Study on Competitive Analysis of Oncology Services in Ahmedabad City

By

Divya Chauhan

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2018-2020

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

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NH Narayana™
Multispeciality Hospital
Unit of Narayana Health

NH-AHM/HR/2020/427

29.06.2020

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Dr. Divya Chauhan** has undergone her [redacted] **internship** at **Narayana Multispeciality Hospitals,** Ahmedabad in **Oncology** Department from **24th February 2020, to 24th May 2020.**

She has successfully completed her project on **Competitive Analysis of Oncology Services** in Ahmedabad.

For Narayana Multispeciality Hospital,

Narayana Hrudayalaya Ltd. Ahmedabad

Nadim Naviwala
Manager - HR

186-0208-0208

Narayana Hrudayalaya Limited
(Previously Narayana Hrudayalaya Pvt. Ltd.) CIN: U85110KA2000PLC027497
Opp. Police Station, Rakhial Cross Road, Ahmedabad 380023
Fax:+91 79 71222 687. info.ahd@nhhospitals.org, www.narayanahealth.org
Registered Office : 258/A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099
Corporate Office : 261/A, 2nd Floor, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099

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It is my utmost privilege to be a part of INSTITUTE OF HEALTH MANAGEMENT AND RESEARCH (IIHMR), which stands as an institute of national importance and a Centre of excellence in Healthcare education in India,

It is a pleasant duty to express my deep sense of gratitude and indebtedness to Mr. Akshay Oletti COO (OBL Bangalore), Mr. Abhijeet Sippy Facility Director of Narayana Hospital Ahmedabad for providing me opportunity to work and most importantly to my project mentor, Dr Abdul Ram Rahim Khan who gave me complete freedom to take the project head as per the way I desired and continuously encouraged me and my revered Guide Dr. Sameer Phadnis whose invaluable suggestions, constant support and encouragement kept me going all throughout my project work.

Dr Divya Chauhan

CONTENTS-

DECLARATION

I Dr. Divya Chauhan, hereby declare that this dissertation project titled Competitive Analysis of Oncology Services in Ahmedabad city, submitted to IIHMR University Jaipur in the full fulfilment of requirement for the award of degree of MBA Hospital management is a benefice and the study carried out by me under the guidance of Dr. Sameer Phadnis Associate professor IIHMR University Jaipur the extent of information gathered in the study is discussed in this project report this work is original and confidential.

Dr. Divya Chauhan

ABSTRACT

In India now-a-days cancer is rising as a significant reason for morbidity and mortality. Some of the key features embrace young age, advanced illness, poor performance standing and presumably additional aggressive makeup. If we talk about the disease burden only India contributes to 7.8% of the global cancer burden and 8.33% of global deaths due to cancer and is reported that the number of new cancer cases in India was 1,219,649 in 2016. To prevent and manipulate principal NCDs, the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) was released in 2010 with recognition human aid development, fitness promotion, early diagnosis, management, and referral. During the length 2010-2012, the program was applied in 100 districts throughout 21 States. So, I conducted this study to analyze the competitive analysis of oncology services in Ahmedabad city to start some new additional services in Oncology Department in Narayana Hospital Ahmadabad. In which I use the methodology that includes analysis of secondary data and desk review of relevant documents. The location of the study is Ahmadabad Gujrat, India, with in the duration of 3 months and the data collection is secondary in nature. Data collection is done from the various sites, journals, whitepapers, and public blogs etc. After analyzing the findings, I suggested for using some new technologies such as Linear Accelerator, Tomotherapy, Immunology, Gamma Camera Dual head, PET-CT scanner (Discovery 600), Three Dose Calibrator etc. We should also use services as healthcare at home, ambulatory services, and telemedicine. With all these services we can provide time to time training for the healthcare providers as well as the house keeping and security staff for proper understanding of new trends in market. Same as the training of the staff the patient education is also an important part to provide proper knowledge to the patient and their relatives. Cancer treatment is a long and time-consuming process, so they need proper support of their family and relatives physically as well as emotionally.

INTRODUCTION

Now-a-days cancer in India is rising as a significant reason for morbidity and mortality. Some of the key features embrace young age, advanced illness, poor performance standing and presumably additional aggressive makeup. When we talk about the disease burden only India contributes to 7.8% of the global cancer burden and 8.33% of global deaths due to cancer and is reported that the number of new cancer cases in India was 1,219,649 in 2016. According to the National Institute of Cancer Prevention and Research (NICPR), for every two women newly diagnosed with breast cancer in India, one woman dies of it. Cancers of the oral cavity and lungs in men and cervix and breast in women account for over 50% of all cancer deaths.

Whereas several tertiary cancer centers have state of the art diagnostic workup and treatment protocols, this can be however to achieve to a typical level in several alternative regional cancer centers and hospital in smaller cities. focus on epidemiologic analysis, screening for sure cancers and clinical trials India-centric common cancers might offer solutions for improvement in outcome. A planned and cooperation approach at the establishment level and collaboration with completely different analysis groups are doubtless the key to success.

To prevent and manipulate principal NCDs, the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) was released in 2010 with recognition human aid development, fitness promotion, early diagnosis, management, and referral. During the length 2010-2012, the program was applied in 100 districts throughout 21States.

As on March 2016, the program is under implementation in all 36 States/UTs. Overall, of 298 District NCD Cells and 293 District NCD Clinics had been established in the country. Also, there are 103 functional Cardiac Care Units for emergency cardiac care and 64 Day-Care Centers for Cancer care at the District levels within the country.

OBJECTIVE

To conduct the Competitive Analysis of Oncology Services in Ahmedabad city to start some new additional services in Oncology Department in Narayana Hospital Ahmadabad.

RESEARCH METHODOLOGY

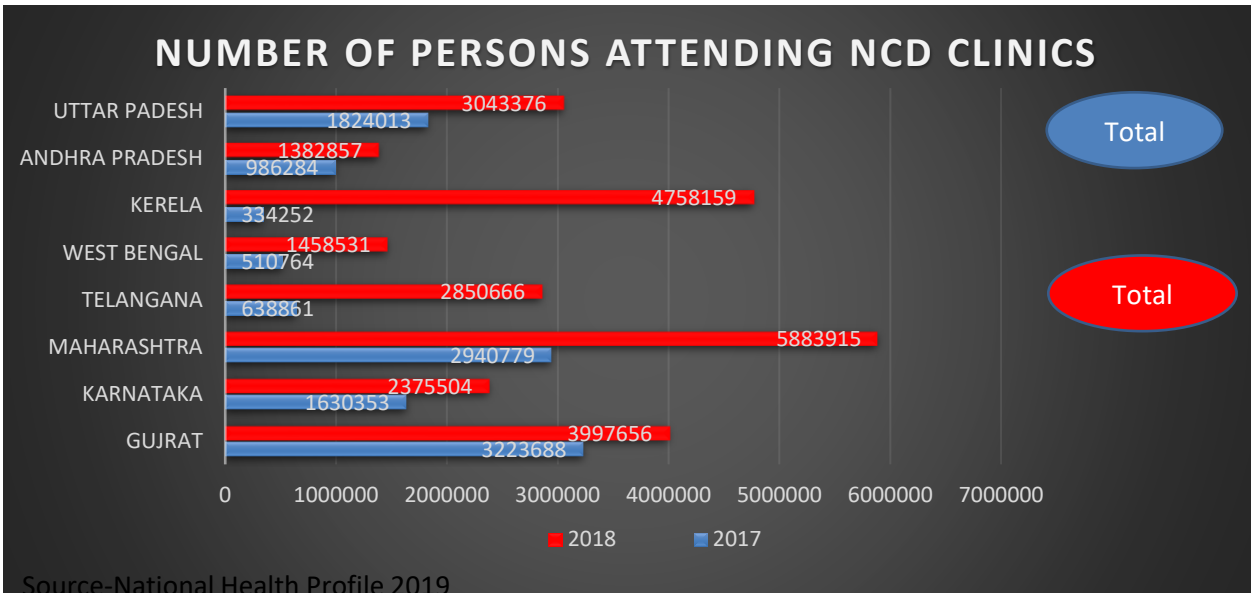
- Study Design: Analysis of secondary data and desk review of relevant documents.
- Study Location: Ahmedabad, Gujrat, India
- Study Duration: 3 months

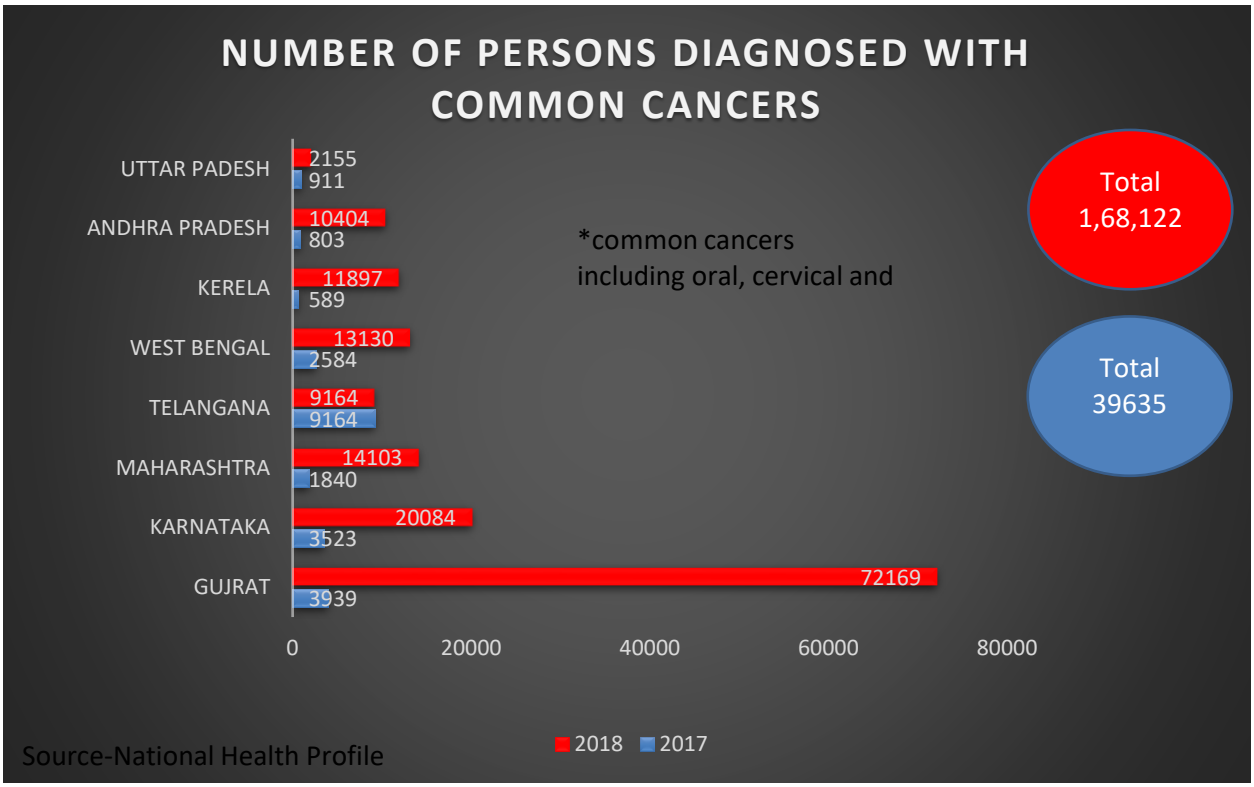
- Data collection:
  Primary- By the telephonic interviews of the executives
  Documents Perused for Desk Review-
  Reports-Apollo Annual Report of 2018-2019
  HCG Annual Report of 2018-2019
  CIMS Annual Report of 2018-2019
  GCI Annual Report of 2018-2019
  Shalby Annual Report of 2018-2019
  Sites- apollohospitals.com
  hcghospital.in
  cims.org
  gcriindia.org
  shalby.org
  White Papers
  Journals
  Articles
- Analysis tool: MS Excel

Findings-

PREVALANCE IN GUJRAT- **"**The number of people diagnosed with common cancer in Gujarat jumped from 3,939 in 2017 to 72,169 in 2018, recording 68,230 new cases, whereas the number of those visiting clinics increased by only 24%"

Cancer is striking deep roots in Gujarat and according to the Lancet study ,'The Burden Of Cancers And Their Variations Across The States of India' reports that in terms of cancer disease burden Gujarat ranks second among states in lip and oral cavity cancer, third in leukemia (cancer of blood-forming tissues) and eighth in breast cancer.



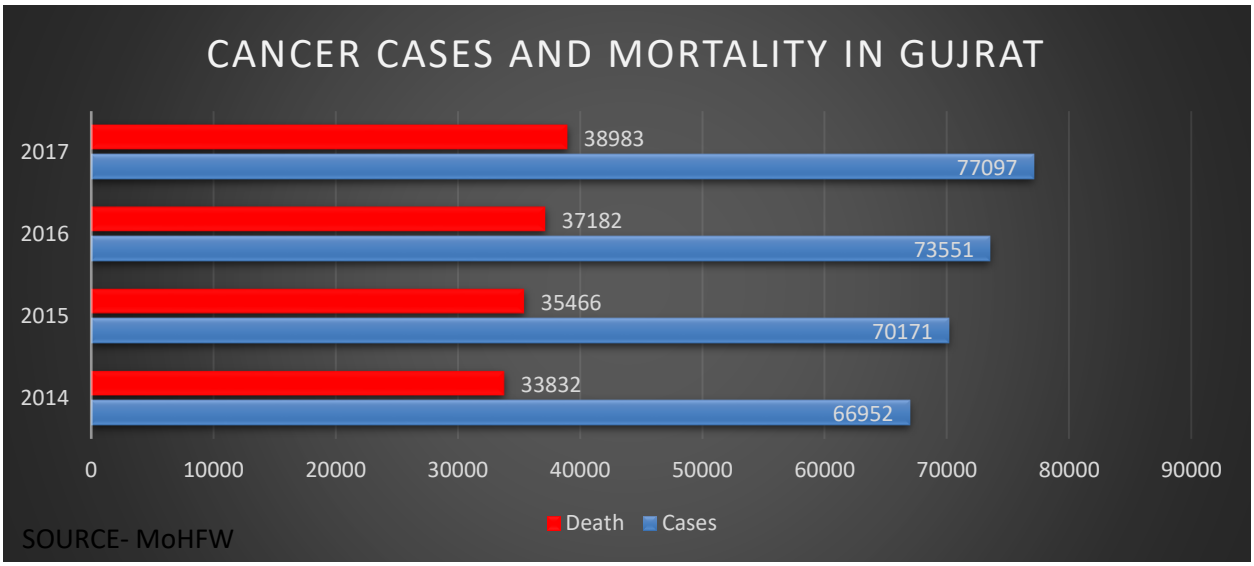


As per the given graph there is a sudden increase in the cases from 2017 to 2018

Table 2: Age and Gender distribution- According to NCDIR Cancer Rate Per 100,000 Population in Ahmedabad Urban (2012-2013)

	Males	Females
Number of Incidence Cases	5477	4117
Crude Incidence Rate (CR)	87.4	73
Age Adjusted Incidence Rate (AAR)	98.5	76.5
Truncated Incidence Rate (TR) (35-64 Years)	181	155.7
Cumulative Risk (%) (0-74 Years)	11	9

MORTALITY RATE-



Approximate 50% death rate is seen in cancer cases as per the given graph of mortality rate. There is a sudden increase in number of cancer centers in Ahmedabad city in last few years due to the increment of the cancer cases.

- According to a blog, the top five oncology hospitals of Ahmadabad city are as follow

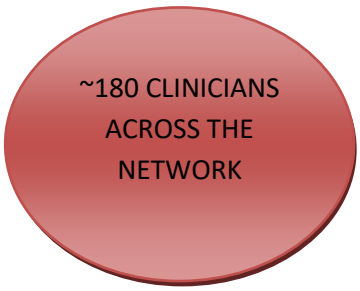
1. Apollo Hospital
2. HCG Cancer Centre
3. CIMS Hospital
4. The Gujrat Cancer & Research Institute
5. Shalby Hospital

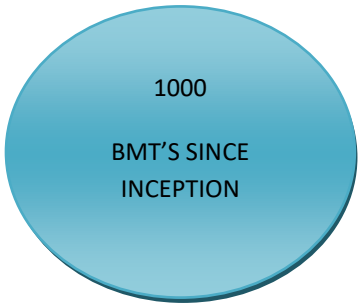
1. APOLLO HOSPITAL (1997) (CPRPORATE)

Key highlights of Apollo Hospitals:

Comprehensive cancer hospital for diagnosis and treatment with the help of expert oncology team consisting of medical oncologists, radiation oncologists, and surgical oncologists

Treatments	**TECHNOLOGY**	**Key Oncologist**
Medical Oncology	Rapid Arc	Dr Shirish Alurkar (MO)
	Brachytherapy	Dr Akash Shah (MO)
Radiation Oncology	IGRT (Image Guided Radiation Therapy)	Dr Rushit Shah (MO)
Stem cell transplants	IMRT (Intensity Modulated Radiotherapy)	Dr Hemant Menghani (Paediatric) (MO)
Surgical Oncology	Proton therapy (Apollo proton therapy)	Dr M I Laxmidhar (H&N)
		Dr Vishal Choksi (H&N)





2. HCG CANCER CENTER (CORPORATE)

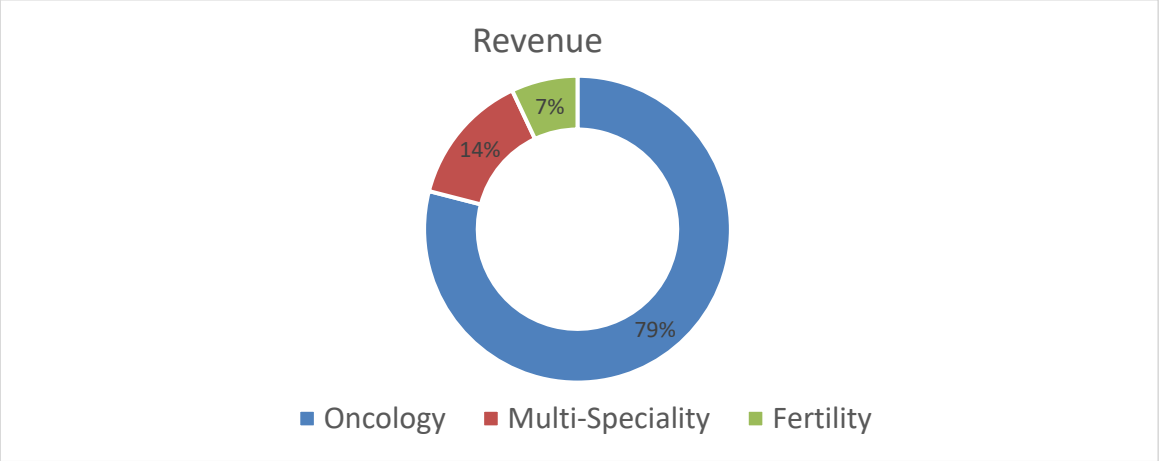
Key highlights of HCG Cancer Centre, Ahmedabad:

- Group of 275 oncologists across 23 cancer centers.

- True Beam for high end precision radiotherapy.
- International patient services.
- Tertiary care unit

Treatments	TECHNOLOGY	Key Oncologist
Medical Oncology	**A**. Implantable port or port-a-Cath, **B**. Ambulatory / Home Chemotherapy, **C**. Hyper thermic Intra Peritoneal Chemotherapy (HIPEC)	Dr. Ashish M. Kaushal (Medical Oncology)
Surgical Oncology	1. da Vinci Xi - Robotic Surgery System, 2. Trans Oral Laser Surgery (TOLS)	Dr. D.G. Vijay (Surgical Oncology)
Radiation Oncology	1. Tomotherapy, 2. True Beam, 3. Brachytherapy	Dr. Daxesh Patel (Surgical Oncology)
Nuclear Medicine	GA 68 - DOTA & PSMA PET-CT Scan	Dr. Dushyant Mandlik (Surgical Oncology)

REVENUE BREAKUP-



3. CIMS HOSPITAL (PRIVATE)

Key highlights of CIMS Hospital in Ahmedabad:

- CIMS Hospital is a 350 bedded, multi-super specialty hospital
- JCI, NABH, and NABL accredited.
- Digitized operation theatres and ICUs.
- Latest Cancer Radiation machines and Radiology.

Treatments	TECHNOLOGY	Key Oncologist
Medical Oncology	Treating a patient medically with anti-neoplastic drugs	Dr Chirag Desai (Medical Oncologist)
Surgical Oncology	External radiotherapy, IMRT, IGRT, VMAT, SBRT, SRT, SRS, Brachytherapy	Dr Ashok Patel (Surgical Oncologist) Dr Darshan Bhansali (Surgical Oncologist)
Radiation Treatment	LINAC	Dr Devang Bhavsar (Radiation Oncologist)
Palliative & Rehabilitation Service	Stoma Care services, Dermatologic Health, Psychological Care, Swallowing rehabilitation	

4. Gujarat Cancer & Research Institute (GOVERNMENT)

Key highlights of The Gujarat Cancer & Research Institute Ahmedabad:

- It is functional autonomous body jointly managed by Government of Gujarat and Gujarat Cancer Society.
- For adult Patients there are 660 beds and for pediatric cancer patient 50.
- Latest equipment and technologies for cancer diagnostics and treatment.

Year of Operation-1967

Treatments	TECHNOLOGY	Key Oncologist
Medical Oncology & Pediatric	Treating a patient medically, Bone Marrow Transplant	Dr. Pankaj Shah (Medical Oncology)
Surgical Oncology	IVTC, IIVT	Dr Rajan Tankshali (Surgical Oncology) Dr Shashank Pandya (Surgical Oncology)
Radiation Treatment	LINAC, IMRT, IGRT, VMAT, SBRT, SRT, SRS,	
Cancer Biology (Research)-	Molecular Oncology Lab, Cytogenesis Lab, Immuno-Hematology Lab, Stem Cell Biology Lab, Tumor Biology Lab	

General Surgery Oncology-

Details of work done	Number
Major Surgery,	3523
Minor Surgery,	765
IVTC Procedures,	6989
DSU,	8123
Central Line Insertions,	520
Emergency Surgeries,	123

Super-specialty Oncology-

Department	No. Of Surgeries
Plastic Surgery Oncology	79
Urology surgery Oncology	199
Musculoskeletal Oncology Surgery	244
Paediatric Oncology	200
Neuro Oncology	849
Ophthalmic Surgery	17
ICR	765

Details of Work Done	Adult Patients	Paediatric Patients	Total
"Clinical Cases" "New + Refer "Old"	80786 10466 70320	13251 12181 2033	94037 11684 82353
Procedures: Total Bone Marrow Aspiration Others (Intrathecal, Pleural & Ascitic Fluid Aspiration	13252 5844 7408	4395 1376 3019	17647 7220 10427
Chemotherapy: Total Room No-7, Special Ward, Male Ward Female Ward (including Paediatric Chemo	50344 47314 1678 231 1121	5277	55621
BMT: ALL Autologous (multiple Myeloma 3, Hodgkin's Disease 9,) Allogenic (Acute Myeloid Leukaemia 2, Aplastic Anaemia 2, Thalassemia Major 10, Faconi's Anaemia 1)			28 12 16

5. SHALBY HOSPITAL (2017) (CORPORATE)

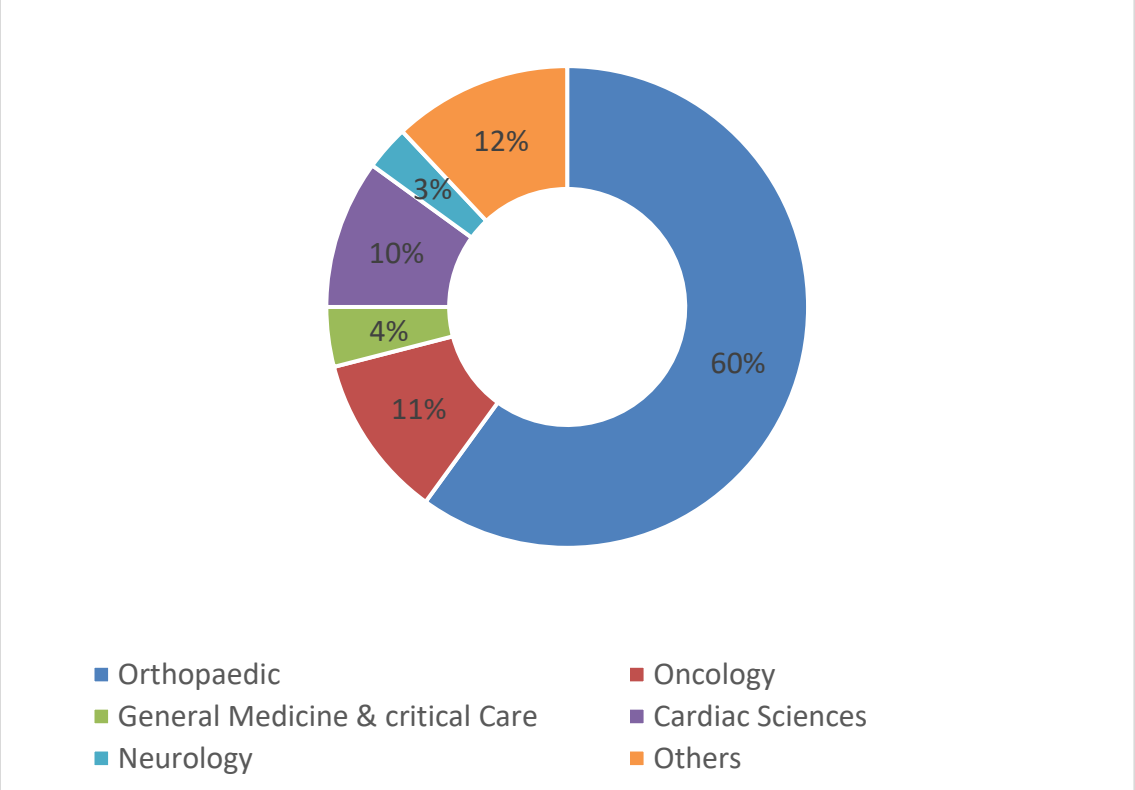
Key features of Shalby Hospital, Ahmedabad:

- Hospital undertakes all routine, high risk and emergency surgeries.
- High success rate with minimal complications.

Treatments	TECHNOLOGY	Key Oncologist
Medical Oncology	Chemotherapy, Hormone therapy, Immunotherapy, Monoclonal antibody therapy	Dr Bhavesh Parekh (Medical Oncologist)

Surgical Oncology	Minimally invasive or Keyhole Surgery, Laparoscopic surgery	Dr Jeetendra Paryani (Surgical oncologist)
Radiation Treatment	Linear Accelerator	Dr. Ankit Thakkar (Radiation Oncologist
Cancer Biology (Research)-	Molecular Oncology Lab, Cytogenetics Lab, Immuno-Hematology Lab, Stem Cell Biology Lab, Tumor Biology Lab	

REVENUE MIX OF TOP 5 SPECIALITIES IN 2018-



Units Divided into-

- Unit of Head & Neck Cancer Surgery
- Unit of Esophageal Cancer Surgery
- Unit of Breast Cancer Surgery
- Unit of Gynecological cancers Surgery
- Unit of Gastrointestinal Cancers Surgery
- Unit of Genitourinary Cancers Surgery
- Unit of Bone and Soft Tissue Cancers Surgery
- Unit of Brain Tumor Surgery
- Unit of Cosmetic and Reconstructive Surgery
- Gastrointestinal Cancers Surgery
- Musculo-skeletal Oncology

Comparative Overview:

Name of Hospital	Apollo Hospital	HCG Cancer Hospital	CIMS Hospital	GCRI Hospital	Shalby Hospital	NH-Ahmadabad
Type of Hospital	Private	Private	Private	Trust Run (Govt. Funding)/ Individual	Private	Private
Year of Operation	1997		2010	1967	2017	
Services offered	Medical Oncology, Radiation Oncology, Surgical oncology Stem cell Transplant.	Medical Oncology, Radiation Oncology, Surgical oncology, Nuclear Medicine.	Medical Oncology, Radiation Oncology, Surgical oncology, Palliative & Rehab Services	Medical Oncology, Radiation Oncology, Surgical oncology, Cancer, Biology (Research)	Medical Oncology, Radiation Oncology, Surgical oncology, Cancer, Biology (Research)	Medical Oncology, Surgical oncology

Technology	Rapid Arc, IGRT, IMRT, Proton Therapy	PET-CT, da Vinci Xi - Robotic Surgery System, TOLS, Tomotherapy, Brachytherapy	LINAC, IMRT, IGRT, VMAT, SBRT, SRT, SRS	LINAC, IMRT, IGRT, VMAT, SBRT, SRT, SRS	Keyhole Surgery, LINAC	CT, MRI,
Other Services	Different CSR Activities	Home Healthcare	Different CSR Activities	Cancer Community Centre, CSR	Home Healthcare	

SUGGESTIONS: Based on the previous given table of comparative overview here are some suggestions which can be useful for the growth of the organization in the field of Oncology-

- **Technology**-We should have started some new facilities such as Nuclear Medicine, PET-CT, due to them we sent a good amount of oncology patients to other hospitals.
- We can use the recent technologies such as Linear Accelerator, Tomotherapy, Immunology, Gamma Camera Dual head, PET-CT scanner (Discovery 600), Three Dose Calibrator etc.
- **HCAH**-We can provide the geriatric patient or physically challenged patients, facility of healthcare at home for some procedures as Chemotherapy.
- **Ambulatory Services**-We can provide mobile services to the patients according to patient need or may be in emergency.
- **Telemedicine-** By telemedicine we can reach to the remote areas of the city for the proper communication between patient and doctors. It also helps with the ambulatory services.
- **Safety**-As in the current scenario, it would be good if we provide them care such as mask, hand sanitizer, temperature check before entering to the hospital, so that they can be assure that they are in safe environment.
- Patients and their relatives are already having different fears when they comes to hospital and it is increased in now a days situation due to COVID_19 situation, so when we provide them proper safety and security it increases their faith also the trust in the hospital.
- **Follow up**- It is an important part of cancer treatment to take the follow up of the patient whether they are following the medication as prescribed without any gap because this affects the prognosis of the disease.

- Specially in chemotherapy because it has several side effects and the patients are immuno-compromised so it becomes the compulsory part of the treatment to make sure that they are taking medications timely and not having a serious amount of side effects.
- **Training-** it is an important part for any organization to keep the position in the market. They need to train each staff on regular basis. From the doctors and Nursing staff to the housekeeping and security staff regularly. Time to time training should be given so that they can keep in mind our organization culture as well as the new trends in the market available
- **Patient Education**- Educating the patient and their relatives is also important so that they can take proper care of their loved ones at home and understand the situation in which they need to contact the hospital in emergency. In chemo patients they need better care at home as they are immune suppressed. Cancer treatment is a long and time-consuming process, so they need proper support of their family and relatives physically as well as emotionally.

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