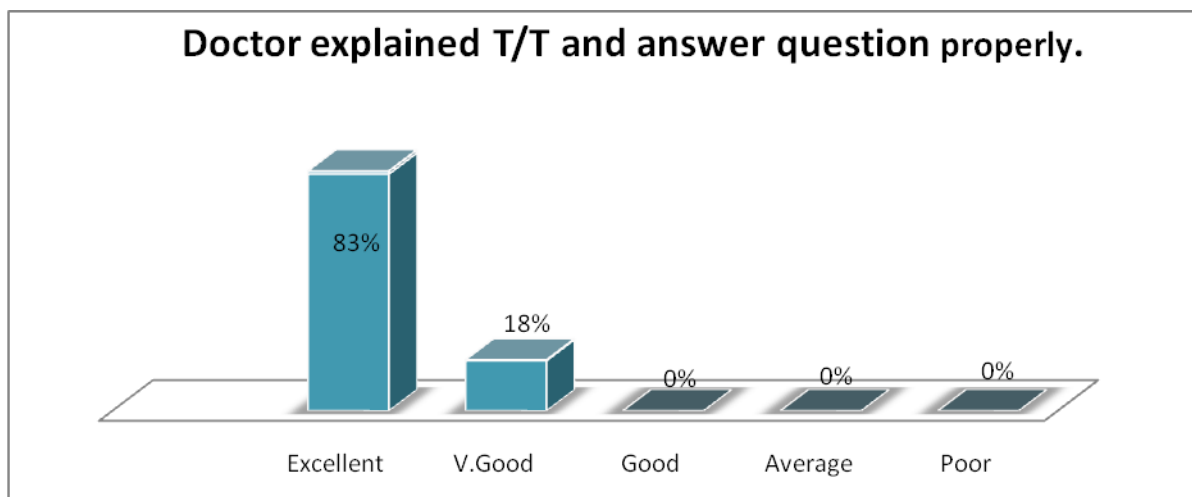
Table 2.9

Questions	Doctor explained T/T and answer question properly.	Percentage
Excellent	66	83%
Very Good	14	18%
Good	0	0%
Average	0	0%
Poor	0	0%

This table explains that the doctor had brief the treatment and answer all the questions asked by the patient. The patient answer in the form of excellent, very good, good, average and poor percentage wise

Graph 2.9

This graph shows that Doctor explained the treatment properly and answer all questions whatever asked by patient.



As per shown in graph 2.9 out of 80 patient respond positive towards doctors confidence that is 83% of total patient observed. And rest 18% patient says very good for the doctors confidence and he had answered all the questions whatever asked by the patient.

➤ Patient got there investigation reports on time

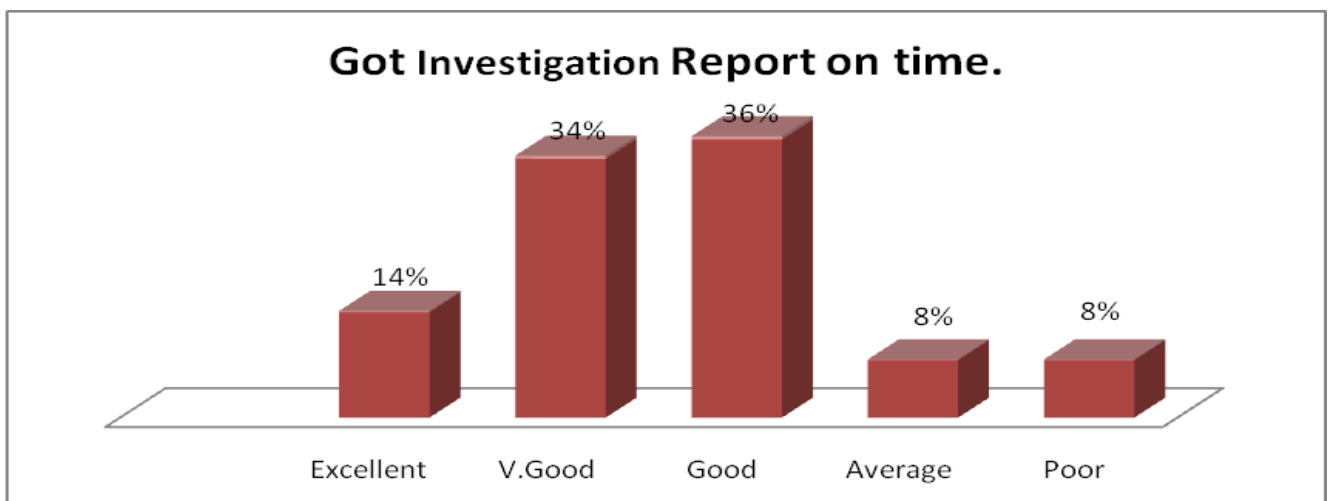
Table 2.10

Questions	Investigation Report on time.	Percentage
Excellent	11	14%
Very Good	27	34%
Good	29	36%
Average	6	8%
Poor	6	8%

Graph 2.10

This graph 2.10 shows that the patient getting their investigation reports on time, this evident shows that out of 80 patient 14% patient gave excellent to the services, 34% are satisfied As per shown in graph 2.9 out of 80 patient respond positive towards doctors confidence that is 83% of total patient observed. And rest 18% patient says very good for the doctors confidence and he had answered all the questions whatever asked by the patient.

Graph 2.10



FINDINGS AND SUGGESTION

The study entitled- “**A RECOMMENDATION ON REDUCING WAITING TIME IN THE OUT-PATIENT DEPARTMENT IN TAIBA HOSPITAL**” was under taken with main objectives to demine the flow of patient and average time spent in the OPD, to identify the factors those are responsible for high waiting time and to recommend appropriate suggestions to optimize the waiting in OPD

The study is conducted in a 200 bedded multi specialty hospital at Jaipur. This esteemed institute is well known for its multitude of services. The hospital is equipped withal modern technologies and rendering excellent services

Analysis of data was done through tables and graphs showing the number of respondents and their respective percentage and percentage bar diagrams were used for the interpretation of the results.

Findings:-

- As soon as the patient enters into the hospital the first point of contact is registration desk the problem facing at this stage is lack of proper communication between front desk executive and patient/ attendant.
- Some time staffing issues may increase waiting time, sometime during peak hours staff is not available on reception this creates lot of pain for patients.
- Patients facing difficulty to reach to the respective department from front desk because departmental sinages absent and health care assistant is not available to guide the patient.
- Delay in OPD start. Sometimes doctors came late (suppose the OPD timings starts from 10am they came at 11:45am this also increases the OPD waiting times.
- OPD time slots are not proper, in between OPD hours doctors went on rounds this will increase waiting time for OPD patients.
- Uneven patient flow during week days cause increase in OPD waiting hours maximum flow of patient is on Monday and Saturday, if the number of patients are more it take long time during

registration at registration desk, and also patient have to wait long for doctor consultation he has to spent much time in waiting area.

Recommendations for decreasing waiting time in OPD

- Provide timely training to the front office executives regarding OPD forms so that miscommunication between front office executive and the patient will reduce to certain level it will ends up with decrease in OPD waiting hours.
- Put either proper sign boards for various OPD departments so that the patient will follow and reach to specific department without wasting time or put room number wise board at reception that helps the patient and reduce waiting time for OPD patients.
- Encourage more number of appointments on Wednesday and Thursday; also encourage patient to book prior appointment.
- Delay of more than 15 minutes should be recorded and weekly report to be shared with the chairman.
- Increase number of appointment slots and redesign number of slots.
- Educating patient about booking an appointment before coming for consultation. Train FOE to convenience patient for prior appointment.
- In case of emergency situation if doctor moves out of OPD inform front office staff or appoint a resident doctor on behalf of him.

CONCLUSION

Patients attending each hospital are responsible for spreading the good image of the hospital and therefore satisfaction of patients attending the hospital is equally important for hospital management. Various studies about outpatient service have elicited problems like overcrowding, delay in consultation, proper behaviour of the staff etc. The study reveals the average spend by the patients and also expresses their view towards the hospital and hospital's services provided by the hospital and the total consumed on each activity. In this study, it was found patients constitute of all age groups and genders among which most of them were females. Study depicts that average no. of patients coming to OPD each day as walk-in is more in comparison to the appointment patients.

Administrative staffs are quite concerned towards the patient's expectation. They serve the suggestion box for patients and make sure to respond to the suggestion satisfactorily. Queuing method is followed for reducing waiting time in OPD. Study depicts that OPD always starts on time and the doctors mostly comes on time. Patients also come on scheduled appointment time sometimes getting delayed

Since Reception centre being the primary bottleneck of the system, by increasing another server here, the system may be made to work in steady state. • The possibility of clubbing function of Reception centre with the registration may also be explored since this could cut down one additional node and a total process time of 10 minutes approximately for each patient. • However it was evidently proved through the simulations that having a single refraction chamber with 8 or even 6 technicians, the hospital could reduce waiting time up to 25 percent, as well as better utilization of resources.

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Annexure

APEX HOSPITAL PVT. LTD

OPD PATIENT SATISFACTION QUESTIONNAIRE

Date:-

Name:-

Phone No:-

Doctor:-

Please answer the following questions by ticking any one of the response from Excellent to Poor:

1. The hospital OPD working hours were quiet convenient :

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

2. The hospital parking was quiet convenient :

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

3. I did not face problems in identifying the department location:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

4. The waiting area was clean and sufficient to sit:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

5. I did not had to wait too long for being seen by the doctor:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

6. I did not had to wait too long for getting my investigations done:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

7. The doctor who consulted me was confident and focused:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

8. I got my investigation reports on time:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

9. Doctor explained the treatment and answered all my questions:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

10. I am satisfied with the overall quality of service received at the hospital:

Excellent ☐ Very ☐ Good ☐ Average ☐ Poor ☐
nt Good

Overall Feedback / Comments (Optional):