

**Summer Training at
Care Hospitals, Hyderabad**

**Analysis on Diagnostic Services with Respective to OPD Foot Fall in Care
Outpatient Centre in Hyderabad**

**By
Mungara Kartheek**

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

**MBA Hospital & Health Management
2017-2019**


Institute of Health Management Research
The IIHMR University, Jaipur
2018

CERTIFICATE

This is to certify that **Dr. Mungara Kartheek** has undergone summer training at **Care Hospitals** on "Analysis of diagnostic services with respect to OPD footfall in Care Outpatient Centre, Hyderabad from **2nd April to 2th June 2018**.

The candidate himself completed the project assigned to him during summer training. His approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in hospital and health management.

I wish him success in all his future endeavors.

Ashok
for (Col (Dr) Ashok Kaushik) 12.7.18.
Col.(Dr) Ashok Kaushik
Dean(Academics & Student Affairs)
and Mentor
IIHMR UNIVERSITY, JAIPUR.

Ashok
for Col. (Dr) Ashok Kaushik 12.7.18.
Dean (Academics & Student Affairs)
IIHMR UNIVERSITY, JAIPUR.



NABH ACCREDITED HOSPITAL
CIN : U85110AP1992PLC014728



Date: 01-06-2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Mungara Kartheek** a student of IIHMR University, Jaipur pursuing MBA First year in Hospital & Healthcare Management has done project on **“Analysis on Diagnostic and Radiology investigations with OPD footfall”** in the Clinical departments from 02-04-2018 to 01-06-2018.

During the above period his performance and conduct were found to be good.

We wish him all the best in his future endeavors.

For QUALITY CARE INDIA LIMITED,

K.V.SUBBA REDDY
General Manager- HR



6-3-248/2, Road No.1, Banjara Hills, **Hyderabad - 500 034**. Phones: 040-30418888, 23234444, Fax: 040-30418488
Care Out Patient Center, # 8-2-620/A-E, Road No. 10, Banjara Hills, Hyderabad - 500 034.
Phones: 040 - 3931 0444, Fax: 040 - 3931 0772.

Care Hospitals: # 5-4-199, Jawaharlal Nehru Road, **Hyderabad - 500 001**. Phones: 040-30417777, 24735465, Fax : 040-30417488
1-4-908/7/1, Bakaram, Musheerabad Main Road, **Musheerabad, Hyderabad - 20**. Ph.: 040-30219000, Fax: 040-30219288
Near Clock Tower, Market Street, **Secunderabad - 500 003**. Phones: 040-30486666, Fax: 040-27717738
Website: www.carehospitals.com, E-mail: info@carehospitals.com

ACKNOWLEDGEMENT

I privileged in expressing my deep sense of gratitude to **Mr. Amit Kapoor (Head of care outpatient Centre)** Banjara Hills, Hyderabad for his guidance and encouragement which helped in the process of making this report. Without his support, exploring such a big organization could not possible.

I would like to express my deep sense of gratitude to **Miss.Shruthi nayakvadi (operations head)** Who guided this project. I would not have been able to get knowledge and experience about the work, analyzing the data, preparing the report without her good support and guidance.

I would like to express my sense of gratitude to **Mr. Ashok Kaushik** (dean academics and affairs) who guided this project. I would not have been able to get experience and knowledge about the project with out his good support and guidance.

I would like to express my gratitude to the doctors, nurses, housekeeping and patients of the CARE Hospitals, Banjara Hills, Hyderabad.

I would also like to thanks to my parents for their blessings and my friends who motivated me and helped for my accommodation.

Dr. Mungara Kartheek

S.no	Contents	Page.no
1.	Abbreviations/acronyms	04
2.	Organizational profile • Care hospitals introduction • Purpose • Vision • Values • Logo • Specialties, infrastructure, facilities	05
3.	Observational findings • General findings	09
4.	Specific project learning • Introduction • Rationale • Objectives • Methodology • Data analysis • Results • Recommendations	11
5.	Annexures • Data collection form • questionnaire	18

Abbreviations

ICU- Intensive care unit

MRI-Magnetic resonance image

PET-positron emission tomography

CT-computed tomography

ESR-erythrocyte sedimentation rate

OT-operation theatre

OPD-outpatient department

IP-inpatient

ATM-any time money

ENT-eyes nose tongue

UV-ultraviolet

TDP-therapeutic drug monitoring

LS spine-lumbar sacral spine

2. ORGANIZATION PROFILE:

The CARE Hospitals is multispecialty healthcare provider, with 14 hospitals serving 6 cities across India which is regional leader in tertiary care in South India and among the top Indian hospital chains, delivers service in more than 32 specialties. CARE Hospitals provides cost-effective medical care, main purpose of care hospital is, “To provide care that people trust.” Founded in 1997 by Dr B Soma Raju and with team of India’s leading cardiologists.

CARE Hospitals’ founders developed Asia’s first indigenous coronary stent — the ‘Kalam-Raju stent,’ named after Dr APJ Abdul Kalam, former President of India, and Dr B Soma Raju, Chairman and Managing Director, CARE Hospitals Group. This is just one of the many innovations developed at CARE Hospitals, which makes healthcare affordable for all, while ensuring clinical outcomes with international standards.

CARE Hospitals is a complete healthcare system, with education, training and research. CARE Hospitals is owned by Quality CARE India Ltd.

PURPOSE: To provide care to people that is trusted.

VISION: To be a trusted, integrated health care, people centric

VALUES:

Honesty & Integrity

The practice of honesty tells character. Integrity means right at all times and this my helps to live by the standards and beliefs of the organization.

Team Work

A collaborative work leads for delivering best outcomes which helps increase in patient care in hospital

Empathy & Compassion

The ability to understand the feelings of patients as well as employees, so this helps services delivered in a supportive work environment.

Education

Continuous learning for the creation of a sustainable healthcare system, where employees and the organization can grow together.

Citizenship

Good governance and good working relationship with all stakeholders, based on compliance to laws and ethical practices.

Equity

Mutual trust based on fair and impartial consideration of all professional matters so that it fosters positive contribution towards the institutional purpose.

Dignity & Respect

Treat all with utmost regard and esteem so that it enhances respect and , in turn, a sense of belonging.



LOGO:

The base of the logo represents a level field provide to everybody. The column consisting of beams represents the multi-disciplinary teams of care hospitals. The person on the pedestal is a professional like a physician, nurse, or health care professional supported by excellence. The person trying to climb the apex of the pedestal is a patient suffering from illness or a student seeking knowledge and skills. The rectangular box refers to a well-defined framework within which the hospital functions.

CARE HOSPITALS, BANJARA HILLS, HYDERABAD

The CARE Group's flagship CARE Hospitals, located in Banjara Hills, Hyderabad, was set up in the year 2000. It has 425 beds, including 130 critical care beds, with an annual inflow of 1,70,000 outpatients and 15,000 in-patients.

SPECIALITIES	INFRASTRUCTURE	FACILITIES
- Anaesthesiology - Cardiac Sciences - Critical Care - Dentistry - Dermatology - Dietetics & Nutrition - Emergency Medicine - Endocrinology - ENT - Gastroenterology - General Medicine - General Surgery & Surgical Gastroenterology - Haematology - Hepato Biliary Surgery & Liver Transplantation - Laboratory Medicine - Laparoscopic & Bariatric Surgery - Nephrology - Neuro Sciences - Nuclear Medicine - Obstetrics & Gynaecology - Oncology - Ophthalmology - Orthopaedics - Paediatrics - Physiotherapy & Rehabilitation - Plastic Surgery - Pulmonology - Radiology - Rheumatology - Urology - Vascular Surgery	- Operation Theatres - ICUs - Endoscopy Suite - Non-Invasive Laboratory - Radiology - Nuclear Medicine - Catheterization Laboratory - Dialysis Department & of Nephrology	- Emergency Unit - Blood Bank - Ambulance - Pharmacy - Laboratory services - Pathology - Haematology - Microbiology - Biochemistry

These are different blocks of Care Outpatient Centre

	A block	B block	C block
Ground floor	vascular surgery Pharmacy International desk ATM Main exit	Neurology Front office Admission desk Insurance desk, opd and billing	Emergency, Dietetics, Surgical endocrinology Sample collection, Special service lounge Endocrinology
1 floor	Cardiology Smiling hearts Opd billing and waiting area	Rheumatology Noninvasive lab Sample collection Seminar hall, Opd billing and waiting area Orthopedics	Prevention health checkup
2 floor	Ophthalmology Opticals Pediatrics Feeding room Physiotherapy Yoga therapy OPD waiting area	Dressing room Psychiatry Radiology, device clinic Opd billing and waiting area	Prayer room
3 floor	ENT, audiology Dermatology Laser room Uv room Dental Plastic surgery Special service lounge Opd billing and waiting area	Urology, uroflowmetry Nephrology, gynecology Gastroenterology, endoscopy Pulmonology Sample collection Opd billing and waiting area	Dialysis Patient waiting area
4 floor	single room, Sharing room General ward	OT, inpatient billing and waiting area Pac chamber, operative area, ICU	
5 floor	Terrace	Administration, board room, café connect	Laboratory medicine

LABORATORY SERVICES

The department of laboratory medicine was established to provide a wide range of laboratory investigations for patient care. It consists of different disciplines of hematology, clinical biochemistry and microbiology. This department provides analysis of biological fluids such as blood, serum, tissue, urine and stool for specific constituents to support physicians, clinicians in the practice of medicine.

PATHOLOGY

This department deals with tissue diagnosis. It provides on all kinds of cases from gastro, gynecology, neurological, cardio, respiratory, urology and orthopedics. Frozen section facility is available round the clock.

BIOCHEMISTRY

Biochemistry department has new generation laboratory backed by a highly qualified and motivated team of doctors and technical staff.

It is equipped with latest technology to perform Super specialized investigations like,

- Therapeutic drug monitoring
- Immunoglobulin levels
- Stone analysis
- Diabetic profile
- Pre-liver transplant

PHARMACY

Care hospitals has a 24*7 pharmacy unit with qualified and trained pharmacists.

- The advantages of buying medicines in care hospitals
- No scope for spurious drugs and expired medicines
- Display of batch numbers, price and expiry in a proper way.
- No waiting time
- Computerized billing system.

Radiology department:

Radiology department consists various types of diagnostic tools.

- X ray
- Ultra sound
- Computed tomography(CT)

- Magnetic resonance imaging.(MRI)
These are help in identifying to diagnose and treat diseases

Activities done in hospital

- MRI coordinating
- Pet scan coordinating
- Patient counselling regrading medicines
- Patient compliance

MRI Coordinating

As posted in neurology whereas more radiology investigations like MRI,CT scans have done. For patients giving appointments to MRI and booking slots for acceptable time and their convenience. There are various type of MRI scans like MRI Ls spine, MRI brain,MRI stroke protocol and MRI epilepsy protocol. Patient counselling is given regarding about precautions have been taken during scan.

PET scan coordinating

Pet scan is one of the major scan in radiology department which is cost around 23000.patient counselling is done regrading precautions have been taken during scan, some precautions are for pet scan like serum creatinine levels are normal and patient should be non diabetic. Based on these preferences pet scan will be done.

Patient counselling regrading medicines

As knowledge on drugs patient counselling was done regarding the route of administration, frequency, quantity of drug administered and follow-up of patients.

Patient compliance

There is feedback forms given to patients which helps for hospital in which area is having more compliance and resolve it.

PROJECT

TITLE: ANALYSIS OF DIAGNOSTIC SERVICES RESPECTIVE TO OPD FOOT FALL IN CARE OUTPATIENT CENTRE, HYDERABAD.

INTRODUCTION:

Diagnostic services are required for providing effective diagnosis of the disease suffered by patient. Diagnostic services create a picture of the health status of a patient at a single point of time. It will address tests and evaluation that aid in the detection, diagnosis and treatment of disease.

RATIONALE:

There were seven departments in Care hospital which have more conversion of patients in radiology and laboratory investigations. From few months the conversions are decreased which leads to decreased revenue in following departments...

- 1.Endocrinology
- 2.Neurology
- 3.Urology
- 4.Nephrology
- 5.Gynecology
- 6.Cardiology
- 7.Orthopedics

RESEARCH QUESTION

What percent of OPD patients are not utilizing diagnostic services and what are the reasons for not utilizing them in Care Outpatient center, Hyderabad?

OBJECTIVES;

- To know what percent of patients were not utilizing diagnostic services.
- To know the reasons for not opting laboratory and radiology services.
- To improve the utilization of laboratory and radiology services.

Methodology

Study area: Care outpatient center, Hyderabad.

Study type: Observational and Cross-sectional study.

Sample population:896

Study sample: 540

Sampling technique: Convenient sampling

Study duration:2 months

Data collection method;

Secondary data; Data is collected from hospital records containing such as patient ID no, patient name, laboratory and radiology details.

Primary data: Data was collected by a preformed tool.

Data analysis and Data interpretation

After collection of data, analysis was done by using Microsoft Excel. There were seven departments where conversions are very less from few months. Collected data from patient desk which contains details of patient name, patient mr no, advised lab and radiology tests.

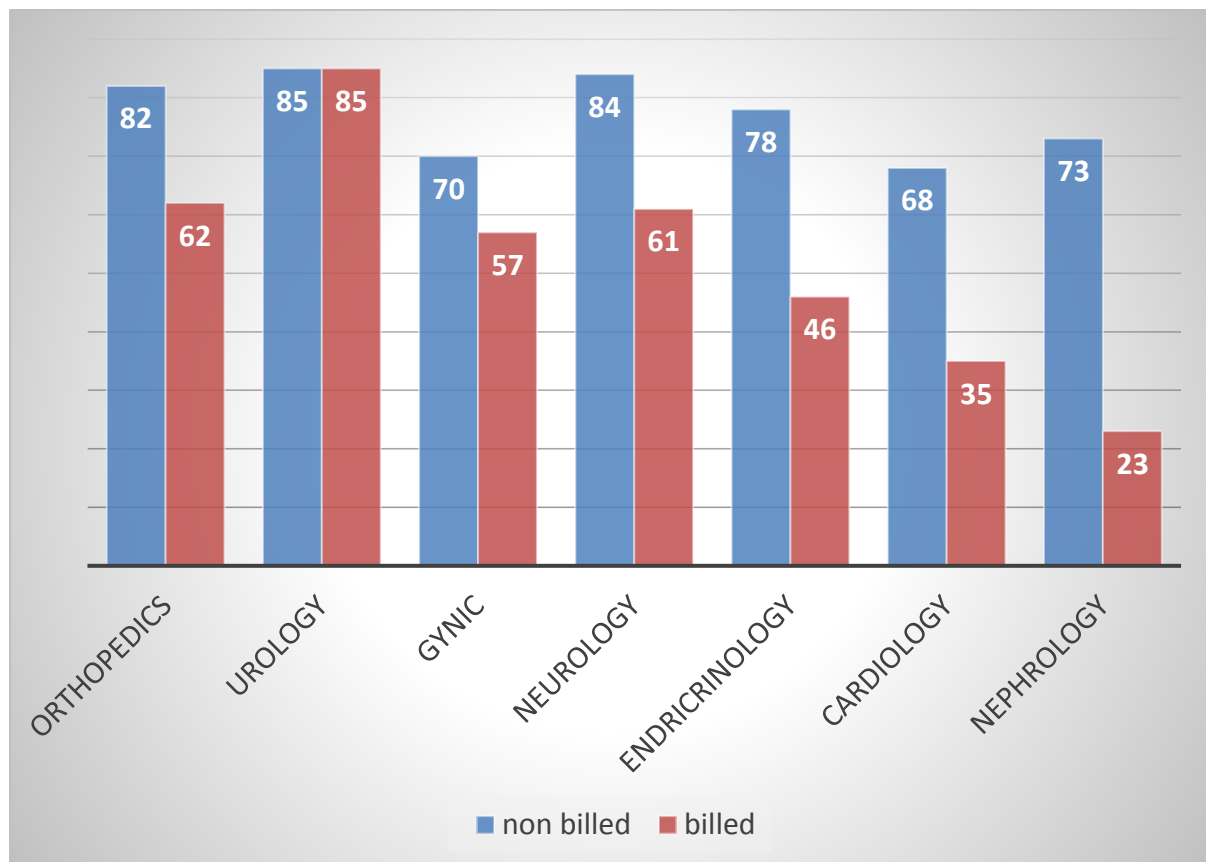
From above details compelled with hospital data and separated the patients as billed and non-billed. Out of 896 patients from all departments,540 are non-billed.

By using questionnaire, what are reasons to be not billed by patients and what percentage of patients not utilizing OPD services.

Convenient sampling is used to get sample size from different departments of hospital.

Questionnaire with four questions asked to patients which are not billed when they came for follow-up or by phone call and queries from patients which helps the hospitals what reasons are not billed in our hospital.

Total sample size of each department



graph 1.0

Sample size 896,

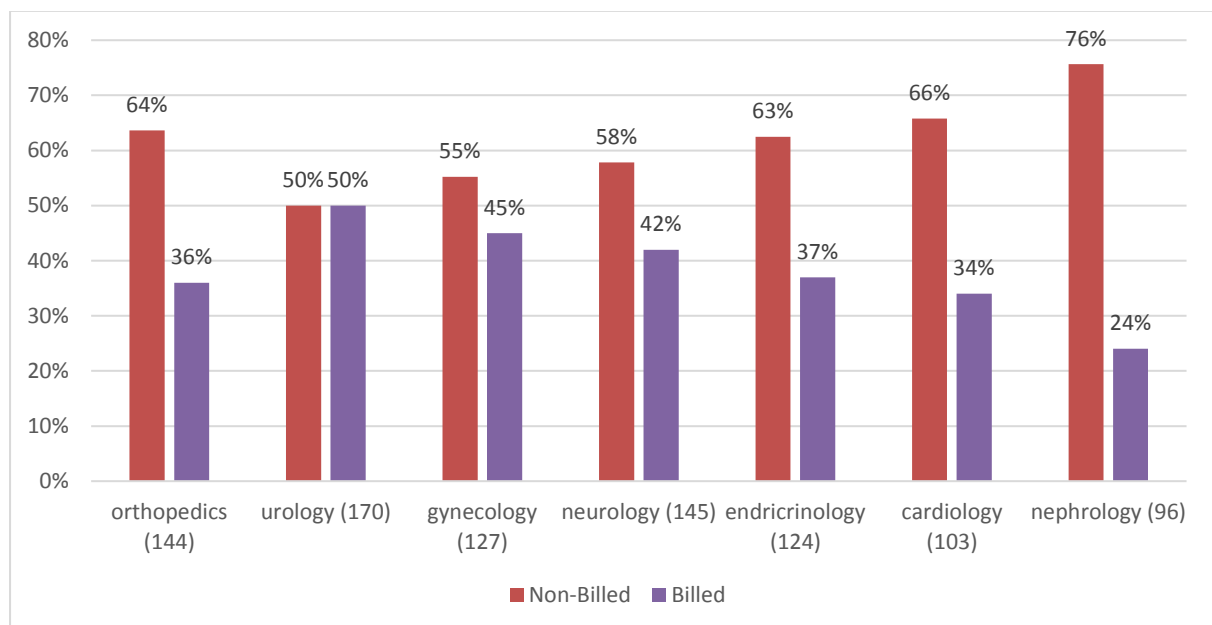
Out of 896 patients, orthopedics patients constitute 144 of them and 82 are non-billed whereas 62 are billed patients.

It was seen that there was an equal number of urology patients i.e. 85 patients each billed and non-billed.

127 are gynecology patients, in which 70 are non-billed and 57 are billed while 145 out of 896 patients came for neurology department in which 84 are non-billed and 61 are billed,

124 are endocrinology in which 78 are non billed and 46 are billed. For cardiology, about 70 were non- billed and 35 were billed. For nephrology, non- billed patients were about three times the billed ones i.e. 73 patients.

Total percentage of billed and non-billed out patients



Graph 1.1

Out of 144 sample size of orthopedics 64 percent are non-billed whereas 36 percent are billed.

Out of 127 Sample size of gynecology, 55 percent are non-billed while 45 percent are billed.

Out of 170 sample size of urology equal ratio of billed and non-billed.

Out of 145 sample of neurology, 58 percent are non billed whereas 42 percent are billed

Out of 124 sample size of endocrinology, 63 percent are non billed while 37 percent are billed.

Out of 103 of sample size of cardiology, 66 percent are non billed while 34 percent are billed

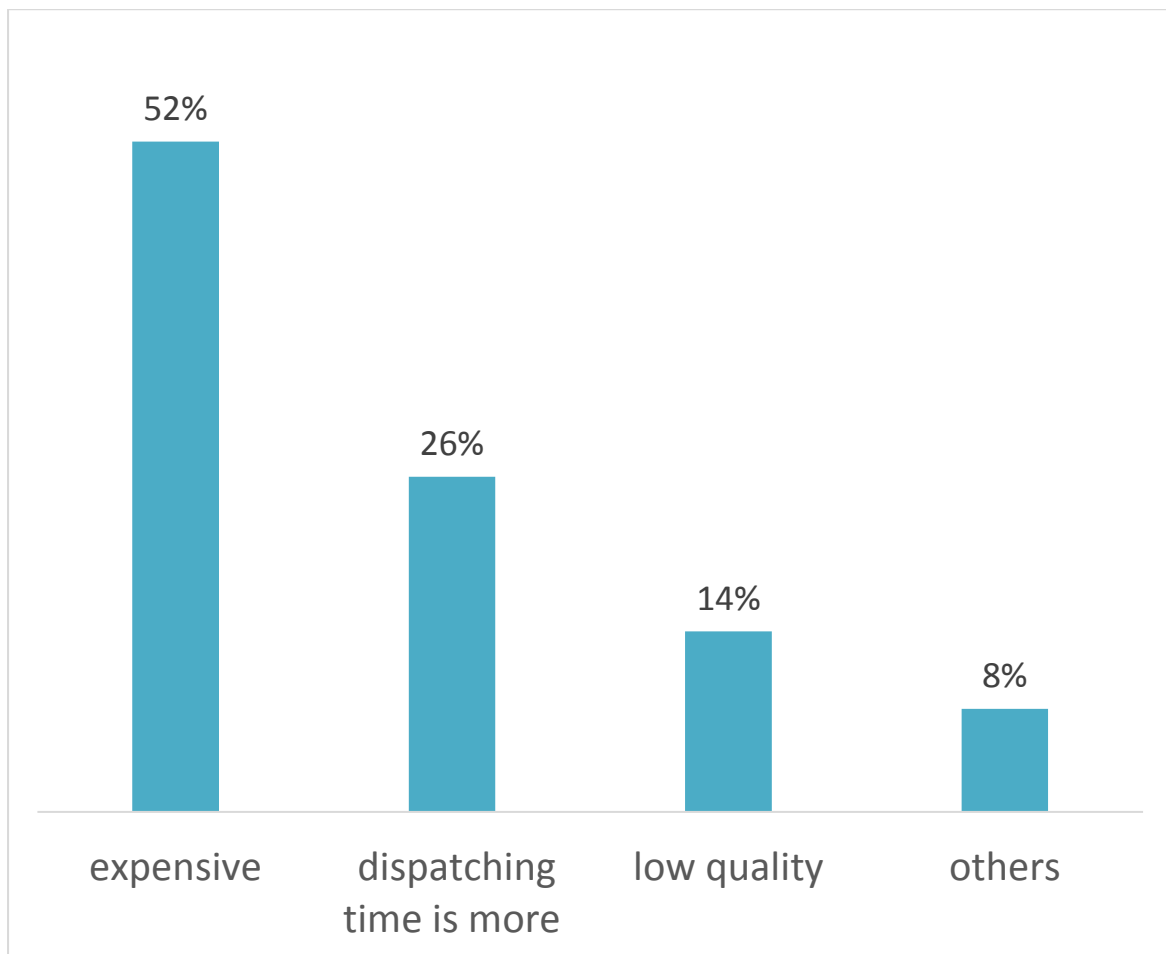
Out of 96 of sample size of nephrology, 76 percent are not billed and while 24 percent are billed.

RESULTS

For non billed patients asked a questionnarie which contains four questions related what are reasons not opting services in our hospital.

Following questions asked to patients and their responses for each question.

1.What are the reasons for not opting diagnostic services in our hospital?

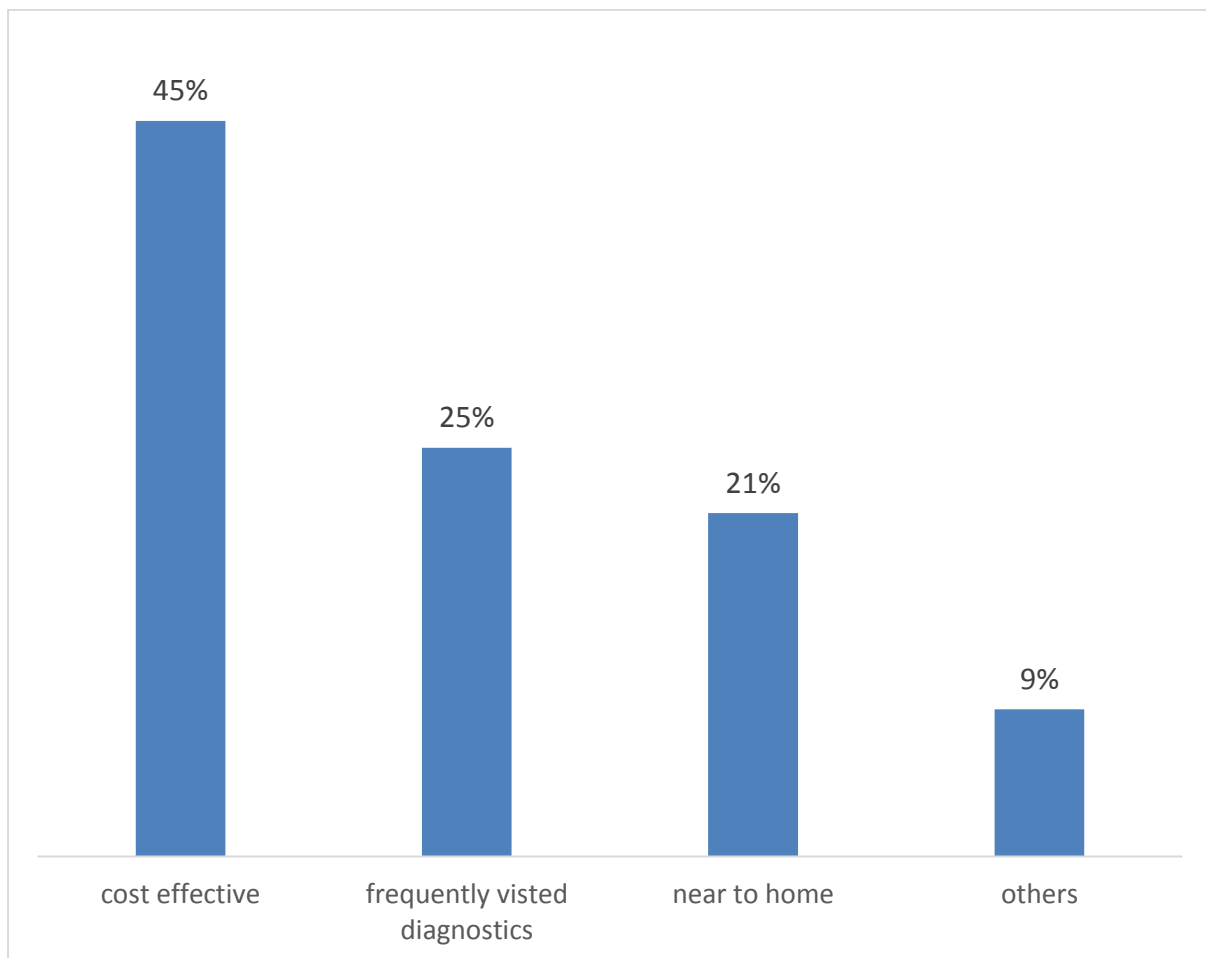


Graph 1.2

When asked about the reason why patients didn't opt for diagnostic services provided by hospital, for half of the sample size taken it was the cost of services which they found very expensive. Quarter of them found dispatching time to be more while 14 percent didn't like the quality of diagnostic services provided by the hospital. 8 percent had some other reasons like non-emergency, poor reviews about hospital regarding about diagnostic services.

This responses helps hospital to know what reasons not opting diagnostic services in their hospital.

2. Why are you choosing other diagnostics centers

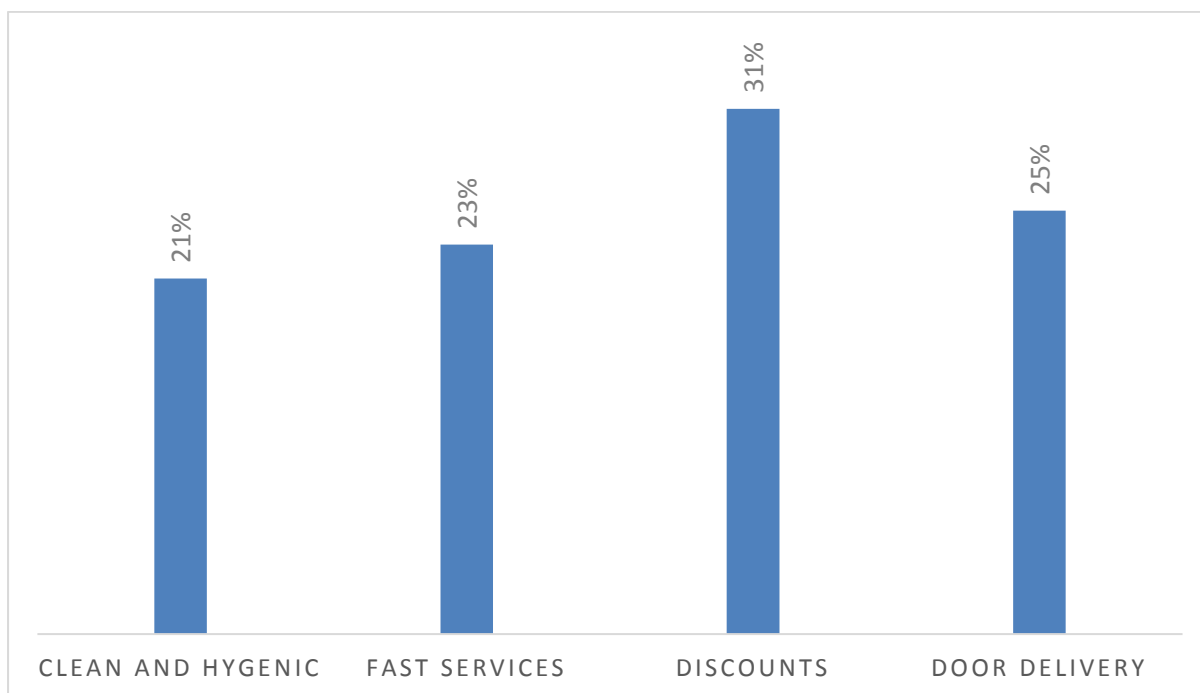


Graph 1.3

Comparatively, 45 percent of patients found other diagnostic centers to be more cost effective than the hospital's. One fourth of them went for the frequently visited diagnostics and 21 percent preferred the centers which were near to their home. None percent of patients had some other reasons.

This responses from patients helps for hospital why patient choosing other diagnostic centers this may understand the reasons opting of diagnostic services to hospital. According these responses they will focus on problems for avail diagnostic services.

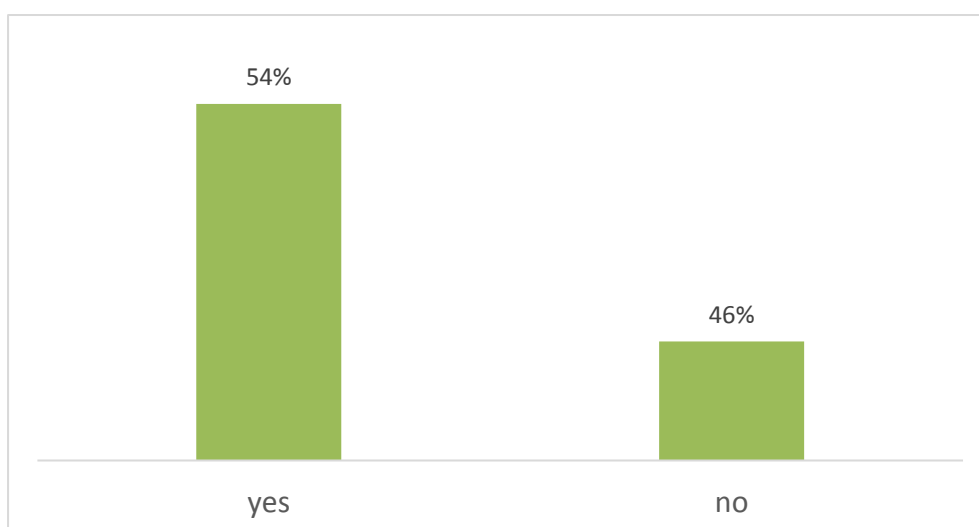
3. which diagnostic centers will you prefer?



Graph 1.4

When asked about the preferences, most patients 31percent looked for discounts whereas for 23 percent of them, fast services were the criteria of choosing a diagnostic center. Twenty one percent looked for cleanliness and one fourth of them wanted door delivery.

4. Do you suggest care diagnostic services to others?



Graph 1.5 shows More than fifty percent of patients were satisfied with the diagnostic services provided by CARE hospitals while 46 percent of patients said that they won't suggest it to others.

From above interpretation of responses from patients these are the analysis:

- Cost factor was found to be more.
- Waiting time of reports is high.
- Most people are non-local so they opt for local diagnostics.
- Some of the diagnostic centers giving discount for laboratory and radiology investigations.
- Some Diagnostic centers provide door delivery services.

RECOMMANDATIONS

- Time for dispatching reports can be reduced by increasing technical staff in diagnostic department.
- Increase services to door steps.
- Notify to patients for follow up investigations to be done.
- Occasional discounts for specific investigations.
- Mobile care services to patients.
- Discounts to frequently visited patients.

REFERENCES:

1. www.carehospitals.com
2. doe.sd.gov/contentstandards/documents/MedDiagno.in
3. <https://stanfordhealthcare.org/medical-tests/m/mri/types>

ANNEXURES

1.Data collection form

S.no	Patient name	Patient mr no	Follow up date	Laboratory investigations	Billed/non billed	Radiology investigations	Billed/non billed

2.Questionnaire

name _____

date-----

age _____

follow up 1. Yes 2. no

sex a. male b. female

1. What are the reasons not opting diagnostic services in our hospital?

a. not cost-effective

c.no quality

b. dispatching time is more

d. none of the above

2.why are you choosing other diagnostics and radiology centers

a. cost effective

c. near to home

b. frequently visited diagnostics

d. none of the above

3. which diagnostic centers will you prefer?

a. clean and hygienic b. Fast service

c. discount

d. Door delivery services

4. Do you suggest care diagnostic services to others?

a. yes

b.no