Descriptive Study on Assessing Documentation Compliance of Medical Records Department as Per NABH Guidelines

By

Apoorva Bhatnagar

Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2016-2018

The IIHMR University, Jaipur

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Apoorva Bhatnagar student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at Monilek Hospital and Research Center from 1st Feb. 2018 to 31st April.

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

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Dr. Ashok Kaushik
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Monilek Hospital & RESEARCH CENTRE

(A Wing Of Smt. Mohinidevi Lekhraj Odhrani Charitable Trust)

The certificate is awarded to

APOORVA BHATNAGAR

In recognition of having successfully completed her

Internship in the department of

Quality

and has successfully completed her Project on

A Descriptive Study on Documentation Compliance of Medical Records Department as per NABH Guidelines

1st Feb 2018 to 4th May 2018

Monilek Hospital and Research Centre, Jaipur

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

We wish her all the best for future endeavors

Mrs. Kavita Kaushik

(Director Operations)

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "A Descriptive Study on Assessing Documentation Compliance of Medical Records Department As Per NABH Guidelines" and submitted by Apoorva Bhatnagar Enrollment No-0392 under the supervision of Dr. Monika Choudhary for award of MBA in Hospital and Health of the University carried out during the period from 1st Feb to 31st April 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.

Apoorva

Apoorva Bhatnagar

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ACKNOWLEDGEMENT

Success of an individual is possible when a person is being supported and promoted by others.

The success of this study is not possible without the assistance & encouragement of the other people. The internship opportunity I had with Monilek Hospitals, Jaipur was a great chance for learning and professional development. Therefore, I consider myself as a very lucky person as I was provided with an opportunity to be a part of it. I am also grateful for having a chance to meet so many wonderful people and professionals who led me through this dissertation period.

I wish to express my sincere respect, regards and deep sense of gratitude to my Guide , **Mrs. Kavita Kaushik,** Director Operations at Monilek Hospital and Research Center , Jaipur a well versed teacher, I sincerely express my boundless reverence for her excellent guidance , support, constant courage, encouragement, timely advice, thoughtful criticism and suggestions to which this study owes its very existence.

I am also very grateful to my academic mentor, Assistant Professor IIHMR Jaipur, **Dr. Monika Choudhary** for her immense support towards the study to be a success. I sincerely express my gratitude to her as she took keen interest in my project work and for her valuable inputs and suggestions.

I owe my profound gratitude to **Ms. Nupur Garg Quality Manager**, Jaipur and whole team of the hospital who helped me by giving their suggestions at every step of my study and timely guiding me to proceed to the successful completion of the study.

I also acknowledge with a deep sense of reverence, my gratitude towards my family members and well-wishers who has always supported me morally as well as economically.

Apoorva Bhatnagar

ABBREVIATIONS

- **NABH-** National Accreditation Board for Hospitals and Health care Providers
- **NABL-** National Accreditation Board for Testing and Calibration Laboratories
- **ICU**- Intensive Care Unit
- **IVF-** In Vitro Fertilization
- **MRD**-Medical Records Department
- **MRI**- Magnetic Resonance Imaging
- **CSSD-** Central Sterile Supply Department
- **ETO-** Ethylene Tri-Oxide
- **USG-** Ultra Sonography
- **TPA**- Third Party Assurance
- **BSBY**- Bhamashah
- **OPD-**Out-Patient Department
- **IPD-** In-Patient Department
- **MLC**- Medico Legal Cases
- **TPR**- Transplant Room

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INTRODUCTION

As a general rule "the most successful man is, the man who has the best information".

The medical record "must contain sufficient data to identify the patient, support the diagnosis or reason for attendance at the health care facility, justify the treatment and accurately document the results of that treatment" (Huffman, 1990).

Medical/health records form an essential part of a patient's present and future health care. As a written collection of information about a patient's health and treatment, they are used essentially for the present and continuing care of the patient. In addition, medical records are used in the management and planning of health care facilities and services, for medical research and the production of health care statistics.

Doctors, nurses and other health care professionals write up medical/health records so that previous medical information is available when the patient returns to the health care facility. The medical/health record must therefore be available . If a medical record cannot be located, the patient may suffer because information, which could be vital for their continuing care, is not available. If the medical/health record cannot be produced when needed for patient care, the medical record system is not working properly and confidence in the overall work of the medical/health record service is affected .

The main purpose of the medical record is :

- to record the facts about a patient's health with emphasis on events affecting the patient during the current admission or attendance at the health care facility, and
- for the continuing care of the patient when they require health care in the future.

"A patient's medical record should provide accurate information on who the patient is and who provided health care; what, when, why and how services were provided; and the outcome of care and treatment."

"The medical record has four major sections:"

- "administrative, which includes demographic and" socio-economic "data such as the name of the patient (identification), sex, date of birth, place of birth, patient's permanent address, and medical record number" (MHRC No.)
- "legal data, including a signed consent for treatment by appointed doctors and authorization for the release of information"
- "financial data, relating to the payment of fees for medical services and hospital accommodation"
- "clinical data, on the patient whether admitted to the hospital or treated as an outpatient or an emergency patient."

Objectives of the Medical Records Department

The Primary objective of the Medical Record Department is to develop good medical records containing sufficient data written in sequence of events to justify the diagnosis, treatment and end result of all patients treated in a hospital, keep them under safe custody and make the readily available as and when required for -

- The Patient.
- The Doctor
- Hospital Administrators.
- Medico Legal Purposes.

For Patient, it -

1. Serves to document the clinical history and activities of patient treatment.
2. Serves to avoid omission or repetition of diagnostic and therapeutic measures.
3. Assists in continuity of Care even in future illness whether it requires attention in or out of the Hospital.
4. Serves as evidence in Medico-legal Cases.

For The Doctor, it -

1. Assures quality and adequacy of diagnostic and therapeutic measures undertaken .
2. Serves as an assurance of continuity of medical care .
3. Evaluates Medical Practices .
4. Protection in litigation .

For Hospital Administrator

1. To document the type and quantity of work undertaken and accomplished.
2. To evaluate proficiency of Medical Staff for administrative and clinical purposes.
3. To evaluate the services of the hospital in terms of accepted norms and standards.
4. To serve as an Administrative record and Performance.

For Medico Legal Purposes, it-

1. As a documentary evidence.
2. To dispose claims of the Insurances.

NABH (National Accreditation Board for Hospitals and Health care providers)

National Accreditation Board for Hospitals & Health care Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for health care organizations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry. NABH is an Institutional Member, Accreditation council member as well as a Board member of the International Society for Quality in Health Care (lSQua) .

NABH Standards has ten chapters incorporating 102 standards and 636 objective elements -

Patient Centric Standards-

- Access, Assessment and Continuity of Care (AAC)
- Care of Patient (COP)
- Management of Medication (MOM)
- Patient Right and Education (PRE)
- Hospital Infection Control (HIC)

Organization Centric Standards-

- Continuous Quality Improvement (CQI)
- Responsibility of Management (ROM)
- Facility Management and Safety (FMS)
- Human Resource Management (HRM)
- Information Management System(IMS)

The dissertation was significant in all aspects as it was a second interface with the hospitals after the summer training and it was altogether a different experience as at this point because this time there was an idea about the hospital atmosphere and its working. As a hospital management student all the required information to carry out study on MRD was collected and the work was started after understanding the process of the hospital.

The study was started with the understanding of the process flow of documentation in the medical records department and then a gap analysis of the same was done according to the 10^{th} chapter of the NABH Accreditation i.e. Information Management System.

Information Management System chapter of NABH has-

- Standards
- Objective Elements

These standards were scored in 0, 5, 10 in which 0 is for Non-Compliance, 5 is for Partially Compliance and 10 is for Full Compliance according to the ranking scale of NABH.

For finding out whether the medical records department is working properly and up to the quality mark, 5 parameters were selected and then analysis of those 5 parameters were done to find the results. The study was then taken forward by reformulating the processes and implementing the entire process flow and appropriate changes were made in the process flow.

After formulating the new process and making some changes, implementing new checklists in medical record department, the sample for those 5 parameters were again taken and judged to find the changes in the department. During the implementation of medical records department as per NABH standards, some loopholes in the process flow and functional system were found and proper recommendations and changes were suggested to improve the current scenario.

POLICIES & PROCEDURES ON INFORMATION MANAGEMENT SYSTEM

- **Management of Data**: All the form and formats for data collection are standardized and controlled. The data collected is analyzed on a regular basis by medical audit team on a regular basis.
- **Storing and retrieving data:** The records shall be stored in a place free from dust, insects and other pests/rodents. Proper infection control practices including pest/rodent control measures and frequent dusting shall be done. All the Medico Legal case records shall also be stored under lock and key.
- The medical records provide up-to date and chronological account of patient care and are organized in the order (from admission to discharges) as below :

S.No.	Name of the record	Authorized person for entry
1.	Admission form	Doctor
2.	Admission Slip	Doctor
3.	Initial Assessment of Nurses	Staff Nurse In charge
4.	Dietary initial assessment form	Dietitian
5.	Departmental check of Patient's Bill	Doctors and nursing staff
6.	Laboratory Reports	Pathologist
7.	Radiology Reports	Radiology Doctor
8.	Cardiology report	Cardiologist

- **Procedure to ensure confidentiality, security and integrity of data:** The Medical Record is a private document related to the patient history and treatment both in a physical and electronic format and should not be disclosed as it breaches the Code of Medical Ethics .

- **Retention time of records, data and information:** The entire Outpatient case sheets shall be maintained for a period of 5 years after the last visit made by the patient. All the Inpatient case sheets shall be maintained for a period of 5 years after the last visit made by the patient. The MLC case sheets shall be retained lifelong or till the final judgment from the Supreme Court. The records which have crossed the retention period shall be selected and destroyed as per documented procedure .

- **Process of Creating Medical Records :** Medical Record contains different sections for recording the information as -

1. Identification Section
2. Medical Section
3. Nurses Section

IDENTIFICATION SECTION

This section fills up the Socio economic data / Patient Identification Data at the time of Registration and Admission. OPD file is generated at OPD registration counter; on the Admission Request of the Consultant Indoor patient Admission record is prepared .

Personal data for following are provided at OPD and Admission counter by the Patient / Relatives -

- Name of Patient
- Father's / Husband's Name
- Age & Sex
- Aadhar Card No.
- Permanent / Emergency Address.
- Telephone / Mobile Numbers
- E-mail

MEDICAL SECTION

The Section is filled up by the Consultant, and pertains to history, physical examination, treatment / progress of the patient, if operation is to be performed, then Operation notes are also recorded".

NURSES SECTION

The Nurses Section is responsible for filling up the following -

- Medication Record Forms
- T.P.R. Chart .
- Vital Sign Monitoring Form
- INTAKE and OUTPUT Form.
- Nursing Assessment Form

REVIEW OF LITERATURE

Many studies have been done on medical records department and its document compliance. A brief abstract of some of the studies are described below-

1. According to Anjan Prakash, the medical record is defined as "a clinical scientific, administrative and legal document relating to patient's care in which are recorded sufficient data written in the sequence of the events or chronologically to justify the diagnosis and warrant treatment and the end results".

2. A study done showed that the quality of medical records should be improved .Two third of the cases lacked in information or sheets important for the coordination and the continuity of medical care. The quality improvement of medical records could be reached by the professional education, which should" emphasize the importance of medical and administrative area in the health care management .this could be included in a continuous quality improvement programme. (Lataief M, MtiraouiA,MandhoujO,BenSalem,Soltani, Bchir on evaluation of quality of medical records in the Monastir regional hospital)

3. Study done on assessment of medical documentation as per Joint commission International showed that there was compliance in the admission form, special consent form, history and physical examination form, anesthesia consent form, post-operative form, laboratory form, doctor's record and nurse's record having almost met the standards criteria set by JCI .The deficiency was noted in the records ,like not having signature in general consent form and pre- operative form. This needs to be carefully monitored and doctors made aware of their responsibility to completely fill each entries in these forms the basis of documentation of care given and aids in the continuity of care but also is an important document in case of any legal litigations.(Sinha,Saha.D,Prathibha)

PURPOSE OF THE STUDY

Patient care contains a chronological record of care and treatment, namely medical record . Medical Record includes sufficient data written in sequence of occurrence of events to justify the diagnosis, treatment and outcome . It is an accurate, prompt recording of the team's medical observations about the patient; the patient's and results of treatment .

Medical records are intensely sensitive documents and there are many ethical and legal issues surrounding them. It is an important means of communication between the health providers, a legal document and a tool for medical research and training. Accurate and adequate medical records are essential for clinical, legal, fiscal and research purposes and is based on the principle people forget, but records remember . Medical Record Department is one of the most important part of the hospital so carelessness or ignorance in the operation of this department may result in medical and financial liability .

To assure quality in this department compliance in the documentation is very necessary and required. The whole purpose of the study is to find out whether the Medical Records Department of the hospital is following the standards and policies of 10th chapter of NABH ,i.e., Information Management System or not.

OBJECTIVES OF THE STUDY-

- To study the existing system of documentation of medical record department.
- To identify the bottlenecks in the existing system of medical records.
- To provide recommendations to overcome the bottlenecks and implement the changes required in the medical records department.

For the above mentioned purpose the 10th chapter of NABH, "Information Management System was studied and according to this chapter following are the standards required-

1. Policies and procedures exist to meet the information needs of the care providers, management of the organization as well as other agencies that require data and information from the organization .
2. The organization has a complete and accurate medical record for every patient .
3. The medical record reflects continuity of care .
4. The organization has a processes in place for effective management of data.
5. Documented procedures exist for retention time of records, data and information .
6. Documented policies and procedures are in place for maintaining confidentiality, integrity and security of records, data and information .
7. The organization regularly carries out medical audits .

RESEARCH METHODOLOGY

- Study Design- The type of Research study was Descriptive Study
- Location of the study- The location of the study was Monilek Hospital and Research Center, Jaipur
- Duration of the study- The study started from February 2018 to April 2018 (3 months)
- Study Subject- The subjects under study was Doctors, Nursing Staff, Medical Record Department Staff
- Method of Data Collection- The data was collected through the Primary and Secondary sources -

  Primary Data Source

  Medical Record Audit Checklist, Self-Assessment Toolkit of NABH, Direct Observations

  Secondary Data Source

  Medical Records Issue Register, Medical Record Retrieval Register
- Data Analysis- Data Entry and Analysis has been done in MS-Excel.

DATA COLLECTION

The data was collected in the Medical Record Audit Checklist. The aspects that were included in the Medical Record Audit Checklist for the purpose of collecting the data of In-patient files are-

- **IPD No.**
- **PATIENT NAME**
- **CONSULTANT/ SPECIALITY**
- **WARD**
- **ADMISSION CONSENT**
- **PATIENT AND FAMILY EDUCATION**
- **FINANCIAL COUNSELLING FORM**
- **INITIAL ASSESSMENT SHEET FOR EMERGENCY CASES**
- **INITIAL ASSESSMENT FORM (DOCTORS)**
- **INITIAL ASSESSMENT COUNTERSIGNED BY CONSULTANT**
- **DOCTORS' PROGRESS SHEET**
- **NURSING ASSESSMENT ON ADMISSION**
- **TIMELINESS (WITHIN 30 MINS)**
- **NURSING DAILY ASSESSMENT**
- **NURSING NOTES**
- **VITAL MONITORING CHART**
- **NUTRITIONAL SCREENING**
- **NUTRITION ASSESSMENT**
- **PHYSIOTHERAPY ASSESSMENT (IF APPLICABLE)**
- **PHYSIO DAILY CARE PLAN**
- **BLOOD TRANSFUSION MONITORING SHEET**
- **RESTRAINT MONITORING**
- **CONSENT FORM COMPLETELY FILLED**
- **ANAESTHESIA RECORD**
- **OT NOTES**
- **WHO SURGICAL SAFETY CHECKLIST**
- **MEDICINE CARD**
- **DISCHARGE SUMMARY**

DATA ANALYSIS AND INTERPRETATION

The data was analyzed after the collection of primary and secondary data from the sources. The collected data was then compared with the NABH guidelines. For the data collection, a checklist of relevant standards of Information Management System was prepared and scoring of the standards was done on the scale of 0 to 10 in which 0-Non Compliance, 5-Partial Compliance and 10-Full Compliance . The In-patient files or medical records were analyzed to check the completeness of the records.

NABH SELF ASSESSMENT TOOLKIT ON CHAPTER-10 INFORMATION MANAGEMENT SYSTEM

STANDARDS	SCORES (0/5/10)*
IMS.1 Policies and procedures exist to meet the information needs of the care providers, management of the organization as well as other agencies that require data and information from the organization	**0**
IMS.2 The organization has a complete and accurate medical record for every patient .	**5**
IMS.3 The medical record reflects continuity of care.	**5**
IMS.4 The organization has a processes in place for effective management of data	**0**
IMS.5 Documented procedures exist for retention time of records, data and information .	**0**
IMS.6 Documented policies and procedures are in place for maintaining confidentiality, integrity and security of records, data and information .	**0**
IMS.7 The organization regularly carries out medical audits	**0**

CHAPTER-10 INFORMATION MANAGEMENT SYSTEM		
OBJECTIVE ELEMENTS	**SCORES (0/ 5/ 10)**	**COMPLIANCE STATUS (C= compliance, PC= partially compliance, NC= non-compliance)**
IMS.1 Policies and procedures exist to meet the information needs of the care providers, management of the organization as well as other agencies that require data and information from the organization		
a) The information needs of the organization are identified and are appropriate to the scope of services being provided by the organization.	**0**	**NC**
b) Documented policies and procedures to meet the information needs exist .	**0**	**NC**
c) All information management and technology acquisitions are in accordance with documented policies and procedures .	**0**	**NC**
d) Documented policies and procedures guide the use of telemedicine facility in a safe and secure manner .	**0**	**NC**
e) The organization contributes to external databases in accordance with the law and regulations .	**0**	**NC**
IMS.2 The organization has a complete and accurate medical record for every patient .		

a) Every medical record has a unique identifier .	**5**	**PC**
b) Organization policy identifies those authorized to make entries in a medical record .	**0**	**NC**
c) Entry in the medical record is named, signed, dated and timed .	**5**	**PC**
d) The author of the entry can be identified .	**0**	**NC**
e) The contents of medical record are identified and documented .	**5**	**PC**
f) The organization has documented policy for usage for abbreviations and develops a list based on accepted practices .	**0**	**NC**
g) The record provides a complete, up-to-date and chronological account of patient care .	**5**	**PC**
h) Provision is made for 24-hr availability of the patient's record to healthcare providers to ensure continuity of care .	**0**	**NC**
IMS.3 The medical record reflects continuity of care .		
a) The medical record contains information regarding reasons for admission, diagnosis and care plan .	**5**	**PC**
b) The medical record contains the results of tests carried out and the care provided .	**5**	**PC**
c) Operative and other procedures performed" are "incorporated in the	**5**	**PC**

medical record .		
d) When patient is transferred to another hospital, the medical record contains the date of transfer, the reason for the transfer and the name of the receiving hospital .	**0**	**NC**
e) The medical record contains a copy of the discharge summary duly signed by appropriate and qualified personnel .	**5**	**PC**
f) In case of death, the medical record contains a copy of the cause of death certificate .	**5**	**PC**
g) Whenever a clinical autopsy is carried out, the medical record contains a copy of the report of the same .	**0**	**NC**
h) Care providers have access to current and past medical record .	**0**	**NC**
IMS.4 The organization has a "processes in place for effective management of data		
a) The organization has an effective process for document control .	**0**	**NC**
b) Formats for data collection are standardized .	**0**	**NC**
c) Necessary resources are available for analyzing data .	**0**	**NC**
d) Documented procedures are laid down for timely and accurate dissemination of data .	**0**	**NC**
e) Documented procedures exist for storing and retrieving data .	**0**	**NC**
f) Appropriate clinical and managerial	**5**	**PC**

staff participates in selecting, integrating and using data .		
IMS.5 Documented procedures exist for retention time of records, data and information .		
a) Documented policies and procedures are in place on retaining the patient's clinical records, data and information .	**0**	**NC**
b) The policies and procedures are in consonance with the local and national laws and regulations .	**0**	**NC**
c) The retention process provides expected confidentiality and security .	**0**	**NC**
d) The destruction of medical records, data and information is in accordance with the laid-down policy .	**5**	**PC**
IMS.6 Documented policies and procedures are in place for maintaining confidentiality, integrity and security of records, data and information .		
a) Documented policies and procedures exist for maintaining confidentiality,security and integrity of records, data and information .	**0**	**NC**
b) Documented policies and procedures are in consonance with the applicable laws .	**5**	**PC**
c) The policies and procedure(s) incorporate safeguarding of data/record against loss, destruction and tampering .	**5**	**PC**

d) The organisation has an effective process of monitoring compliance of the laid down policy and procedure .	**5**	**PC**
e) The organisation uses developments in appropriate technology for improving confidentiality , intregrity and security .	**0**	**NC**
f) Priveleged health information is used for the purposes identified or as required by law and not disclosed without the patient's authorization.	**5**	**PC**
g) A documented procedure exists on how to respond to patients/physicians and other public agencies requests for access to information in the medical record in accordance with the local and national law .	**0**	**NC**
IMS.7 The organization regularly carries out medical audits		
IMS.7 **a)** The medical records are reviewed periodiocally.	**0**	**NC**
b) The review uses a representative sample based on statistical principles .	**0**	**NC**
c) The review is conducted by identified individuals.	**0**	**NC**
d) The review focuses on the timeliness, legibility and completeness of the medical records .	**0**	**NC**
e) The review process includes records of both active and discharged patients .	**0**	**NC**
f) The review points out and documents	0	**NC**

any deficiencies in records .		
g) Appropriate corrective and preventive measures are undertaken within defined period of time & are documented .	0	**NC**

INTERPRETATION

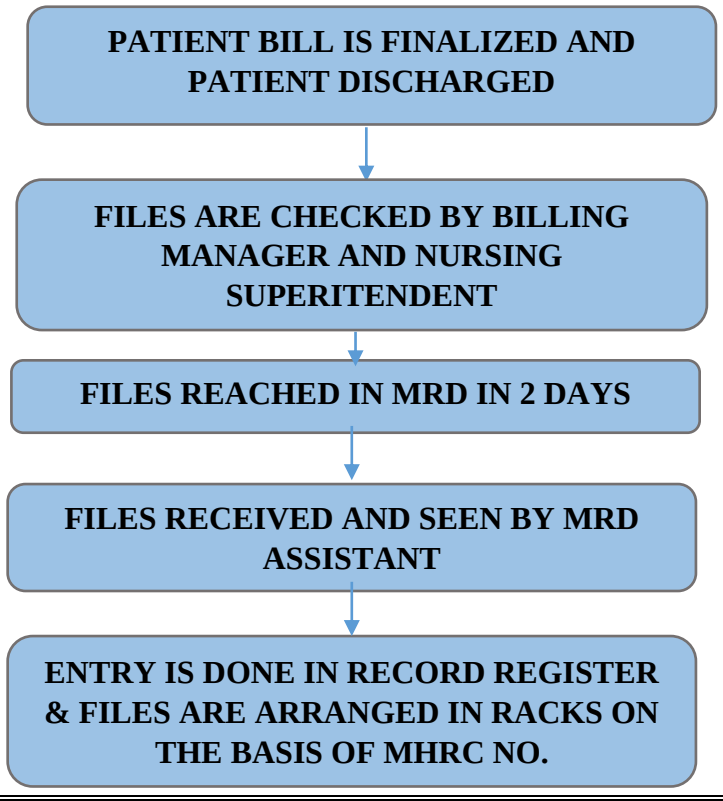
The above scoring of checklist was done on the basis that there were no written policies or protocol that was being followed in MRD and the data was not as useful as it was incomplete or some or other information was missing. The medical records are maintained but they doesn't reflect continuity of care as the documents were not maintained in a proper formatted manner.

The retention period for-

- In-patient files or records-5 years.
- Out-patient files or records-5 years
- MLC and Death Files- Lifetime

There were no medical audits in the MRD department for keeping the check on the department and its betterment.

PROCESS FLOW OF THE RECORDS IN THE MRD



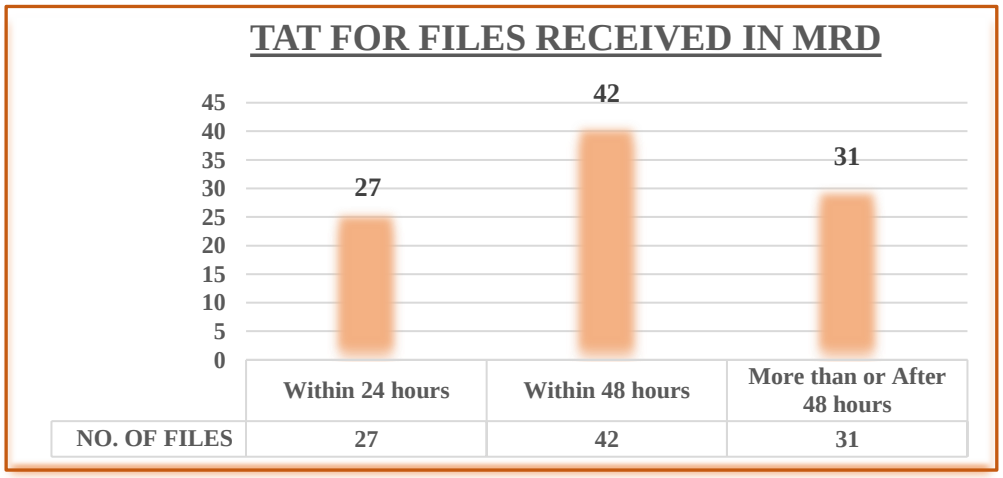
The parameters which are used to check the existing process flow and find the bottlenecks in the process are-

1. TAT for files received in MRD after discharge of the patient
2. Time taken for Retrieval of records
3. Document Compliance in terms of completeness by Nursing staff
4. Document Compliance in terms of completeness by Doctors
5. ICD (International Classification of diseases) Coding

PARAMETER-1: TAT FOR FILES RECEIVED IN MRD AFTER DISCHARGE

A sample size of 100 files was taken to find out when does the discharged patients files reach to the MRD department. The files reach to the MRD department after the billing manager and matron check the files. For this purpose some the following parameters or criteria was taken-

Time taken to reach MRD	Within 24 hours	Within 48 hours	More than or After 48 hours
No. of Files	27	42	31



INTERPRETATION-

This graph depicts that out of 100 medical records or files that I have used for my study, 27 files reach to MRD within 24 hours of discharge, 42 files reach to MRD within 48 hours and 31 files reach to MRD in more than 48 hours of the discharge of the patients.

PARAMETER-2 TIME TAKEN FOR RETRIEVAL OF PATIENT FILES

It is illegal to take out any medical record without the permission of Medical Record Manager and Medical Record Assistant but there were no particular policy regarding the same.

A Medical Record Tracer Card is also not used in the MRD department of the hospital.

Whenever a consultant, resident doctor, patient's attendant, billing manager, top-management people, police in case of Medico-legal cases (MLC) or any other person from any other department wants some particular file, the time taken was recorded in each case i.e., from the time a person comes to take a file till the time it is being handed over to that person after completing the entry work.

The average time recorded for the retrieval of file was found to be 32 MIN

(Data on Time taken for Retrieval of records is given in Annexure)

PARAMETER-3 DOCUMENT COMPLIANCE IN TERMS OF COMPLETENESS BY NURSING STAFF

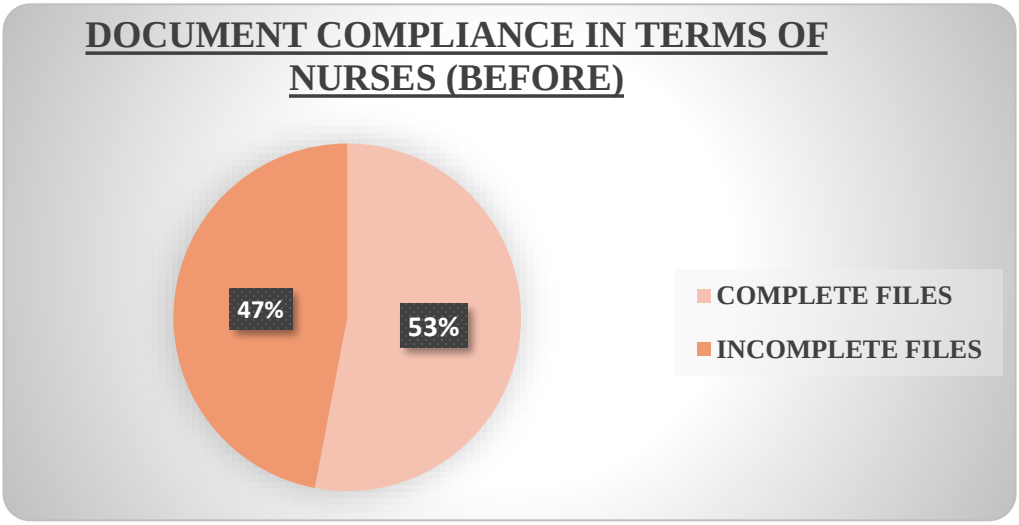
The nursing staff is an important staff in the hospital as it comes in direct contact with the patient. The nursing staff had to complete nursing assessment on admission, nursing notes, vital sign monitoring form, nursing daily assessment, investigation form in the in-patient files. In order to see the compliance status of the documents in the files random selection of the files was done. For this purpose Medical Record Audit Checklist was used.

From the Medical Record Audit Checklist, the forms which are checked to analyze the completeness by nursing staff are-

1) **NURSING ASSESSMENT ON ADMISSION**
2) **NURSING DAILY ASSESSMENT**
3) **NURSING NOTES**
4) **VITAL MONITORING CHART**
5) **INTAKE OUTPUT CHART**

A sample size of 100 files was taken.

	NO. OF COMPLETE FILES	**NO. OF INCOMPLETE FILES**
NO. OF FILES	**53**	**47**



INTERPRETATION-

This pie-chart shows that in the sample the document compliance of medical records by nurses means out of 100 files, 53 files are complete and 47 files are incomplete. This pie-chart also depicts that they are aware of the importance of the information needs of the patients but then too they don't make proper entries in the forms.

PARAMETER-4 DOCUMENT COMPLIANCE IN TERMS OF COMPLETENESS OF MEDICAL RECORDS BY DOCTORS

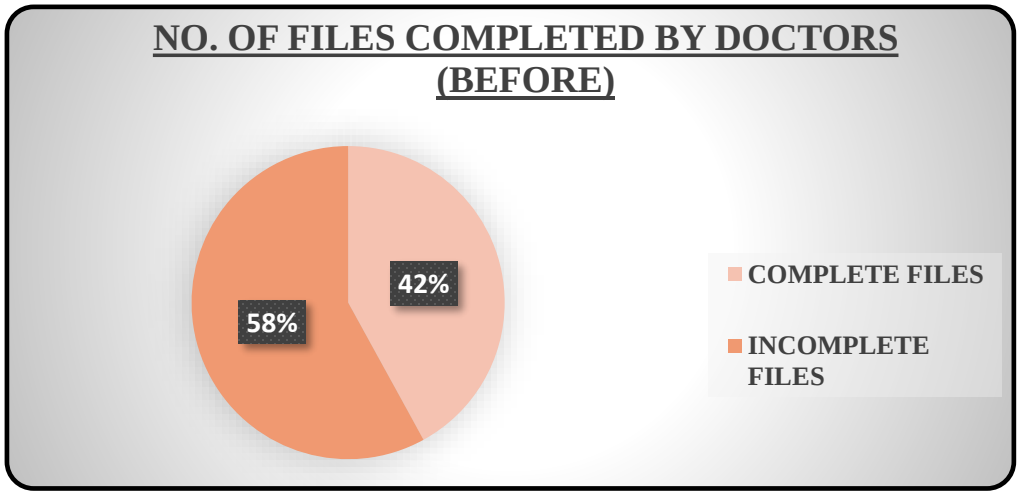
The consultants and resident doctors had to complete doctor's initial assessment, doctor's progress notes, discharge summary, OT notes. In order to see how many files are fully completed by the doctors, random files are checked.

For this purpose Medical Record Audit Checklist was used.

From the Medical Record Audit Checklist, the forms which are checked to analyze the completeness are-

- **INITIAL ASSESSMENT FORM (DOCTORS)**
- **DOCTORS' PROGRESS SHEET**

	COMPLETE FILES	INCOMPLETE FILES
NO. OF FILES	42	58



INTERPRETATION-

This pie-chart shows that in the sample of 100 files, 42 files show document compliance means completed in terms of doctors and 58 files are incomplete

PARAMETER-5 INTERNATIONAL CLASSIFICATION OF DISEASES (ICD)-10 CODING IN MEDICAL RECORDS

Clinical coding, one of the most important procedures which should also be carried out in the Medical Record Department. Clinical coding is the translation of diseases, health related problems and procedural concepts from text to alphabetic/numeric codes for storage, retrieval and analysis of health care data .

Medical records are coded for the ease of retrieval of information on diseases and injuries . At present the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) (or an adaptation) given by WHO is used in many countries to code diseases, injuries, and external causes of injuries .

ICD -10 is a statistical classification. That is, it contains a limited number of mutually exclusive code categories which describes disease concepts. It uses an alphanumeric coding scheme of one letter followed by three numbers, at the four character level .

The classification system is made up of three volumes :

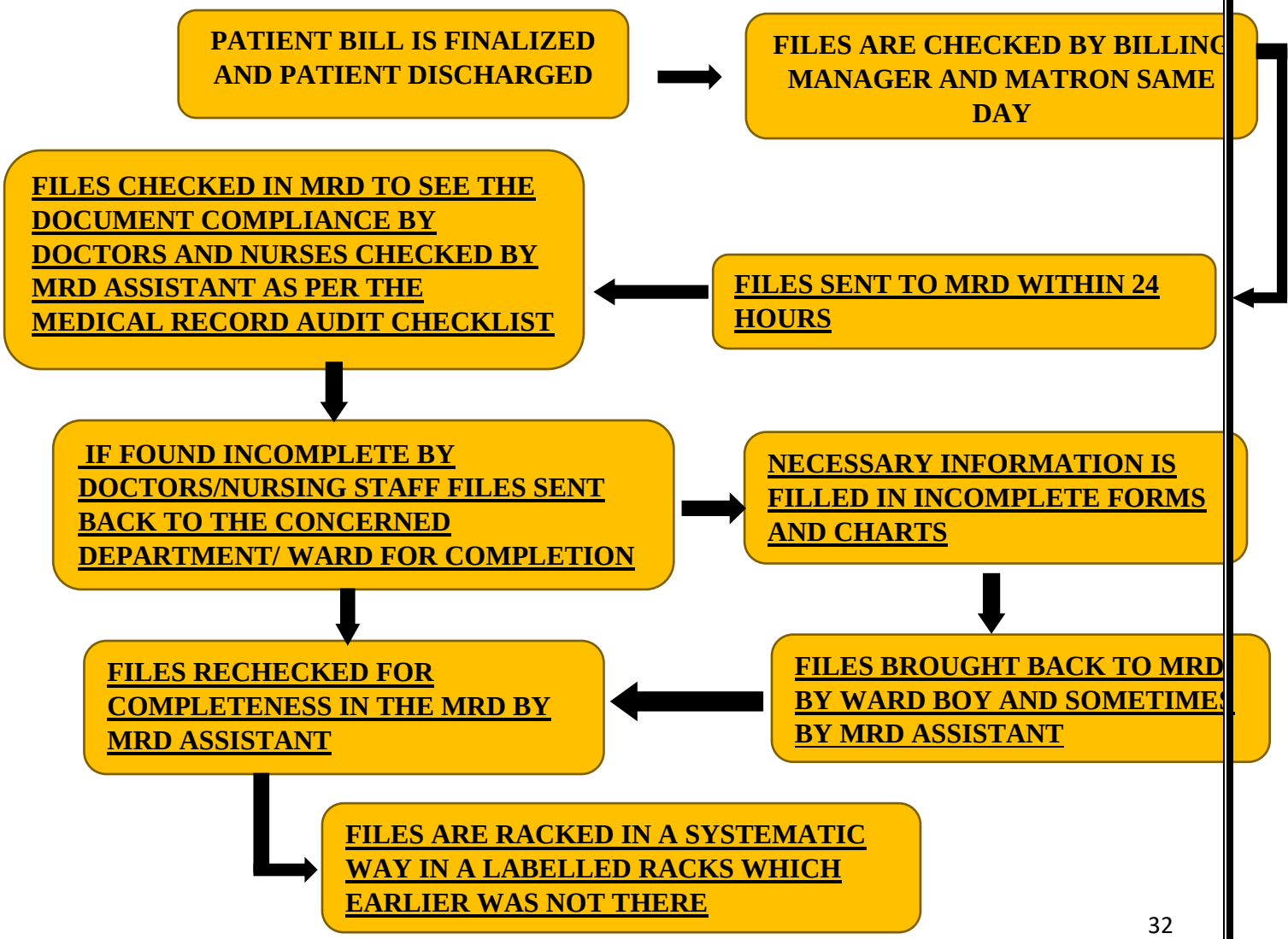
- **Vol. 1**-the Tabular list
- **Vol. 2**-an introduction to and instructions on how to use volume 1 and 3, together with guidelines for certification and rules in Mortality coding; and
- **Vol. 3**-the Alphabetical index of the diseases and conditions found in the Tabular list.

The sample size of 100 files was collected, no single file has ICD-10 coding as this procedure wasn't started yet in the hospital.

AFTER THE IMPLEMENTATION OF NEW PROCESS AND MAKING CHANGES IN MRD

After understanding and analyzing the existing process and functioning of the MRD of the Monilek Hospital and Research Center, a new process flow for the medical records has been formed and initiated by me in the MRD to smooth the functioning of the medical records department in the hospital. During the research about how to make the MRD more advanced all the changes which are required to be done for the betterment of the hospital and patients in terms of information are implemented in that department.

A new process flow has been formed for the MRD:



POLICIES FORMULATED AND CHANGES IMPEMENTED IN THE MRD

1. Policies on Content of medical records

- Only authorized staff members shall be allowed to make entries in Medical Record of the patients. Such staff members include consultants, nurses and other paramedical staff involved in the patient's medical care.
- Consultants, resident doctors and nurses shall be expected to have their stamp or signature after making entries in the files.
- All entries into the files by Staff Members have to be signed and authenticate d with a stamp whenever applicable, dated and timed.
- All investigation reports and radiology reports must be checked and signed by the medical team and lab technician before being inserted into medical record of the patient.
- Time entries are made using 12 hours clock system.
- The medical record should be in chronological order means order in which they occurred.

2. Policy to maintain confidentiality, integrity and security of records, data and information

- Persons working in the MRD, persons who are directly involved in patient care and other authorized persons who have access to patient medical records must not under any circumstances disclose any type of patient information to unauthorized people. Disclosure of any information contained in medical record are a breach of confidentiality. If anyone found guilty that person would be subject to disciplinary action and possible termination.

- Medical Records in the department are kept secured and in strict confidentiality. No unauthorized person are allowed to have access to patient medical record without permission.
- Medical Records can be taken out of Medical Records Department only by authorized persons.

3. Policy on Storing and retrieving data

- The records shall be stored in a place free from dust, insects and other pests/rodents. Proper infection control practices including pest/rodent control measures and frequent dusting shall be done .
- All the Death and MLC files are kept under lock and key.
- Retrieval of record shall be done with the MHRC No. or Registration No. of the patient.
- To ensure proper record control, whenever a medical record file is removed for any purpose, it should be replaced by a MEDICAL RECORD TRACER CARD, which indicates where the medical record has been sent and to whom.

4. Policy on making changes in the medical record

If by chance, the wrong information was entered at the time of patient admission which later he or patient attendant wants to get changed or because of some other reason some change is required. The changes in the demographic data is done after checking the identity proof of the patient.

5. Policy on access to medical records

The access to files of patients should be restricted to authorized people. **Access to patient's files is allowed to the-**

Resident Doctors

Nursing staff

Patient and its Attendant

6. Policy on safeguarding medical records against loss, destruction

- The retention period for in-patient files are of 5 years in the hospital and after that period records are destructed according to the fixed procedure,
- The death records and MLC files must be kept separately under the lock and key in the Medical Records Department to protect them.
- Whenever someone wants a medical record then at the place of that medical record a Medical Record Tracer Card is placed which contain all the information about the recipient of that particular record.

7. Policy on Medical Audit

As Medical Record Department is one of the important department in the hospital it is essential that medical audit takes place regularly by the trained people. In MRD, Active File Audit and Close File Audit both have started to check the completeness of medical records.

Medical Record Audit Committee should be formed in the hospital to-

- To review the completeness of the patient's records in the Medical Record .
- To see that all records are dated, timed and legibly signed by the persons authorized to make entries in patient's records .
- To review that the patients record contains all the necessary documents .
- To provide guideline instruction for better management of patient's medical records .

CHANGES DONE OR RECOMMENDATIONS GIVEN IN THE MEDICAL RECORD DEPARTMENT

➢ PROPER LABELLING OF RACKS

First of all, the proper labelling of all the racks was done for the proper storage and retrieval of the medical records which earlier was not there in the department.

In the Monilek Hospital, the files are stored in racks and retrieved by the MHRC No. or Registration No. which is unique for every patient.

After the proper labelling of racks it become easier to retrieve a medical record as and when required by doctor/resident doctor/patient/patient attendant.

Labeling of racks was done in the following manner-

- **RACK**- Racks are labelled as 1, 2, 3, 4 …and so on.
- **SHELF**- Shelves are labelled as A, B, C, D,……and so on.
- **MHRC No**.- Ex- 13492 ⟶ 13506 (In one Shelf files from this Registration No. to this Reg. No. are kept)

1) **For Ex-** 1/1A/13467→ 13479
2) 5/5D/14924→14938 etc.

➢ MEDICAL RECORD TRACER CARD

The name "Tracer Card" itself implies that whenever a medical record is not found in its place, the tracer card is the only source of information to the medical records assistant to track the exact location and the recipient of the medical record taken. So, Tracer Card was implemented in the MRD and used whenever someone wants a medical record the entry was done in tracer card and put at the place of that medical record.

The tracer card contains four columns-

- **The first column** denotes the date at which that particular medical record is taken out
- **The second column** denotes the MHRC No.
- **The third column** denotes the patient full name
- **The fourth column** denotes the Name and Sign of the Recipient of that medical record
- After the medical record is replaced in its original location, Tracer card can be pulled out.

Medical Record Tracer Card

DATE	MHRC NO.	PATIENT FULL NAME	NAME AND SIGN OF RECEIPIENT

- A systematic flow for the document compliance in the medical records was advised and implemented and checked out regularly whether it is followed properly or not.
- There is a shortage of manpower in the Medical Records Department so suggested more trained people to the top management for the betterment of the department.
- Suggestion of ICD-10 coding was given.
- All the policies formulated should be ensured for compliance and checked regularly through audits.
- The HMIS should be incorporated and linked with MRD for the updating of daily hospital census.
- Separate registers for death, birth and MLC registers should be maintained properly.
- The Medical Record Audit Committee should be formed and regular meetings should take place to discuss the problems and ways to improve it.
- Training programme should be started for the doctors and nursing staff for proper maintaining of the medical records in a chronological manner.

AFTER FORMULATION AND IMPLEMENTATION OF NEW PROCESS FLOW, WRITTEN POLICIES AND CHANGES REQUIRED

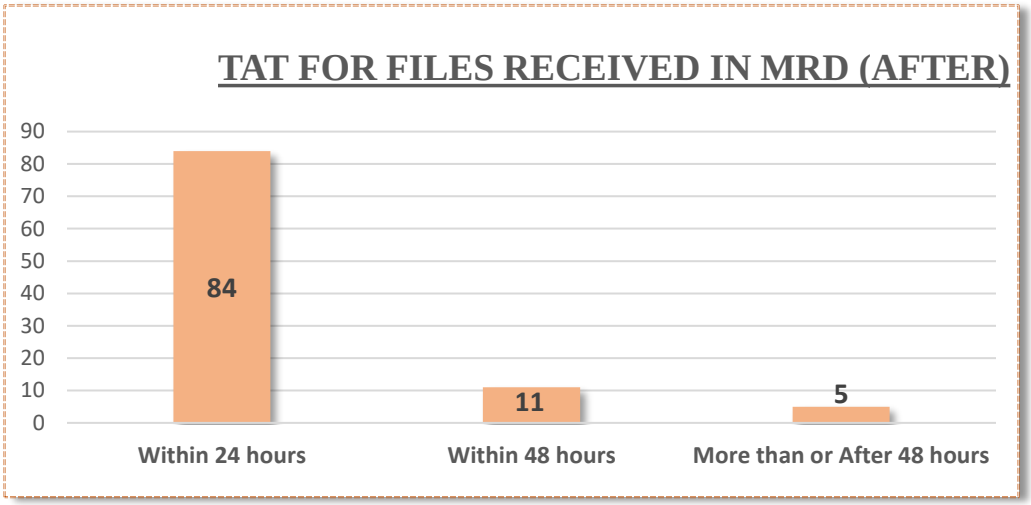
After making the changes in the existing process flow of records and formulating new policies in the MRD the sample size of 100 was taken again and analyzed for the same parameters.

Again the scoring was done in NABH Self-Assessment Toolkit on Chapter-10 Information Management System to see whether the functioning of the department is improved or not.

As per the new process flow the discharged patient files are checked by billing manager and nursing superintendent after the discharge of the patient and reached to the MRD within 24 hours of the discharge. The data collected before the implementation of the new process is compared with the data collected after the implementation of the new process and formulation of new policies, an improvement was seen in the parameters as well as the scoring of Self-Assessment Toolkit.

PARAMETER-1 TAT FOR FILES RECEIVED IN MRD AFTER DISCHARGE

Time taken to reach MRD	Within 24 hours	Within 48 hours	More than or After 48 hours
No. of Files	84	11	5



INTERPRETATION

After making some necessary changes in an existing process and implementing some policies, 84 files reach to MRD within 24 hours of patient discharge, 11 files reach within 48 hours and the no. of files reach to MRD in more than 48 hours are only 5.

PARAMETER-2 TAT FOR RETRIEVAL OF FILES

This parameter was also reviewed after the implementation of the new process and also the implementation and use of Medical Record Tracer Card. The old and the new data was compared and found that the average time for retrieving the medical record also reduces from earlier average time of retrieval.

THE IDEAL TAT FOR RETRIEVAL OF FILES IS 20 MIN.(set by Hospital's Quality Department)

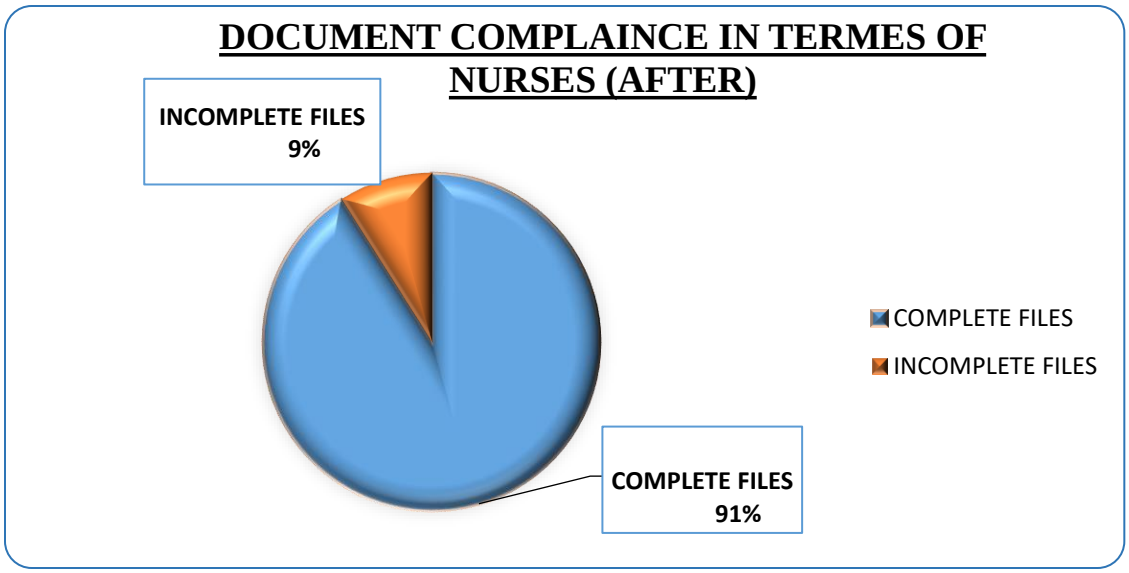
The average time of retrieving the medical record was 14 Min.

(Data on retrieval of files is given in Annexure)

PARAMETER-3 DOCUMENT COMPLIANCE IN TERMS OF COMPLETENESS BY NURSING STAFF

After implementation of the new process and training of the nursing staff the document compliance by nursing staff improves as they become more aware and responsible and at last also when file was sent back to them they have to complete the file so mostly they complete the file in starting only.

	COMPLETE FILES	INCOMPLETE FILES
NO. OF FILES	91	9



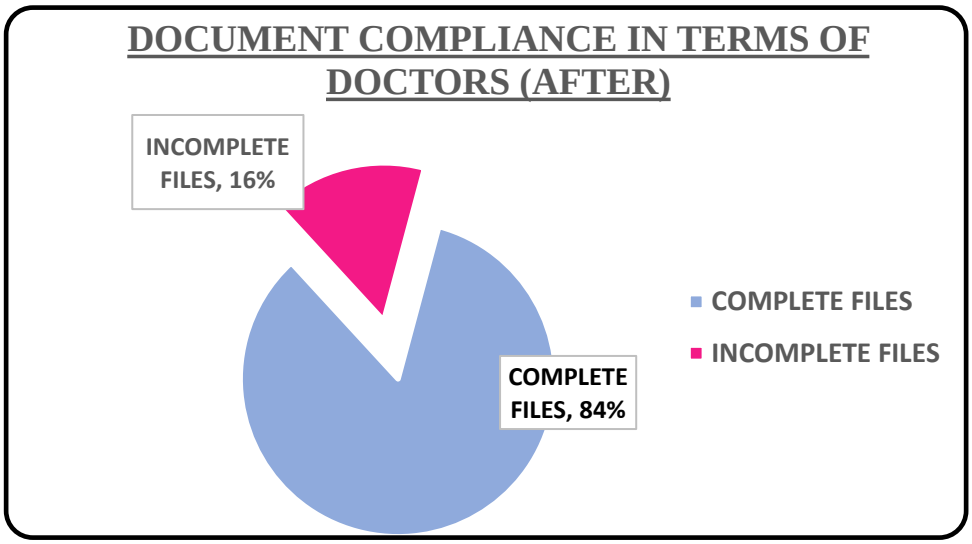
INTERPRETATION

The above pie-chart depicts that complete files are 91 and incomplete files are only 9 as a result of changing the existing process and sending files again to the nursing staff for completion which in turn leads to major document compliance by nurses.

PARAMETER-4 DOCUMENT COMPLIANCE IN TERMS OF COMPLETENESS BY DOCTORS

The files were checked whether the consultants and doctors completed the files or not and if found incomplete the files were sent back to that particular doctor for completion. After analyzing the old and new data for the completeness the improvement was found.

	COMPLETE FILES	INCOMPLETE FILES
NO. OF FILES	84	16



INTERPRETATION

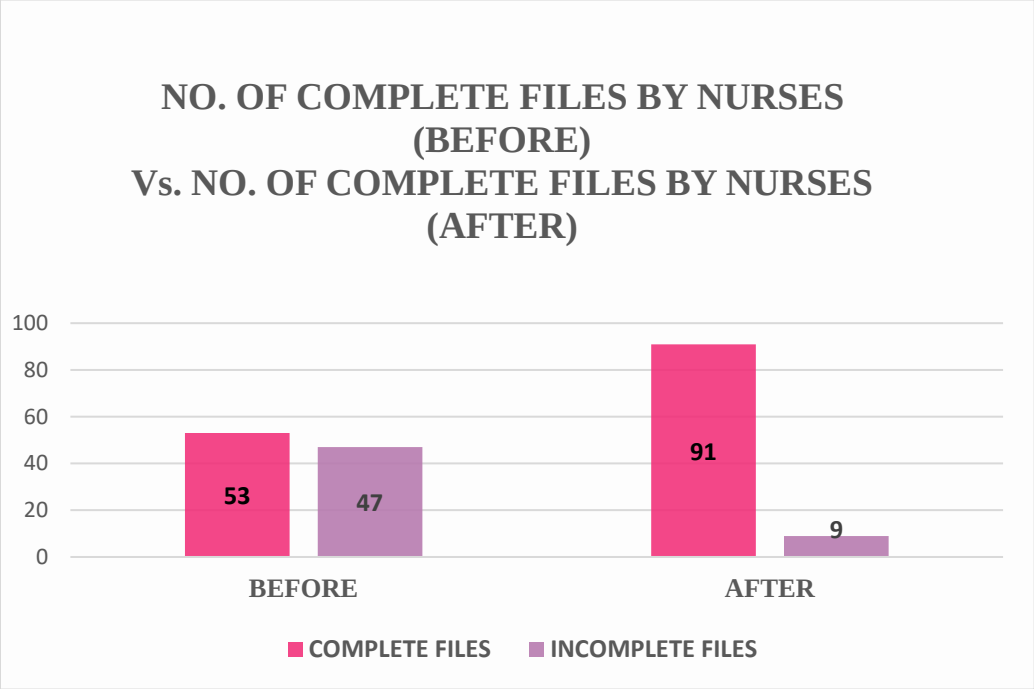
The above pie-chart depicts that the no. of complete files are 84 and only 16 files are incomplete out of 100 in document compliance by doctors after the formulation of policies and making required changes in the MRD of the hospital.

PARAMETER-5 INTERNATIONAL CLASSIFICATION OF DISEASES (ICD)-10 CODING

The procedure of ICD-10 coding has not been started yet, however the concept and approved and will be started and implemented in near future.

DOCUMENT COMPLAINCE BY NURSES (BEFORE) Vs. DOCUMENT COMPLAINCE BY NURSES (AFTER)

CATEGORY	DOCUMENT COMPLIANCE BY NURSING STAFF (BEFORE)	DOCUMENT COMPLIANCE BY NURSING STAFF (AFTER)
COMPLETE FILES	53	91
INCOMPLETE FILES	47	9

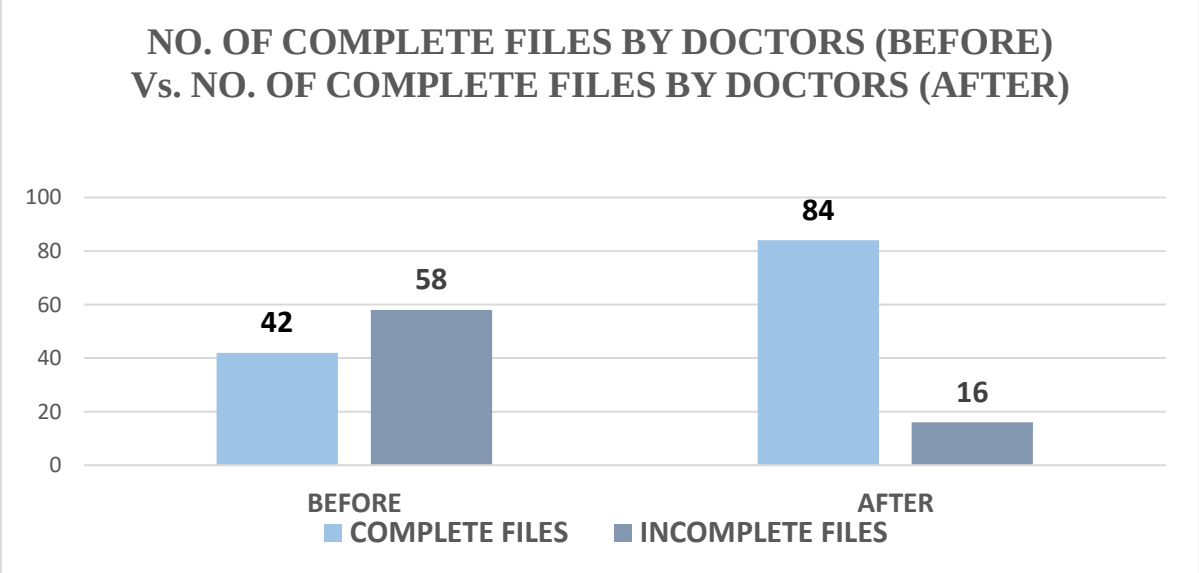


INTERPRETATION

This graph shows that before implementing new process in the MRD, complete files in terms of nurses are 53 whereas after implementation the number increased to 91 and before implementing new process incomplete files are 47 and after implementation it reduces to 9.

DOCUMENT COMPLAINCE BY DOCTORS (BEFORE) Vs. DOCUMENT COMPLAINCE BY DOCTORS (AFTER)

CATEGORY	DOCUMENT COMPLIANCE BY DOCTORS (BEFORE)	DOCUMENT COMPLIANCE BY DOCTORS (AFTER)
COMPLETE FILES	42	84
INCOMPLETE FILES	58	16



INTERPRETATION

This graph shows that before implementing new process in the MRD, complete files by doctors are 42 whereas after implementation the number increased to 84 and before implementing new process incomplete files by doctors are 58 and after implementation it reduces to 16.

NABH SELF ASSESSMENT TOOL-KIT ON CH-10 INFORMATION MANAGEMENT SYSTEM

After implementing the new process the scoring of the Self-Assessment toolkit was done again to see the improvement in the medical record system and managing the information needs of the patients, patients' attendant, health care providers and all other authorized people.

STANDARDS	SCORES (0/5/10)*
➢ Policies and procedures exist to meet the information needs of the care providers, management of the organization as well as other agencies that require data and information from the organization	**5**
➢ The organization has a complete and accurate medical record for every patient .	**10**
➢ The medical record reflects continuity of care .	**10**
➢ The organization has a processes in place for effective management of data	**5**
➢ Documented procedures exist for retention time of records, data and information.	**5**
➢ Documented policies and procedures are in place for maintaining confidentiality, integrity and security of records, data and information .	**10**
➢ The organization regularly carries out medical audits	**5**

CHAPTER-10 INFORMATION MANAGEMENT SYSTEM		
OBJECTIVE ELEMENTS	**SCORES (0/ 5/ 10)**	**COMPLIANCE STATUS (C= compliance, PC= partially compliance, NC= non-compliance)**
IMS.1 **a)** The information needs of the organization are identified and are appropriate to the scope of services being provided by the organization.	**5**	**PC**
b) Documented policies and procedures to meet the information needs exist .	**5**	**PC**
c) All information management and technology acquisitions are in accordance with documented policies and procedures .	**5**	**PC**
d) Documented policies and procedures guide the use of telemedicine facility in a safe and secure manner .	**0**	**NC**
e) The organization contributes to external databases in accordance with the law and regulations".	**5**	**PC**
IMS.2 **a)** Every medical record has a unique identifier .	**10**	**FC**
b) Organization policy identifies those authorized to make entries in a file.	**5**	**PC**

c) Entry in the medical record is named, signed, dated and timed .	**5**	**PC**
d) The author of the entry can be identified .	**5**	**PC**
e) The contents of medical record are identified and documented .	**10**	**FC**
f) The organisation has documented policy for usage" for "abbreviations and develops a list based on accepted practices .	**0**	**PC**
g) The record provides a complete, up-to-date and chronological account of patient care .	**5**	**PC**
h) Provision is made for 24-hr availability of the patient's record to healthcare providers to ensure continuity of care .	**5**	**PC**
IMS.3 **a)** The medical record contains information regarding reasons for admission, diagnosis and care plan .	**10**	**FC**
b) The medical record contains the results of tests carried out and the care provided .	**10**	**FC**
c) Operative and other procedures performed are incorporated in the medical record .	**10**	**FC**
d) When patient is transferred to another hospital, the medical record	**5**	**PC**

contains the date of transfer, the reason for the transfer and the name of the receiving hospital .		
e) The medical record contains a copy of the discharge summary duly signed by appropriate and qualified personnel .	**5**	**PC**
f) In case of death, the medical record contains a copy of the cause of death certificate .	**5**	**PC**
g) Whenever a clinical autopsy is carried out, the medical record contains a copy of the report of the same .	**5**	**PC**
h) Care providers have access to current and past medical record .	**0**	**PC**
IMS.4 **a)** The organization has an effective process for document control .	**5**	**PC**
b) Formats for data collection are standardized .	**5**	**PC**
c) Necessary resources are available for analyzing data .	**5**	**PC**
d) Documented procedures are laid down for timely and accurate dissemination of data .	**0**	**NC**
e) Documented procedures exist for storing and retrieving data .	**5**	**PC**
f) Appropriate clinical and managerial staff participates in selecting, integrating and using data .	**5**	**PC**
IMS.5 **a)** Documented policies and procedures are in place on retaining the patient's	**5**	**PC**

clinical records, data and information .		
b) The policies and procedures are in consonance with the local and national laws and regulations .	**0**	**NC**
c) The retention process provides expected confidentiality and security .	**5**	**PC**
d) The destruction of medical records, data and information is in accordance with the laid-down policy .	**5**	**PC**
IMS.6 **a)** Documented policies and procedures exist for maintaining confidentiality,security and integrity of records, data and information .	**5**	**PC**
b) Documented policies and procedures are in consonance with the applicable laws .	**5**	**PC**
c) The policies and procedure(s) incorporate safeguarding of data/record against loss, destruction and tampering .	**5**	**PC**
d) The organisation has an effective process of monitoring compliance of the laid down policy and procedure .	**10**	**FC**
f) "The organisation uses developments in appropriate technology for improving confidentiality,intregrity and security".	**5**	**PC**
f) Priveleged health information is used for the purposes identified or as required by law and not disclosed without the patient's authorization.	**5**	**PC**
g) A documented procedure exists on how to respond to patients/physicians	**5**	**PC**

and other public agencies requests for access to information in the medical record in accordance with the local and national law.		
IMS.7 **a)** The medical records are reviewed periodiocally.	**5**	**PC**
b) The review uses a representative sample based on statistical principles.	**0**	**NC**
g) The review is conducted by identified individuals.	**5**	**PC**
h) The review focuses on the timeliness, legibility and completeness of the medical records.	**5**	**NC**
i) The review process includes records of both active and discharged patients .	**5**	**PC**
f) The review points out and documents any deficiencies in records .	**5**	**PC**
g) Appropriate corrective and preventive measures are undertaken within a defined period of time and are documented .	**0**	**PC**

CONCLUSION

The history of medical records is as old as history of medicine. The earliest records were primitive in form and very different from present medical records Physicians, nurses and numerous allied health personnel and other authorized people inform and advise each other through their entries in the records about their findings, observations, opinions and treatment of the patient. A written medical record must be maintained on every person who has been admitted to hospital or other health care facility. The medical record usually begins with registration of the patient at that time only the essential identification data and other necessary information are obtained and then additional reports are added like investigation reports, OT notes etc. The nurses record all the observations, medications, treatments and other services rendered. The consultant records the progress of the patient condition in the Doctor's Progress Notes.

The development of medical records was started in seventeenth century by Benjamin Franklin. The WHO also realized the importance and maintenance of medical records and hence started International Classification of Diseases in 1946 AD. In this hospital ICD-10 Coding is not done however the idea of ICD-10 coding was approved and is going to be started soon by me. The proper tracking system of the medical record was not there and because of this it was very difficult to track a file when the request comes. Proper tracking of files are very essential so I have implemented a Medical Record Tracer Card which is to be put at the place of that medical record which was requested by anyone.

The average time of retrieval of medical records before making and implementing the new policies and procedure is 32 min which later reduces to 14 min after implementation of the new process and making changes in the Medical Record Department of the hospital. The compliance in the medical records in terms of doctors and nurses is an essential part for the patient's continuity of care. This also reflect quality of patient care as per IMS chapter of NABH but MRD working and functioning is not as good i.e., 53 files out to 100 files were found to completed by the nursing staff and doctors and rest files means 47 files were found to be incomplete. However with the introduction and implementation of the new process and policies a remarkable and good improvement in the medical records department in terms of document compliance completeness and the functioning of MRD.

LIMITATIONS IN THE STUDY

- The major problem in the MRD of the hospital is the shortage of skilled and trained staff as there is no special person who is handling the medical records department of the hospital.
- The another problem in the hospital was that the staff was not aware of the importance of completing the medical records. So it took a lot of effort to make them involved and do so much work.
- The another thing that was lacking is the training of the people who was authorized to make entries in the medical records.
- The ICD-10 coding is not there so it is not possible to categorize the files on the basis of disease.
- The labelling of racks was not there in the medical records department earlier so it was very difficult and time-consuming to retrieve a medical record as and when required.

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system available at from www.ncbi.nlm.nih.gov/pmc/articles/PMC2581343

ANNEXURE

A. MEDICAL RECORD ISSUE REGISTER FORMAT

MHRC NO.	PATIENT NAME	DATE OF DISCHARGE	DATE & TIME OF RECEVING FILE IN MRD	SIGN OF MRD ASSISSTANT

B. MEDICAL RECORD RETRIEVAL REGISTER (BEFORE)

FROM DEC.2017 TO FEB.2018		
S.NO	**PATIENT NAME**	**TIME DIFFERENCE (IN MIN.)**
1	ADITYA (BSBY)	50.00
2	SHAMIM BANO	54.00
3	SURESH KUMAR	54
4	BABITA SHARMA	30
5	RAI CHAND	46
6	MASTER ROHIT	24
7	ANKITA KHANDELWAL	26
8	RAJENDRA SINGH	28
9	MEENA RAMNANI	28

10	SHWETA JAIN	29
11	VINITA JETHWANI	29
12	ANIL PAREEK	42
13	ASHA KUMARI	60
14	RAM PRAKASH	25
15	B D BHATIA	19
16	VEER SINGH	22
17	LALL DEVI	18
18	POORAN SINGH	43
19	VINAY SHARMA	21
20	BACHHAN SINGH	27
21	PANKAJ SHARMA	39
22	GIRIRAJ PRASAD	16
23	PRATAP MAL	25
24	HARSH KANWAR	38
25	NITIN MADAN	22
26	TULSI DEVI	24
27	VINOD MEHTA	27
28	BHANWAR SINGH	52
29	ASHA JINDAL	36
30	LEELA DEVI	22
31	VINOD MEHTA	55
32	ZUBEDA	30
33	SHIVDAYAL KHITAN	33
34	RAISUDDIN	36
35	PREM PRASAD SHARMA	40
36	NIRMALA DEVI	28

37	KHERUN NISHA	23
38	SARVESH KUMAR	50
39	RAM KISHORE VERMA	40
40	OM PRAKASH	22
41	RAJ RANI SHARMA	31
42	NEELAM BHANDARI	24
43	JYOTI PAREEK	27
44	DHAYAL CHAND	30
45	SANGEETA DEVI	20
	AVERAGE	**32.56 Min.**

C. MEDICAL RECORD RETRIEVAL REGISTER (AFTER)

FROM FEB,2018 TO APRIL,2018		
S.NO	PATIENT NAME	TIME DIFFERENCE (IN MIN.)
1	LAJWANTI	10
2	GHANSHYAM	16
3	SURESH KUMAR	14
4	RAJ KUMAR	13
5	SATISH BIHANI	18
6	HARI CHAND(BSBY)	9
7	HANUMAN SAHAY (BSBY)	12
8	CHITAR MAL	8
9	YAKOOB ALI	11
10	SITA RAM	15
11	MANNI DEVI	18
12	RAMBILAS MEENA	13
13	SULTAN KHAN	10
14	RAMSWAROOP	14
15	PHOOL CHAND	12
16	SHEESH RAM	16

17	SARJEET SINGH	13
18	MOHD. SIRAJUDDIN	20
19	PRAMOD GOYAL	17
20	VIJAY KALANI	13
21	MOHD. YASIN	18
22	KHUSHBOO SINHA	14
23	DHAPU DEVI	12
24	MISS KULSUM	17
25	SUGNA RAM	19
26	ROHITASH SAINI	21
27	NAND LAL (BSBY)	20
	AVERAGE TIME	**14.6 Min.**