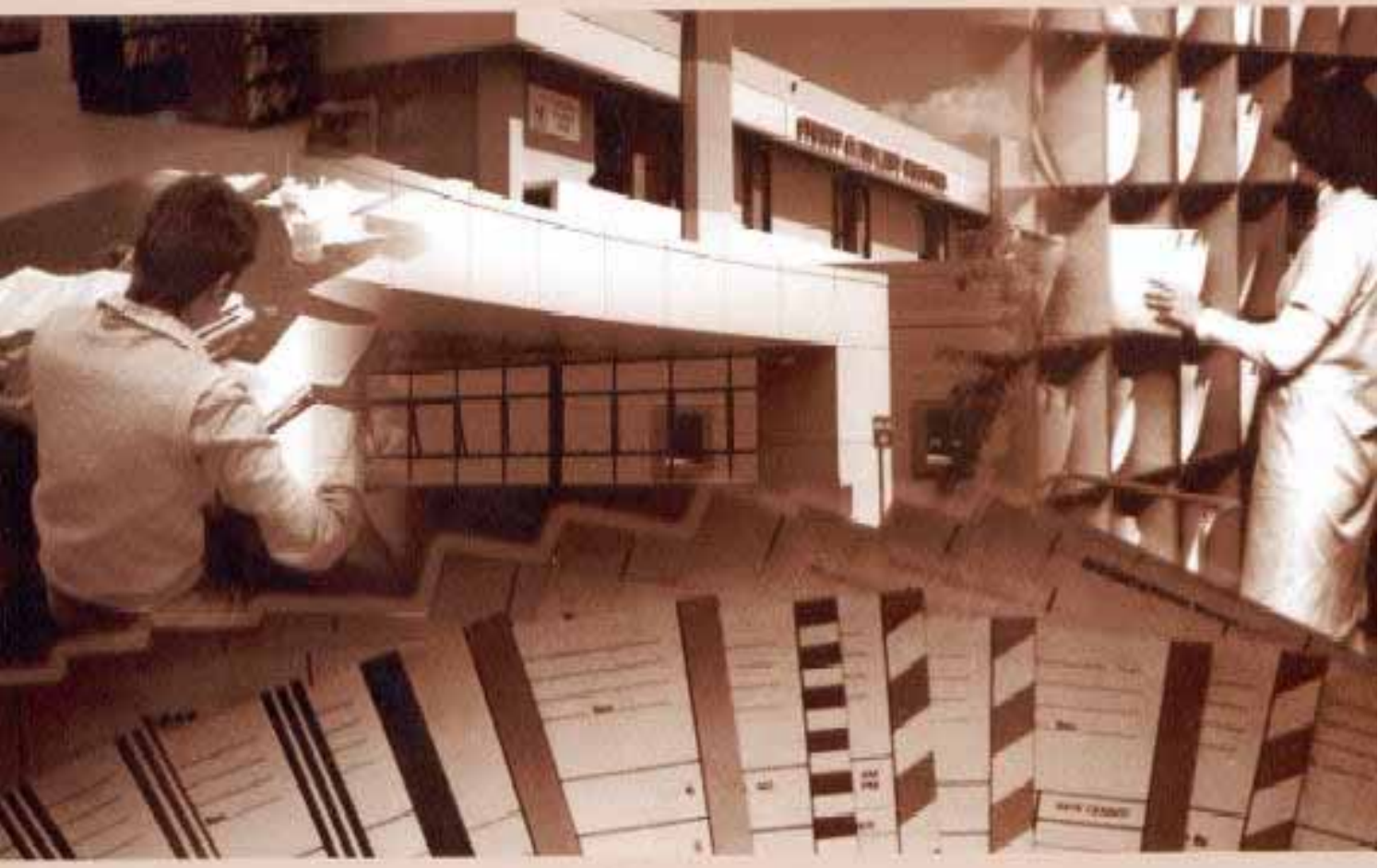
MEDICAL RECORDS MANUAL

A GUIDE FOR DEVELOPING COUNTRIES



WORLD HEALTH ORGANIZATION
Regional Office for the Western Pacific

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A GUIDE

FOR

DEVELOPING COUNTRIES

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TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

1. INTRODUCTION

Medical records are very important. They are a written collection of information about a patient's health care and are essential for his or her present and future care. Information contained in medical records is also used for 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 in medical records so that they can use the information again when the patient comes back to the hospital or health care centre. It is the job of medical record workers to make sure that the medical record is available for health care personnel when the patient returns to the health care facility. If the medical record is not available then the patient may suffer, due to lack of previous information, which could be vital for their continuing care. In addition if the medical 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 record service is affected.

1.1 Aim of the Manual

The aim of this Manual is to help medical record workers to develop and manage the medical record service in health care facilities in developing countries in an effective and efficient manner. This Manual has been written for clerical staff with a basic understanding of medical record procedures. It has NOT been designed as an introductory text to medical record management, but rather as an aide to medical record officers (MRO) and medical record clerks by describing appropriate systems for Medical Record Departments in developing countries. It has been written for manual procedures, but may be used as an adjunct to computerised systems. It does not provide all of the options for medical record management, it provides one option in each area for the management of medical records in developing countries. See the reference list at the end of this Manual for textbooks that provide detailed information on medical record management.

When you have completed the Manual, you should be able to:

- ❖ Identify the major functions of a Medical Record Department and implement basic MRD procedures.
- ❖ Understand the multiple uses of a medical/health record and the confidential nature of medical/health record data.
- ❖ Implement patient identification and registration procedures.
- ❖ Implement and maintain a master patient index within the Medical Record Department.
- ❖ Assess the need for a new form and the points to remember when designing a form and the role of the Medical Record Committee in implementing new forms.
- ❖ Implement the classification of health care data and develop a disease and procedure index if required.
- ❖ Identify different ways of filing medical/health records and the importance of using a medical record tracer.
- ❖ Discuss the importance of developing medical record policies such as the retention of medical/health records, access to patient care information, privacy, confidentiality and the release of patient information.

Medical/health record officers and clerks should have sufficient basic education to enable them to file accurately in both alphabetical and numerical order, and to spell patient names correctly. All staff in medical record departments should be given an alphabetical and numerical filing test before appointment (Annex 1).

1.2 National and international support

Medical record officers need to keep up-to-date with changes and developments in medical/health record systems on both a national and international level. To develop a support system within each country medical record officers are encouraged to establish a national medical record association. To gain support and recognition at an international level national associations are encouraged to apply for membership to the International Federation of Health Records Organizations (IFHRO). IFHRO is an international federation of national associations of medical/health information managers and individual medical record officers. Membership of IFHRO can assist MROs to become part of an international network of medical record officers, which includes MROs from countries with similar health systems. If there are insufficient MROs within the country to form a national association, individual medical record workers may apply to join IFHRO as an Associate Member.

The Federation holds an international congress every three years at which the latest trends and developments in medical/health record practice and medical/health record education are discussed. Contact persons in IFHRO are listed in Annex 2.

1.3 Some changes over the years

Over the years there has been a number of changes to the title of the person in charge of the Medical Record Department as well as the title of the department. These changes have come about due to a greater awareness of medical record systems and an increased emphasis on computerisation and the development of computerised health information systems.

- In some countries the title of persons responsible for the medical record service has changed from MEDICAL RECORD OFFICER (MRO) and MEDICAL RECORD ADMINISTRATOR (MRA) to HEALTH INFORMATION MANAGER (HIM) and, HEALTH INFORMATION ADMINISTRATOR (HIA). In many developing countries the title MEDICAL RECORD OFFICER (MRO) or MEDICAL RECORD CLERK is still used. For the purpose of this Manual, the title Medical Record Officer or Medical Record Clerk will be used but should be substituted for the title commonly used in your country.

- Also in many countries the Medical Record Department is often referred to by another name, such as MEDICAL RECORD ROOM, CLINICAL INFORMATION SERVICES, or HEALTH INFORMATION DEPARTMENT. Again for the purposes of this Manual it will be referred to as the MEDICAL RECORD DEPARTMENT (MRD). You should also substitute this with the name commonly used in your country.

- As we move into the 21ST century the term HEALTH CARE FACILITY is being used more often to describe a HOSPITAL, or a HEALTH CARE CENTRE, or a CLINIC. Again you should check the name commonly used for your health care facility and substitute where necessary. For the Manual the term HEALTH CARE FACILITY or HOSPITAL will be used.

- With the many changes in health care delivery today the medical record is often referred to as the HEALTH RECORD. This term generally refers to a broader view of health care in many countries. A HEALTH RECORD actually means a single record of all data on an individual's health status from birth to death[1]. That is, it would include birth records, immunisation records as well as records of all illnesses and treatments given in any health care facility. Unfortunately, this type of record is not maintained in many health care facilities today. The term MEDICAL RECORD, therefore, should still be used to accurately describe the type of record currently used in most hospitals. The term MEDICAL RECORD will be used in the following pages. The health record, as described above, is becoming more popular and will be used more extensively in the future

- In many countries during the 1980's manual MEDICAL RECORD SYSTEMS were replaced by computerised MEDICAL INFORMATION SYSTEMS (MIS). In a MIS facts concerning the health or health care of individual patients are stored and processed

1

in computers[2]. With progress over the years the MIS has developed further and now HOSPITAL INFORMATION SYSTEMS (HIS) have replaced the MIS in many countries. A HIS is defined as an information system that links basic business process functions such as registration, admission, discharge and transfer, with patient accounting processes[2]. That is, all information collected on individual patients while in hospital is part of a Hospital Information System. It is derived from the data recorded about a patient commencing with the first encounter or treatment at a hospital, clinic, or primary health care centre. It includes both medical and financial data. Clinical staff record the data about patients and their diseases/injuries in the medical record, and this data, linked to the identification information collected by clerical staff, is available in the HIS.

Today efficient HOSPITAL INFORMATION SYSTEMS are not only important to hospitals but also for governments as they provide information about the health of the people in a country. The collected information is used by governments for planning health facilities and health care programmes; for the management and financing of health facilities; and for medical research. However, as computerised hospital information systems have not been developed in many countries to date the efficient management of manual medical record systems remains essential for the collection of complete, accurate and timely data on health.

Regardless of the system the job of medical record staff is to make sure that the information collected on each patient is stored in his or her medical record, and the medical record is available when and where it is needed for the continuing care of that patient.

We have tried to keep the language in the Manual simple but if there is a word you do not understand you should look it up in an English dictionary.

REMEMBER THAT:

THE MEANING OF A WORD OR WORDS VARIES SOMETIMES FROM COUNTRY TO COUNTRY

2

The Manual begins with an overview of:

- a Medical Record Department and its functions. This is followed by a look at
- the medical record; followed by
- patient identification and numbering;
- the development of procedures; and some essential
- basic medical record procedures.

The next section covers some other important topics including:

- outpatient medical records.
- development of some medical record policies;
- Medical Record Committee;
- quality issues for medical record services;
- and lastly we will take a brief look at some computerised medical record systems.

As you work through the following pages you should review the medical record services provided in your hospital and see where they can be improved. You should, however, plan your changes carefully and make sure that they will fit into your situation. Poor planning could result in failure of the project and lack of confidence in the proposed changes.

2. THE MEDICAL RECORD DEPARTMENT

To begin we should take a brief look at the Medical Record Department (MRD). The MRD is an extremely busy department and the work of medical record clerks very demanding. Although staff are not directly involved in patient care the information recorded in the patient's medical record is an essential part of that care. The MRD staff are therefore required to perform an essential service within the hospital. Sometimes, the nature of this work in not understood by the medical staff, hospital administrators and other hospital personnel, and medical record clerks and MROs often feel isolated. In addition, in many countries funding is inadequate making the effective running of the medical record service difficult. Medical record staff therefore must be resourceful and dedicated to working in a busy and extremely important section of the hospital. With knowledge and experience they will find the job both satisfying and rewarding.

2.1 Support for Medical Record Department and staff

Because of the vital nature of the work of the department it is important to obtain support from the hospital administration and medical staff. It is also important to ensure that the hospital administration, medical and nursing staff and allied health professionals are aware of the work of the MRD and problems that may arise in relation to the recording of patient care data. This can be achieved by:

- liaising with clinical staff and hospital administration about the content of medical records, and procedures required in the management of medical record services;
- having adequate stationery (medical record forms, folders, and office stationery) available to enable basic medical record functions to be carried out; and
- having sufficient trained staff to complete all basic medical record procedures.

The establishment of a Medical Record Committee is also important. To maintain an effective medical record service the medical record officer needs the support of such a Committee. They need to be able to bring important issues relating to medical record services to the Committee for discussion. In doing so they also need to ensure that the issues are carefully recorded and presented to the Committee in a clear and objective manner. The medical Record Committee will be discussed in more detail later.

2.2 Functions of a Medical Record Department

The Medical Record Department staff under the leadership of the MRO or medical record clerk in-charge is responsible for the maintenance of medical records and medical record services. The hospital administration must provide security and sufficient storage space for medical records and an adequate working area for medical record staff. The MRD staff must safeguard the medical records from tampering, loss and unauthorised use. They are responsible for seeing that the patient's right to privacy and the confidentiality of the information stored within the medical record is maintained at all times.

The MRO is also responsible for the development and maintenance of policies and procedures relating to the medical record services of the hospital.

❖ The major functions of a Medical Record Departmen t include:

- development and maintenance of the master patient index for patient identification;
- retrieval of medical records for patient care and other authorised use;
- discharge procedure and completion of medical records after an inpatient has been discharged or died;
- coding diseases and operations of patients discharged or died;
- filing medical records;
- evaluation of the medical record service;
- completion of monthly and annual statistics; and
- medico-legal issues relating to the release of patient information and other legal issues.

Associated with these functions there are an essential group of basic medical record procedures that should be performed by the staff of a Medical Record Department. Failure to undertake any of these procedures could result in a poor medical record service. These essential medical record procedures are explained as you progress through this Manual.

I.2 A typical medical record department with manual systems.

❖ Computerisation of medical record procedures

In a number of countries many of the procedures, such as patient identification, and admission and discharge procedures, have been computerised. The automation of these procedures can improve the efficiency and effectiveness of Medical Record Departments and are discussed in the final section of the Manual.

Although computerisation of many procedures will assist in the efficient management of the medical record services it is important to develop a simple effective and efficient manual medical record service before considering computerisation. Computerisation will NOT solve all problems if manual systems are not properly developed and maintained.

What is the department where you work called?

_____

Are you responsible for the medical record service in your hospital?

_____

Name the procedures carried out in your department.

_____

I.3 A typical computerised medical record department

3. THE MEDICAL RECORD

Before proceeding to look at specific medical record procedures we need to discuss the medical record, what it is, how it develops, and why it is so important.

As mentioned in the introduction, medical records are important. The medical record is a compilation of facts about a patient's life and health. It includes documented data on past and present illnesses and treatment written by the health care professional caring for the patient. 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"[1] The main purpose of the medical record is to record the facts about the patient's health history with emphasis on the events affecting the patient during the current admission or attendance at the health care facility and for the continuing care of the patient in future episodes requiring health care.

The main uses of the medical record are[3]:

- to document the course of the patient's illness and treatment;
- to communicate between attending doctors and other health care professionals providing care to the patient,
- for the continuing care of the patient,
- for research of specific diseases and treatment, and
- the collection of health statistics.

I.4 A medical record

In some hospitals every time a patient comes to the hospital a new medical record number is given and a new medical record is commenced. With this system a patient could have many medical records scattered throughout the file room. This is NOT RECOMMENDED. For good patient care the patient should have one medical record with all admissions filed in the one record and kept in the one place. For the purpose of this Manual we will be referring to this method of medical record keeping.

ONE PATIENT → ONE MEDICAL RECORD NUMBER = ONE MEDICAL RECORD

3

❖ Where does the medical record begin?

The medical record begins with the patient's first admission as an inpatient or attendance as an outpatient (if a combined medical record) to the health care facility. This begins with the collection of identification information, which is recorded on the FRONT SHEET or IDENTIFICATION AND SUMMARY SHEET. The name of the first form in the medical record varies from hospital to hospital and country to country.

What is it called in your hospital health care facility?

_____

For the purpose of this Manual it will be referred to as the FRONT SHEET but you should substitute this for the name more familiar to you.

❖ Components of a medical record

When a patient has been admitted to the hospital they become an INPATIENT and the FRONT SHEET is the beginning of the inpatient medical record.

An INPATIENT is a patient who has been admitted to the health care facility. Inpatients' usually occupy a bed in a health care facility for at least four (4) hours or overnight.

From this time the medical record develops with many forms added as the patient is treated and cared for by the doctor, nursing staff and allied health care professionals in the ward. The physical medical record will eventually consist of the following:

- medical record forms;
- a clip or fastener to hold the papers together;
- dividers between each admission and outpatient notes; and
- a medical record folder.

3.1 Medical record forms

The medical record is made up of a number of forms, which are all used for a specific purpose. The basic set of forms in the inpatient medical record include:

- **Front sheet or identification and summary sheet**, which covers identification, final diagnoses, and the doctors signature.

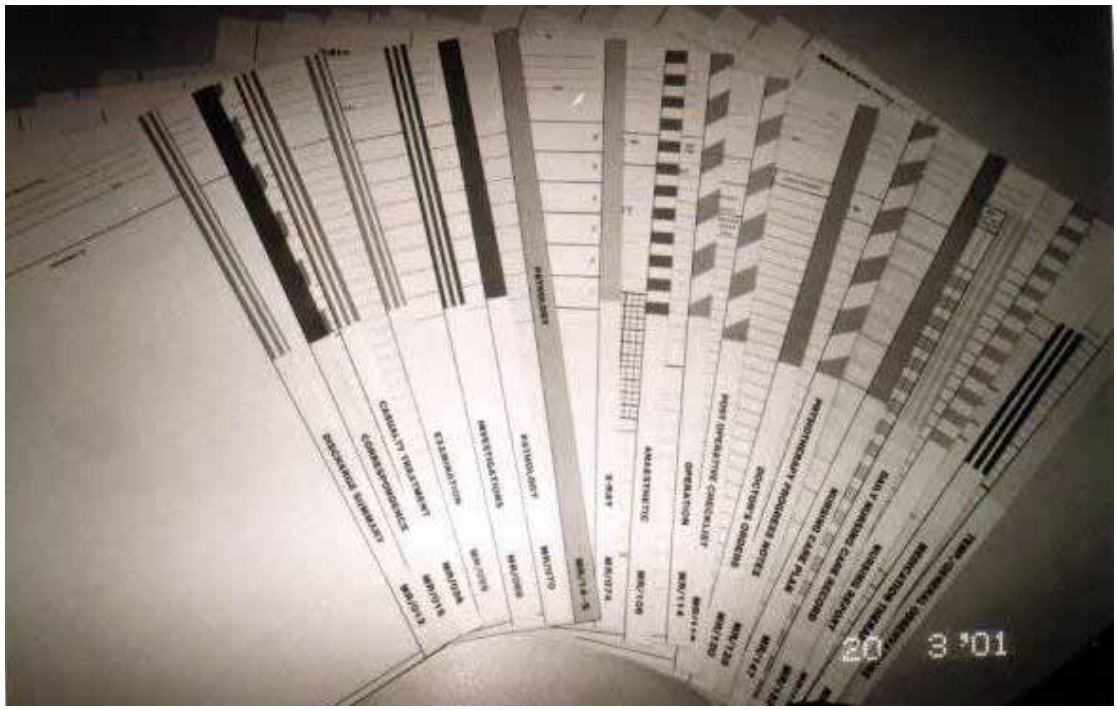
- **Consent for treatment** is often on the back of the Front Sheet and must be signed by the patient at the time of admission. There are two parts to this form. The first half of the form is a general consent for treatment and the bottom half is consent to release information to authorised persons.

- **Correspondence and legal documents** - correspondence received about the patient, e.g. referral letter.

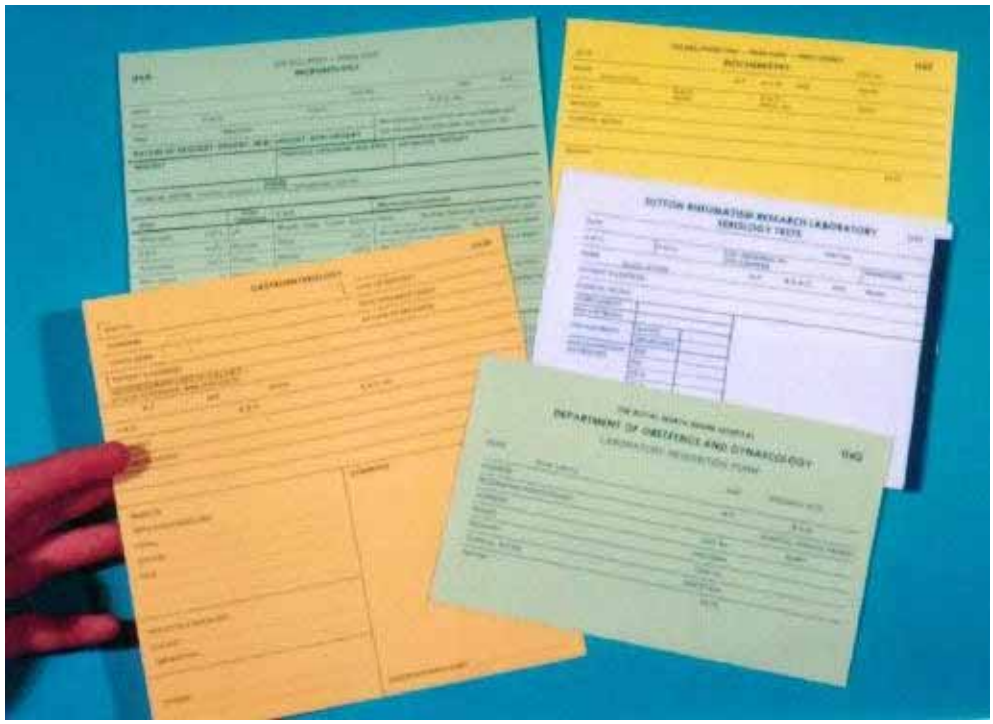
- **Discharge summary** - if required by the hospital/health authority.

- **Admission notes** - provisional diagnosis (the reason the patient came or was brought to hospital), presenting symptoms, physical examination, proposed care.

- **Progress notes -** daily recording of the patient's treatment and progress by doctors and other health care professionals. **Nursing progress notes** - daily nursing care.
- **Operation report -** if operation or operations performed.
- **Other health care professional notes,** e.g. physiotherapy, social workers, etc.
- **Pathology reports –** haematology, histology, microbiology, etc.
- **Other reports –** X-ray, etc**.**
- **Medication chart -** daily medications given.
- **Nursing observations** - special nursing form for observation of head injuries etc.



I.5 Sample medical record forms



I.6 Samples of X-ray, pathology, and other investigation forms

3.1.1 Order of forms in the medical record

There should be a specified order in which all forms are placed within the medical record after discharge/death of the patient.

THE ORDER OF FORMS AS LISTED ABOVE IS RECOMMENDED

- The hospital administration or the Medical Record Committee (if there is one) should determine the order in which forms should be filed in the medical record. The list should be printed and available to medical record clerks and other personnel working with or using the medical record. This will make it easy for the medical record staff to assemble the medical record and for health care personnel to locate specific information.

- It is important to note that the order of forms as listed above is NOT the order used on the ward. It is the order in which forms are filed within the medical record after the patient has been discharged and the medical record has been returned to the Medical Record Department.

- In many countries it is the responsibility of the ward staff to sort the medical record forms into the correct order before returning them to the Medical Record Department. If they are not in order when received by the MRD the medical record staff responsible for discharges must sort them into the correct order as part of the discharge procedure.

3.1.2 Some important points about forms in the medical record:

- Forms should all be the same size, usually A4 size.
- The patient's name and medical record number, and the name of the form should be in the same place on EVERY form.
- Only official forms approved by the administration or Medical Record Committee (if there is one) should be included in the medical record.
- Sections A, B, C, D and E of the sample form (see below) remain the same on all forms. Section F is different for every form, as it is where the content of each form is written. The following is a sample medical record form:

<table>
<tr><td rowspan="3"><u>A</u>

M
A
R
G
I
N

20 cm</td><td colspan="2"><u>B</u> Top margin 10cm</td><td rowspan="3"><u>E</u>

N
A
M
E

O
F

F
O
R
M

10
cm</td></tr>
<tr><td><u>C</u> Name & logo of hospital

Patient Names
Other patient details</td><td><u>D</u>

Medical Record Number.
Ward:</td></tr>
<tr><td colspan="2"><u>F</u>

Sections A, B, C, D and E remain the same for all forms.

Content of each different form recorded in this section.</td></tr>
</table>

3.2 Clip or fastener

- Papers should be held in the medical record, either by a clip or fastener. Staples should NOT be used as they tend to rust and additional forms cannot be easily added. Some countries use a large fastener, which is secured in the top left-hand corner of the medical record.
- A two-pronged clip can be threaded through clip holes in the folder, or can be attached to the folder by the adhesive backing.
- It is best to use plastic rather than metal clips. Metal clips can cut fingers, and can rust.

I.7 A metal fastener used in a medical record

3.3 Medical record dividers

- It is good practice to separate each admission by a divider; the divider will be slightly wider than the forms in the medical record and have a tab on which to write "1st Admission", "2nd Admission", etc.

- In addition if combined with the inpatient notes all outpatient notes can be stored behind an outpatient divider.

- For specialist outpatient records, a separate divider could be used for the clinic, e.g. "hypertension clinic", "heart clinic", etc.

3.4 Medical record folder

- All medical record forms should be kept in a medical record folder. This should be a manila folder and if possible stronger cardboard folders should be purchased.

Sample medical record folder:

Number tab ↓

Patient's full name	MR Number	12-34-56
		Year of last attendance 2000 2001 2002 Etc.
	0 0	
Spine		
↑	0---Clip hole---0	

- Medical record folders should be filed on their spine so that the medical record number is clearly visible for filing purposes.

- Every hospital, health centre and Department of Health should **budget annually** for medical record stationery.

I.8 A medical record with a metal fastener, dividers, and a cardboard folder

❖ On the medical record folder should be written the:

- patient's name;
- patient's medical record number; and
- year of last attendance.

MEDICAL INFORMATION SHOULD NOT BE RECORDED ON THE FOLDER

3.5 Responsibility for medical records

The primary function of a hospital, clinic or other health care facility is to provide quality patient care to all patients whether inpatient, outpatient or emergency patient. The hospital administration is legally responsible for the quality of care given to patients. The hospital administration relies on the doctors, nurses and other health care professionals to see that the care given is documented correctly in the patient's medical record. The accuracy and completeness of this documentation is the responsibility of those who are recording the data.

The medical record officer or person in charge of the Medical Record Department is responsible for the functions of that department and for seeing that the medical record is available when needed for the continuing care of the patient. They are also responsible for:

- seeing that all forms relating to the care of a particular patient are in that patient's medical record;
- that the medical record has been completed by the doctor;
- diseases and operations are coded accurately; and
- all information produced for statistics is accurate and readily available when required by the administration, Ministry of Health or other government agency.

3.6 Medico-legal issues

In many countries today the medical record has become an important legal document. This may not be the case in your country at the present time but you should be aware of the need to see that the medical record is complete, accurate and available when needed.

It is important that the MRO is aware of the need to maintain confidentiality and the patient's right to privacy. As the person in charge of the Medical Record Department they are responsible for seeing that UNAUTHORIZED PERSONS DO NOT have access to the medical record and that information is not given out without the patient's written consent.

The physical medical record is the property of the hospital and the information in the medical record is the PROPERTY OF THE PATIENT and cannot be released without the consent of the patient. Exceptions to this rule include the use of the information:

- by doctors and other health professionals for the continuing care of the patient;
- for medical research where the patient is NOT identified;
- for the collection of health care statistics when the individual patient is NOT identified.

Before proceeding you should review the medical record used in your hospital and answer the following questions.

I.9 A medical record officer at her desk

Are all the forms in the medical record in your hospital the same size?

_____

Who approves the introduction of a new form?

_____

Who designs the forms in the medical record in your hospital?

_____

Are medical record forms in your hospital held together by a clip or fastener?

_____

If yes, which type of fastener is used?

_____

Do you use admission dividers to separate each admission?

_____

Are the medical record forms placed in a medical record folder after discharge of the patient?

_____

Who is responsible for the medical record service in your hospital?

_____

Do you have any medico-legal work in your hospital?

_____

If yes, is it the responsibility of the medical record department staff?

_____

4. PATIENT IDENTIFICATION AND NUMBERING

Before discussing specific MRD procedures we should look at how a patient and his or her medical record is identified. Accurate identification of a patient is extremely important and is the backbone of an effective and efficient medical record system. Correct identification is needed to positively identify the patient and ensure that each patient has one medical record number and one medical record.

ONE PATIENT → ONE MEDICAL RECORD NUMBER = ONE MEDICAL RECORD

4.1 Inpatient identification

REMEMBER:

AN INPATIENT IS A PATIENT WHO HAS BEEN ADMITTED TO THE HEALTH CARE FACILITY

Inpatients usually occupy a bed in a health care facility for at least four (4) hours or overnight. The time needed before a person is declared an inpatient varies from country to country and you should check what the rules are in your country.

What is the period of time necessary to declare a person an inpatient in your hospital?

_____

Inpatients may be admitted through the emergency room, general outpatient clinics, or through specialist outpatient clinics. The ADMISSION of a patient to hospital is ORDERED BY A DOCTOR and implemented by an admission clerk.

4.1.1 Responsibility for patient identification

The responsibility for correctly identifying a patient rests with the clerk who interviews the patient in the admission office or outpatient department.

The clerk must carefully question the patient or person accompanying the patient if the patient is unable to give the necessary information, (e.g. child, elderly relative, etc) making sure that the questions asked are clear and understood by the person being interviewed. It is important to note that many people when they come to a hospital or clinic are nervous and may have difficulty with some simple questions. They should be put at ease and be given time to respond. The data collected must be written clearly on the correct form. Correct patient identification enables hospital staff:

- to find a particular patient's medical record whenever they come to the health care facility;
- link a patient's previous admission or outpatient attendance to the current admission using his or her medical record number;
- find the correct medical record of patients when there are more than one patient with the same name.

4.1.2 Unique patient characteristic

In order to identify patients we need a UNIQUE PATIENT CHARACTERISTIC. The type and number of unique patient characteristics used will change from country to country, and are defined as:

SOMETHING ABOUT A PATIENT THAT DOES NOT CHANGE

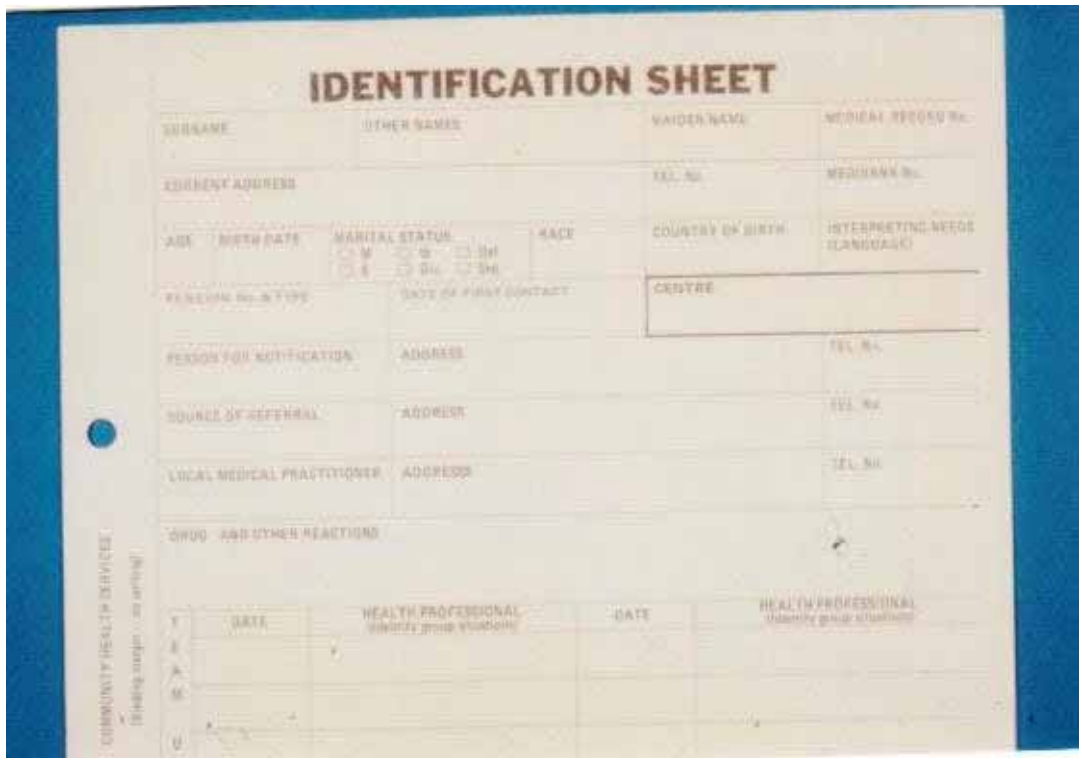
In some countries the unique patient characteristic often used is the patient's mother's maiden name, that is, the mother's name before she was married. This is something that does not change.

In many countries, however, patients attending a health care facility do not know their mother's maiden name, or their own date of birth, and are often unsure of their exact age. Each country will need to decide on a unique patient characteristic that will assist with the identification of a particular patient. There is no limit to the number of unique patient characteristics that can be used. Some useful unique patient characteristics are:

- a national identification number or social security number;
- date of birth;
- health insurance number;
- mother's maiden name;
- mother's first name;
- father's first name; and
- biological characteristic, e.g. fingerprint or footprint in the case of a new-born infant.

❖ The following are NOT considered unique characteristics:

- Where a person lives is NOT a unique patient characteristic because it can change.
- A person's age is NOT a unique patient characteristic because it DOES change.
- A patient's place of birth is often not suitable as a unique patient characteristic.
- Although this should not change it is important that a patient's birthplace NOT be used as it is often identified by most people as being the place where they "come from" as opposed to the place where they were actually born.



I.10 A simple identification sheet

REMEMBER:

EFFECTIVE PATIENT IDENTIFICATION IS THE BEGINNING OF AN EFFICIENT MEDICAL RECORD SYSTEM

Is a unique patient identifier used in your hospital/country?

_____

If yes, what is it?

_____

If no - what should or could be used?

_____

Do you have a problem in your hospital with patie nt identification?

_____

What is the main problem?

_____

Do you find that a patient can have more than one medical record due to identification errors/problems?

_____

How can the problem be rectified?

_____

4.2 Medical record numbering system

The collection of patient identification data and the assignment of a medical record number or verification of an existing medical record number should be the first step in every admission procedure. In the system we are discussing, that is, WHERE THE PATIENT HAS ONE MEDICAL RECORD AND ALL ADMISSIONS ARE FILED IN THE ONE FOLDER the patient is given a medical record number at the time of the first attendance at the hospital. This number is then used during the current admission and in the future to identify that patient and his or her medical record.

- ❖ The term used for this number varies from hospital to hospital and country to country and can be referred to as the HOSPITAL NUMBER, PATIENT IDENTIFICATION NUMBER, UNIT RECORD NUMBER or MEDICAL RECORD NUMBER. We will call it the **MEDICAL RECORD NUMBER (MRN).**

- ❖ The MEDICAL RECORD NUMBER is a permanent identification number assigned in STRAIGHT NUMERICAL SEQUENCE by the admission staff and recorded on all medical record forms relating to that particular patient. An important point is that THIS NUMBER IS THEN USED TO FILE THE MEDICAL RECORD. So you see how important it is to make sure that the number is correctly assigned and recorded on all forms in the patient's medical record.

We should note at this time that **MEDICAL RECORD NUMBERING SYSTEMS** are HOW WE GIVE A NUMBER to medical records. **FILING SYSTEMS** are HOW WE FILE THE RECORD after a number has been given.

4.2.1 Procedure for issuing medical record numbers

- The medical record number should be issued in straight numerical order from the NUMBER REGISTER commencing with the number 1. For example, if the last number given to a patient were 342 the number issued to the next patient would be 343 and the next 344 and so on.

- If the patient has been an inpatient previously the admission clerk must look for and find the old number in the MASTER PATIENT INDEX (See BASIC MEDICAL RECORD PROCEDURES). If the patient has not been an inpatient previously the next number in the NUMBER REGISTER is allocated.

- Once a patient has been identified and the next unused number in the number register has been given to that patient this number is how the patient and his or her medical record will be identified for this admission and in the future. That is, this number should belong to the patient for the rest of their life, and should never be given to another patient. If a patient has died, the number should NOT be given to another patient.

- If an error has occurred and a patient is found to have two medical record numbers and subsequently two medical records the DUPLICATE number should be cancelled and the medical records combined under the FIRST number. As discussed under the Master Patient Index a cross-reference must be made to the duplicated number and medical record.

REMEMBER:

ONE PATIENT → ONE MEDICAL RECORD NUMBER = ONE MEDICAL RECORD

4.3 Number register

As mentioned above medical record numbers are issued from the NUMBER REGISTER. It is the origin of the patient identification numbering system and is a numerical list of numbers issued to patients. That is it is a book of numbers in numerical order. This method of issuing numbers is simple, easy to assign and easy to control.

- A NUMBER REGISTER could be a bound book or a loose-leaf book where the sheets are bound at the end of each year to prevent loss.

- The use of a NUMBER REGISTER is important for patient identification NUMBER CONTROL. As a number is issued the name of the patient is immediately entered beside that number. The date of issue is also recorded along with the place of issue.

For example:

Number	Name	Date	Where issued
342	Lee, Joseph	12.01.2001	Admission Office
343	Wong, Grace	12.01.2001	Admission Office
344	Pearson, Joseph	13. 01.2001	Admission Office
345	Reilly, Susan Jane	13.01.2001	Admission Office
346	Roberts, John	14.01.2001	Emergency Room
347	Chong Agnes	14.01.2001	MRD

- Numbers SHOULD NOT be pre-assigned. That is, a MRN should be given to a patient when he or she come to the hospital for the first time and NOT before.

- In some hospitals/countries the MRD takes full responsibility for issuing medical record numbers and other departments must call the MRD for a new number.

- The NUMBER REGISTER should be routinely monitored for accuracy and completion.

4.4 More important points about patient numbering

Some countries use a pre-existing number to identify the patient and the medical record. Such as an Identification Card number, which is also used to file the medical record. **THIS IS NOT RECOMMENDED**.

❖ The Identification Card Number or National Identification Number should be used as a unique identifier **BUT NOT TO FILE THE MEDICAL RECORD**. As mentioned previously a medical record number should be issued on the first attendance and retained for future admissions or attendance at the hospital or clinic.

The way a number is presented can also add to the efficiency of the system. For example, when the numbers reach four or six digits such as 12345 the number could be written as 1-23-45. Many hospitals start with a six-digit number by adding a series of "0's". For example the number 1 could be shown as 00-00-01. Clerical staff often find it easier to remember numbers when they are broken down into sets of two.

4.5 Admission register

At the time of admission a patient may already have a medical record number and a medical record and a new number is **NOT** issued. The hospital, however, needs to keep a daily list of **ALL** admissions. ALL patients admitted, whether admitted for the first time or the 2nd, 3rd, or 4th time, are listed in the **ADMISSION REGISTER**. From this register a daily list of **ALL** admissions is made.

The admission register is kept in the Admission Office and as mentioned above is a list of all admissions to the hospital/health care centre in date order. In some countries the discharge date is also included in the admission register. It is better to have one register, which has all admission and discharge details in the one place. In this case a separate discharge register is NOT required.

DO NOT CONFUSE THE ADMISSION REGISTER WITH THE NUMBER REGISTER

4.5.1 Contents of the admission register

- Family name and given name;
- Reason for admission (presenting disease/illness);
- Date of admission;
- Date of discharge;*
- Discharge alive/dead;*
- Other details may include doctor's name, sex, date of birth/age, ward, etc.

*Include date of discharge and alive/dead if admission and discharge register are combined.

4.5.2 Link between MRD and Admission Office

All the above are usually undertaken in the Admissions Office and ideally there should be a formal link between the MRD and the admission office if they are separate. The admission clerk must be able to access the information about a patient's previous admission and this is done through the **master patient index**, which is kept in the Medical Record Department.

- As a general principle the MRO should be responsible for the numbering system used for patient identification as it is also used for filing the medical record.

- If numbers are issued from the Admission Office, Emergency Department or Outpatient Department the medical record officer relies on the clerks from those offices to maintain a correct and efficient medical record numbering system.

REMEMBER:

YOU MUST NOT MISTAKE THE NUMBER REGISTER WITH THE ADMISSION REGISTER.

- The NUMBER REGISTER is where a number is given to each patient on his or her first admission to the hospital to IDENTIFY THE PATIENT and to IDENTIFY HIS or HER MEDICAL RECORD and to FILE THE MEDICAL RECORD.

- The ADMISSION REGISTER is a register listing ALL admissions. That is, re-admissions as well as new admissions. The ADMISSION REGISTER is used to produce the admission statistics.

Are medical record numbers given to patients in your hospital?

_____

If yes, how are they allocated and what are they called?

_____

Is a number register kept?

_____

If yes, where is the number register kept?

_____

If no, how is a patient's medical record identified?

_____

Does your hospital maintain an admission register?

_____

If no, how do you know the daily number of admissions?

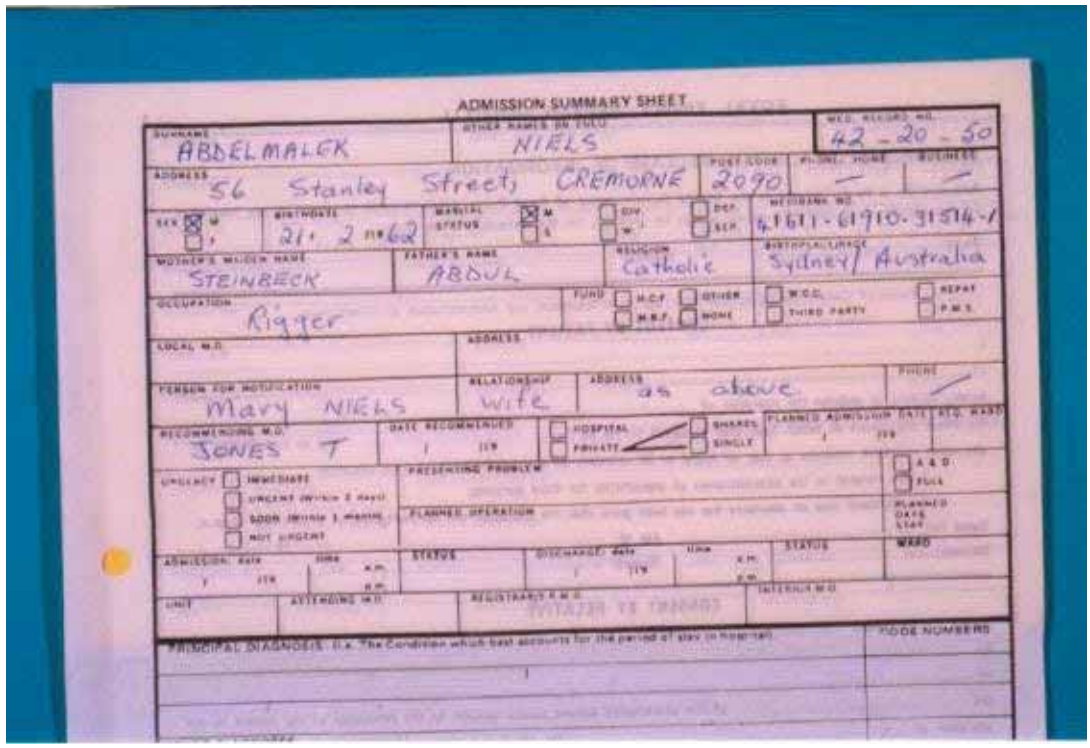
_____

4.6 Daily admission list

The Admission Office usually prepares a DAILY ADMISSION LIST containing the patient's full name; patient's medical record number; and the ward where the patient has been sent. A copy of the ADMISSION LIST is sent to the Medical Record Department to check that a MPI card has been made for all new patients. This is why it is best that the MRD staff controls the NUMBER REGISTER. A copy of this list is also sent to the Accounts Office and Inquiry desk.

4.7 Front sheet

As mentioned previously, identification data are collected and recorded on a FRONT SHEET, which is the first form in the medical record. The information is also recorded on an ADMISSION CARD. In some countries this task can be performed at the same time using carbon paper to save duplication and subsequent errors. The FRONT SHEET goes with the patient to the ward (with the old medical record, if any) and the admission card is sent to the Medical Record Department to enable the preparation of the **master patient index card.** The business/accounts office where the patient's accounts are prepared may also require this information and the ADMISSION CARD may be sent there first for processing before being sent to the MRD.



1.11 The top section of a front sheet

Sample identification forms:

THE TOP SECTION OF THE FRONT SHEET CONTAINS DETAILS ABOUT THE PATIENT (THIS IS THE SECTION WHICH IS USED FOR THE ADMISSION CARD)

Family name and first name
Home address
Sex
Unique patient identifier
Source of referral
Medical record number
Date of birth (and age)
Insurance/finance details

THE BOTTOM SECTION OF THE FRONT SHEET CONTAINS CLINICAL DETAILS ABOUT THE PATIENT, DOCUMENTED BY A DOCTOR WHEN THE PATIENT IS DISCHARGED

Principal diagnosis ……ICD code

Other diagnoses ……ICD code

Procedures performed ……ICPM code

External cause of injury ……ICD code

Discharged alive/dead……..

Attending doctor's signature……

5. DEVELOPMENT OF PROCEDURES

As previously mentioned there are a number of essential medical record procedures, which need to be undertaken to ensure an effective and efficient medical record service. Before proceeding to discuss specific medical record procedures we should take a look at HOW TO DEVELOP A PROCEDURE and the steps required.

Procedures are a series of related steps designed to complete a specific task. Procedures are developed for repetitive work in order to define the task to be performed, to achieve uniformity of practice, and to assist with training staff[4]. In most countries the medical record officer is responsible for developing the departments procedures and keeping them up-to-date.

5.1 Writing procedures

Steps to be taken when developing a procedure include[4]:

- Determine the minimum number of steps needed for carrying out the procedure.
- Decide on the best sequence for the performance of these steps. Similar or closely related steps to each other should be grouped together.
- Review steps within the planned procedure that might be affected by changes in other procedures.
- Test the procedure before putting it into everyday use and try to discover any problems.
- Review and evaluate the procedure after it has been used for several weeks.

All procedures should be in writing, describing each of the stages in step-by-step detail. Correctly completed samples should be included when appropriate. Employees should be given a written copy of the procedure for which they are responsible. A copy of all procedures should be filed in a PROCEDURE MANUAL. A PROCEDURE MANUAL is a detailed list of all procedures kept in a loose-leaf binder for easy up dating and reference. All procedures should be reviewed against actual performance on a regular basis[4].

Do you have a list of medical record department procedures?

_____

If yes, what are the procedures?

_____

Are they up-to-date? If yes, who keeps them up-to-date?

_____

Do your staff refer to the written procedure manual?

_____

6. BASIC MEDICAL RECORD PROCEDURES

The five essential procedures required of Medical Record Department staff, which we will discuss in this section, include:

- master patient index;
- discharge procedure;
- coding discharges;
- filing procedure; and
- collection of inpatient statistics.

6.1 Master patient index (MPI)

The first procedure we will look at is the development and maintenance of the **master patient index (MPI), also called the patients' master index (PMI).** This is one of the most important procedures in the Medical Record Department as errors at this stage could completely undermine the efficiency and effectiveness of the department.

During the admission of a patient the staff member in the Medical Record Department responsible for patient identification and the **MPI** is required to check to see if the patient has been an inpatient or outpatient (if medical records are combined) previously and has a medical record number. This is usually done by:

- A telephone inquiry about a patient from the admission clerk to the MRD where the **master patient index (which is kept in the MRD)** is checked to see if the patient has been in hospital previously and already has a MRN.

- If the answer is yes, the number is given to the admission clerk to record on the FRONT SHEET of the patient's medical record.

- If no, the admission clerk assigns the next unused number from the NUMBER REGISTER.

We have seen how a patient is identified and how a medical record number is assigned. The patient is sent to the ward with the FRONT SHEET and that is the beginning of the medical record. At the end of each day there must be a procedure to ensure that notification of the admission is sent to the Medical Record Department for the next important step to be taken.

This next step in the patient identification process is the preparation of the **master patient index card**.

❖ How do we find a patient's medical record again?

THE KEY IS THE MASTER PATIENT INDEX

6.1.1 Master patient index card

- The MPI card is prepared by the medical record staff responsible for the admission procedure in the Medical Record Department and is the key to locating the medical record. In manual systems it is a card index. It can also be computerised.

- The MPI card contains only information of an identifying nature necessary to identify the patient and locate that patient's medical record[5]. It **SHOULD NOT CONTAIN ANY MEDICAL INFORMATION**.

❖ Information should include:

- The patient's full name - family name and given names;
- The patient's full address;
- The hospital's identification number - that is, the medical record number;
- Patient's date of birth and sex; and
- The patient's mother's maiden name and/or other unique patient characteristic.

REMEMBER:

THE PATIENT'S AGE IS NOT RECORDED ON THE MPI CARD AS THE PATIENT'S AGE CHANGES

❖ All information must be written carefully and legibly with the patient's name in CAPITAL LETTERS**.** Cards can be either hand-written or typed**.**

MPI card (basic outline):

Full name: Family name first	Medical Record Number
Home Address/village	Date of Birth: Sex:
Unique Patient Characteristic 1	Unique Patient Characteristic 2
Unique Patient Characteristic 3	Unique Patient Characteristic 4

MPI card (example):

WELLIN MARY	12-34-56
14 Lakeside Drive Lakemba NSW 2246	Date of Birth: 17-10-58 Sex: Female
Mother's maiden name: STEWART	National Identification number: 9456 6543
Father's name: John Wellin	Health Insurance Number: 345123W

❖ As shown in the following example some countries record admission and discharge dates on the MPI card (on both sides if necessary).

MPI card (including admission details):

WELLIN	MARY	12-34-56
14 Lakeside Drive Lakemba NSW 2246		Date of Birth: 17-10-58 Sex: Female
Mother's maiden name: STEWART **Admission**	National identification no. 34 9456 6543 **Discharge**	Health insurance no. 345123W
15/1/1997	18/1/1997	
19/5/1999	22/5/1999	
2/11/1999	12/11/1999	

ALL MPI CARDS MUST BE FILED IMMEDIATELY THEY ARE WRITTEN OR TYPED

THERE SHOULD BE NO EXCEPTIONS TO THIS RULE

6.1.2 Important points about the MPI cards

- MPI cards should be 7.5 x 12.5 cm (ruled or plain).
- There should be a separate card for each patient.
- MPI cards should be filed in a card drawer in strict alphabetical order. It is best if the card drawer is part of a cabinet. MPI card drawers can be made of wood or metal, and should be no longer than 50 cm.
- It is important that the drawers are not too full. If they are too full, it is difficult to find or file a card, making errors possible.
- The order of names used in the local telephone book should be used as a guide in determining the order of names in the MPI.

6.1.3 Guidelines for alphabetical filing of MPI cards [5]

- Place family name first, then given name followed by the middle name or initial and file in **STRICT ALPHABETICAL ORDER**. That is, arrange in alphabetical order like words in a dictionary - letter by letter of family name followed by first name then middle name or initial.
- If there is more than one patient with the same surname and given name the middle initial is then used and the cards are filed in alphabetical order by first initial of the second given name. If there is no middle name or initial the cards should be filed by date of birth, filing the oldest first.

- If unsure you should follow the guidelines used in your country for entries in the telephone directory. For example normally in telephone directories a person with the name St. John would be filed as S-A-I-N-T J-O-H-N.

- If names are hyphenated such as Chrichton-Brown they are filed in alphabetical order letter by letter e.g. CHRICHTONBROWN.

- Names with religious titles such as Father, Sister, Reverend etc. are filed under the patient's family name - the title is NOT used. For example, Sister Mary Agnes Brown would be filed under BROWN, Mary Agnes.

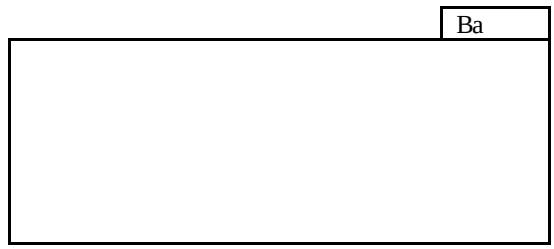
- As a general rule, nothing comes before something. For example M. Agnes Brown would come before Mary Agnes Brown; J. Jones would come before John Jones; A. Lee would come before Ann Lee; and Ann Lee would come before Anna Lee.

6.1.4 Guidelines for the MPI

- There should be sufficient guides placed in the index to ensure speedy reference. As a general rule, a guide should be used every 10 cm.

- Each drawer should contain a minimum of 10 guides. Guides are used to show sub-sections within a drawer. Guides are cards with a tab protruding above the other cards.

For example:



- Guidelines in the B section or drawer may be used for names starting with the following:

Ba	Bo
Be	Bu
Bi	By

I.12 A master patient index

6.1.5 Cross-reference or see also cards in the MPI

- If a patient's name has changed since a previous admission a CROSS-REFERENCE card should be made to the former name[5]. For example, if Ellen Marie Smith was admitted and she had been in hospital before under a different name e.g. Ellen Marie Jones, a cross-reference should be made to her previous admission as Ellen Marie Jones. The information recorded on her original card is checked and entered on the new card and the original card is cross-referenced to the new card under Ellen Marie Smith.

  For example: JONES, Mary Ellen - See - SMITH Mary Ellen

- When looking for a patient's previous MPI card the clerk should remember that there can be different spellings of patients' names. A search must be made under every possible spelling of the name. For example there are many ways of spelling Jeffrey. They include Jeffries, Geofrey, Geoffrey, and so on. In such an instance a SEE ALSO card should be used to indicate the different spelling. Again the telephone directory is a good guide.

What similar names in your country have different spelling?

_____

REMEMBER:

IF THE CORRECT CARD IS NOT LOCATED THIS COULD CAUSE A MAJOR PROBLEM AS THE WRONG RECORD COULD BE USED BY MISTAKE, THEREFORE CAREFUL CHECKING IS ESSENTIAL.

6.2 Discharge procedure

The next procedure we will look at is the discharge procedure, which is also extremely important. Medical record staff responsible for this procedure should be trained to ensure that the medical records are completed promptly and correctly.

6.2.1 Receipt of medical records

The discharge procedure begins with the receipt of the medical records of discharged/died patients.

- The medical records of discharged patients or patient's who have died, should be sent to the Medical Record Department by the ward staff the day of discharge or death or the next morning. In some countries, a staff member from the Medical Record Department collects the medical records of discharged/died patients from the wards at a specific time every day. This is time-consuming for the MRD staff and a central collection point should be designated. If this is done the ward staff can take all medical records of discharged/died patients to this point by a certain time each day where they are collected by the MRD staff.

- In many countries Admission Office staff or the Business Office are responsible for the daily bed census, which they receive from each ward at the beginning of the day. From the bed census forms staff are able to record details of discharges and deaths and prepare a DAILY DISCHARGE LIST. This list is extremely important and should be duplicated and sent to a number of sections in the hospital including the Accounts, Catering, Inquiries and the Medical Record Department.

- Discharge lists should be kept in date order in the Medical Record Department. The list should contain the patient's name, age, treating doctor, ward, and service, that is, whether medical, surgical, obstetric, orthopaedic, etc and whether the patient is alive or dead. Discharge lists are usually used to prepare the hospital inpatient statistics.

- By using the discharge list the staff responsible for the discharge procedure in the Medical Record Department can check to see if they have all the medical records of discharged/died patients from the previous day. If any are missing they should contact the ward to find them. Once a patient has been discharged the medical record should be returned promptly to the Medical Record Department. Failure to do so may result in a missing medical record. Once the patient is no longer in the ward their medical record can easily be misplaced.

Do you receive a daily discharge list?

_____

If yes, do you use it to check that all medical records of discharged or died patients have been received?

_____

If no, how do you check that you have received all the medical records of discharged patients?

_____

6.2.2 Death register

Some hospitals maintain a death register, which is a list in date order of all inpatients that died in the hospital/health care centre. The death register **DOES NOT INCLUDE** persons who are **DEAD ON ARRIVAL (DOA)** at the hospital as they are not formally admitted, it also does not include patients who die in outpatients or emergency. The death register ONLY includes inpatients that die during their stay in a hospital or other health care facility.

❖ Contents of the death register include the patient's*:*

- Family name and given name;
- Age and sex;
- Home address;
- Treating doctor and ward; and
- Underlying cause of death as recorded by the attending doctor on the death certificate (see definitions in COLLECTION OF INPATIENT STATISTICS).

6.2.3 Medical record completion procedure

- The discharge clerk in the Medical Record Department checks each medical record to ensure that all the forms are in the record. For example, if the patient has had an operation an operation report should be in the record. In addition all progress notes, pathology and x-ray forms, nursing notes etc. should be included. There should also be a final discharge note made by the attending doctor indicating to where the patient has been discharged and arrangements for follow-up.

- The clerk then sorts the forms into the correct order (if they are not already correctly sorted - see ORDER OF FORMS). In the case of a new patient the forms are attached to a medical record folder with a clip or fastener and the patient's name and MRN clearly written in the correct place on the folder. If the patient has been in hospital before the old records are retrieved and the latest admission forms are added by placing them behind the appropriate admission divider.

- The clerk also needs to check if the doctor has completed the lower part of the FRONT SHEET. That is, the principal diagnosis has been recorded along with any other condition treated while in hospital. The PRINCIPAL DIAGNOSIS is defined as "the diagnosis established after study to be chiefly responsible for occasioning the patient's episode of care in hospital (or attendance at the health care facility)"[6]. This definition varies from country to country and it is important that you know the definition used in your country.

- In addition, the discharge clerk needs to check if an operation or other surgical procedures, which were performed, have been recorded, and the doctor has signed the FRONT SHEET. The signature of the doctor is important as it shows that the doctor has completed the medical record and takes responsibility for the content.

- In some hospitals/countries a discharge summary is required, if this is the case in your hospital, and there is no discharge summary, the medical record should be assigned to the doctor to write one.

❖ Discharge summary

A discharge summary is a summary of the patient's stay in hospital written by the attending doctor. The minimum detail provided in a discharge summary is:

- Patient identification
- Reason for admission
- Examinations & findings
- Treatment while in hospital
- Proposed follow up

A discharge summary may be written on a pre-printed form or on plain paper and typed or word-processed in the Medical Record Department. In many countries the attending doctor writes a discharge summary in duplicate when the patient is discharged. The original is kept in the medical record and the copy given to the patient to take to their local doctor to enable continuing care.

The medical record should remain in the Medical Record Department and the doctor asked to come to the department to complete the FRONT SHEET and write a discharge summary (if required).

REMEMBER:

MEDICAL RECORDS SHOULD NOT BE LEFT IN THE WARD FOR COMPLETION AS THEY COULD BE MISPLACED ONCE THE PATIENT HAS BEEN DISCHARGED

When the medical record has been completed by the doctor the staff member responsible for coding should code the diseases/injuries/operations listed on the FRONT SHEET of he medical record (see CODING DISCHARGES).

If the medical record officer is responsible for the collection of health care statistics they should be collected as soon as the medical record is completed. This should be done in the format required by your hospital. Hospitals and health authorities usually require details relating to the principal diagnosis, sex and age of patient plus the outcome, alive or dead.

I.13 Clerical staff working on the discharge procedure

6.3 Coding discharges

Coding is an important procedure and only trained staff should do the coding. That is, staff responsible for coding should be formally trained by attending coding courses offered at a local or regional level.

At present the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) (or an adaptation) is used in many countries to code diseases, injuries, and external causes of injuries. Prior to 2000 ICD-9 or ICD-9-CM was used in most countries. Surgical procedures are also coded using the International Classification of Procedures in Medicine (ICPM) or the classification system currently being used in each country.

6.3.1 Coding procedure

As mentioned coding is an important procedure. Data collected at this time will give the hospital and government authorities (e.g. Ministry of Health) information required to not only review the services of all hospitals under their control, but also to plan for the future. In addition it enables the government to collect data on the health status of the community and provide detailed national health statistics. In some countries the Ministry of Health determines whether they require hospitals to supply information only on the principal diagnosis or on all diagnoses treated. You need to be aware of what is required in your country.

- ❖ A decision is also made in each country whether to code using either 3 digit or 4 digit codes from ICD-10. This decision should be made by a health statistician or epidemiologist in consultation with the Ministry/Department of Health, and will be based on the level of specificity needed. Again you need to know what is required in your country.

- ❖ Before proceeding to code the MRO should check the medical record to ensure all forms are present and the doctor has completed the record. That is, the principal diagnosis has been recorded on the FRONT SHEET and the doctor has signed. The MRO should proceed to code using ICD-10 or the system used in your country if different.

    - If the government has determined that only the principal diagnosis is to be coded the MRO should find the code number for the principal diagnosis and record it on the FRONT SHEET in the correct place.

REMEMBER:

THE DEFINITION OF PRINCIPAL DIAGNOSIS VARIES FROM COUNTRY TO COUNTRY AND YOU SHOULD CHECK TO ENSURE YOU ARE USING THE CORRECT DEFINITION

- If all diagnoses/injuries are to be coded the MRO follows the same procedure.

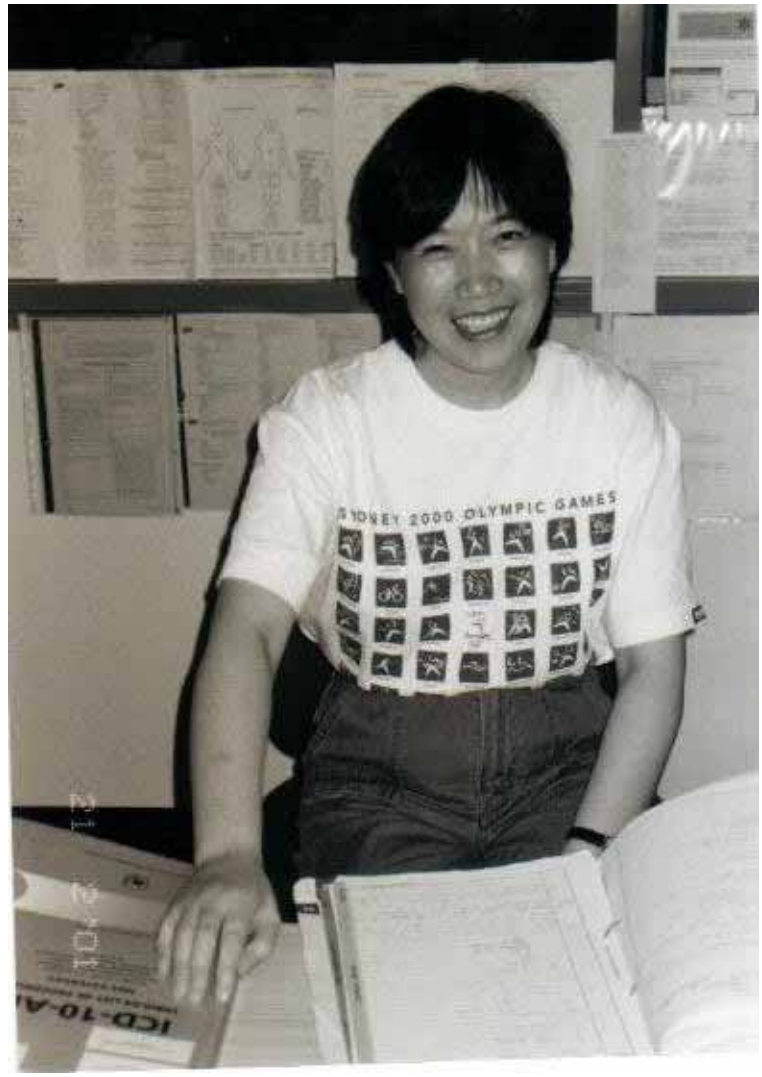
- A country may decide not to code the external causes of injuries. You need to know if this is the case and code accordingly.

- As mentioned if surgical procedures are to be coded the International Classification of Procedures in Medicine (ICPM) is often used but some countries now have a local procedure classification. If this is the case in your country you should use the local system.

- To make sure that all discharges are coded the names on the discharge list are ticked when coding if finished. For any names that are not ticked at the end of the month the medical record for that patient should be located and coded.

- When the medical record has been coded the statistical data required by your hospital/Ministry of Health should be collected. Usually data relating to the principal diagnosis on all discharged/died patients is required and recorded in a monthly statistical analysis report or format prescribed by the hospital/Ministry.

- When complete the medical record should be filed by the medical record number in its correct place on file in the Medical Record Department filing area.



1.14 A medical record officer coding a medical record

6.3.2 Collection of coded data on health

❖ Why code medical records?

Medical records are coded to enable the retrieval of information on diseases and injuries. In most countries coded data are used to collect statistics on the types and incidence of diseases and injuries. This information is used at a national level for planning health care facilities; for determining the number of health care personnel required; and for educating the population on health risks within their country. It is used at an international level to compare health status of countries in a region or globally.

How are data relating to the principal diagnosis collected in your country?

_____

Do you code medical records using icd 10?

_____

If not, what coding book do you use if any?

_____

Do you code operatios/procedures?

_____

If yes, what coding book do you use?

_____

If you code how is the coded information used and by whom?

_____

6.3.3 Disease and operation index

In some countries data are also collected at hospital and State/Province level for medical research. This is done by hospitals developing and maintaining a Disease and Operation Index.

- A DISEASE INDEX lists diseases, conditions and injuries by the specific code number for each disease, condition or injury according to the coding system used in a hospital[7].

- AN OPERATION INDEX lists operations and procedures performed in a hospital by the specific code number for each operation or procedure[7].Both are simple indexes usually maintained by the code number of the disease, injury, or operation on a card system (except when computerised).

❖ Procedure

- Each patient's medical record number is listed on the correct disease index card. For example: using ICD 10 the MRN of patients with a principal diagnosis of acute perforated appendicitis would be listed on a card headed K35.0 (Acute Appendicitis with perforation). Also included on the card would be the name of the treating doctor, service under which the patient was treated (medical, surgical, orthopaedic etc.) age and sex of the patient, and end results of treatment (alive or died).

- To enable health personnel undertaking research to find the medical records of all persons with a particular disease, such as acute appendicitis with perforation, or an injury or who have had a particular operation, the cards are filed by code number for that particular disease, injury, operation etc.

❖ Decisions to set up a disease index should be based on:

- How often and for what purpose the information is required?
- Who needs the information?
- Who will use it?

❖ Disease index information could be used[7]:

- For review of previous cases with a particular disease;
- For research into a particular disease or to write a scientific paper;

- To obtain information on the use of the hospital's facilities;
- For the evaluation of the quality of health care;
- To conduct epidemiological and infection-control studies;
- To provide educational material for health professional students and for medical staff meetings.

Does anyone use medical records for research in your hospital?

_____

If yes, do you have a disease index?

_____

If no, how do you locate the medical records for a specific disease?

_____

How are coded data used in your hospital?

_____

6.4 Filing procedure

Before proceeding to look at the filing procedure we should take time to consider where the medical records will be filed. It is important that careful planning be given to the filing area for medical records.

6.4.1 Medical record file area

It is most important that plenty of space is available for filing medical records, and that the file area is clean, tidy and has good light. The file area should have desks for the medical record clerks to sort medical records and make out tracers; and space for records awaiting filing, and awaiting completion.

❖ How much space is needed?

It is easy to calculate the amount of space required for medical record files:

- Measure one full shelf;
- Count the number of files on the shelf;
- Calculate the number of files per linear metre;
- Count the number of new files created last year;
- Calculate the number of linear metres required per year;
- You can then calculate the number of linear metres required for 1, 5 or 10 years.

❖ It is important to note that in many developing countries, where medical records tend to be a health record from birth to death, a lot of space will be required to store medical records.

❖ Filing shelves/cabinets

- Filing shelves should be used NOT filing cabinets.
- Wood filing shelves are very good, and can be built by the hospital carpenter. Metal filing shelves are also very good, EXCEPT in coastal/damp areas because of rust problems. Metal filing shelves have to be purchased and can be expensive.
- Compactus filing shelves should NOT be used to file active medical records. but can be used in the secondary (inactive) file room. An ACTIVE medical record is one that is still being actively used for patient care. An INACTIVE medical record is one where the patient has not attended the hospital for a specific number of years.
- Enough space should be left between the filing shelves, the general standard is 900mm, to allow space for a trolley and a person to walk between the shelves to file and retrieve records.
- Filing shelves should be no higher than the average person can reach and steps should be made available for access to the top shelf. Records should NOT be filed on the bottom shelf.
- A 'bay' is a bank of filing shelves and filing bays should be no longer than 60 cm. If filing bays are longer than 60 cm, upright file supports should be available to keep the medical records standing upright.
- Medical record folders and the filing shelves should be designed to enable the records to be filed lying on their spines so that the MRN is clearly visible for ease of retrieval and filing;
- Each filing bay should be labelled with the medical record numbers of the medical records filed in that filing bay; and
- Each filing shelf should be labelled with the range of numbers of medical records filed on that particular shelf. Number guides should be placed at regular intervals.

❖ Lighting

- Before setting up the filing shelves, check the position of the lights. It is best to use long fluorescent lights, which run in between filing shelves giving light into each section.

I.15 A bay of filing shelves

❖ Security

- There should be procedures to protect medical records from fire, water damage, pest damage, and unauthorised access;
- The file room should have a lock on all doors;
- Access should be restricted to the medical record clerks/officers, and to clinical staff out of hours;
- There should be one open entrance to the medical record file room and a fire exit;
- There should be a strict no smoking policy in the file room;
- There should be fire equipment and written procedures on what to do in case of fire in the file room;
- There should be regular pest control in the file room.

6.4.2 Filing - systems and methods

As mentioned previously there are two types of medical record systems. A DECENTRALISED MEDICAL RECORD SYSTEM and CENTRALISED MEDICAL RECORD SYSTEM.

❖ Under a DECENTRALISED MEDICAL RECORD SYSTEM inpatient and outpatient departments have their own individual medical record and file them independently. Inpatient medical records are filed in the Medical Record Department and outpatient medical records are filed in the Outpatient Department. There is usually NO connection between the services. If a patient has two medical records they are NOT combined. As discussed earlier this system is not recommended as all data concerning a patient are not instantly available at all times.

❖ Under a CENTRALISED MEDICAL RECORD SYSTEM all medical records about a patient, whether inpatient or outpatient, are filed together in the one folder and kept in the Medical Record Department. That is, a patient has one medical record regardless of the number of times he or she has been admitted or attended the Outpatient Department. To illustrate - John Lee is admitted to hospital for the first time and is issued the medical record number 34567. He keeps this number for future admissions and attendances. All medical information about John Lee is kept in one record and filed by his MRN 34567 in the Medical Record Department. The number assigned identifies him in any department of the hospital in which he may be treated. That is, the record of this patient's medical care is continuous with all data concerning the patient immediately available at all times.

Medical record departments in most countries today use a CENTRALISED MEDICAL RECORD SYSTEM where the MEDICAL RECORD NUMBER is allocated at the first admission or attendance of a patient to hospital and is used for all subsequent admissions or attendances.

The above describes the types of systems used for keeping medical records. We should now look at HOW MEDICAL RECORDS ARE FILED. Filing is one of the most important procedures in a Medical Record Department. If medical records are not correctly filed the record may not be found when needed.

Whether using a centralised or decentralised medical record system there are three types of filing methods used in hospitals.

- alphabetical filing
- straight numeric filing, and
- terminal digit filing.

As medical records should NOT be filed alphabetically we will discuss the other two.

REMEMBER:

MEDICAL RECORDS SHOULD NOT BE FILED IN ALPHABETICAL ORDER

6.4.3 Straight numeric filing

The best filing method for developing countries is STRAIGHT NUMERIC FILING. In this method medical records are filed in strict number order according to the medical record number starting with the lowest number and ending with the highest number. For example: 542 is followed by 543 which is followed by 544 and so on.

New medical records are always added at the end of the number series, concentrating most of the filing activity in one area of the file. With this method of filing the training time for staff is short.

IT IS EASY TO TRAIN MEDICAL RECORD STAFF TO FILE IN STRAIGHT NUMERIC ORDER

With straight numeric filing it is a good idea to have one medical record clerk responsible for the filing procedure (depending on the volume of work). If it is too much filing for one person it could be shared between the medical record clerks. They should file at different times of the day to prevent congestion in the filing area.

Examples of straight numeric filing:

345	7650	91234	105997	234879
346	7651	91235	105998	234880
347	7652	91236	105999	234881
348	7653	91237	106000	234882
349	7654	91238	106001	234883
350	7655	91239	106002	234884

6.4.4 Terminal digit filing

A filing method used in many developed countries in Medical Record Departments with a large volume of medical records is TERMINAL DIGIT FILING. This method is **NOT RECOMMENDED** in countries where the number of records is small. It is also **NOT RECOMMENDED** when clerks are not trained in its implementation and use. Incorrect implementation could cause problems and confidence in the staff of the MRD will be affected. It is mentioned here for your interest in case you have heard about it.

- Terminal digit filing is a simple and accurate filing method that makes it easier for clerks to file. They may also file faster and sometimes more accurately[9]. This method of filing is designed for large acute care facilities, and is not appropriate for medical record systems in small developing countries where the volume of medical records to be filed is low.

- Terminal digit filing is used to spread medical records evenly throughout the filing room. It is used in facilities where the volume of medical records is large and enables the distribution of work between a number of clerical staff[9].

❖ For your interest the following is a brief description of Terminal Digit Filing[9].

- In this method numbers are allocated in the same way as for straight numeric filing. The difference is **HOW** they are filed. A six-digit number is generally used and divided into three parts e.g. the number 345678 is divided as 34-56-78 with each part containing two numbers. The last two numbers on the right-hand side (78) are called the PRIMARY DIGITS, (that is, the first two digits considered when filing). The middle two digits (56) are called the SECONDARY DIGITS, (the second set of digits to be considered when filing); and the two digits on the left-hand (34) are the TERTIARY DIGITS the third and last set of digits to be considered when filing.

34	56	78
Tertiary	Secondary	Primary

- With this method the filing area can be divided into 100 sections for the primary digits 00 - 99. This then allows the filing to be distributed among a number of clerical staff.

- Within each primary section medical records are grouped by the secondary digits and again this ranges from 00 - 99.

- Within each secondary section medical records are grouped by the tertiary digits and again this ranges from 00 - 99.

- To file a medical record, after locating the primary and then the secondary section the clerk files the medical records by the tertiary digits. For example, to file the number **34-56-78** the "**78**" primary section needs to be located then the **"56"** secondary section. The record **34-56-78** is then filed before **35-56-78** and after **33-56-78**. A series of numbers would run as follows:

32-56-78
33-56-78
34-56-78
35-56-78

Some hospitals also use a colour code on the folder to assist with identifying the medical record quickly and to improve the efficiency of the filing clerks[9].

I.16 A colour coded terminal digit folder

As mentioned previously this method is **NOT RECOMMENDED** for small hospitals or health care centres and also not in countries where the training of personnel in this method is not available.

❖ A sorter or pre-file system

- Each file room should have a set of shelves for records waiting to be filed - this is usually called a "SORTER".

- Medical records which are returned from outpatient clinics (if the medical records are combined- that is a centralised system is used) or completed after discharge of an inpatient and ready to be filed, should be "sorted" in a manner, which will enable them to be found, if required, while waiting to be filed.

- The shelves should be numbered, perhaps in sections of 10's or 20's and the records placed on the correct numbered shelf while waiting to be filed. This makes it easier to find a record, which is waiting to be filed.

I.17 A sorter in a large Medical Record Department

6.4.5 Removing medical records from file and record control

To ensure proper record control, whenever a medical record is removed from file for any purpose, it should be replaced by a TRACER, which indicates where the medical record has been sent. A tracer is also called an OUTGUIDE in many countries. TRACERS or OUTGUIDES are extremely important as they enable medical records to be TRACED when not on file.

I.18 Removing a medical record and replacing it with a tracer

USING A TRACER SYSTEM IMPROVES THE WORK OF THE MRD AND THE CONTROL OF MEDICAL RECORDS

❖ A tracer is a card, usually the same size or slightly larger than the medical record, on which should be written:

- the patient's name;
- the patient's medical record number;
- where the medical record is going; and
- the date the record was removed from file.

A tracer can be as simple as a blank piece of A4 cardboard where the information is recorded in pencil and on the return of the medical record the information is erased and the tracer used again. Or it can be a printed card with the information recorded in the space provided and crossed out after use. The next section is then used until the tracer is full and then discarded. Using a tracer makes it easier to find a medical record when it is not on file.

I.19 A tracer being removed on the return of a medical record

6.4.6 Important points on filing

Filing is an extremely important procedure within the medical record room. All medical records should be filed as soon as possible when returned to the Medical Record Department or completed following the discharge of the patient.

REMEMBER:

THE BEST WAY TO LOCATE A MEDICAL RECORD WHEN NOT IN USE IS IN ITS CORRECT PLACE ON THE SHELF IN THE MRD

- At the end of every day there should be NO MEDICAL RECORDS WAITING FOR FILING. That is, at the end of every day all completed and returned medical records should be filed.
- Medical records which are too big should be separated into two or more volumes and clearly marked as VOL.I or VOL.2 etc. and filed together in the correct place;
- When filing medical records torn or damaged folders should be replaced and any loose forms secured.

❖ Locating misfiled medical record

Regular checks should be in place to check the file for missing medical records or medical records filed in the wrong place. To check for a misfile the staff should[8]:

- Look for the transposition of digits in a number. For example, 131234 may be filed as 131243 or 121334.
- Look for missing files under similar looking numbers such as "3" under "5" or "8" or vice versa. Or "7" or "8" under "9".
- Check for a certain number such as 584 under 583 or 585 or under a similar combination.
- Check the transpositions of first and last numbers.
- Check the medical record just before and just after the one needed.
- Check the shelf immediately above and below where the record should be filed.

❖ In addition once a month the file room should be checked to ensure that:

- all records are standing straight on the shelves,
- there is no dust on the shelves (including the very top shelves), and
- the floor is clean.

Do you have a centralised or decentralised medical record system?

_____

What filing method do you use - straight numeric or another method?

_____

Do you have a sorter or area to pre-sort medical records?

_____

Is it effective?

_____

Who is responsible for filing - one clerk or all mrd staff?

_____

Do you have a problem with missing files?

_____

If yes, how can it be improved?

_____

6.4.7 Culling medical records

Culling medical records, which have NOT been used for a specified number of years, is the removal of medical records from the active file room. In some countries this is also called "PURGING"[3]. But we will use the term "CULLING".

- If you recall when we discussed the medical record we said that the year of attendance should be on the medical record folder. This is used to indicate whether the medical record is ACTIVE or INACTIVE.

REMEMBER:

AN ACTIVE MEDICAL RECORD IS ONE THAT IS STILL BEING ACTIVELY USED FOR PATIENT CARE. AN INACTIVE MEDICAL RECORD IS ONE WHERE THE PATIENT HAS NOT ATTENDED THE HOSPITAL FOR A SPECIFIC NUMBER OF YEARS

- Each new year a patient attends the year printed on the folder is crossed. For example if a patient attended in 1995 a line is drawn through the number. If he has not been since that date, and the policy states that medical records will be kept in active files for five years, in the year 2000 the file can be culled and removed to secondary storage.

- The date on the outside enables the medical record staff to see when the patient was last at the hospital. This means that they do not have to search through the medical record to find the date of the last attendance.

- The aim of culling is to remove INACTIVE medical records from file to make more filing space.

- There should be a hospital policy stating how long medical records should be kept in the ACTIVE filing area. This is referred to as the RETENTION POLICY (see MEDICAL RECORD POLICIES).

- The medical records that are removed from the file are records of patients who have not been to the hospital within the last 2,5,7, or 10 years depending on the RETENTION POLICY of the hospital/ health authority and/or space available for active filing. The culled records can then be stored in secondary storage or destroyed.

- Culling should be done every year. Either culling is done in the same month each year, or a regular programme of culling is done throughout the year as part of normal duties.

Do you have sufficient filing space?

_____

If no, what is your major problem with regard to filing space?

_____

Do you know how the problem could be solved?

_____

Do you have a policy on retention of medical records?

_____

If yes, how long are medical records kept in active files in your hosptal?

_____

6.5 COLLECTION OF INPATIENT STATISTICS

As medical records are the primary source of data about a patient's stay in hospital the medical record officer is in the best position to collect and prepare statistical data on health care. It is important to note that statistics are only as accurate as the original document from which they are obtained. Therefore, the medical record officer should accept the responsibility for seeing that medical records and other source documents are complete and readily available to meet the requirements for the production of accurate and meaningful statistics[10].

The type and extent of data collected and the use made of that data varies from country to country. The administration of each hospital determines the hospital policy on the collection of statistics relating to the services offered by medical staff and the overall work of the hospital. There must be mutual understanding however of all terms used and the statistics collected must be relevant and must be reliable.

It is important to collect data nationally as health care statistics mean something if they can be compared to statistics from previous years and with other facilities. The government determines what is required on a national level.

On an international level the World Health Organization (WHO) require health care statistics from member nations to get a picture of the incidence of specific diseases within a region and globally.

REMEMBER THAT:

MEANINGFUL COMPARISONS CAN BE MADE AND DIFFERENCES EXPLAINED ONLY IF DEFINITIONS OF ITEMS COMPARED AND COUNTED ARE IDENTICAL

❖ **Inpatient statistics are used for[11]:**

- comparison of present and past performance of the hospital or clinic;
- guide for planning future development of the hospital or clinic;
- appraisal of work performed by the medical, nursing and other staff;
- hospital or clinic funding if sponsored by the government; and
- medical research.

When deciding to collect statistical data or if reviewing existing data collections, the hospital administrator and medical record officer should ask:

- Why are the data being compiled?
- What reports do the administration, medical staff and Ministry of Health need?
- What use is being made or will be made of the information?

It is important that a review of the statistics collected regularly and reports generated should be conducted annually. We sometimes continue to collect data that are no longer used or needed. Therefore regular reviews are important to save unnecessary work.

6.5.1 Statistical definitions

Before progressing further we should look at some statistical definitions. Remember that definitions vary from country to country. To enable you to recognise the terms used in your hospital the following is a list of definitions used in some countries. As mentioned previously it is important that the terms used mean the same to all persons accessing the data. If your country has a different definition for an item, or if the item is known by a different term, change it to the one used by your hospital/country.

❖ **Bed day**

A unit of measure denoting the presence of an inpatient bed (occupied or unoccupied) set-up and staffed for use in one 24-hour period.

❖ **Census (daily inpatient census)**

The daily inpatient census is a count of inpatients at a given time. That is, the number of inpatients present at the census taking time each day, plus any inpatients who were both admitted and discharged after the census taking time the previous day. The census is always taken in a hospital at the same time each day, usually midnight[11.]

❖ **Fetal death**

"Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles[12].

❖ **Inpatient service day**

Also known as patient day, patient service day, occupied bed day, a unit of measure denoting the services received by an inpatient during one 24-hour period[11].

❖ **Length of stay**

The number of days of care rendered to an inpatient from admission to discharge. The duration of an inpatient's hospitalisation is considered to be one day if he is admitted and discharged on the same day and also if he is admitted on one day and discharged the next day. The day of admission should be counted but not the day of discharge[11].

❖ **Live birth**

The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born[12].

❖ **Neonatal death**

The neonatal period commences at birth and ends 28 completed days after birth. Neonatal deaths (deaths among live births during the first 28 completed days of life) may be subdivided into EARLY NEONATAL DEATHS, occurring during the first seven days of life, and LATE NEONATAL DEATHS, occurring after the seventh day but before 28 completed days of life[12]

❖ **Total inpatient service days**

The sum of all inpatient service days for each of the days in the period e.g. for a month or a year[11].

❖ **Underlying cause of death**

The disease or injury which initiated the train of morbid events leading directly to death or the circumstances of the accident or violence which produced the fatal injury[12].

6.5.2 Hospital inpatient monthly/annual statistical collection

As mentioned previously collecting data for no obvious reason is a waste of time and should be avoided. The statistics collected in each hospital should be reviewed regularly to make sure that they are still needed and are still used.

In addition to the **DAILY INPATIENT CENSUS** (also called the DAILY BED CENSUS) statistical information routinely collected on inpatients on a monthly and annual basis include[11].

- total no. of admissions - total hospital and by service, e.g. medical, surgical, etc.;
- total no. of discharges (including deaths) - total hospital and by service;
- total no. of deaths - total hospital and by service;
- total no. of deliveries (obstetric patients);
- total no. of live births;

- total no. of fetal deaths;
- total no. of obstetric patients (discharged including deaths);
- total no. of maternal deaths; and
- total no. of patient days.

The above information is used to calculate patient related rates and percentages. Some rates and percentages collected include:

- average daily census
- average length of stay of discharged patients
- percentage of occupancy of hospital beds
- hospital perinatal death rate
- hospital maternal death rate
- fetal death rate, and
- hospital death rate.

REMEMBER THAT TO CALCULATE THE RATE YOU NEED TO DETERMINE THE:

NUMBER OF TIMES SOMETHING DID HAPPEN AND DIVIDE BY THE NUMBER OF TIMES SOMETHING COULD HAVE HAPPENED

For example the death rate in hospital is calculated by:

❖ **Hospital death rate**

The hospital death rate is the proportion of inpatients who die in hospital. This is usually expressed in a percentage, which is computed as follows[11].

Number of deaths of inpatients in a period X 100
Number of discharges (including deaths) in the same period

Example:

In May there were 21 deaths. A total of 650 patients were discharged (including deaths)

$$\frac{21 \times 100}{650} = 3.23\%$$

The hospital death rate for May was 3.23%. Some hospitals would round the result to 3%.

The majority of inpatient statistics are based on inpatient service days as collected by the daily inpatient census.

- The nurses for each ward collect the inpatient census at midnight and record the data on the daily/midnight census form.
- Each day the census figures are entered into a bed-day book, which is usually kept in the Admission office, which lists the number of patients in each ward each day.
- At the end of the month the patient-related statistics can be calculated.

Bed-day book:

Month:	Ward A	Ward B	Ward C	Total
1				
2				
3				
4				
↓				
28				
29				
30				
31				
Total				

❖ **Daily inpatient census**

- **Inpatient census** = the total number of Inpatients at a given time. The census is calculated by determining the number of patients in hospital at midnight the previous night and adding all admissions for next day and **subtracting** the total discharges/deaths for the same day, This should **equal** the number of remaining inpatients at to the next midnight[11].

Example:

The census taking time is midnight:

Number of patients in hospital at midnight on May 20	140
plus	
Number of patients admitted on May 21	+21
	161
minus	
Patients discharged (including deaths) May 21	−18
Patients in hospital at Midnight May 21	**143**

To obtain the full inpatient census the number of patients admitted and discharged the same day should be added.

Plus patients both admitted and discharged (including deaths) on May 21	+ 2
INPATIENT SERVICE DAYS FOR MAY 21	**145**

6.5.3 How some rates and percentages are calculated:

REMEMBER THAT:

NEWBORNS ARE CALCULATED SEPARATELY AND NOT INCLUDED IN THESE CALCULATIONS

❖ Average daily census

The average number of inpatients present each day for a given time period[11]. This figure is reached by dividing the number of inpatient service days for a period by the number of days n the same period.

Total number of inpatient service days for a period (except newborn)
Total number of days in the same period

Example:

In May there were 4,280 inpatient service days (excluding newborn babies) recorded. May has 31 days. Using the above formula the average daily census is calculated as follows:

$$\frac{4280}{31} = 138.06 \text{ or } 138.1$$

This would be rounded to give the average daily inpatient census during May of 138 patients. That is the average number of patients in hospital each day during May.

❖ Average length of stay of discharged patients

The average length of stay is the average number of days that inpatients (excluding newborn) stayed in hospital[11].

This is calculated by:

Total inpatient service days of discharged (including deaths) patients for a given period
Total number of discharges and deaths in the same period

Example:

In June a hospital discharged 2,086 patients (including deaths, but excluding newborns). Their combined inpatient service days were 13,654 days. Using the above formula the average length of stay of these patients was:

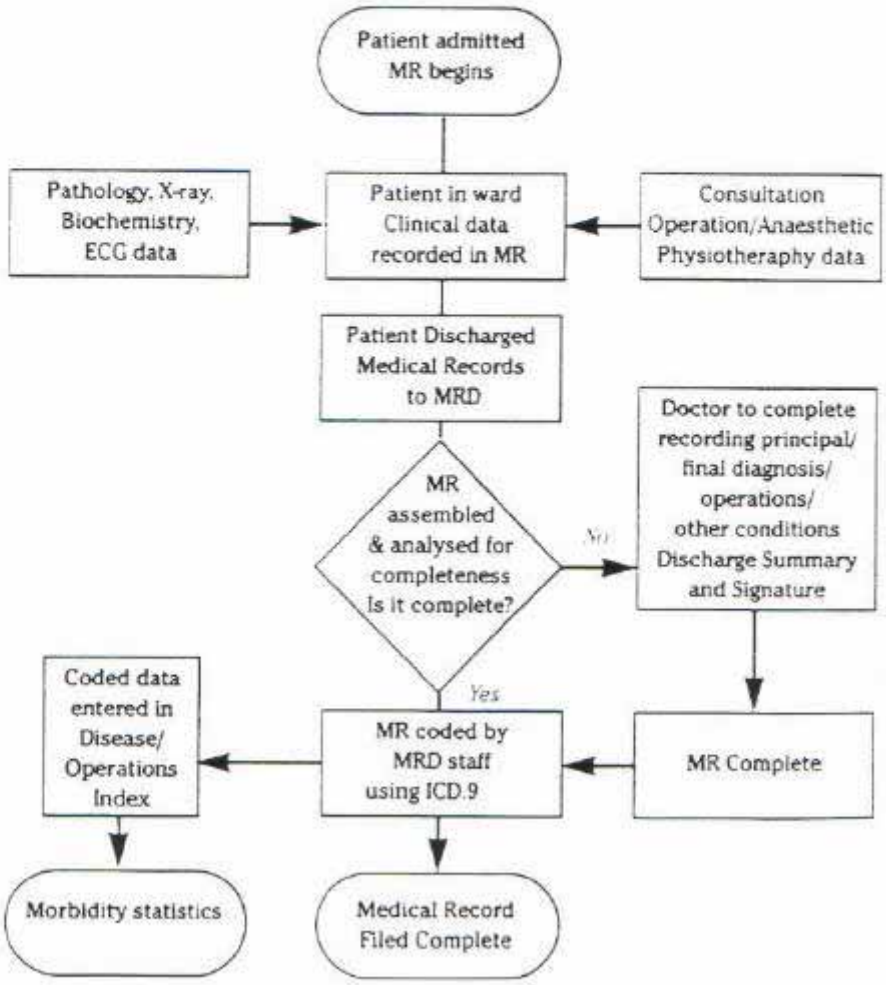
$$\frac{13654}{2086} = 6.54 \text{ or } 6.5 \text{ days}$$

That is, the average stay on inpatients during June was 6.5 days.

The above are just a few examples of rates and percentages generally collected by hospitals. You need to know what is required in your hospital and how they are calculated. If you require further information IFHRO has a Learning Package on Hospital Statistics, and I suggest that you consider contacting the secretary for a copy.

I.20 A medical record officer completing the monthly statistics report

CLINICAL DATA FLOW



I.21 A diagram showing the flow of data from the patient's admission to the return of the medical record to file.

Do you collect the hospital's inpatient statistics

_____

How are they collected?

_____

What use is made of them and by whom?

_____

6.6 Medico-legal issues and procedure for releasing information

As mentioned in section 3.6 medical records are important legal documents. It is essential that they are complete, accurate and available when needed. Notes of the patient's condition on admission and complete findings upon physical examination should be recorded along with the progress of the patient while in hospital. The attending doctor or other health professional must sign all entries at the time of recording the data. It is important for medical record staff to check the medical record on discharge of the patient to ensure its completeness and accuracy. Entries that have been erased and not initialed or signed should be returned to the doctor for his or her signature, as without such a signature the legal value of the medical record will be decreased.

Medical record officers must be familiar with the legal requirements regarding medical records in his or her country to be able to cope with medico-legal problems when called on to do so. MROs must also be able to identify legitimate and illegitimate requests for information.

6.6.1 The medical record as a legal document

Remember, as well as being used for patient care a medical record is also a legal document and should be treated accordingly.

❖ Who owns the medical record

When a hospital admits a patient, it enters into an explicit contract to render services necessary in the care and treatment of that patient. This necessitates keeping a chronological record of the care and treatment rendered by hospital personnel so that the results may be available for continuing care.

In addition to being kept for patient care medical records are also kept as a guide for doctors, and for the education of nurses and other health care personnel. Legally they are used to support the patient's claim in case of injury, for the protection of the attending doctor against claims of malpractice, and for the protection of the hospital against criticism and claims for injuries and damages.

- MEDICAL RECORDS are considered the PROPERTY OF THE HOSPITAL and are compiled and kept primarily for the benefit of the patient.
- The PERSONAL DATA contained in the medical record is considered a CONFIDENTIAL COMMUNICATION and the PROPERTY OF THE PATIENT.

The recorded information is a privileged communication. A privileged communication is one, which contains certain confidential information given by a patient to his or her doctor. Unless the patient has given written consent to release information from his or her medical record, the information contained in it can only be released to court by subpoena or a court order.

6.6.2 General medico-legal principles

- As a general rule NO information concerning a patient should be released to another person without the written consent of the patient or the patient's legal guardian.
- If a patient is under the age of 14 years or otherwise subject to a guardianship order, any consent for access to information should be given in writing by the patient's parents or legal guardian.

- In the case of a patient who has died, the written consent to access information from the patient's medical record should be provided by the next of kin shown on the medical records or by the administrator of the patient's estate.
- If the patient lacks the capacity to provide genuine consent then the written consent must be obtained from the person's legal guardian.
- Medical records should be kept under adequate security and only removed from the hospital or health care centre upon receipt of a subpoena, statutory authority, search warrant, or court order.
- In many countries when an original medical record leaves the hospital for legal purposes, a photocopy of the medical records is made beforehand and kept in the hospital until the original is returned. The copy is subsequently destroyed.
- As a general rule a doctor or other health professional should supervise access to a patient's medical record by non-medical persons.
- As discussed later, in many countries a patient has the right to see what information is held about him or her by a health care facility (see MEDICAL RECORD POLICIES).

6.6.3 Instances in which medical records are used as evidence

Medical records are generally used in court for the following.

❖ **Insurance Cases** - Used by the patient for proof of injury and/or disability in personal accident cases or by the insurance company to disclaim responsibility.

❖ **Worker's Compensation** - In most countries a person injured in the course of his or her duties and while acting in the scope of his or her employment is entitled to compensation for bodily injury and disability. The medical record is used as evidence to show the date of injury, the type and severity of injury, and the patient's expected recovery.

❖ **Personal Injury Claims** - a person may claim to have been injured through the fault or neglect of another and sues to recover damages for injuries sustained. The medical record would be used to show how the injury happened as recorded in the patient's words on admission to the hospital. The medical record would also be used to show the extent of the injuries, treatment given, duration of care and expected recovery or disability.

Medical records are used more frequently in this type of cases than in all other cases combined.

❖ **Malpractice claims -** In this type of case the Plaintiff (person suing) claims damages from a doctor, a hospital, nurse or other health professional for negligence in rendering care or giving improper treatment. The medical record would be used to show that there was no negligence and that treatments rendered were adequate and proper.

❖ **Will cases -** A patient may have made a will during his or her hospital stay. After the death of the patient an attempt may be made to set the will aside by seeking to prove the patient mentally incompetent. The medical record would be used to show the mental state of the patient at the time of making the will.

❖ **Criminal Cases -** Medical records have been used in many criminal cases the most frequent use includes:

- **Assault cases -** to prove the assault and extent of injuries.
- **Violent or unexplained death -**to prove death resulted from natural causes, accident, misadventure or murder.
- **Sexual assault cases -** to prove the condition of a patient on admission or attendance at a hospital and the history of the assault related by the patient.
- **Mental competency** - hospital medical records may also been used as evidence in proving the mental condition of a patient.

6.6.4 Procedure for the release of medical information in a legal case

The hospital may permit a patient's lawyer to view the medical record, in the presence of a doctor, upon the written authorisation of the patient. It is rare for this to happen however and in most medico-legal cases a lawyer requesting specific information about a particular patient sends a letter to the hospital requesting the information. The lawyer must include the patient's written authority, giving the hospital permission for the release the requested information. The hospital is NOT legally bound however to release information if it affects the hospital or the attending doctor or other staff.

❖ **The procedure to be followed when handling this request is as follows** :

- Requests from lawyers are usually registered and date of receipt of request recorded by the hospital administration and forwarded to the MRO for processing.
- The medical record is located and the patient's signature checked against the signature on the consent form in the medical record.
- In some countries a charge is made for the production of medico-legal reports. The amount charged varies from hospital to hospital and country to country and the MRO must be familiar with the charges and regulations in his or her hospital. If a cost is charged an account should be made out by the MRO (or hospital administration) and included with the report. In some countries lawyers already know this cost and in many cases a cheque is included with the letter of request.
- The information requested is identified and the attending doctor asked to write a report. In many health care facilities a pre-designed form may be used (see example below) or if a discharge summary is already in the medical record, it is checked and if it includes all the requested information a copy is made. This will save the doctor having to write a new report.

Example of format for summary of medical record information for medico-legal case:

Date:

To: (name of lawyer or law firm requesting information)
_____
_____
_____

Dear_____

The following is a summary of the medical record of (patient's name)_____
Age_____living at (address)_____
_____
who was admitted to this hospital on (date of admission)_____
and who was discharged (or died) on (date of discharge or death)_____

HISTORY:_____
_____
_____
_____

PHYSICAL EXAMINATION: _____
_____
_____

LABORATORY REPORTS: _____
_____
_____

X-RAY REPORTS:_____
_____

OPERATION/PROCEDURE:_____Findings:_____
_____
_____Pathological Report:_____
_____

FINAL DIAGNOSIS:_____

RESULT ON DISCHARGE:_____

SIGNED:_____(Attending Doctor)

- The medical record officer may write a brief letter acknowledging the request and enclosing the doctor's report. In some hospitals a "With Compliments" slip is used instead of a letter from the MRO.
- The letter (or "With Compliments" slip), report and account (if required) is sent to the lawyer and a copy of each document is filed in the correspondence section of the medical record.
- The MRO notifies the hospital administration that the report has been sent.

In most cases the report is all that is required. If the actual medical record is needed the lawyer must produce a court order of subpoena to enable the release of the medical record.

6.6.5 Subpoena or court order

A subpoena duces tecum is the term used in most English speaking countries for a legal order to produce records to a court. It is usually addressed to "the custodian of medical records" directing that person to appear in a given court, on a date and at a time specified on the subpoena, and to bring on that date the records designated for the patient named in the subpoena.

After accepting the subpoena all medical records specifically mentioned in it MUST be produced in court at the time and place designated, or the person subpoenaed is liable for contempt of court.

❖ Procedure for preparing a medical record for court

- If a subpoena or court order is served it MUST BE OBEYED.
- On receipt of a subpoena the MRO records the date and time the subpoena was received and records in a diary the date and time the medical record is due in court.
- The MRO should notify the attending doctor and hospital administration that a subpoena has been received for the release of the medical record to court.
- In many countries if the patient is NOT involved in the court case he or she is also notified by the health care facility that the subpoena has been received. They are also advised of the place, date and time of the court hearing, in sufficient time to allow the patient to arrange to attend the court if he or she so wishes.
- The MRO should locate the medical record. If the medical record is not on file the MRO should find it and keep it in a safe place awaiting preparation for court. A tracer is made out showing that the medical record is with the MRO for medico-legal purposes.
- The MRO should check that all necessary information, as specified in the subpoena, is in the medical record and that it is complete.
- All correspondence not written at the time the patient was in hospital should be removed as it is considered "hearsay" and not permissible as evidence. The correspondence is placed in a temporary folder made out with the patient's name and MRN and kept in the medico-legal file.
- All pages (forms) should be numbered in ink and the total number of pages recorded on the folder and a record of the number of pages (forms) kept with the removed correspondence.

- In some countries the original medical record is not sent to court. If a photocopy is permissible as evidence in court all forms are photocopied and numbered and the photocopy sent in place of the original. If a copy is made a note needs to be recorded in the medical record indicating that a copy exists and will need to be destroyed on return from court. Some hospitals send the original and keep a photocopy on file. When the original medical record is returned to file the copy is removed from file and destroyed. To protect the privacy of the patient it is important that if a medical record is copied the copy MUST be treated with the same respect as the original and MUST be destroyed on return from court. The following steps apply to both original and photocopied medical records.
- A form of receipt should be prepared for signature of the receiving officer of the court. This may have a limited amount of information such as - The number of the subpoena, date received, name of the lawyer requesting the medical record, name and MRN of the patient, number of pages (forms), and date the medical record is sent to Court. The hospital may wish to use a more structured form as shown in the following example:

Example of structured receipt for original medical records:

RECEIPT FOR ORIGINAL MEDICAL RECORD

Date:_____

Received from (name of hospital) _____
Address (of hospital) _____
_____
of (name of patient) _____MRN: _____

a total of _____pages (forms).

___Summary Sheet
___Personal Identification Sheet
___Admission history form
___Physical examination form
___Doctors progress notes
___Nurses progress notes
___Graphic forms - blood pressure, respiration, pulse
___Fluid balance forms
___Pathology reports
___X-ray reports
___Operation/procedure reports
___Anaesthetic reports
___Medication forms

Other forms:
_____
_____
_____
_____
_____

This record should be returned to (name of hospital) _____
On (date specified for return if known)_____
Marked to the attention of (name of MRO)_____

Signed:_____(Clerk of Court)

-

- The medical record is placed in a large envelope addressed to the Clerk of the Court (or specified person) with the receipt attached to the front. The tracer on file is changed to indicate that the medical record was sent to the court and the date it was sent.

- The medical record should be forwarded under adequate security to the Clerk of the Court named in the Subpoena and the signed receipt obtained from the person accepting delivery.
- Adequate security should involve hand delivery of the medical record from the hospital or health centre direct to the Clerk of the Court by an employee of the hospital or health centre or by a courier service.
- In some countries the MRO is required to take the medical record to court on the prescribed day and time. He or she may be required to testify that the medical record has been kept in the normal business of the hospital and to the best of his or her knowledge has not been tampered with by unauthorised persons.
- If the medical record has not been returned to the hospital by the specified date the MRO must check with the court to find out if the court case is over and if it is request the prompt return of the medical record. If not ask for the probable date of completion.
- On return from court the medical record is checked to ensure that all pages (forms) are present. The removed correspondence is returned to the medical record and the record returned to the file and the tracer removed. As mentioned previously if a photocopy has been made it must be checked as for the original and then destroyed.

6.6.6 Other important medico-legal issues

❖ Remember that the laws in each country vary and you must be familiar with your country's laws for dealing with medico-legal requests. In the absence of specific Statutes and Regulations certain practices should be determined by the hospital administration and MUST be followed by the medical record staff.

❖ Requests for information by the police or a government department where the patient has NOT authorised access to information from his or her medical records should be dealt with by the attending doctor or senior health care professional. Except in circumstances where the police can confirm that they seek information essential to the execution of the police officer's duty, the information supplied should be limited to confirmation of identity and address. Any other information may only be divulged on production of a search warrant.

❖ The attending doctor or other health care professional should be responsible for checking legal requests and release of information to ensure that only information relevant to the request is released.

❖ Except for the purpose of providing ongoing care and treatment for the patient, all photocopying of the patient's medical records requested by the patient or the patient's authorised nominee, should be at the expense of the patient and not the hospital.

❖ As a general rule access to medical records should be restricted to health professionals currently involved in the continuing care of the patient.

- ❖ Remember that no information may be released without the patient's consent, including the fact that the person is a patient. Where a patient requests that NO information be released at all, or information be released in limited circumstances, his or her wishes must be respected.

- ❖ Medical records may be used for research and statistics without the patient's consent as long as the patient is NOT identified.

Medico-legal issues bring out the necessity for accurate and adequate medical records. That is, medical records that will clearly show the treatment given the patient, by whom it is given, and when given. For the protection of the hospital, doctor and all health care professionals they must show that the care and service given were consistent with good health care practice.

Are you responsible for medico-legal correspondence?

_____

If no, who is responsible and how are you involved?

_____

Does your hospital have many requests from lawyers seeking the release of information?

_____

If yes, what is the procedure to deal with the requests?

_____

Are you aware of the laws governing the release of information in your country?

_____

Does your hospital send medical records to court?

_____

If yes, does the legal system in your country use a subpoena or court order?

_____

If yes, what is it called?

_____

If no, what is the system in your country?

_____

7. OUTPATIENT MEDICAL RECORDS

When a person attends and receives health care services in the hospital without being admitted he or she is referred to as an OUTPATIENT OR AN EMERGENCY PATIENT.

We will begin by discussing outpatients. As for inpatients the first task for outpatient staff is to **CORRECTLY IDENTIFY THE PATIENT AND GIVE HIM OR HER A MEDICAL RECORD NUMBER** if they do not already have one. The procedure is the same as for inpatients.

REMEMBER:

THE COLLECTION OF ACCURATE PATIENT IDENTIFICATION IS THE FIRST STEP IN THE DEVELOPMENT OF THE MEDICAL RECORD.

I.22 Outpatient Identification Sheet

There are three ways outpatient medical records may be kept:

- Outpatient visits are documented in the same medical record as inpatient notes; some hospitals prefer to file outpatient notes at the end of the inpatient notes, others at the front for easier access. In both cases they are usually filed behind an outpatient divider;
- Outpatient visits are documented in a separate outpatient record/card; or
- Outpatient visits are documented in a patient held health record.

❖ In many countries the outpatient medical record is separate from the inpatient medical record. The ideal situation, however, is when both are filed in the one folder under the one number. This system is of benefit to the patient as all their health information at that hospital is in one place for their continuing care. It also benefits the doctor who is able to refer to previous notes when treating the patient for a new episode of a previous illness or for a new illness.

❖ In many developing countries it is difficult to know in advance the names and medical record numbers of patients attending an outpatient clinic as they do not, and in many cases cannot, have an appointment system for general outpatients. Without an appointment system it is impossible to retrieve the medical records prior to patients' arriving at the hospital. In addition the number of outpatients is usually very high. This often precludes the hospital from combining the inpatient and outpatient records.

❖ If a combined inpatient and outpatient record is not possible the hospital should at least use the same number even if they are filed in different areas. This would enable quick retrieval of inpatient and outpatient medical records when needed. To assist with continuity of care, when separate inpatient and outpatient medical records are kept, a copy of the inpatient discharge summary should be included in the outpatient medical record.

Given the many problems associated with combining the medical records in many countries for this section we will assume that the inpatient and outpatient medical records are filed separately but that they have the same medical record number.

In most countries there are two types of outpatient clinics:

- General outpatient clinic
- Specialist outpatient clinic

7.1 General outpatient clinic

In most countries general outpatient clinics are for patients who attend the hospital for treatment of a minor disease or problem, for example mild acute respiratory infections, minor injuries (cut/bruise/sprain), cough, cold, flu, headache, etc. In some countries a nurse often sees general outpatients.

General outpatients usually do not need an appointment. In many countries general outpatient clinics are often held at the hospital or health centre in the mornings.

7.1.1 Types of outpatient medical records

The decision on the type of medical record to use for general outpatients should be determined by:

- the number of daily outpatient attendances;
- the number of staff available to file and retrieve outpatient records; and
- advice from doctors about their need for previous information on general outpatient visits.

❖ In some countries outpatient medical records are not kept by the hospital. In these situations the doctor documents the visit in a PATIENT HELD HEALTH RECORD. The patient held health record can consist of the maternal/baby health record, or patients can be asked to purchase an exercise book (sold by the hospital). The use of patient held health records reduces the huge daily filing problem for general outpatient records. Problems associated with using PATIENT HELD HEALTH RECORDS often outweigh their usefulness. Some of these problems include:

- the patient does not bring the health record to the outpatients;
- the health record has been lost; or
- the health record has been tampered with.

❖ If PATIENT HELD HEALTH RECORDS are not used and the hospital/health centre wishes to keep the medical/health record for general outpatient visits, the general outpatient visit must be documented and a medical record system maintained:

- in one medical record for inpatient admissions and outpatient visits together, or
- on a separate outpatient card or paper record filed separately. A paper record is preferred as cards are generally too small and a patient ends up with a number of cards stapled together which tend to get shabby and difficult to file and retrieve.
- In both cases the amount of filing and retrieving of records must be considered.

IF GENERAL OUTPATIENT RECORDS ARE NOT FILED BY THE END OF EACH DAY THEY MAY BE DIFFICULT TO LOCATE

7.1.2 The data collected in an outpatient medical record should include :

- Patient identification as for inpatients;
- Relevant history of presenting illness and physical findings;
- Clinical observations;
- Reports of tests and procedures performed;
- The outcome of the visit. For example, follow-up for further treatment, admission to hospital, no further treatment etc.;
- Growth chart for children;
- Referral information - correspondence from local doctor or community nurse;
- The doctor/nurse seeing the patient should sign the medical record to indicate their responsibility for the written information;

❖ The same information would be collected if the patient visited a separate health centre or clinic.

❖ The arrangement of the information should be convenient for those who must refer to it on a daily basis.

7.2 Specialist outpatient clinics

In many countries outpatient clinics are held for patients who need to see a specialist for a specific condition.

A specialist outpatient is often a patient with a chronic problem (hypertension, diabetes, etc.), a paediatric patient, or a recent inpatient. There should be an appointment book for making appointments for each specialist. On the day of the clinic the appointments should be noted as:

- Attended or did not attend. This information is needed to measure the workload of each clinic and determine the number of appointments that are made and not kept.

- At the end of the month the number of patients who ATTENDED and DID NOT ATTEND should be counted for each clinic and included in the monthly report.

- Other statistics would be collected in the same way as for the general outpatients as outlined below.

7.3 Counting outpatients

What information the hospital authorities require will determine the information, which will be collected on outpatients. The person responsible for this collection must make sure that the definition used in the collection of outpatient statistics is the same for all outpatients.

- Routine collection of patient information assists the hospital or the health care centre in analysing the pattern of care and the demographics of its patient population.

- Some hospitals keep an outpatient register but unless the data in the register are regularly used and there is no other way of getting the data, an outpatient register SHOULD NOT BE KEPT. A lot of clerical time is wasted in keeping such a register.

❖ Some definitions used for OPD statistics include:

There is a difference between the number of outpatient visits and the number of outpatient services given to an outpatient on a given day.

- OUTPATIENT VISITS - all services provided as an outpatient during ONE single visit to an Outpatient Department.

- OCCASIONS OF SERVICE - specific identifiable acts of service provided a patient such as performance of a test, medical examination, treatment, or procedure. This includes telephone counseling in some countries.

THE DIFFERENCE IN THE ABOVE SHOW HOW IMPORTANT IT IS TO COLLECT THE CORRECT DATA

- If a hospital only wants to know the NUMBER OF OUTPATIENTS attending each day the definition for an OUTPATIENT VISIT should be used. An outpatient may have a number of tests or see one or more health care professionals during the one visit - these are occasions of service and are NOT counted when counting the NUMBER OF OUTPATIENTS. To correctly count the ACTUAL NUMBER OF OUTPATIENTS, who have attended for a given period e.g. for a month, the definition for OUTPATIENT VISIT must be used.

- If a hospital wants to know the number of OCCASIONS OF SERVICE that is, the number of services given to a patient during a hospital visit, then that definition is used. That is, to count the number of services given by all sections of the outpatient department to each outpatient all OCCASIONS OF SERVICE are counted.

7.4 Outpatient statistics

Most of the above are collected to assess the workload of each clinic and plan for future needs. It may be found that the surgical clinic staff see twice as many patients than other clinics. If this is the case more staff will be required in the clinic area on the surgical clinic days. Patient waiting time may be too long and the administration decides to look at the statistics for each clinic to see if it is because too many patients are given appointments when sufficient medical staff is not available. The data that should be collected for outpatients includes:

- Total number of outpatient visits - first visit AND revisits, each grouped by age and sex
- Total number of occasions of service, grouped by age and sex;
- Type of disease/problem, if no disease noted the reason for the visit is usually used.

One way to count outpatients is an outpatient tally sheet, which is summarised daily and recorded in an outpatient statistics book. The clinical staff in the outpatient department should fill in the tally sheet.

A sample of a general outpatient tally sheet:

Cross off a "0" for each visit. It is important to separate the *first visits* from the *revisits*. The time should be listed as morning, afternoon, evening or night.

Day: **Date:**	**Time:**		**Hosp/HCentre name:**			
	0 –12 Months		**1 – 14 years**		**60^{+} years**	
FIRST VISIT FOR: ↓	Male	Female	Male	Female	Male	Female
Acute Respiratory infection	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Malaria	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
Etc.	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
REVISITS/ REATTENDANCES	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0

- At the end of each day the completed outpatient tally sheets should be collected from the clinics, and summarised into a daily outpatient statistical summary form.
- At the end of each month the outpatient statistics in the daily outpatient statistical summary forms should be added up to provide the total figures for the month and reported in the monthly report.
- For yearly outpatient statistics the data in the monthly reports are calculated.

7.5 Emergency patients

Emergency patients come to the hospital/health care centre's emergency department needing immediate attention for a disease or injury. Emergency medical information recording must be easy to do while focusing maximum attention on the patient.

If a patient is brought to the hospital by ambulance the data collection starts with the ambulance service transporting the patient to the hospital. At this time a record is made of vital signs, on-going condition during transportation, the nature of the illness or injury, and any procedures performed. Upon arrival at the emergency department a copy of the ambulance record may be included in the hospital emergency service record.

7.5.1 Emergency records

Emergency patients are identified in the same manner as inpatients and outpatients. If the patient has been an inpatient or outpatient previous records must be made available for emergency care if needed.

- ❖ Identification information may need to be obtained from the patient within the emergency treatment room or from a relative or person accompanying the patient. The information recorded in an emergency record should include

  - The time and means of arrival in the emergency department, e.g. by ambulance etc.;
  - Pertinent history relating to the reason for attending the emergency department;
  - Emergency care given prior to arrival;
  - Diagnostic and therapeutic orders;
  - Clinical observations;
  - Reports of procedures, tests etc.;
  - Diagnostic impression; and
  - Conclusion and disposal of the patient - that is: sent home following treatment with no further care required; referral to the general or specialist outpatients; admission to the hospital; died in the emergency room.

- ❖ The contents of an emergency record, how they are to be kept, and for how long is often decided by the hospital administration or by government regulation.

IF A PATIENT IS ADMITTED TO HOSPITAL FROM THE EMERGENCY DEPARTMENT THE EMERGENCY RECORD SHOULD BE INCLUDED IN THE INPATIENT MEDICAL RECORD

- Emergency department records need only be kept for the duration of the STATUTE OF LIMITATIONS. That is, the legal time required in a country in which a person can bring a lawsuit.

- ❖ It is recommended that for SPECIALIST and EMERGENCY visits, the visit be documented in the medical record held by the hospital and not in a patient held health record. A SUMMARY OF THE VISIT OR ADMISSION however should be included in the PATIENT HELD HEALTH RECORD.

7.5.2 Counting of Emergency patients

In some countries where emergency patients are not admitted, they are counted as general outpatients, and where emergency patients are admitted, they are counted as an admission. Some hospitals/health centres count emergency patients separately, and a tally sheet can be used to count emergency patients as for general outpatients. For admitted emergency patients it is important to remember to NOT count emergency patients twice, once as an emergency case and once as an admission.

IT IS IMPORTANT TO NOTE THAT A PERSON WHO IS DEAD ON ARRIVAL (DOA) AT THE HOSPITAL'S EMERGENCY DEPARTMENT SHOULD NOT BE ADMITTED AND SHOULD NOT BE COUNTED AS AN INPATIENT

Are you responsible for the collection of outpatient statistics?

_____

If yes, how are they collected?

_____

What do you collect?

_____

Who uses the statistics?

_____

Does your hospital have an emergency room/department?

_____

If yes, what type of emergency record is kept?

_____

Can you identify if the emergency record system could be improved? If yes, how?

_____

What emergency department statistics are collected?

_____

Who collects the statistics?

_____

I.23 An emergency department attached to a large te aching hospital

8. MEDICAL RECORD COMMITTEE

Each hospital should have a Medical Record Committee. This Committee makes decisions on medical record policy, medical record procedures, medical record forms, and procedures in other departments/wards relevant to the management of medical records and patient information.

An active Medical Record Committee, appointed by hospital staff from among its members, should act as a liaison between the MRO and hospital staff. Such a Committee, with a strong Chairman, can do much to stimulate interest in developing and maintaining a high standard of medical records and medical record services. The Committee should support the MRO and assist with the implementation of regulations regarding the completion of medical records[13].

Members should be representatives of the various clinical services of the hospital, rotating on a yearly basis so that all services will eventually be represented.

8.1 Terms of reference

The Medical Record Committee is responsible for all matters relating to the content of medical records and the provision of medical record services in the hospital. The Medical Record Committee in large hospitals meets every month and less frequently in smaller hospitals. It should meet at least four times per year.

The Committee should be made up of people who are interested in good medical records and who are prepared, by their own example, to provide an incentive to others, particularly junior doctors. The Committee should consist of not less than 3 members and not more than 6 members. Too large a committee could be unwieldy.

❖ For example membership of the Medical Record Committee should consist of:

- the representative of the doctors from both medicine and surgery;
- the representative of the nursing administration;
- the representative of hospital administration(management);
- the representative of allied health staff - physiotherapy, social work etc.; and
- the Medical Record Officer.

Other members may be invited onto the committee, if their input is required such as orthopaedic, paediatric and obstetric doctors.

In a larger health care facility, representatives from nurses on the ward are also included.

8.2 Responsibilities

A Medical Record Committee is responsible for[13].

- ensuring that accurate and complete medical records are kept and readily available for every patient treated in the hospital;

- helping to ensure that medical staff complete all the medical records of patients under their care by recording a discharge diagnosis and writing a discharge summary (where required) for each discharged patient.

- determining the standards and policies for the medical record services of the health care facility;

- recommending action when problems arise in relation to medical records and the medical record service;

- controlling new and existing medical record forms used in the health care facility - all forms should be cleared by the MRC before being put into use;

- assisting the medical record officer in liaison with other staff/departments in the health care facility;

❖ It is important that rules and regulations for the completion of medical records are developed and approved by medical staff.

I.24 A typical medical record committee

Does your hospital have a medical record committee?

_____

If yes, who are members and is the MRO in charge of the MRD member?

_____

If no, do you think a medical record committee could be established?

_____

If yes, who could organise to set it up?

_____

9. MEDICAL RECORD POLICIES

Many procedures in the Medical Record Department are based on medical record policy. "Policies are plans within which objectives may be set and decisions made"[14]. Medical record officers may develop policies specific to their department, but the policies must be limited to the activities of the department and not conflict with hospital organisational policies. It is usually the responsibility of the senior hospital management in conjunction with the Medical Record Committee to approve the policies relating to the medical record services.

Each country should have national policies for medical records. The Ministry of Health in most countries is often responsible for developing many hospital and health centre policies. The policies will be different for each country, depending on legal and cultural issues. Once the policies are determined, then procedures must be written to ensure that the policies are followed.

❖ Some important medical record policies include:

- patient access to their medical record;
- privacy, confidentiality and the release of patient information;
- the retention of medical records; and
- the destruction of inactive medical records.

A list of questions, which could be asked when considering the development of a policy, has been included in each of the following statements.

9.1 Patient access to their medical record

Patient access to the information in their medical record will vary from country to country and hospital to hospital if there is no national policy on this issue. You need to find out if your hospital and country has a current policy. If patients are allowed access to their medical record in your hospital you should make sure that a policy based on the regulations has been prepared and a procedure for patient access is available and is followed by the clerical staff in your department.

❖ Some questions you need to answer are:

- Are patients allowed to see their medical record?
- If yes, what procedures are to be followed when patients view their medical records?
- What medical information may be released to patients?

❖ In many countries patients have the right to inspect, copy, and amend their medical records. This requires a properly completed and signed patient authorisation. In many countries patients can also correct data, which they believe is incorrect, NOT by changing what is written, but by writing an amendment (or correction) which is clearly identified as an amendment entered by the patient.

Are patients in your hospital allowed to see/read their medical records?

_____

If yes, do you have a written policy and what is the procedure?

_____

9.2 Privacy, confidentiality and the release of patient information

REMEMBER:

THE MEDICAL RECORD IS A CONFIDENTIAL DOCUMENT AND THE PATIENT'S RIGHT TO PRIVACY MUST BE CONSIDERED AT ALL TIMES

The information contained in the medical record belongs to the patient and is a confidential communication between the doctor or other health professional and the patient. Medical records should be safeguarded against unauthorised use. They should be stored in a secure area, and there should be detailed policies regarding confidentiality and the release of patient information[15].

❖ **Release of patient information**

The medical record officer should develop a policy for approval by the Medical Record Committee for the release of patient information. It is important to ensure that all staff, not only in the Medical Record Department, but also in all other sections of the hospital, are aware of the policy and that it is followed.

❖ There are four methods of releasing information:

- direct access to the medical record;
- supply of an abstract giving details requested;
- verbal release, and
- photocopying.

❖ The department should have specific policies governing each type of release. For example:

NO UNAUTHORISED PERSON CAN TAKE ANY OR PART OF A MEDICAL RECORD OUT OF FILE, OR READ, COPY, OR OTHERWISE TAMPER WITH THEM.

❖ If a request is made for the release of information the request should contain the following:

- Full name of patient, address and date of birth;
- Name of person/persons or institution requesting information;
- Purpose and need of the information;
- Extent and nature of information to be released, including dates;

- A recently dated authorisation, signed by the patient or authorised representative (e.g. parent of a child).

❖ When developing a policy of patient privacy and the release of information questions that should be answered include:

- Is there a consent form for the patient to sign to permit release of personal information?
- Is anyone outside the hospital/health centre allowed access to medical records?
- Are there special provisions for the police and law enforcement agencies to view medical records?
- What are the rules for the secure locking of the Medical Record Department outside working hours?
- What special rules apply to the release of patient information to other people (relatives, friends, insurance companies, lawyers, etc.)?
- Can patient information be released to other people for research?
- Are there separate rules for children?
- Are there separate rules for patients who have died?
- What forms and registers are used to record requests for personal information from the medical record?
- What penalties are provided for breaking the rules?

❖ In general it is best to have written policies relating to the release of patient information and all staff must be familiar with these policies.

Is information from the medical record released in your hospital?

_____

If yes, to whom is it released and under what circumstances?

_____

9.3 Policy on retention of medical records

Medical records should be kept by the hospital as long as required under the Statute of Limitations (retention for legal requirements) or the country's record retention regulation. Before determining a retention policy the hospital administrator should review the record usage after discharge.

❖ Some questions that need to be answered include:

- How long should records be kept after the last visit of the patient?
- Are there separate rules for children's records?

- If medical records are not kept how are records to be destroyed?
- Are there specific diseases for which the medical record must be kept for the life of the patient?
- What penalties are provided for breaking the rules?
- Who approves the destruction of medical records?

In general, the retention of medical records in an active file depends on:

- the amount of filing space available;
- the yearly expansion rate of current files;

When considering a retention policy the hospital must consider[16]:

- the readmission rate of inpatients;
- the volume of medical research undertaken by hospital staff;
- the Statute of Limitation (legal requirement);
- cost involved in finding inactive filing space; and
- cost of destruction of medical records.

Is there a "statute of limitations" in your country – that is the length of time documents should be kept for legal purposes?

_____

If yes, what is the time limit?

_____

Does your hospital have a retention policy for medical records?

_____

If yes, how long are active medical records kept?

_____

if no, what do you do about storage space and inactive medical records?

_____

9.4 Destruction of medical records

In many countries when medical records are destroyed after the required retention period, basic information is retained permanently. This information includes the:

- ptient's full name and date of birth;
- admission and discharge dates;
- name of the attending doctor;
- diseases treated and operations performed;
- a discharge summary for each admission if more that one;

In addition, to leave a permanent record of the patient on file, a note should be included with the retained documents stating that the records have been destroyed according to the retention policy.

❖ If it is the policy to destroy inactive medical records they should be destroyed by burning.

❖ To ensure that the medical records are completely destroyed the medical record officer should supervise their destruction.

Does your hospital destroy inactive medical records?

_____

If yes, do you have a written procedure and how are they destroyed?

_____

Does the MRO supervise their destruction? If yes, how?

_____

10. QUALITY ISSUES FOR MEDICAL RECORD SERVICES

The Medical Record Department is often the first department in a health care facility to start doing quality checking. This is because the Medical Record Department has connections with so many other departments in the health care facility. It is also because the medical record is the best place to check the medical care and treatment of the patient. It should be noted that quality checking of the medical record often results in action being required by staff outside the Medical Record Department.

One approach to quality checking is to ask staff from other departments to check the Medical Record Department using a check-list. The results of these quality checks (or audits) are kept on a chart (or graph) in the Medical Record Department. As the results improve the figures on the chart are a source of pride for the Medical Record Department staff. This process is often the beginning of a reciprocal quality-checking programme with other departments, which could result in an improvement in the quality of procedures throughout the health care facility.

10.1 Areas in which the MRO can evaluate medical record procedures:

There are a number of procedures in the MRD, which can and should be evaluated. Some study questions, which could be used to evaluate the work of the MRD staff, could include:

- Are medical records filed promptly?
- Is the file room clean and tidy?
- Are Master Patient Index cards filed promptly?
- Are all discharges returned to the Medical Record Department the day after discharge?
- Are medical record forms filed in the correct order?
- Are all medical records completed within a specified time after discharge?
- Are medical records coded correctly?
- Are all discharges for last month coded by the middle of the next month?
- Are the monthly and yearly statistics collected within a specified time?

To conduct an evaluation study the MRO should select a time period for the study (e.g. one-month) prepare a questionnaire and determine the standard or acceptable level of compliance considered appropriate for the work to be studied. The results can be used to improve the services in areas below the required standard of performance.

10.2 Evaluating the content of the medical record

The content of the medical record can be evaluated by reviewing to see if the following has been done[19].

- doctors have recorded all essential information;
- doctors have signed and dated all clinical entries;

- nurses have recorded and signed all daily notes regarding the condition and care of the patient;
- all the orders for treatment have been recorded in the medication form and medication administration recorded and signed;
- the anaesthetic form (if any) has been completed and signed;
- the operation form (if any) has been completed and signed.

Again a study questionnaire should be prepared and a standard determined, e.g. 100% compliance.

❖ Sample check-list or audit form:

Example used – admission form:

	Yes	No	N/A*	Comments
1. Patient's first name present				
2. Patient's family name present				
3. Patient's medical record number written				
4. Patient's address written				
5. Etc.				
TOTAL				

*N/A = not applicable

Do you conduct any quality control studies on the work of the MRD?

_____

If yes, what are they and how are they prepared and conducted?

_____

Do MRD staff conduct quality control studies on the content of the medical record?

_____

If yes, what part of the medical record is studied?

_____

If studies are done what happens to the results?

_____

Do the MRD staff conduct quality checks on coding?

_____

If yes, what action is taken with regard to the results?

_____

11. COMPUTERIZED MEDICAL RECORD SYSTEMS

As mentioned previously many countries now have a number of computerised systems for medical record procedures. The aim of many hospital authorities is for the development of an automated patient information service that will increase the efficient retrieval of information for patient care, statistics, research and teaching. An important point to remember, however, is that the use of a computerised system may improve the effectiveness and efficiency of a Medical Record Department, but ONLY where the basic manual procedures are already in place and well organised[16].

The development and implementation of such a system requires detailed planning and co-operation between the medical record officer, the computer staff and the hospital administration.

In the USA five levels of automation have been identified in the transition to electronic health records. Each level builds upon the one before[17].

The first is the Automated medical record, which depends on input from paper-based documents and consists mainly of administrative systems e.g. MPI, ATD, and clinical support systems such as laboratory results[17].

The second is the computerised patient record (CPR), which is created by converting paper-based documents through document imaging systems. At this level the basic structure of the paper-based system is unchanged[17].

The next three levels move from electronic medical records (EMR) to electronic patient record (EPR) and the last level is the electronic health record (EHR). The EHR is the ultimate goal in the development of health information systems and has not been fully reached in most countries to date. In many countries the first two levels have been reached and work is progressing slowly on the next stage, that is the electronic medical record.

For hospitals considering moving to the first level, an automated medical record system, the **master patient index** should be the first procedure to be computerised. If the computerised Master Patient Index functions well, then the **admission/discharge procedure** should be next and then a **disease and procedure index** system can be implemented[16].

- ❖ It is important that if consideration is being given to the computerisation of patient related medical record data it is the responsibility of the administration to ensure that:

    - Hardware and software support is readily available.
    - All clerks have keyboard and mouse training and are also trained in the use of the relevant software.
    - A computer terminal is made easily available to the clerical staff and should not be locked away in the manager's office.
    - Appropriate furniture is made available (power points, electric cables, chairs and desks). Furniture provided for computers in Medical Record Departments is often taken away by managers for other offices. This should not be permitted.

- Security procedures should be implemented to avoid the use of the computer for games and other non-medical record functions, and to protect the computer from viruses.

- Authorised staff should be issued with passwords, which are changed regularly to prevent unauthorised access.

❖ Medical record procedures commonly computerised in many countries include the[20]:

- master patient index;
- admission, transfer and discharge/death system;
- disease and procedure index.

In addition to the applications listed above the following procedures could be considered when the above systems are running smoothly:

- record location/tracking system;
- medical record completion system;
- discharge summary abstracting system;
- outpatient appointment scheduling system;

For your interest a brief discussion of the first three applications has been included in the Manual. It is important to note that the following are suggestions for discussion, and not a definitive outline of specifications. Final specifications for any computer system should be developed in conjunction with the computer programmer, systems analyst, hospital administrator, and medical record officer, at a time when the actual type of computer has been determined.

11.1 Computerised master patient index (MPI)

The information in a computerised master patient index is the same as that recorded in a manual master patient index.

As for a manual system the objective of a computerised MPI is patient identification. The main function being the entry, storage and retrieval of the patient's name and medical record number[16].

- This system would require a group of programmes that would be accessed by users via computer terminals and or printing terminals. The programmes would be designed to enable access to the information held on the MPI file, and to build or modify the file information, as required by the hospital.

- As discussed previously the MPI holds information on all patients who have attended or have been admitted to a hospital. Clinical details are NOT held on this file, only basic information required to IDENTIFY the patient.

- As with a manual file a computerised file would be cumulative. That is, new patients would be continually added to the file. Previous patients are NOT deleted, as their details are kept available for future attendance or admission or for any other need to retrieve a patient's medical record.

1.25 Staff working in a computerised medical record department

11.1.1 Implementation of a computerised MPI

❖ **Computerisation of the MPI would be spread over a period of time through:**

- entry of information already held on index cards from the manual MPI card system;
- entry of all patients in hospital at the time of implementation;
- inpatient registration;
- outpatient registration.

The entry of data on new patients should be completed at the time they are admitted as inpatients or registered as outpatients. That is, in the Admission Office for inpatients and the OPD registration desk for outpatients.

11.1.2 Search programme

As for the manual system in a computerised MPI the search programme should enable the operator to locate a particular patient to determine if that patient has been in hospital previously and has a medical record number[20].

Limited information on a number of patients (one patient per line) may be displayed on a screen for review or further action. These can be displayed by:

- patient name giving hospital number; and
- hospital number giving patient name

When the particular person is identified the full index file information for that selected patient may be displayed on the screen.

- When retrieving information, strict security codes should be used to prevent unauthorised access and alterations. Each user should have his/her own user name as well as a password, which is assigned by the computer manager and changed periodically.

- Only an authorised user should be able to access information relating to a patient and to change, add to, or delete records on the master file.

REMEMBER:

AS IN THE MANUAL SYSTEM NO NAME MAY BE ENTERED INTO THE MPI WITHOUT FIRST CHECKING IF THE PATIENT ALREADY HAS AN ENTRY IN THE INDEX

The MPI should force a name search before a name can be entered, unless the name is being entered with a pre-existing medical record number.

11.1.3 Important points for the operation of a computerised MPI include[16]:

- All name searches should use the name and at least one unique patient characteristic (see PATIENT IDENTIFICATION);

- As in a manual system correct spelling of names is vital to minimise duplicated registration of a patient,

- Entry of at least one unique patient characteristic is compulsory when adding a patient to the MPI;

- Entry of the medical record number is compulsory when adding a patient to the MPI;

- The computer issues medical record numbers in strict numerical order;

- The MPI should enable the manual entry of pre-existing medical record numbers.

❖ **Reports generated from the MPI should include:**

- A daily printout of numbers issued, in number order, creating the NUMBER REGISTER, and

- Regular printouts in alphabetical order of all names by family name or by first name depending on the naming conventions of the country.

Before planning such a system, however, many administrative decisions must be made. Four important ones are:

- Sufficient funds are available for its development and implementation;

- The type and size of computer, and sufficient computer terminals are available to meet the needs within the funds available;

- Trained staff are available to implement and maintain the system;
- The hospital has a computer support team available to assist if hardware or software problems arise.

REMEMBER:

IF A DECISION IS MADE TO DEVELOP A COMPUTERISED MEDICAL INFORMATION SYSTEM, THE MASTER PATIENT INDEX SHOULD BE THE FIRST PROGRAMME IMPLEMENTED

11.2 Computerised admission, transfer and discharge procedure (ATD)

The introduction of this type of system would enable staff to maintain a file on all patients currently in hospital, awaiting admission and recently discharged. It would also enable authorised users around the hospital to have direct access (via a computer terminal) to the file and would automatically generate bed census and other daily statistics required by the hospital administration[16].

❖ **The objectives of such a system would be to**:

- provide an inpatient booking service for patients awaiting admission;
- keep records of the bed state and bed allocation;
- trace patients for inquiries;
- provide daily patient census reports and related statistics;
- provide information for the Master Patient Index (directly linked to the MPI system);
- provide a complete data base for all authorised users of patient identification and location information.

❖ **Within such a system a data file could be maintained on all patients:**

- currently in hospital;
- awaiting admission; and
- recently discharged.

In a computerised admission, transfer and discharge system all admissions are entered at the time of admission, and the discharge details are entered for all discharged /died patients at the time of discharge or death[18].

11.2.1 Important points of a computerised ATD system

- All admissions must have an entry in the MPI.

- There must be a linkage between the MPI and the ATD system to enable a name to be added to the MPI as part of the admission procedure.

- Daily reports are generated including:
  - an admission list;
  - a discharge list;
  - a list of all inpatient at a given time; and
  - a list of inpatients for longer than 90 days.

In addition other important reports include:

❖ Condition and nursing dependency

- Each afternoon the computer operator should print a ward list for each ward. These can then be distributed to the wards where errors or any change of condition will be noted. The nursing dependency for each patient can also be noted at this time. This printout can then be used for the daily bed census and then returned to the central admission area at a designated time each day to enable the keyboard operator to amend the files accordingly.

❖ Service analysis statistics

- To enable a break down of clinical services to be prepared for the administration. On receipt of the medical record the medical record staff can check the service under which the patient was treated and record it on the discharge list if not already recorded. The details on the list are then keyed into the system to produce the required statistics.

❖ Other statistical information

- Information regarding post-operative deaths, and autopsies, plus obstetric information such as deliveries, maternal deaths, multiple births, fetal deaths, infant deaths, are also keyed in at this time if not already recorded on file.

11.3 Disease and procedure index system

The third possible computer application is the disease and procedure index. Although this system would be self-contained it would also be part of the full set of systems relating to patient administration and information services.

A computerised disease and procedure index should be developed to enable the research role of a hospital to be carried out. This system could contain information relating to diagnoses and procedures, in coded form, to enable the retrieval of individual cases for medical research. It could use the ATD system as the base records to which disease and procedure codes are added following the completion of the medical record at discharge or death of a patient.

❖ This system could also accommodate information relating to tests performed during hospitalisation for later review of the utilisation of hospital services.

❖ This proposed programme would process the "discharge" area of the ATD master file. In such a system, relevant records in the discharge area are accessed. A specific time limit, however, should be determined regarding transfer from the discharge area to the disease/procedure index. Seven days is the suggested minimum transfer time.

11.3.1 Coding

The principal diagnosis and procedure are coded by the medical record officer or person given this responsibility and the diagnosis/procedure and code numbers are entered into each individual patient's admission record via a computer terminal.

11.3.2 Retrieval

Such a system could be designed to enable the retrieval and report generation of information on the types of diseases/ procedures treated at a hospital. It should enable retrieval by:

- Disease/procedure/sex/age/doctor/associated diseases and hospital number

❖ Reports from the Disease Procedure Index Module could include:

- a list of all discharges not coded;
- a list of all patients with a particular code or range of codes;
- a list of last month's discharges by ICD code;
- a list of discharges by notifiable disease code.

The ATD system writes into the MPI and disease and procedure systems. The ATD is a temporary database of patients and kept for approximately 2 to 5 years. It is then archived. The MPI is permanent.

The above outline has been prepared as an indication of some very basic computer applications relating to medical record procedures of a hospital. As mentioned previously, specifications for any computerised system should be developed following discussions with the computer planning team at a time when a decision has been made as to type and capacity of the computer to be installed.

12. CONCLUSIONS

As discussed at the beginning this Manual has been prepared as a guide for medical record practices in developing countries. It should be used by medical record clerks and medical record officers to enable them to gain knowledge of current medical record practices and help improve the medical record services for which they are responsible.

The questions have been included to encourage users to review his or her current medical record practices and plan changes if necessary to improve the service provided by the MRD. However, any change must be CAREFULLY PLANNED and RECORDED before implementation. Poorly planned changes could undermine their success and the confidence in the services provided.

ANNEX 1

PRE-EMPLOYMENT TEST FOR MEDICAL RECORD CLERK/OFFICER

(1) The clerk should be given 10 medical records and asked to file them in the file room. The supervisor should have pre-recorded the numbers, and must check the accuracy of the filing of each record.

(2) The clerk should be given 10 MPI cards and asked to file them into the MPI in alphabetical order. The supervisor should have pre-recorded the names, and must check the accuracy of the filing of each card.

(3) A list of names should be dictated to the clerk, who must write them down neatly and legibly. The supervisor will check the list written by the clerk for accuracy of spelling and for legibility.

ANNEX 2

INTERNATIONAL FEDERATION OF HEALTH RECORDS ORGANIZATIONS

CONTACT PERSONS

(2000 - 2004)

President	:	Willem Hogeboom Westfries Gasthuis P.O. Box 600 1620 AR Hoorn The Netherlands Fax No.: (31) (229) 257-096 Email : w.hogeboom@bigfoot.com
President-elect	:	Jean S. Clark RHIA Service Line Director Health Information, CareAlliance Health Services 316 Calhoun Street Charleston, SC 29401 United States of America Fax No.: (1) (843) 724-2995 Email : jean.clark@carealliance.com
Secretary/Treasurer	:	Philip Roxborough 2/365 Richardson Road Mount Roskill Auckland 1004 New Zealand Fax No.: (64) (9) 630 9931 Email : philipr@ahsl.co.nz

Annex 2

Directors	:	Lorraine Nicholson 141 Leander Drive Castleton, Rochdale OL11 2XE Lancashire England Fax No.: (44) (1706) 355-957 Email : l.nicholson@zen.co.uk
		Lourdes Palapal National Centre Mental Health Medical Records Section 9-Febrero Street Mandaluyong City Philippines Fax No.: (63)(2) 531-8682 Email : llpalapal@edsamail.com.ph
Editor, IFHRO Newsletter	:	Kathy Brouch 411 West Ontario Apartment No. 401 Chicago, Illinois 60610 United States of America Fax No.: (1)(312) 233-1470 Email : k_brouch@yahoo.com

GLOSSARY OF TERMS

Active medical record	A medical record that is still being used for patient care.
Admission register	A register of all inpatients admitted to the hospital.
Allied health professional	Physiotherapy (physical therapy), occupational therapy, speech therapy, social worker etc.
Clinical staff	Doctors, nurses, health extension officers, nurse practitioners, midwives and allied health professions.
Coding	A procedure that assigns a numeric code to diagnostic and procedural data based on a clinical classification system.
Culling	Culling is the removal of medical records from the medical record file room when they are no longer active. Records may then be either destroyed, or filed in inactive or secondary storage. Records in secondary storage may be culled for destruction.
Daily admission list	A daily list of all patients admitted to the hospital.
Day only	Day only patients are admitted for one day, admitted in the morning and discharged in the afternoon. Day only patients are NOT day only patients if they stay in hospital overnight.
Discharge summary	A summary of a patient's stay in hospital written by the attending doctor.
Disease index	Lists diseases, conditions and injuries by the specific code number for each disease, condition or injury based on a clinical classification system to allow for retrieval of medical records for research by each specific code.
DOB	Date of birth.
Emergency patient	Attends a hospital or health care facility needing immediate attention for a disease or injury.
Front Sheet	The first form in the medical record. Also called Identification and summary sheet
General outpatient	In developing countries a general outpatient is a patient attending the outpatients department of the health care facility without an appointment. These patients do not include accident and emergency patients.
Health care facility	Hospital, health centre, aid post, etc.
Health Record	A single record of all data on an individual's health status - including birth records, immunizations, reports of all physical examinations as well as all illnesses and treatments given in any health care setting. Often used interchangeably with "medical record" but is a broader concept.
HIM	Health Information Manager, the person who manages the health information service.
HIS	Hospital information system, a collection of data relating to patients and their care.
HRO	Health Record Officer (see MEDICAL RECORD OFFICER).
Hospital number	See medical record number
ICD-9	International Statistical Classification of Diseases (9^{th} revision) published by WHO.

ICD-10	International Statistical Classification of Diseases and Related Health Problems: 10th revision published by WHO.
ICPM	International Classification of Procedures in Medicine, published by WHO.
Identification number	See Medical Record Number
IFHRO	International Federation of Health Records Organizations
Inactive medical record	A medical record belonging to a patient who has not attended the hospital for a specified number of years.
Inpatient	An inpatient is a patient who has been admitted to the health care facility. Inpatients usually occupy a bed in a health care facility, usually overnight.
Master patient index	The master patient index contains identification information of all patients admitted to a health care facility and is the key to locating a patient's medical record.
Medical record	A collection of facts about a patient's health history, including past and present illness(es) and treatment(s) written by the health care professional treating the patient
MRA	Medical record administrator - person responsible for the medical record service.
MRC	Medical Record Committee
MRD	Medical Record Department
MRN	Medical record number - the number used to identify the patient's medical record and used to file the medical record. Also referred to as hospital number, identification number or unit record number
MRO	Medical Record Officer - person responsible for the medical record service.
Medical record room	Usually a small Medical Record Department in a developing country
MPI	Master patient index
Number register	Is a book of numbers in strict numerical order and is the origin of the patient identification numbering system.
Operation Index	Lists operations and procedures by a specific code number based on an operation or procedural classification system. The index enables the retrieval of medical records of all patients who have undergone a specific operation or procedure while in hospital.
Outpatient	An outpatient is a patient who is not admitted to a health care facility, and who does not occupy a bed for any length of time.
Patient held health record	A record kept by the patient, or parent if a child, which covers the life of a patient from birth to death. All health professionals caring for the patient record their findings and treatment in the record. Also referred to as a longitudinal record.
Patients' master index	See master patient index
Principal diagnosis	The condition established after study to be chiefly responsible for occasioning the admission of the patient to hospital for care (USA definition). The diagnosis established after study to be chiefly responsible for occasioning the patient's episode of care in hospital (or attendance at the health care facility)
Procedure index	See Operation Index

Research	A systematic investigation of a subject designed to expand the knowledge and generate new ideas.
Service analysis	An analysis of the type of service under which the patient was treated while in hospital e.g. medical, surgical, orthopaedic ophthalmology etc. The analysis is used to determine the number of patients treated under each "service" for statistical purposes.
Straight numerical filing	Medical records filed in strict numerical sequence.
Specialist outpatient	An outpatient who attends a specialist clinician in the outpatients department. A specialist outpatient is usually a patient with a chronic problem (hypertension, diabetes, etc.), a paediatric patient, or a recent inpatient.
TDF	Terminal digit filing
Tracer	A card, usually the same size or slightly larger than the medical record, which replaces the medical record in the file when the record is removed for use elsewhere in the hospital.
Unit record number	See Medical Record Number
Unique patient characteristic	Something about a patient that does not change such as his or her mother's maiden name or a national identification number, or social security number.

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