

**Summer Training at
HCG Cancer Center, Vadodara
(April 3 to June 2, 2017)**

Suggestions for Process Re-Engineering of Medical Record Department

**By
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**Under the guidance of
Dr. Sandeep Narula**

**MBA Hospital & Health Management
2016-2018**


**Institute of Health Management Research
The IIHMR University, Jaipur
2017**

CERTIFICATE

This is to certify that Dr. Akanksha Rathie has undergone summer training in HCG Cancer Centre, Vadodara from 3rd April to 2nd June 2017.

The candidate herself completed the project assign to her during summer training. Her 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 her success in all her future endeavors.



Col. (Dr.) Ashok Kaushik

Dean (Academic & Student Affair)

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HCG/HCC-V/HR/2017-18/010

02 June 17

Internship Certificate of Completion

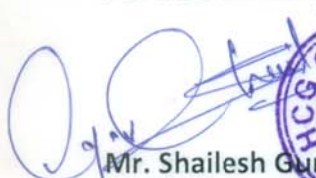
This is to certify that Dr. Akanksha Rathi MBA HM21 Batch 2016-18 student of Indian Institute of Health Management Research (IIHMR) Jaipur, has successfully completed her Summer Training Program in HCG Cancer Centre, Vadodara for duration of 2 months i.e. from 3rd April to 2nd June 2017. Her training projects are titled as:

- 1) Process Re-engineering of Medical Record Department (MRD)
- 2) Analyzing Process Turnaround time (TAT) of Chemotherapy Department
- 3) Analyzing Process Turnaround time (TAT) of Laboratory Department

During the program she had also undergone training on NABH Quality Indicators, Infection Control, Biomedical Waste Management, Hospital Committees, Emergency Codes and also attended Anti-Tobacco Awareness Seminar at General Electric Renewable (GE), Vadodara arranged by HCG Cancer Centre.

During the period of her Internship program with us, she had been exposed to different challenges and processes and she was found punctual, assiduous and inquisitive. We wish her every success in her life and career.

For HCG Cancer Centre, Vadodara


Mr. Shailesh Guntu

Facility Director & Head Strategy - Central and South Zone

FOR HR USE ONLY

PREFACE

One of the greatest important learning for the MBA HM student is to learn processes of hospital, conduct thorough research on a project assigned related to efficiency and effectiveness of current process which help the student to develop analytical skill and evaluation of current process by providing conclusion in terms of recommendation and suggestion which shows how student has understood a process that helps him/her in her future experiences.

This summer internship is considered as a first step of student in the practical world because he/she is sole responsible to prepare and execute entire project and this helps him/her at time of joining various organization after the completion of the course because in this time the student comes across with various standard of departments and get the valuable knowledge regarding hospital grant policies and various norms.

The basic objective of the summer internship project is to learn a process thoroughly to develop precision in that process and along with that, to develop various analytical skills which are the essential part of a manager for better medical, administrative and financial functions of the hospital.

DR. AKANKSHA RATHI

Roll No: 0374

ACKNOWLEDGMENT

The success of any task would be incomplete without the expression of appreciation of gratitude to the people who made it possible. So first I would like to render my sincere thanks to HCG Cancer Centre, Vadodara to for providing me such a kind of opportunity to undergo the summer training and get the unique hands on experience.

I would like to thank to **Mr. Shailesh Guntu (Facility Director & Head Strategy – Central & South Zone)**, **Dr. Prashant Bhavsar (Assistant Medical Admin)**, **Mr. Irfan Sheikh (Manager-Operations)**, **Mrs. Priyanka Shah (Manager - Human Resource)**, **Ms. Mrunali Shah (Executive-Quality)** for allowing me to do my project work in HCG Cancer Centre and also for their guidance and suggestions throughout the induction programme.

I express my feeling of gratitude to **Mr. Shalish Guntu (Facility Director & Head Strategy – Central & South Zone)** who permitted me to conduct the project in Medical Record Department at HCG Cancer Centre, Vadodara.

I am highly indebted to **Ms. Mrunali Shah (Executive-Quality)** and **Dr. Prashant Bhavsar (Assistant Medical Admin)** as under their sheer guidance, the project was able to be successfully accomplished.

I would like to thank all those who have directly or indirectly helped me in completing this project. Last but not the least I would also like to thank to all staff of HCG Cancer Centre, Vadodara for always being co-operative to assist in my project work precisely. Without their cooperation and warm attitude, this project would have been a distant dream.

I am highly thankful to **Dr. Sandeep Narula, Associate Professor of IIHMR University, Jaipur** and also my mentor for his constant support and guidance throughout my summer internship.

Process Re-Engineering of Medical Record Department

Date : 21.06.2017

DR. AKANKSHA RATHI

Place: Vadodara

Roll No: 0374
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ABBREVIATIONS

IPD	In Patient Department
OPD	Out Patient Department
ALOS	Average Length of Stay
IT	Information Technology
HO	House Officer
CS	Case Summery
CMO	Corporate Medical Officer
ADT	Admission Discharge Transfer
MRD	Medical Record Department

ABSTRACT

In the 21st century, the competitive world demands for flexible and effective strategies to meet the ever changing difficulties of healthcare industry. Due to the need to solve the challenges facing the healthcare industry several trends have been put in place to ensure reengineering of healthcare delivery. Medical Record Department (MRD) plays a crucial role in solving the healthcare problems as it plays a key role in making short and long term plans with the aim of improving the healthcare system as well as services. Therefore, the MRD is capable of supporting tasks such as medical education programs, patient care, medical research, administrative as well as medical staffing among others. In addition, the integration of IT and MRD in hospitals enhance easy access to various departments within the hospitals, it also enhance efficient communication among various healthcare departments both internal and external departments. The most important role is the reduction of space by use of electronic medical records rather than paper work, which in turn will reduce the related cost. In conclusion it will help to accelerate coding activities in hospitals by use of coding software and retrieval of documents will be made easier hence improvement of healthcare services.

CHAPTER-1

INTRODUCTION

1.1 HCG CANCER CENTER, VADODARA

HealthCare Global Enterprises Ltd, the specialist in cancer care has its headquarters in Bangalore, India and is known to be the only dedicated cancer care network with quality care across 20 centers.

- Being a leader in the area of cancer care two years in a row has given HealthCare Global Enterprises (HCG) the exposure and expertise to provide hope to 35,000 new patients every year. After having established itself as a centre for advanced, complicated and recurrent cancers, today it is known as the specialist in the field – nationally and internationally. HCG Cancer Centre, Vadodara was set up in May, 2016 the new free-standing cancer hospital has 73 beds and is one of the most advanced in terms of technology in the HCG network. This is HCG's second comprehensive cancer centre in the state of Gujarat.
- It was set up to assist in HCG's mission to make high quality cancer care accessible across India and Gujarat has always been an important state in HCG mission and journey.
- For the management and systematic maintenance of Medical Records in the Hospital a Medical Record Department was established in the same year 2016.

1.2 MISSION

To provide quality health care services & facilities to the patients in order to restore their health as swiftly and safety as can be done. To meet this objective, we will standardize health care delivery procedures, use smart technology for ERRORS-free services and continuously train care outcome. We will also foster better relationships with all stakeholders including our doctors, employees, vendors by providing healthy working environment so as to achieve all round excellence.

1.3 DEPARTMENTS

- **Surgical oncology**

Surgical Oncology has witnessed a paradigm shift in the past few decades. It has evolved from radical mutilating surgeries to organ and function preserving procedures. This has been achieved because of safer anaesthesia, multiple energy devices and precise operating

Process Re-Engineering of Medical Record Department

techniques and state of the art facilities.

- Modular Operation Suites with advanced adjustable digital lights (KLS Martin, Germany)
- Motorized hydraulic operation tables
- Advanced anaesthesia equipment and monitoring
- Latest energy devices (Vallylab diathermy, Ligasures, Thunder beat harmonic and vessel sealing system, etc.)
- Laser CO2 system
- Operating Microscope (LEICA)
- Minimal Access Surgery equipment (Laparoscopy, Thracoscope , etc.)
- IITV (High frequency)

Types of Surgery

- General onco surgeries
- Gynaec onco surgeries
- Breast surgeries
- Uro oncology
- Ortho oncology
- Oral onco surgeries
- Head and neck surgeries

• Medical and Haemato Oncology

Chemotherapy has achieved new frontiers in cancer care. Better drugs, safer drug delivery, day care, minimal side effects, targeted Therapy and biological Therapy have all helped in better cancer treatment.

- Premium Day- care Chemotherapy suite
- Private Day- care Chemotherapy suite
- Bone Marrow Transplant Unit
- Pediatric Oncology Unit
- Chronic Venous Acces Devices & Pumps for effective drug delivery
- Bio safety Hood

• Radiation and Nuclear Oncology

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Harnessing the power of Gujarat's most advanced; linear accelerator (the latest true beam V.2) and Targeting tumours with pinpoint accuracy in shorter duration ensuring faster recovery and better clinical outcomes.

Clinical Benefits

Improved image quality reduces scatter, sub-millimeter accuracy, increases precision, automated technology reduces human ERRORS.

Patient Benefits

Non-toxic elements; highly accurate in tumour detection; quicker treatment and delivery.

- **Clinical services**

Co-ordination of many aspects of clinical care in cancer treatment to suit personal need is crucial. We as team HCG Vadodara promise each patient personalized, well counselled and professional quality cancer care.

- **Endoscopy**

We have dedicated endoscopy suite & all modern equipment for diagnostic & Therapeutic endoscopy.

- Gastroscopy
- ERCP
- Colonoscopy
- Laryngoscopy
- Bronchoscopy

PET-CT & Nuclear medicine

- A Positron Emission Tomography - Computed Tomography (PET-CT scan) combines a CT scan and a PET scan into one to give detailed information about the cancer in question.
- A CT scan takes pictures from all around the body and uses a computer to put them together. This is detailed information about CT scans in our section about cancer tests. A PET scan uses a very small amount of an injected radioactive drug to show where cells are active in the body.

Working:

Before carrying out a PET scan, a radioactive medicine is produced in a cyclotron. The radioactive medicine is then tagged to a natural chemical. This natural chemical could be glucose, water, or ammonia. The tagged natural chemical is known as a radiotracer. The radiotracer is then inserted into the human body.

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When it is inside, the radiotracer will go to areas inside the body that use the natural chemical. For example, FDG (fluorodeoxyglucose - a radioactive drug) is tagged to glucose to make a radiotracer. The glucose goes into those parts of the body that use glucose for energy. Cancers, for example, use glucose differently from normal tissue - so, FDG can show up cancers.

A PET scan detects the energy emitted by positively-charged particles (positrons). As the radiotracer is broken down inside the patient's body, positrons are made. This energy appears as a three-dimensional image on a computer monitor.

The image reveals how parts of the patient's body function by the way they break down the radiotracer. A PET image will display different levels of positrons according to brightness and colour.

When the image is complete, it is examined by a radiologist who reports her/her findings to a doctor.

Advantages:

The following are considered to be the biggest advantages of a PET CT Scan:

- A powerful source of data to help make the right decisions
- Completely safe
- Reduces number of invasive procedures
- Can help avoid unnecessary surgery
- Can tell whether a tumour is benign or cancerous
- Can show all the organ systems of the body in a single exam, showing, for example, whether cancer has spread
- Detects disease often before it shows up on other tests
- Is an early predictor of patients' response to their Therapy
- Assists in planning for radiation Therapy

Women Wellness:

Women Wellness Wing:

The Women wellness wing is the first facility in Gujarat to offer digital mammography services. The Women wellness wing is staffed with Trained and qualified technologists and support personnel committed to providing personalized, quality service with accurate, rapid results.

Mammography

Breast cancer is a growing risk amongst women and even men. In India, 1 out of 22 women are diagnosed with breast cancer. Although it is a fear of being diagnosed with breast cancer, there is also hope in fighting it away. The advances in prevention, early detection and treatment procedures have resulted in better survival rates. The digital mammogram offers a highly safe and accurate, low-dose X-ray photograph of the breast. Mammograms can be a woman's most effective defense against breast cancer.

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TYPES

What is Mammogram? Mammograms come as film mammograms. A film mammogram uses a specialized camera to take pictures of each breast from two different directions. Digital mammograms or digital mammography, are safe and highly accurate and use the same technique as film mammography except that the image is recorded directly onto a computer. The image captured can then be enlarged or highlighted.

ADVANTAGES

Mammograms detect lumps that are even less than 5 mm in size and they require only a minimal amount of X-ray dosage. The time taken for the test is minimal too and the result are also quite, accurate.

Breast clinic

For evaluation and management of all breast disorders.

Gynaecologic Oncology

It involves the diagnosis and treatment of cancers of the female reproductive system. Our gynaecologic oncologic malignancies using advanced techniques.

Preventive Oncology

It includes counseling for cancer prevention; cancer screening strategies; genetic counselling and nutrition management.

Hot Laboratory:

A laboratory designed for research with radioactive materials that have such high strengths that special handling precautions are required.

a room for working with high-activity radioactive compounds (to hundreds of thousands of curies).

A hot laboratory is used for studying the chemical and physicochemical properties of irradiated nuclear fuel and working out its process flow diagrams, for investigating various properties of transuranium elements (neptunium, plutonium, americium, curium) and the methods of isolating them, and for preparing powerful sources of α , β , and γ -radiation. Work with high-activity preparations demands that complex biological measures be taken to protect the staff and surrounding population against ionizing radiation and contamination by radioactive substances. A hot laboratory is equipped with powerful suction-and-exhaust ventilation that provides for an exchange of air from ten to 30 times per hour, dust removal and air conditioning in the forced-ventilation system, and effective multistage filtration of the air removed that completely excludes the possibility of the discharge into the air of radioactive contamination in vapor or aerosol form. A hot laboratory has an autonomous internal drainage system with receiving

Process Re-Engineering of Medical Record Department

containers for the collection of liquid radioactive wastes and the subsequent removal to a place of burial. The interior surfaces of a hot laboratory have coatings that are easily decontaminated (stainless steel, oil-base paint, plastic compounds).

In a hot laboratory all work with radioactive substances is carried out only from a distance; the laboratory is equipped for this through a process chain of hot chambers and cells. Interconnected by a system for transporting preparations and samples both between the various compartments and with the storage area for the radioactive materials. Hot cells are hermetic chambers with strong biological shielding. They are made of high-density materials: barytoconcrete, cast iron, or lead.

The zones are separated from one another by steel or concrete biological shield walls and are equipped with automatic-block sanitary cubicles that are linked to a radiation monitoring system. The protective system and the systems of strict radiation monitoring, signaling, and automatic blocking ensure the complete biological safety of the staff and the surrounding area, both from radioactive radiation and from contamination by radioactive materials.

Dose Calibrator:

The dose calibrator is one of the most essential instruments in Nuclear Medicine & PET -CT for measuring the activity of radio nuclides and radio pharmaceuticals.

Radiation/Contamination survey meter:

Survey meters are portable radiation detection and measurement instruments used to check personnel, equipment and facilities for radioactive contamination, or to measure external or ambient ionizing radiation fields.

Pocket dosimeter:

It is used to determine personnel exposure while working with radiation and has the advantage of giving immediate readings.

RADIOTHERAPY

Many patients with cancer will have radiotherapy as part of their treatment. This can be used to control the symptoms of cancer.

- Varian True Beam Version 2 :-
- Treatment Planning System :
- Immobilization Devices :
- PET-CT Simulator :

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OPD:

Well equipped OPD with separate Examination room and procedure room with different category like.

1. Surgical Oncology
2. Medical Oncology
3. Pediatric Oncology
4. Radiation Oncology
5. Gynaec Oncology

In emergency 24x7 Contact No: 0265-2304000, 4003 also available Help Desk and a Highly Qualified Doctor To Attend a Patient.

CHAPTER-2

PROJECT

OVERVIEW

2.1 INTRODUCTION OF PROJECT:

Medical Record is a document that contains the patient's medical history during his hospitalization written by different healthcare professionals like doctors, Nurses, Physiotherapist etc. Medical record is important “**Patient forgets but record remembers**” the record is valuable to many individuals and groups: patients, physicians, health care institutions, research teams, teachers and students, National health agencies, and International Health organizations.

2.2 IMPORTANCE

Hospital Medical Records can be documentary evidence as per the Indian Evidence Act, 1872, as amended up to August 1, 1952, 1961 and, Medical Records are generally subpoenaed to court in the following types of cases:

- Personal Injury Suits (Accident etc.,)
- Criminal Case (Assault, Murder etc.,)
- Worker's Compensation Act (Factory Accident, Disabilities etc.,)
- L.I.C cases (Death claims/ injury /accident)
- Malpractice Suits (An action for malpractice may be brought against the hospital and its employees in a civil or criminal court.)
- Patient Will Cases (A Patient may have made a will during his hospital stay)
- Authorization for Operation (An operation, or even a medical examination carried out without consent expressed or implied of the person concerned, will usually amount to actionable assault.)

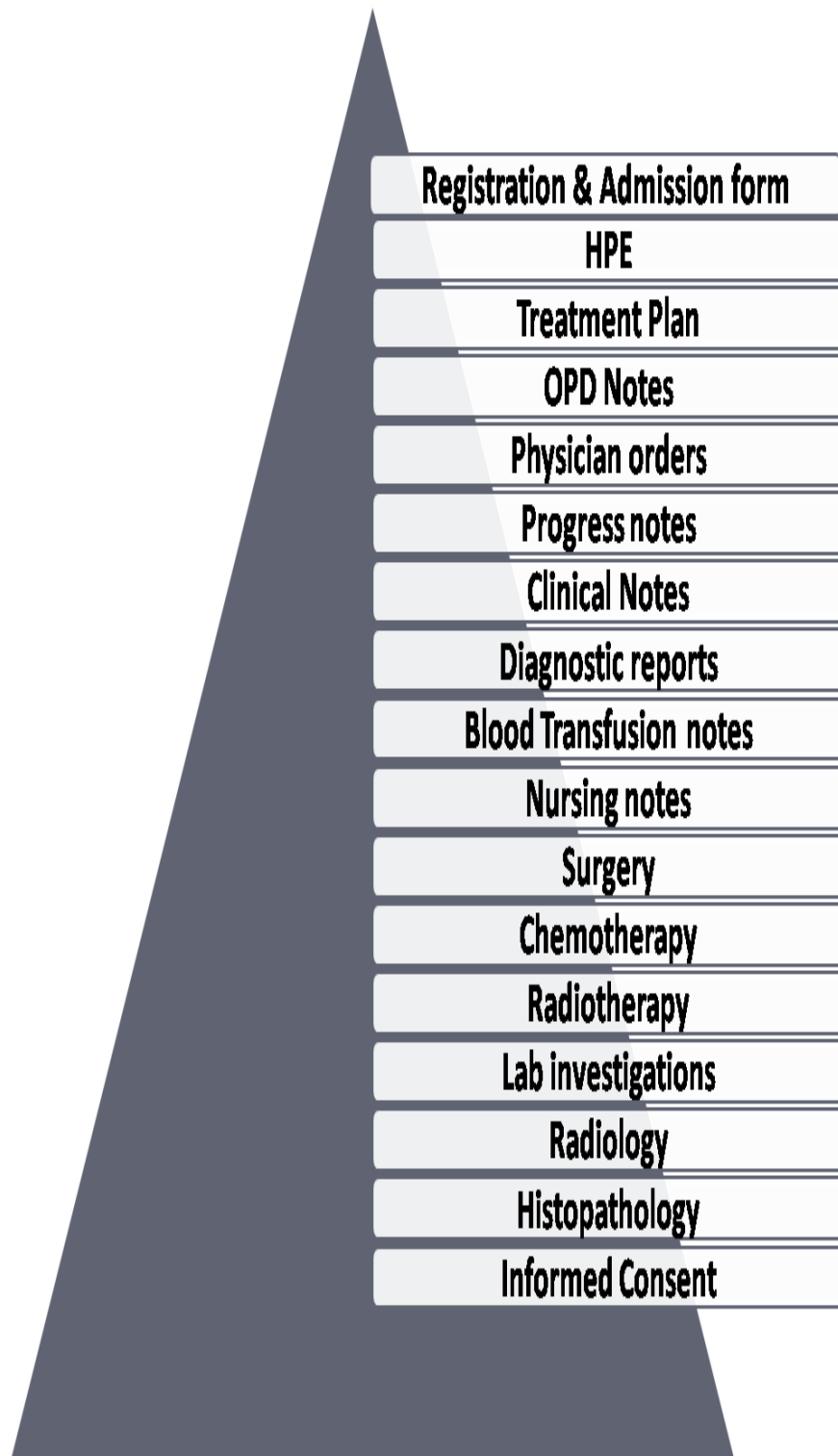
Process Re-Engineering of Medical Record Department

- Death Claims (Family pension, insurance claims etc.)
- **The Income Tax Act:**
Under the Section 38 (5) of the Income Tax Act 1922 and no Prior Permission from the Patent is necessary to Show the records to the IT Department.

2.3 FUNCTIONAL AREA

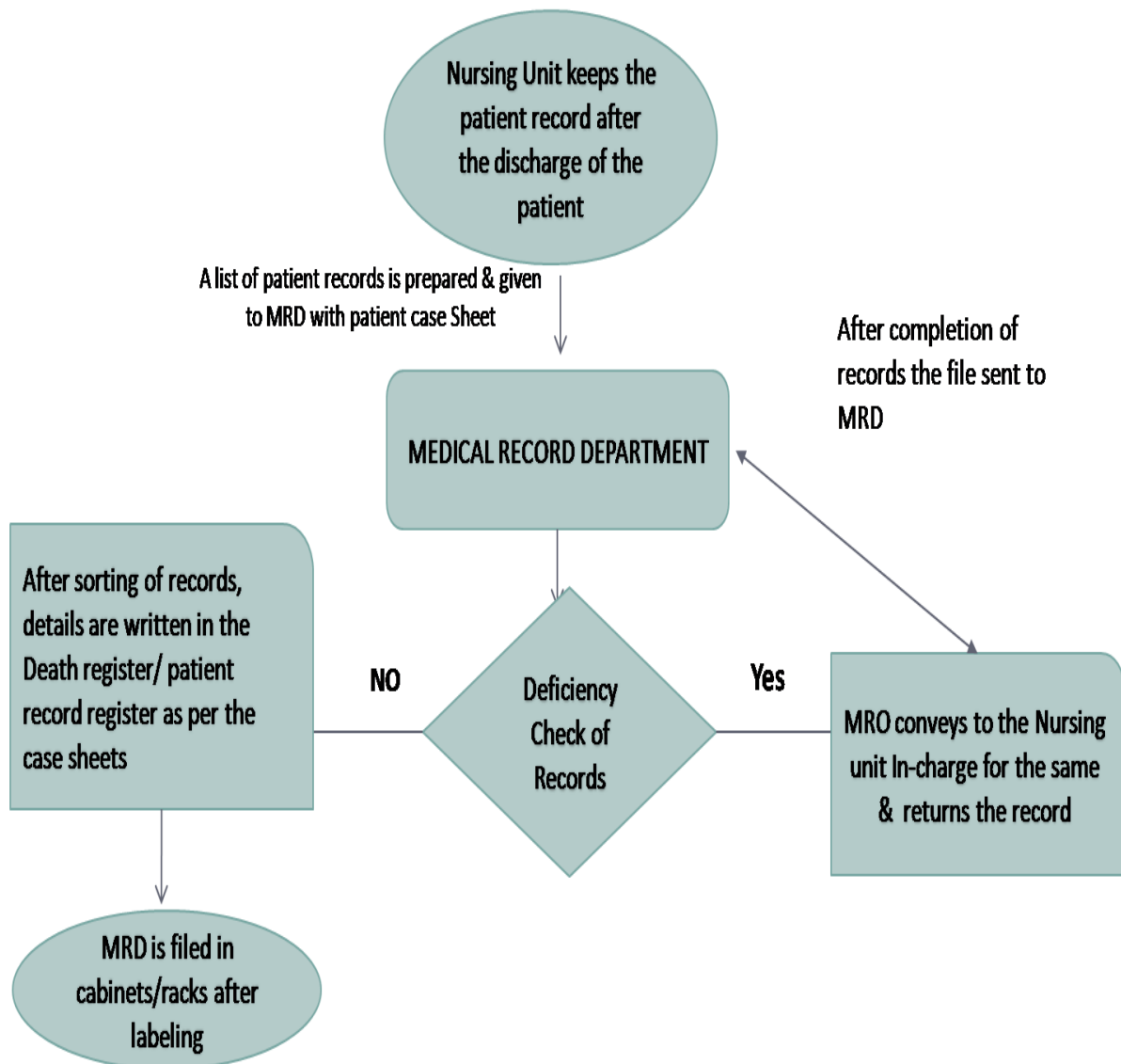
- Compiling daily hospital census and reporting to authorized personnel.
- Updating statistics of all OP and IP census to monthly statistics
- Collecting discharge files from all the wings.
- Discharge summary prints provided as requested by Doctors / Nurses.
- Systematic maintenance of records
- Check deficiencies in the records and ensure proper assembling and filing according to MRN.
- Coding as per ICD norms / Indexing in the system.
- Scanning all the IP files, MLC forms, outside lab reports, etc into the patient record. Modification of personal particulars.
- Sending Death reports & certificates to the corporation.
- Death Register Updating
- Maintaining hospital copy of all MLC intimations.
- Retention of records as per hospital policy.
- Issue medical records to authorized personnel for audits/ research purposes.

2.4 SEQUENCE OF MEDICAL RECORDS



2.5 RECEIVING OF PATIENT RECORD IN MRD

RECEIVING OF PATIENT RECORD IN MRD



2.6 RESPONSIBILITIES OF MRD

Designing hospital forms

Admission/Registration

Checking/verification/correctness of every record for inaccuracy, incompleteness, coding, indexing

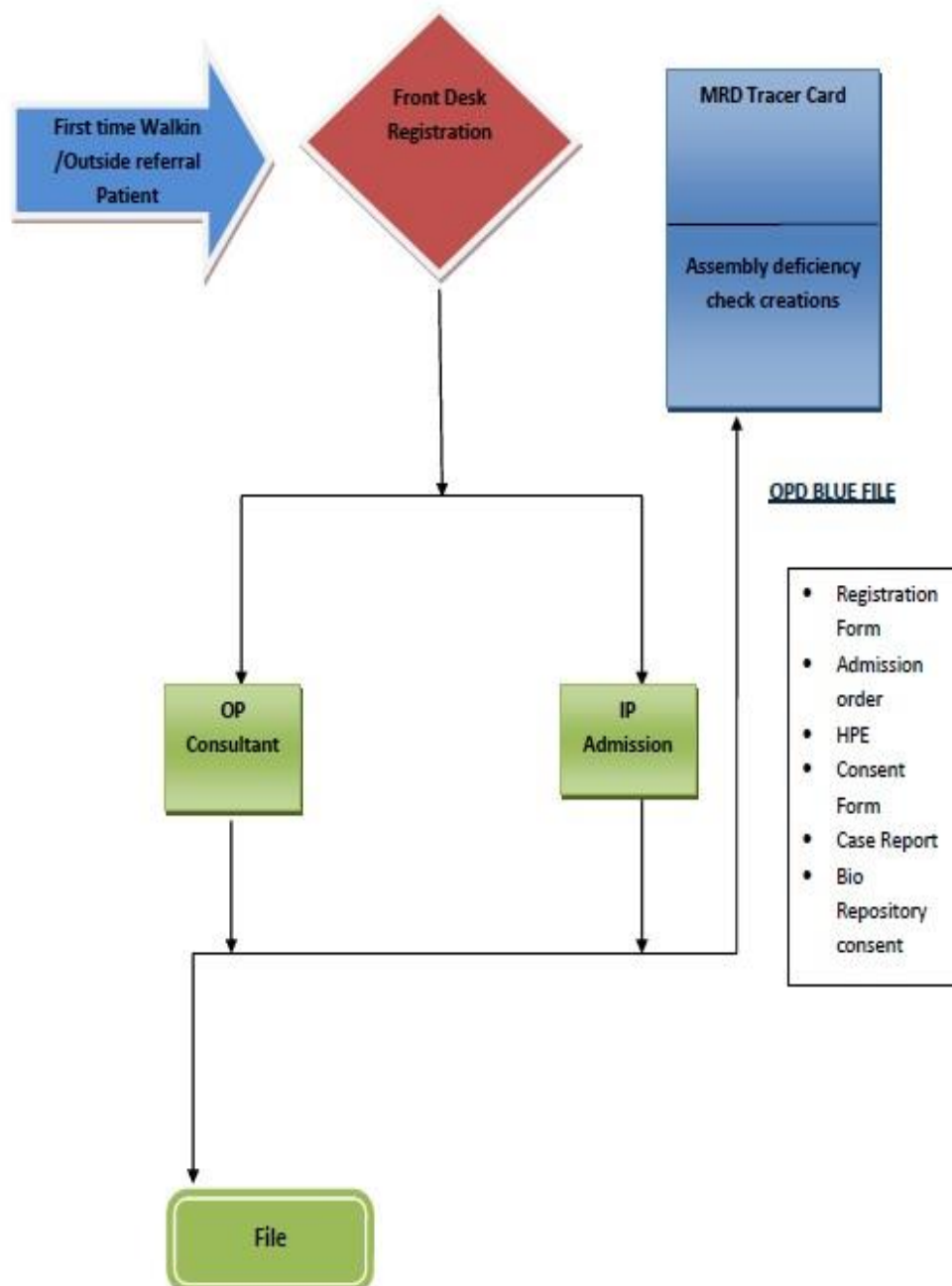
Filing according to pre-determined system

Compiling hospital/diagnostic statistics

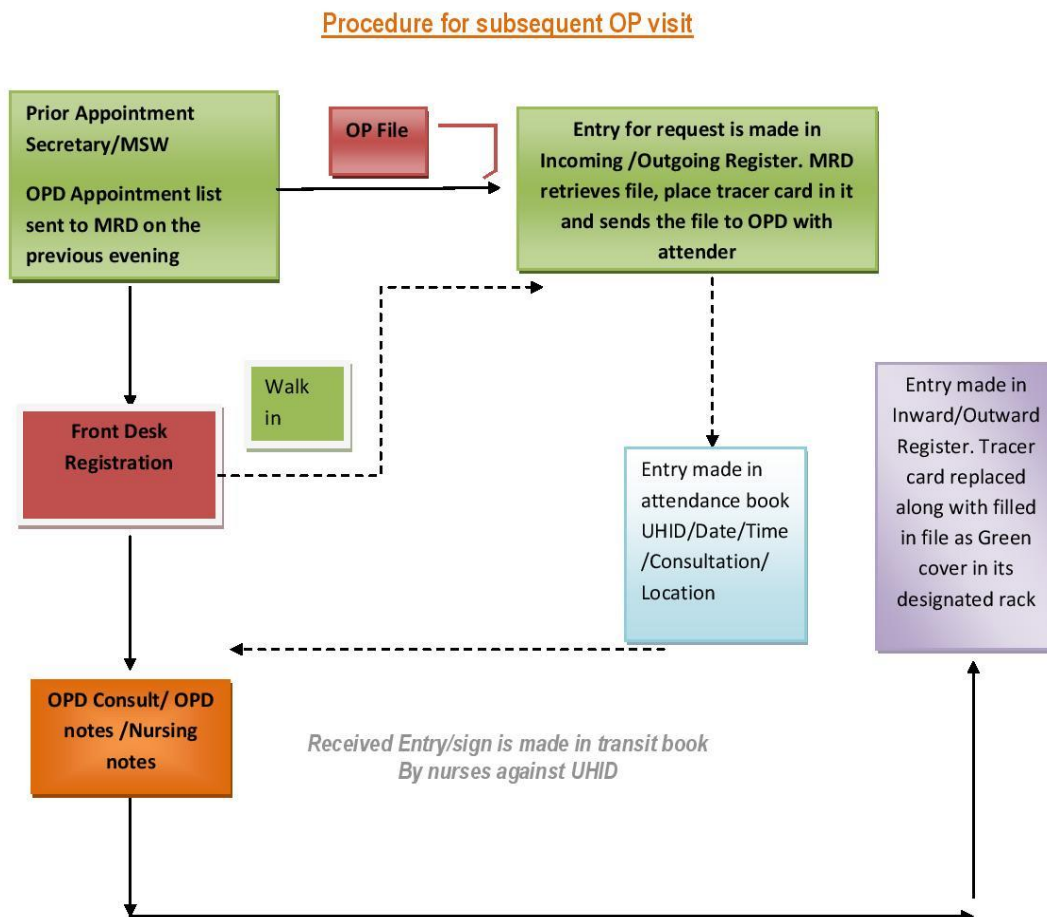
Generating reports for administrators, management, audit committees, Govt health department.

2.7 MRD DOCUMENTATION PROCESS

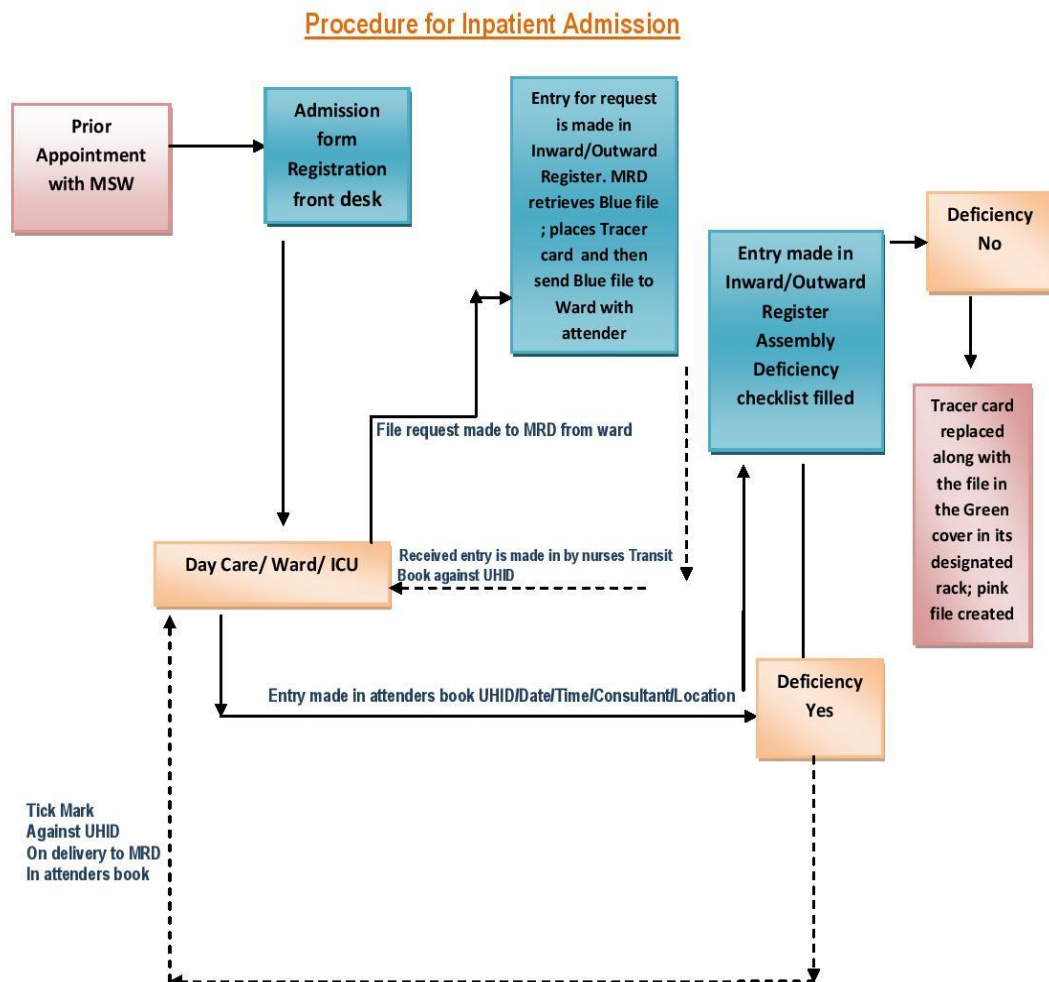
Medical Record Department (MRD) Documentation Process



2.8 PROCEDURE FOR SUBSEQUENT OP VISIT

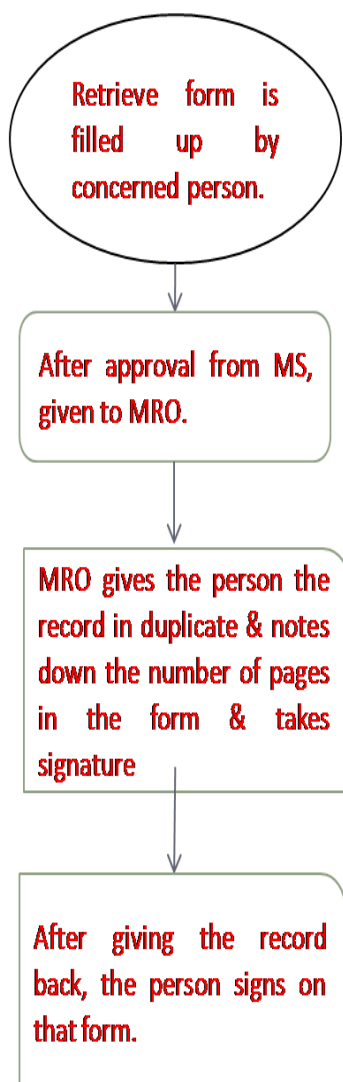


2.9 PROCEDURE FOR INPATIENT ADMISSION



2.10 RETRIEVAL OF PATIENT RECORD

RETRIEVAL OF PATIENT RECORD



- The treating consultants and the other clinical doctors are authorized to have access to the discharged inpatient health record charts
- The non-clinical doctors and other administrative staff can access the charts with the written approval of the Medical Superintendent
- In all MLC and death cases the Medical Superintendent's written permission is a must to access them
- Concerned person from outside should get written approval from Patient in order to get the patient record
- In Insurance cases, the release of such information without the prior consent of the patient is permissible because the patient had waived his claim of this privilege at the time of taking out a policy with the corporation.

2.11 Forms in Blue/Main File

Essential Forms

- ❖ Registration form
- ❖ HPE
- ❖ Outpatient follow up notes
- ❖ Cancer Treatment Plan
- ❖ Discharge Summaries
- ❖ Consent form for
- ✓ Surgery
- ✓ Chemotherapy
- ✓ Radiotherapy
- ✓ Radiotherapy Chart
- ✓ Investigation radiology
- ❖ Histopathology & Lab

2.12 Pink File/Supplementary File

Forms pertaining to each admission

- ❖ Deficiency check list
- ❖ Admission requisition form
- ❖ Progress and Nursing notes
- ❖ MAR
- ❖ Intake/Output chart, TPR, BP chart, ICU chest, Transfusion order, chart & consent, Nutritional assessment and physiotherapy
- ❖ Surgery Anesthesia Form, Surgical checklist etc.
- ❖ Operative notes
- ❖ Chemotherapy order form, Pre chemotherapy check list
- ❖ Radiotherapy treatment Plan, Consent Form & Radiotherapy chart.

2.13 Quality Indicators

Indicators	Data collected for Analysis
Percentage of MR not having discharge summaries	Deficiency Check Reports
Percentage of MR not having initial assessment/care plan	Deficiency Check Reports
Percentage of MR having incomplete consent form	Deficiency Check Reports
Percentage of MR having missing information	Deficiency Check Reports
Percentage of missing records	Files requesting details
Percentage of IP MR not having ICD codes	Discharge files
Bed occupancy rate	Statistics
Average length of stay	Statistics
Number of MLC cases reported	ER (Casualty)
Notifiable Disease	ICT
Reporting deaths	Death register

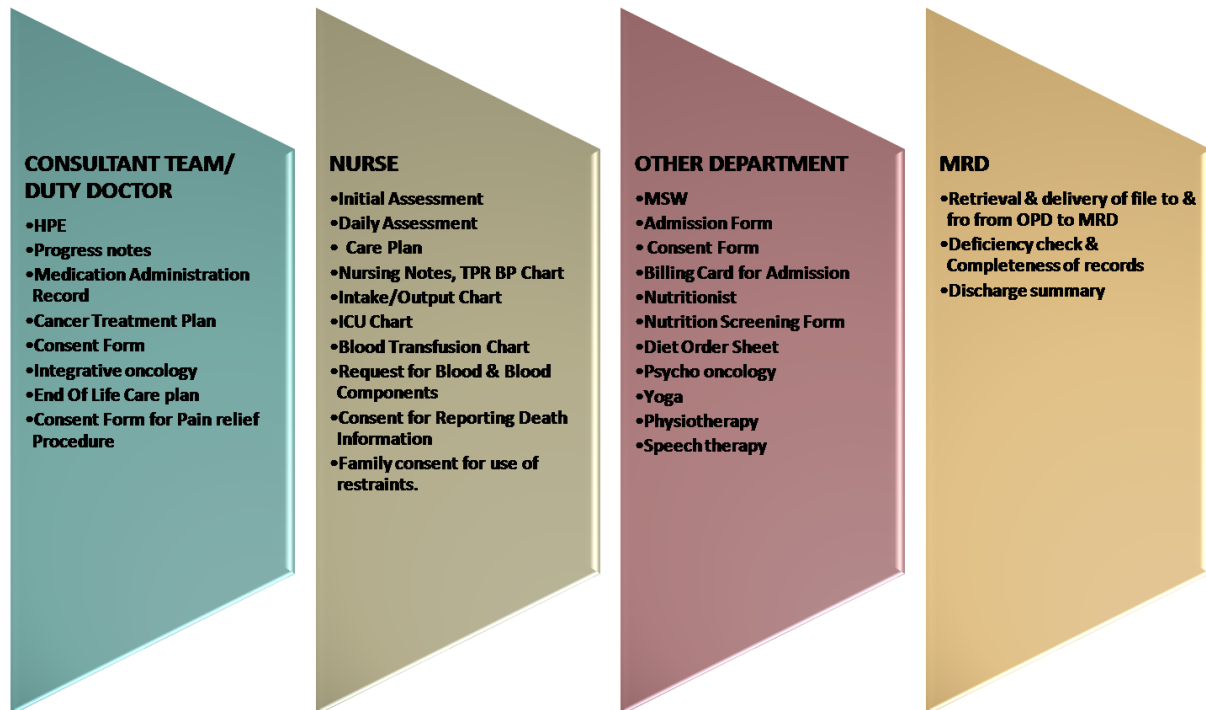
2.14 Retention Policy

- All Medico legal patient records will be retained permanently.
- All the Death records shall be maintained permanently.
- All electronic in-patient records will be maintained permanently.
- Manual In-patient records (other than medico-legal) will be retained for 5 years.
- The other records and registers, detailed below, are retained for the period mentioned against each:
 - Birth Register - Permanent
 - Death Register - Permanent
 - Statistics Files - Permanent
- Important Circulars file and miscellaneous circular file - Permanent

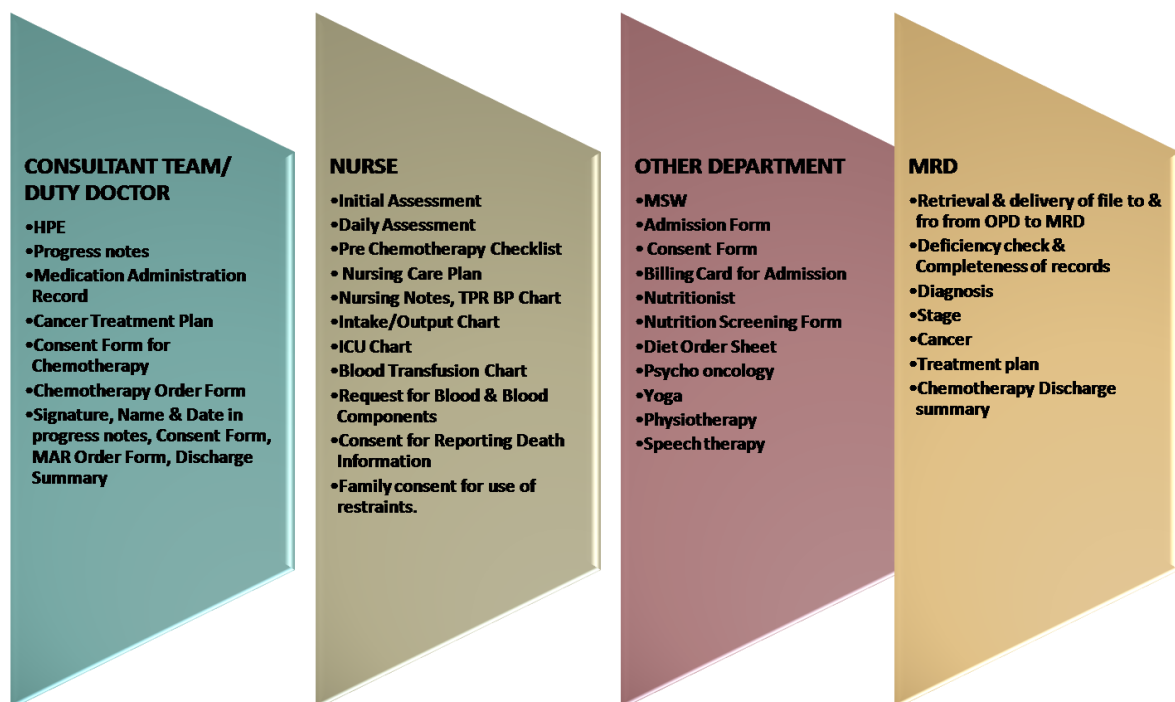
Dispatch Register of Birth and Death reports to the registrar

- Of births and deaths office - Ten years
- Death report file - Ten years

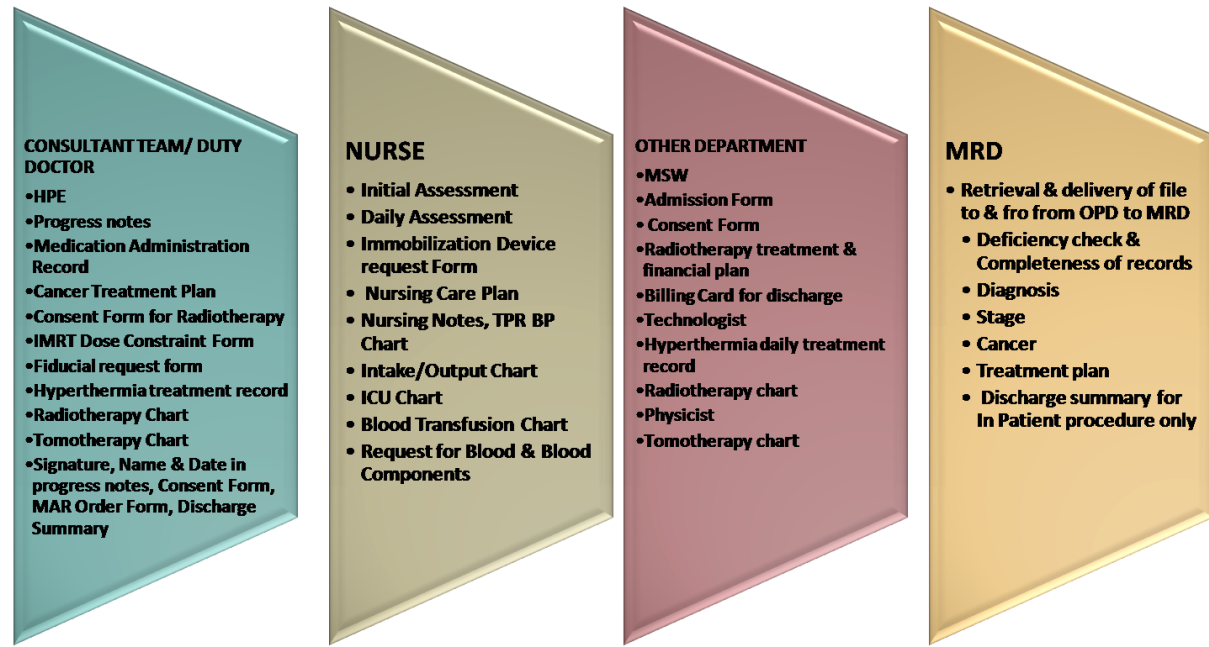
2.15 IN PATIENT ADMISSION (GENERAL)-DOCUMENTATION ROLE & RESPONSIBILITY



2.16 IN PATIENT ADMISSION (CHEMOTHERAPY)- DOCUMENTATION ROLE & RESPONSIBILITY



2.17 IN PATIENT ADMISSION (RADIOTHERAPY)- DOCUMENTATION ROLE & RESPONSIBILITY



2.18 IN PATIENT ADMISSION (SURGERY)-DOCUMENTATION ROLE & RESPONSIBILITY



CHAPTER-3

RESEARCH

3.1 AIM OF STUDY

The purpose of the study is:

- To give the Suggestions for the process re-engineering of existing MRD process in HCG Cancer Centre, Vadodara in order to maintain and store the Medical Records in the most accurate and appropriate way.

3.2 SCOPE

- Scope of study is to reduce Noncompliance level of MRD documents
- To re-design proper process flow of medical record files and documents

3.3 METHODOLOGY:

- **Study design:-** Prospective Observational Study
- **Study duration:-** 3rd April to 2nd June 2017
- **Study site:-** The subject study was conducted at HCG Cancer Centre, Vadodara.
- **Study Tool:-** *Quantitative*
 - by checking medical record with the help of Checklist
 - by tabulating in excel, graphical studies and observing process flow

Sampling Method: Simple random sampling

Sample size: 103 indoor patient's medical record as a sample. Audit and analysis was done with the help of prepared Checklist.

Types of Data:- The source of data of this study was both the primary source and secondary source.

➤ **Primary Data:**

- Self-Observation
- Unstructured interviews of medical record staff.

These persons are involved in generation of the data, treatment and who stores the files as medical recor

d or patient record.

Process Re-Engineering of Medical Record Department

➤ Secondary Data:

Retrospective study was used for collection of secondary data.

It is collected through review of patient records.

3.4 SOURCES OF DATA

- From the Active IP files of patients in hospital
- MRD files from month of April-2017
- As well as Process flow of files from MRD to other department and vice versa

3.5 STUDY PROCESS

The sample population includes patients admitted in IP Ward, Day Care Ward and Radiation Oncology Ward. The current process flow and the patient data is collected from indoor patient's medical record file during their stay in Hospital from 4th April 2017 to 3rd May 2017. Detail information of process flow and completion of files and records were collected and analysed. Based on analysis report quality department arrange training programme and gives suggestion for improvement. Process re-engineering and noncompliance report observed and reported in MRD Checklist sheet prepared by me.

3.6 DATA COLLECTION

The data are collected from the process flow design and checking compliance level of different MRD files of hospital like day care ward, economy ward, twin sharing, triplex, deluxe rooms and radiation oncology. The method adopted for data collection is primary method as well as secondary. The tool of data collection is through questionnaire and checklist. It is based on the question which is important in redesigning of accurate process flow of MRD files. Sample was collected from different stream of speciality like medical as well as surgical patient. Daily audit was done with the help of checklist.

- On the basis of objectives of NABH regarding the IPD files Documentation
- To measure various criteria's, developing 40 variables and recording compliance and non compliance level in percentage.

DATA ANALYSIS

&

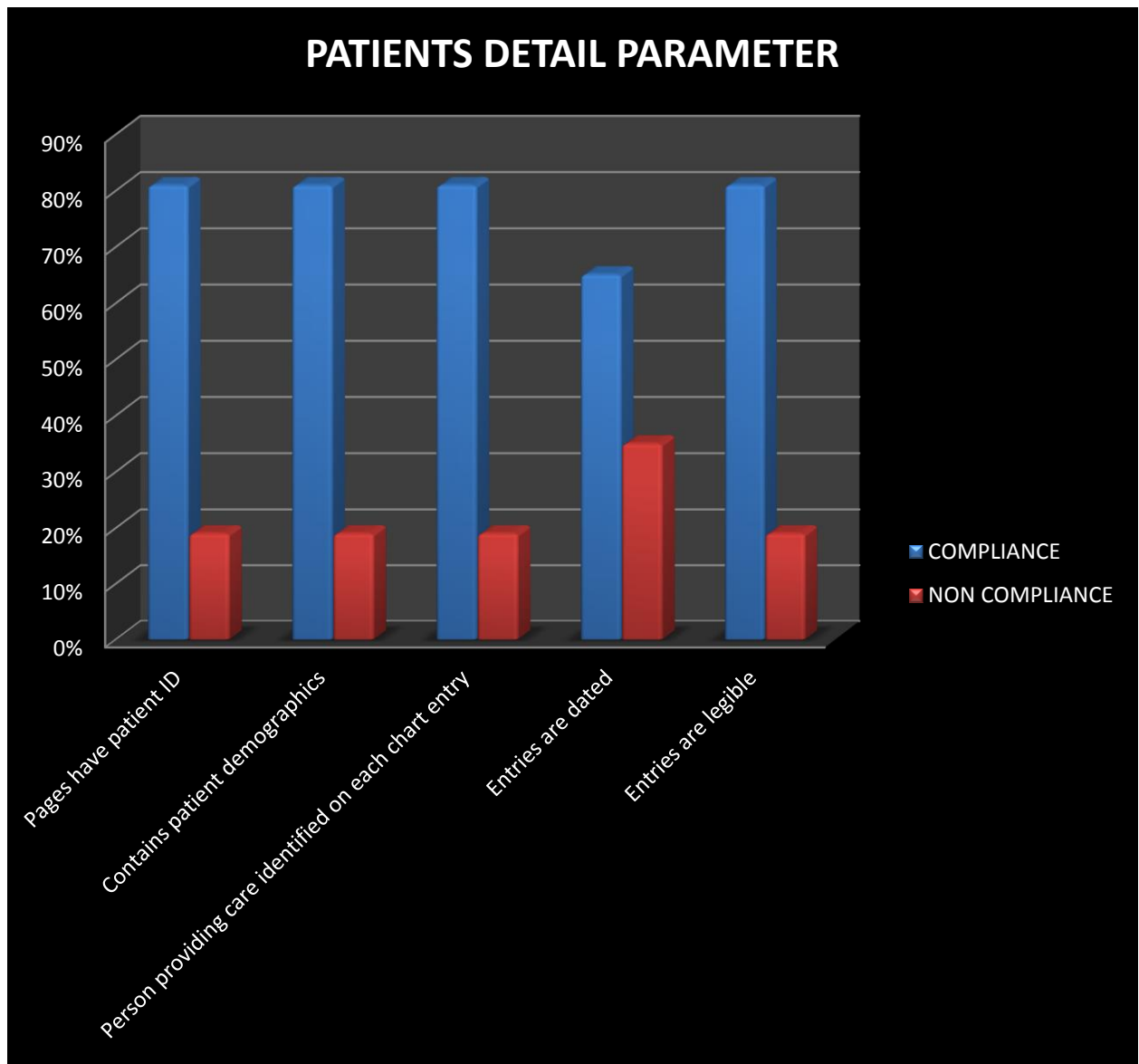
FINDINGS

Process Re-Engineering of Medical Record Department

- On the basis of objectives of NABH regarding the IPD files Documentation
- To measure various criteria's, developing 40 variables and recording compliance and non compliance level in percentage

4.1 PATIENT DETAIL PARAMETER

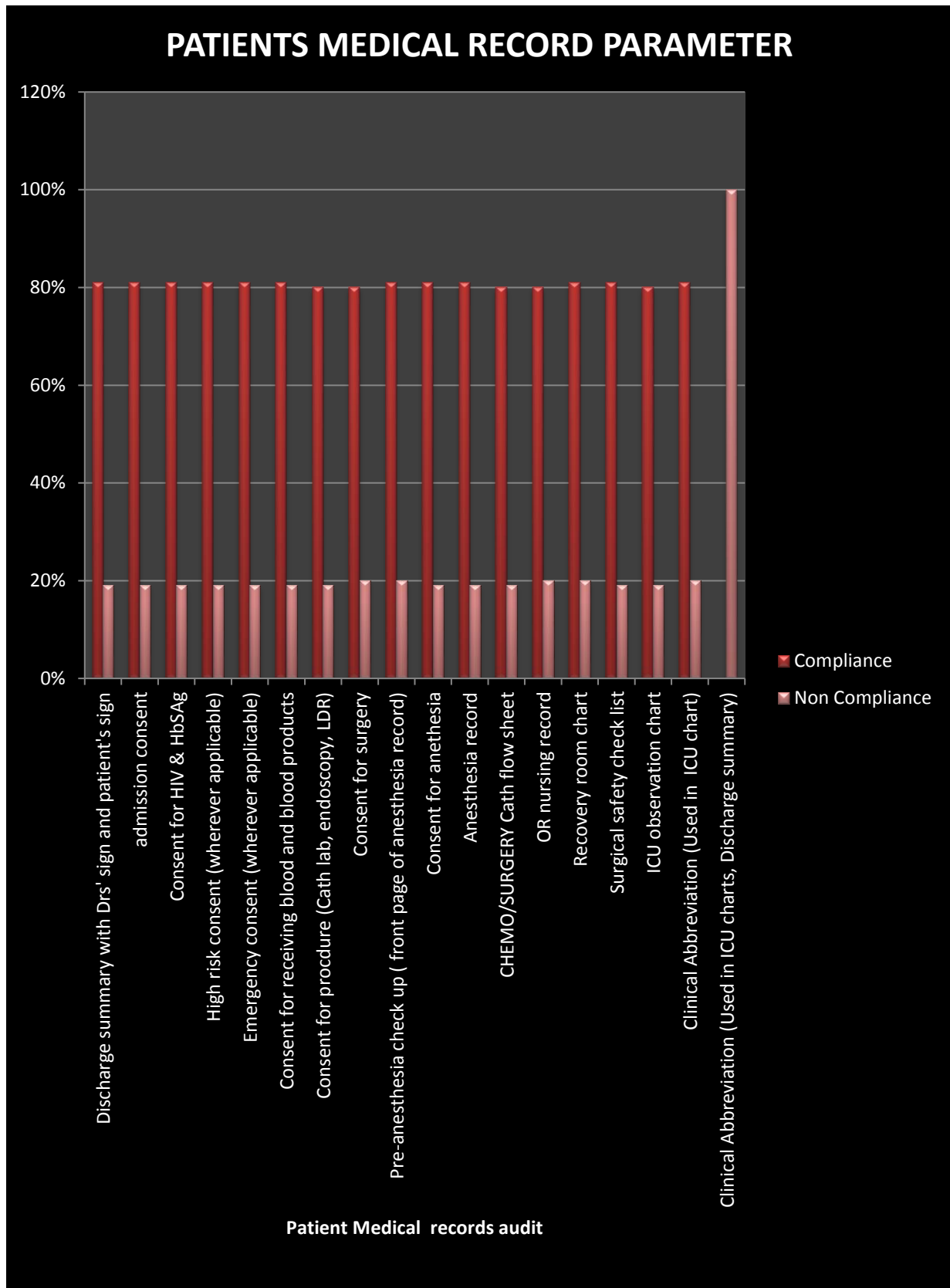
No.	Patient Details	Compliance (%)	Noncompliance (%)
1	Pages have patient ID	81	19
2	Contains patient demographics	81	19
3	Person providing care identified on each chart entry	81	19
4	Entries are dated	65	35
5	Entries are legible	81	19



Process Re-Engineering of Medical Record Department

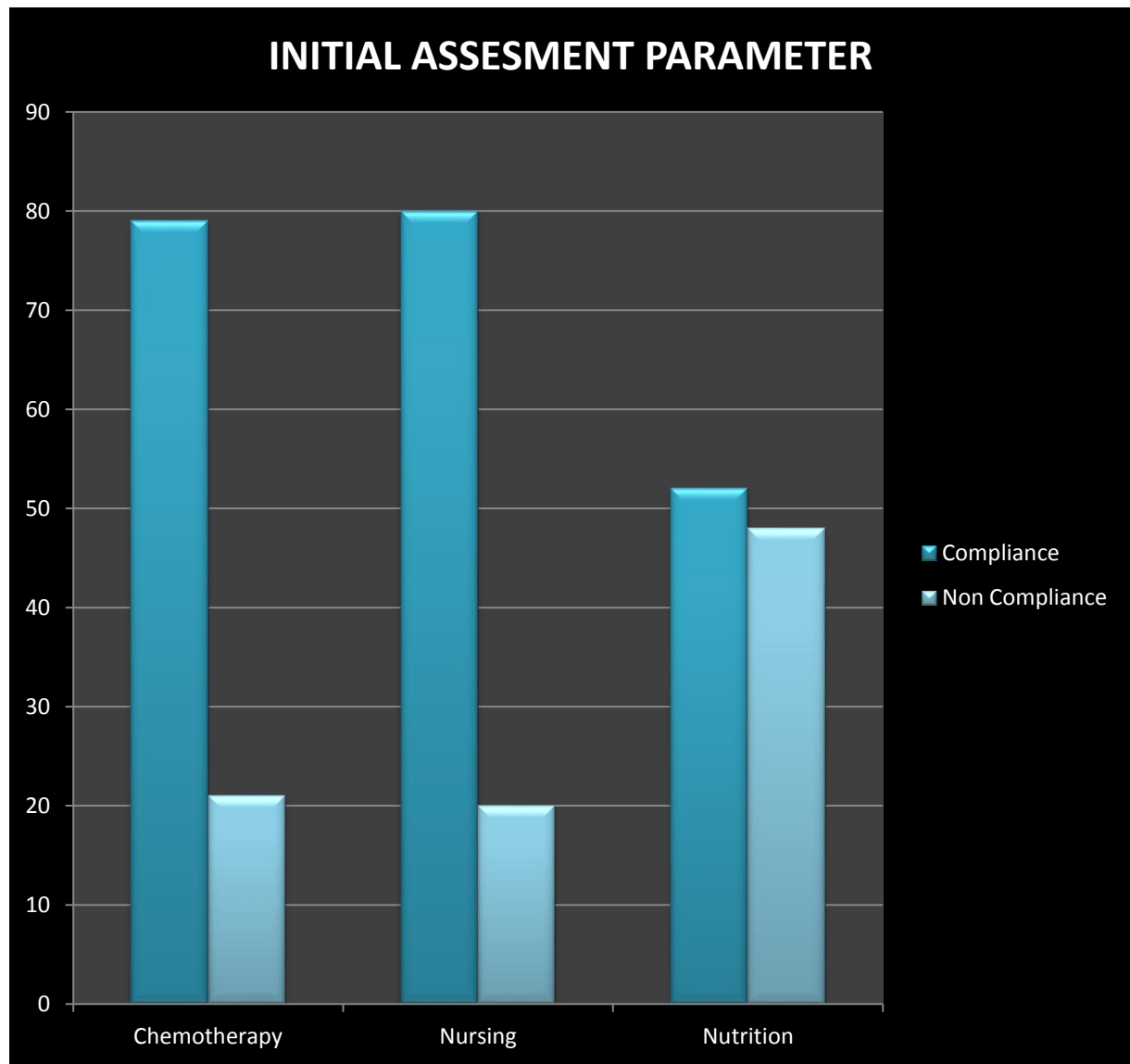
4.2 PATIENTS MEDICAL RECORD PARAMETER

No.	Patient Medical records audit	Compliance (%)	Non Compliance (%)
1	Discharge summary with Drs' sign and patient's sign	81%	19%
2	admission consent	81%	19%
3	Consent for HIV & HbSAg	81%	19%
4	High risk consent (wherever applicable)	81%	19%
5	Emergency consent (wherever applicable)	81%	19%
6	Consent for receiving blood and blood products	81%	19%
7	Consent for procdure (Cath lab, endoscopy, LDR)	80%	19%
8	Consent for surgery	80%	20%
9	Pre-anesthesia check up (front page of anesthesia record)	81%	20%
10	Consent for anethesia	81%	19%
11	Anesthesia record	81%	19%
12	CHEMO/SURGERY Cath flow sheet	80%	19%
13	OR nursing record	80%	20%
14	Recovery room chart	81%	20%
15	Surgical safety check list	81%	19%
16	ICU observation chart	80%	19%
17	Clinical Abbreviation (Used in ICU chart)	81%	20%
18	Clinical Abbreviation (Used in ICU charts, Discharge summary)	0%	100%



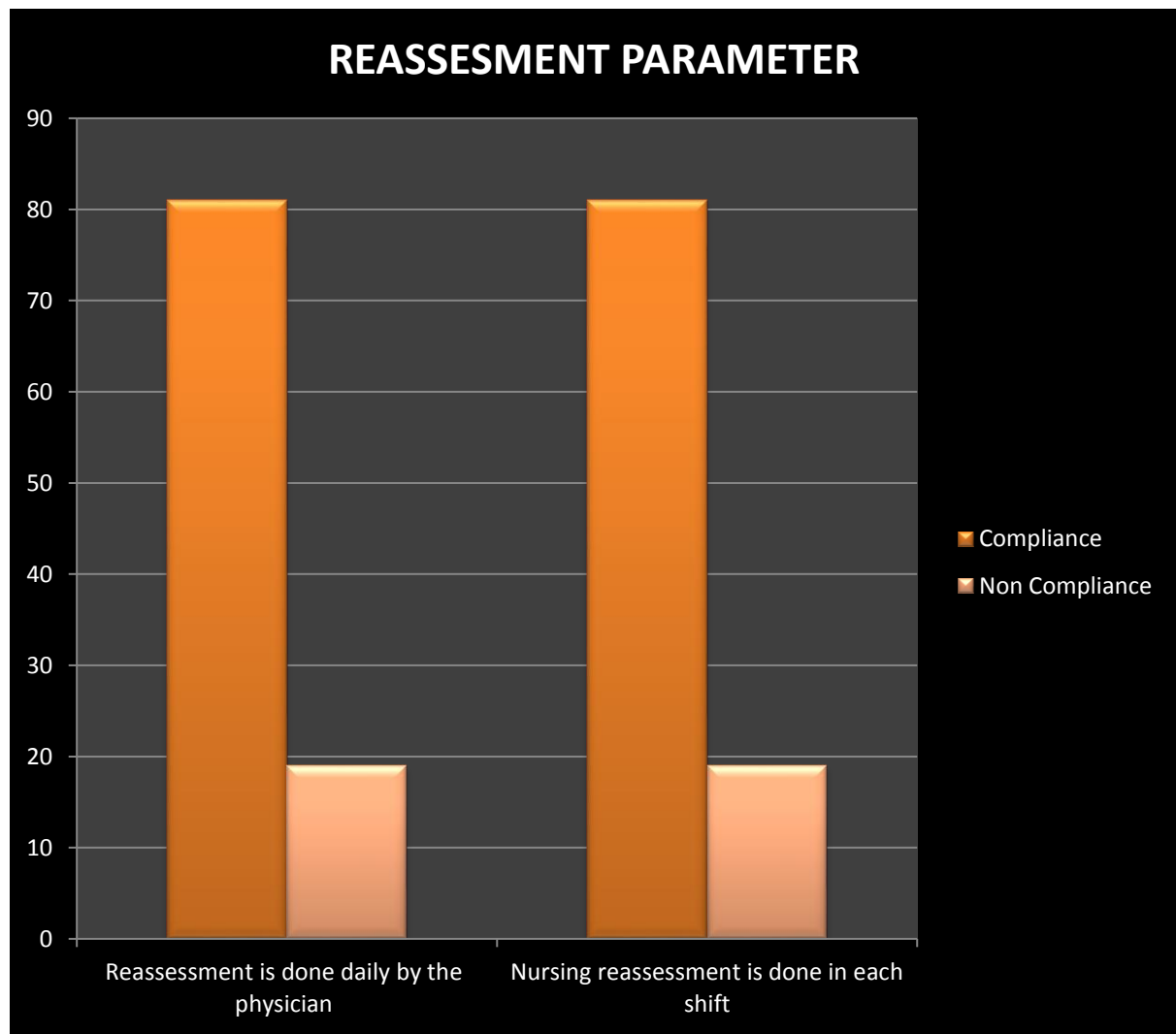
4.3 INITIAL ASSESMENT PARAMETER

No.	Initial Assessment	Compliance (%)	Noncompliance (%)
1	Chemotherapy	79	21
2	Nursing	80	20
3	Nutrition	52	48



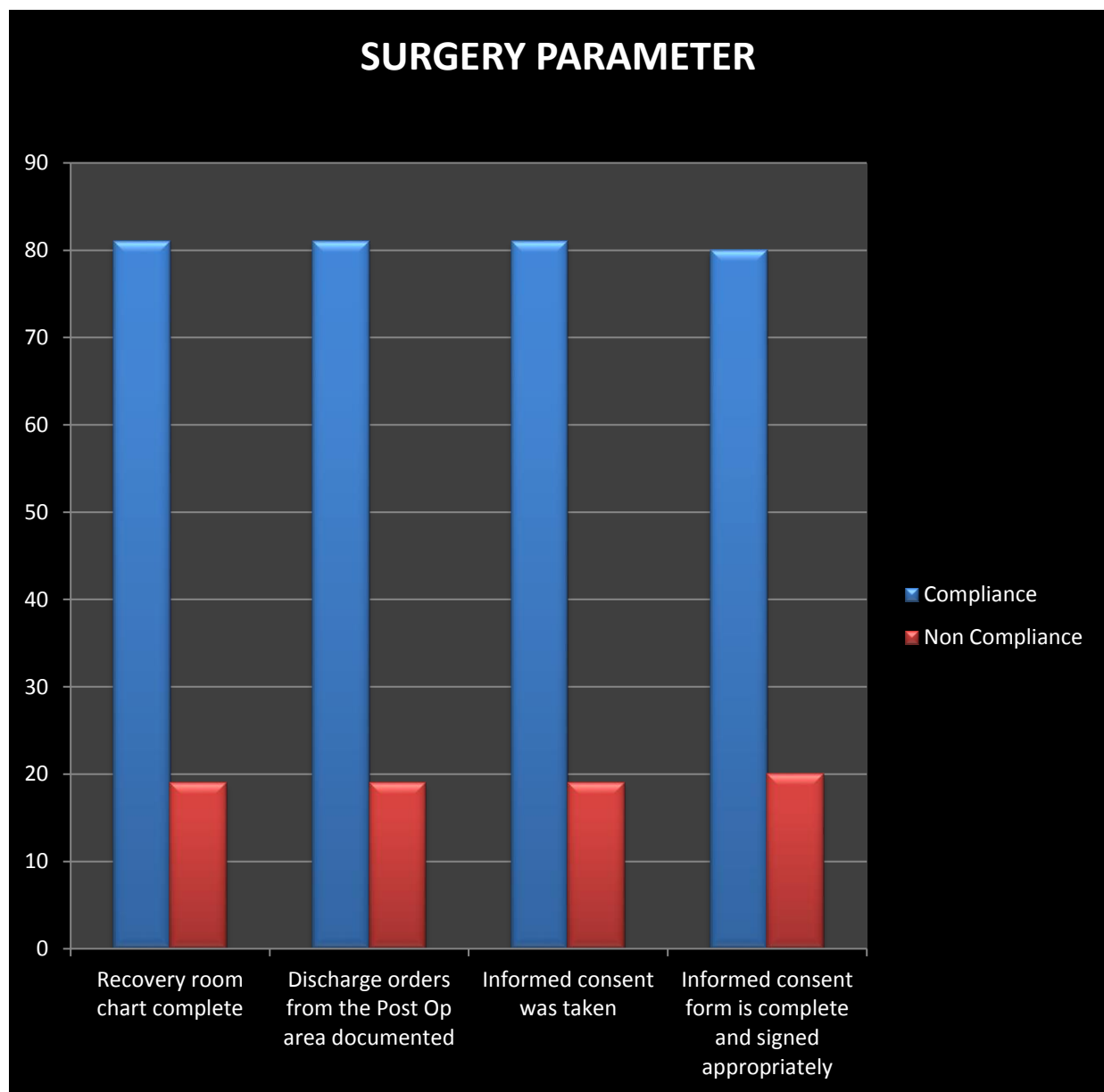
4.4 REASSESSMENT PARAMETER

No.	Reassessment	Compliance (%)	Noncompliance (%)
1	Reassessment is done daily by the physician	81	19
2	Nursing reassessment is done in each shift	81	19



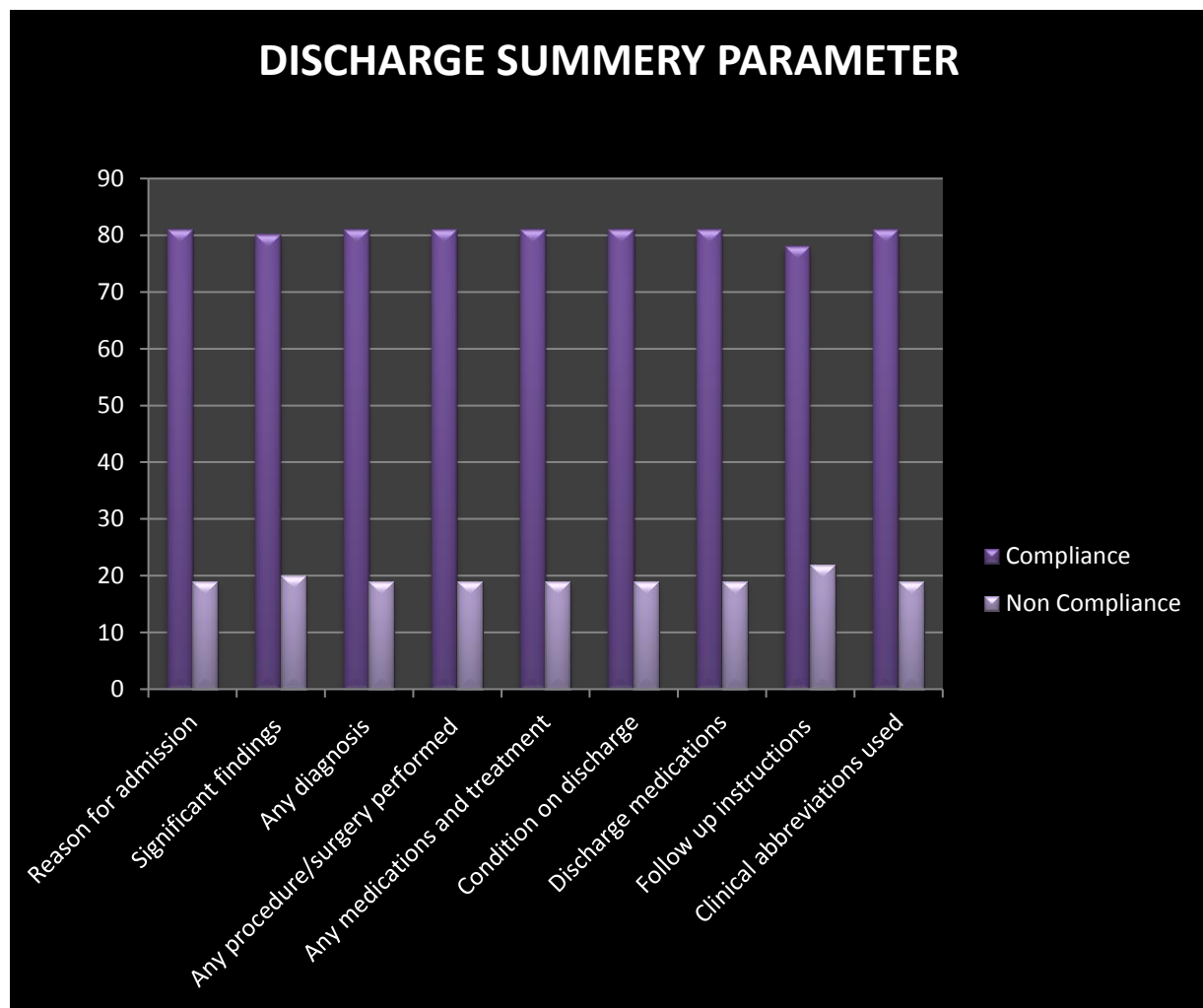
4.5 SURGERY PARAMETER

No.	Surgery	Compliance (%)	Noncompliance (%)
1	Recovery room chart complete	81	19
2	Discharge orders from the Post Op area documented	81	19
3	Informed consent was taken	81	19
4	Informed consent form is complete and signed appropriately	80	20



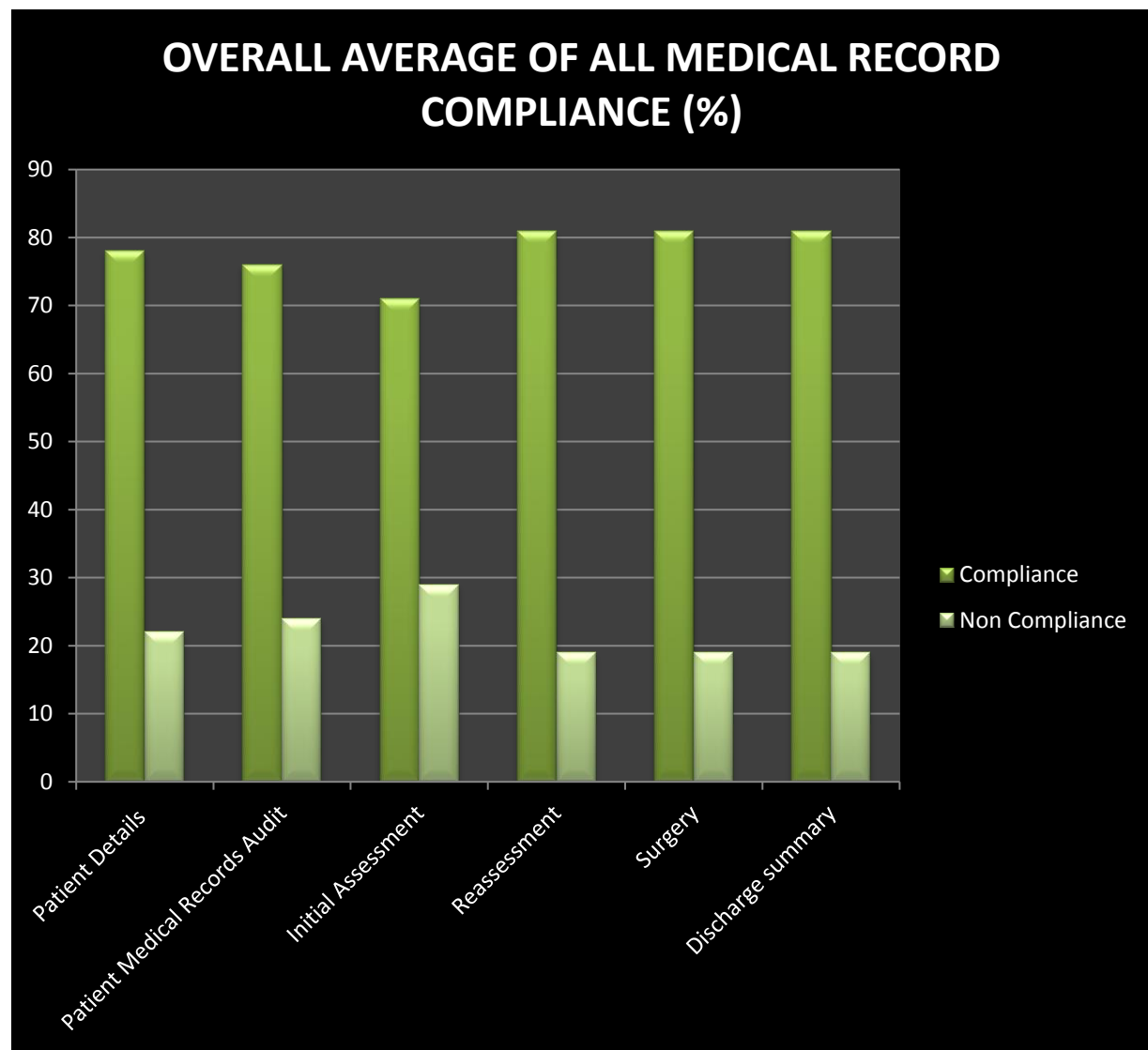
4.6 DISCHARGE SUMMERY PARAMETER

No.	Discharge summary	Compliance (%)	Noncompliance (%)
1	Reason for admission	81	19
2	Significant findings	80	20
3	Any diagnosis	81	19
4	Any procedure/surgery performed	81	19
5	Any medications and treatment	81	19
6	Condition on discharge	81	19
7	Discharge medications	81	19
8	Follow up instructions	78	22
9	Clinical abbreviations used	81	19



4.7 OVERALL AVERAGE OF ALL COMPLIANCE PARAMETER

OVERALL AVERAGE OF ALL MEDICAL RECORD COMPLIANCE (%)			
No.	Parameter	Compliance (%)	Noncompliance (%)
1	Patient Details	78	22
2	Patient Medical Records Audit	76	24
3	Initial Assessment	71	29
4	Reassessment	81	19
5	Surgery	81	19
6	Discharge summary	81	19



4.8 REASONS FOR MEDICAL RECORD ERRORS

- **Performance deficit:** Major cause for performance deficit time was due to increased workload, high activity, stress environment and rushing.
- **Untrained staff:** Posting of junior untrained medical record executive is another major cause accounting for adverse events. Training imparts necessary skill sets and professionalism.
- **Poor communication between different departments:** is the cause of medical record errors. Sometimes typing errors are also found to have occurred in medical records like patient details, discharge summary etc.
- **Unclear order:** in maintaining record documentation.

4.9 GAPS AND FINDINGS

- Through the thorough analysis of MRD files and records at HCG Cancer Center, Vadodara, it has been found that proper maintenance of medical records is not being done and they are not documented well enough to provide adequate continuity of care.
- **FACILITY:** Requires Fire Extinguishers in MRD
- **IT REQUIREMENTS:** Requires Separate Computer, Scanner & Printer for MRD executive
 - Requires Separate extension for MRD
- **HR POINT OF VIEW:** Lack of staff in MRD
- **TRAINING & DEVELOPMENT:** Proper training for documentation is needed
- **QUALITY CONTROL:** Regular audits are needed by proper Audit team
 - Not all documents after printing are verified
 - Some files are incomplete in the MRD rack
 - Incoming/outgoing Registers are not maintained properly
- No specific policies regarding the same are drafted. The nursing staff and doctors are not maintaining records in proper format.

Process Re-Engineering of Medical Record Department

- This fact makes it very hard to share information for a referral, or with a team of providers treating the same patient. The technology clearly exists to move beyond handwritten prescriptions or fax and courier as the predominant means of exchanging MRs. Thus it calls for Electronic Medical Record Management System (EMR) to be implemented for efficient record keeping and also Lean integration shows how this goal can be achieved incrementally and in a sustainable manner.
- Lack of proper communication between different hospitals departments due to lack of knowledge of Job description and responsibilities resulting in frequent distractions causing disorganization, increasing turnaround time and inefficient processing of patient information.
- Attending Consulting notes title is being used of Ahmedabad Centre instead of Vadodara Centre and all other stock of the same also have title as Ahmedabad Centre.
 - It includes the following four units, Admission, Archive, Statistics and Coding but here only Admission unit is predominant.
 - Privacy is not there
 - Difficulty in tracing file due to lack of proper process flow and lack of tracer card
 - MRD keys are not placed properly
 - Few OPD files for radiotherapy and few IP files for HPE in particular do not carry patient/relative signature
 - Lack of significance to Archive & Statistics units of MRD.
 - In some files Discharge Authorization slips do not have Hospital seal.
 - Inward entries for some files are not done.
 - Some files are said to be unavailable in MRD records though they are available thus evidencing of improper tracking

4.10 SUGGESTIONS AND RECOMMENDATIONS

- It is recommended to mark the racks according to numbers.
- requirement of More skilled manpower in MRD department
- Systematic flow for the documents in the files is being advised
- ICD Coding is suggested
- Proper policies should be formulated and ensured for compliance
- Entry should be restricted to authorized persons
- Formation of proper Audit team is advised
- To address the Performance deficit, Training of the nurses for proper maintenance of patient records in chronological and systematic format
- There should be tracer card attached/printed at the end of the file every time the file is taken from the medical record department.
- To be in place two important units of MRD: Archive & Preparing statistics
- Identification of Clients in different units of MRD is critical to find the exact gap with the standardized processes.
- Computerized Physician Order Entry: It involves entering medical record entries directly into a computer system rather than on paper. It asks for going electronic and changing the current outdated system of Medical records altogether towards EMRD. Thus it calls for Electronic Medical Record Management System (EMR) to be implemented for efficient record keeping.
- Measures taken to decrease work load on staff and executives.
- Motivating staff for effective communication: Between different departments, between staff & executives, between executives & department heads etc.
- Avoid using abbreviations, and have legible writings.

4.11 CONCLUSION

From the project report study it can be concluded that the HCG Cancer Centre, Vadodara has succeeded in creating a culture where rendering quality medical record data and documentation is its main strategic goal. The organization has put in its concentrated efforts to Re-engineer the MRD process flow by attention to maintaining efficient patient's medical record data or privacy, and information related to his or her hospital visit and by strictly following and adhering to SOP for the flow of MRD documents and processes for Eg. Reducing the documentation time for IP files in MRD which was earlier taking 3-4 days after discharge and also hired two more personnel in MRD to manage the work load and requirement.

The main objective of the study is to identify types of medical record ERRORS at HCG Cancer Centre, Vadodara. The other objective includes evaluations and management of medical record processes which occurred in the patients being admitted to hospital. Study also helped to find out the occurrence rate of medical record ERRORS.

This was a prospective observational study which includes patients who were admitted in HCG Cancer Centre from 15th April to 3rd May 2017.



GOOD MEDICAL CARE GENERALLY MEANS A GOOD MEDICAL RECORD, WHILE AN INADEQUATE MEDICAL RECORD GENERALLY REFLECTS POOR MEDICAL CARE

Process Re-Engineering of Medical Record Department

REFERENCES

BOOKS

Quality Management in Hospital by “S.K. Joshi”

SOP in Hospitals in India by “Arun K. Arawal”

Hospital Administration by “B.M. Sakharkar”

WEBSITES

<https://hcgoncology.com/>

www.nabh.co

www.qci.org

Checklist for Identifying & Checking the Factors

DOCUMENTS FROM MSW

Registration Form

DOCUMENTS FROM NURSING

Nursing Initial Assessment Form

OPD nurses Record

Nurses Assessment(on admission)/ Nursing Care Plan

Nursing notes

Pre-Chemotherapy Checklist

Medication Administration Record

Vital Signs Recording Chart

Hourly Temperature & BP Chart

Diabetes Chart

Intake/Output Chart

ICU Observation Chart

Pre-Procedure Anesthesia /Surgical Checklist

Surgery Safety(Time Out)Checklist

Interim Clearance Form

Transfusion Chart

Process Re-Engineering of Medical Record Department

DOCUMENTS FROM DOCTORS

Oncology Flow Sheet

Admission Form

Financial & Release Of Information Consent

History & Physical Examination Form

Cancer Treatment Plan

Consultant's Progress Notes-Inpatient & outpatient

Chemotherapy Consent Form

Chemotherapy Order Form

Radiation Therapy Consent Form

Radiation Chart-(CK,IGRT)

surgery Unit Operative Orders

Anesthesia Pre Operative Orders

Surgery Unit Discharge Summary

Referral Form

Cross Matching Report

Consent for Blood Transfusion

Consent for Transfer of Patients

Discharge Summary

Treatment Summary

Consents

DOCUMENTS FROM CLINICAL NUTRITION Dept.

Nutrition Screening Form

Follow Up Nutrition Assessment

OTHERS