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A STUDY TO DETERMINE THE FEASIBILITY OF RETAINING, OR REVISING, THE PRESENT METHOD OF STORING MEDICAL RECORDS, ST. PAUL HOSPITAL, TEXAS

A PROJECT REPORT SUBMITTED TO THE FACULTY

OF

BAYLOR UNIVERSITY

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

MASTER OF HOSPITAL ADMINISTRATION

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August, 1967

DE222-68

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ABSTRACT

This report contains a study of the required time for storing medical records and duplicate copies maintained by the different departments. The feasibility of microfilming the permanent copy of the medical records retained at St. Paul Hospital, Dallas, Texas, is also discussed. Several departments were retaining their duplicate copies of medical records longer than necessary. Recommendations were made as to when each department could destroy the duplicates.

It was recommended that St. Paul Hospital utilize microfilm for retention of medical records.

The conclusions and recommendations were based on the content of the study. Three appendixes and a bibliography are attached.

ACKNOWLEDGMENTS

The writer would like to thank Sister Elizabeth, Administrator, and the staff of St. Paul Hospital for their co-operation and help in gathering data required to complete this paper.

The assistance of the following was especially helpful: James Borkowski, Assistant Administrator for Plant and Procurement; Miss Sue Pfaffinger, Executive Secretary to Assistant Administrator; Mrs. Ellen Farmer, Manager, Medical Records Department; Miss Beverly Dickerson, Supervisor, EKG-EEG Department; Rudolph Crane, Manager, Radiology Department; and Miss Mary Clinton, Executive Secretary, Pathology Department.

For professional advice, the writer would like to express appreciation to Duwain J. Pingenot, Sales Representative, Recordak Company; Frank J. Kerford, Administrative Assistant for Methods and Procedures, United Services Automobile Association; and Theodore H. Poe, Registrar, Brooke Aero-Space Medical Center.

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CHAPTER I

INTRODUCTION

Mounting volumes of paper, caused by retention of medical records for research and legal protection, have created a storage problem in today's hospitals. Paper storage has increased in the personnel, management, and business areas of the hospitals as greatly as it has increased in industry.[1]

After an investigation of record storage of various industries and departments of the government, the Archivest of the United States, Dr. Wayne C. Grover, in 1958 made the following statements:

1. Too many records are made and filed.
2. Too many records are kept too long.
3. Too many records are kept too expensively.
4. Too many records are kept inefficiently.
5. Too few records are adequate for executive use.[2]

In an article of the Library Journal which supported record storage reduction, it was emphasized that:

> The first stage in the study of any records program is that of analysis of the problem:
>
> 1. What records exist in duplicate forms, and can these duplicates be destroyed?
> 2. What records must be retained for what periods of time to fulfill legal and fiscal requirements?
> 3. What records should be retained for reasons of documentation, of historical value, of protection value?

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[1] Interview with James Borkowski, Assistant Administrator for Plant and Procurement, St. Paul Hospital, Dallas, Texas, February 1, 1966.

[2] American Association of Hospital Accountants. A Guide For the Retention and Preservation of Records with Destruction Schedules (Hospital ed.; Chicago: Records' Controls, Inc., 1958), p. 1.

4. What degrees of retrieval and duplication facilities are required?
5. How much of the file can be destroyed rather than retired?[3]

The necessity of looking into the retention of duplicate copies and other unnecessary items is borne out by the results reached by North Shore Hospital, Manhasset, New York, when it took action to improve its record storage policies. John T. Foster said:

> Discarded records, ten truck loads of records, laboratory specimens, and other debris, and one hundred transfer cases were carted to the dump, after personnel at the North Shore Hospital, Manhasset, New York, implemented a detailed policy statement on what should be kept for how long, by whom.[4]

Discarding unnecessary records is one method of reducing a record storage problem, but in looking for ways to reduce storage requirements there are two methods to be considered. The American Association of Hospital Accountants said:

> "Copy of Record" should be estsblished for all papers where multiple copies exist. The most complete copy should be retained and all others should be destroyed after they have served their active usefulness (italics mine). Centralized storage for all inactive records with adequate administrative control will insure protection of vital records and will reduce space by the elimination of duplications.
>
> With the increasing acceptance of microfilmed records, some hospitals have already solved their space problems. Records should not be microfilmed, however, when normal retention is less than two years. There should always be a comparison made between microfilming and the cost of storing the original records.[5]

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[3]Frederick Luther, "Economics of Microfilming: The Language of Lilliput," Part 5, Library Journal, LXXXVI (November 1, 1961), 3744.

[4]John T. Foster, "93 Ways Hospitals are Cutting Cost," Modern Hospital, CII, No. 4 (April, 1964), 97.

[5]American Association of Hospital Accountants, op. cit., p. i.

The intent of the previous statement is to emphasize the fact that administration can take action to reduce the required storage space, for instance, to destroy records of no value and to microfilm the valuable records to be retained.

This paper describes the types of medical records to be retained in St. Paul Hospital and the length of time these records should be kept. This paper also reports the merits of transposing the permanently remaining records to microfilm.

CHAPTER II

THE PROBLEM

Statement of the Problem

To evaluate the present method of medical records storage and retention procedures at St. Paul Hospital in Dallas, Texas, and to make recommendations concerning the types of medical records to be retained, the length of time to keep them, and the method used to preserve them.

Reason for the Study

Sister Elizabeth, the Administrator of St. Paul Hospital, requested that the present system of retaining medical records be evaluated. She was alarmed by the increase in space required in the hospital for the storage of medical records. She felt that a way could be found to reduce the number of records kept by the different departments and the amount of storage space required.

Criteria

1. There must be a valid reason for any duplication of medical records retained for more than one year.

2. Any new system of record storage should offer a fast method of retrieving a medical record.

3. For any medical record retained, there must be a legal or medical requirement.

Facts Bearing on the Problem

1. Duplicate copies of portions of the medical record are being retained in more than one department of St. Paul Hospital.

2. Duplicate copies of the medical record are being retained for an indefinite period.

3. Duplicate copies of the medical record are being kept in their original form.

4. Duplicate copies of the medical record are occupying space that might be used for other purposes.

5. The basement storage area now being used for medical record storage is desired for an outpatient clinic in the future.

Assumptions

1. The expected increase in the patient load because of the Medicare program will generate more medical records.

2. A better method of retaining the medical records than the one in current use can be found.

Approach to the Problem

1. Information on duplication of medical records being stored at St. Paul Hospital was gained by interviewing the Assistant Administrator for Plant and Procurement, the Medical Records Librarian, the Manager of the Radiology Department, the Supervisor of EEG and EKG Department, and the Manager of the Pathology Department.

2. Different storage systems and the cost of storing records were compared with those at St. Paul Hospital.

3. A review of the literature provided information on the current thinking and current laws relating to the retention of medical records.

Definition of Terms

Aperture Card--"An aperture card is a paper file card, for unit system filing, provided with a cut-out aperture in which a single frame of film is mounted."[6]

Binary--A binary is a number system where quantities are represented in base two rather than base ten.[7]

Camera Rotary Flow--

> A type of microfilm camera that photographs documents while they are being moved by some form of transport mechanism. The document transport mechanism is connected to a film transport mechanism, and the film also moves during exposure so there is no relative movement between the film and the image of the document.[8]

Descriptors--

> Key words or key terms which are the most significant parts of a total document, report, etc. Descriptors are short terms sometimes called uniterms which most significantly indicate the subject content of a document.[9]

Diazo Material--

> A slow print film or paper, sensitized by means of azo dyes, which, subsequent to exposure to light strong in the blue to

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[6]"The Language of Lilliput: Glossary and Index," Library Journal, LXXXVII (March 1, 1962), 921.

[7]D. M. Avedon (ed.), Glossary of Terms for Microphotography and Reproductions Made From Micro-Images (3d ed.; Annapolis, Md.: National Microfilm Assn., 1964), p. 4.

[8]Ibid., p. 8.

[9]Allen Kent, Textbook on Mechanized Information Retrieval (New York: Interscience Publishers, 1962), p. 84.

ultra-violet spectrum and development by ammonia vapor or alkaline solution, forms an image. Diazo material generally produces a non-reversible image, i.e., a positive image will produce a positive image and a negative image will produce a negative image.[10]

Emulsion--Emulsion is a photographic material coating in which light sensitive materials are suspended, such as silver halides.[11]

Hardware--

Hardware includes cameras, readers, file cabinets, and other equipment and accessories used in a microfilm program. In accounting systems, hardware conventionally is a capital equipment item which is distinguished from supplies and Contractual Services.[12]

Jacket--A jacket is a plastic film card for unit system filing, provided with one or more chambers into which strips are inserted.[13]

Jacket Filler--A jacket filler is an automatic or semi-automatic device for inserting film in jackets.[14]

Kalvar Copier--The term Kalvar copier refers to the following process:

The microfilm jacket and the Kalvar sheet are placed together, emulsion to emulsion. They are then placed together in a glass vacuum frame and exposed to bright lights for about 5 to 10 seconds. The kalvar film is then developed in a matter of seconds by running it through heat rollers. This process can be carried out in full daylight and no dark room is used. This process renders a positive reference copy from negative film.[15]

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[10]Avedon, op. cit., p. 16.

[11]Ibid., p. 19.

[12]"The Language of Lilliput," op. cit., p. 925.

[13]Ibid.

[14]Ibid.

[15]John V. Prather, "Hospital Microfilming" address made at the Kansas Medical Record Librarians, Kansas Hospital Association Convention, Wichita, Kansas, November 15, 1957.

Microfiche--A microfiche is a microfilm containing multiple micro images in a grid pattern on a transparent sheet of film. It usually contains a title which can be read by the unaided eye.[16]

Microfilm--Microfilm is a fine grain, high resolution film containing an image greatly reduced in size from the original.[17]

Random Access --This term means access to the recorded images on film under conditions where the next request, which comes into the system for which information is to be obtained, might be chosen at random.[18]

Reader--A reader is a projection device for viewing an enlarged micro-image with the unaided eye.[19]

Reader Printers--Reader printers carry rolls or sheets of paper for making enlargements without the necessity of darkroom facilities.[20]

Serial Unit System--Under the Serial Unit System the patient is assigned a new number on each admission. Any old records are brought forward and filed with the most recent chart.[21]

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[16]Avedon, op. cit., p. 38.

[17]Ibid., p. 39.

[18]Kent, op. cit., p. 274.

[19]Avedon, op. cit., p. 49.

[20]"The Language of Lilliput," op. cit., p. 928.

[21]Handbook of Hospital Microfilming (Boston: Hospital Microfilming Co., n.d.), p. 12.

CHAPTER III

REVIEW OF THE LITERATURE

Retention of Permanent Records

An article published in the Modern Hospital discusses several factors to be considered in deciding how long a record should be retained.

> In the final analysis, when there are no controlling statutes or regulations, the length of time records and registers should be retained depends upon several factors. This decision should include a consideration of the feasibility or practicability of microfilming, the availability of storage space, and the future need for such records (as well as the legal considerations of having the records available in the event of a suit by the former patient against the hospital or third party).[22]

A Guide for the Retention and Preservation of Records With Destruction Schedules, published by the American Association of Hospital Accountants, quotes guidance given by several leading medical organizations and then gives the guidance which their organization recommended. These are:

> Joint Commission on Accreditation of Hospitals--no established regulation on the retention of hospital records except that no records are to be destroyed from one examination by the Commission to the next. Their advice to hospitals is to be governed by State Statutes of Limitations.

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[22]John F. Horty, "Small Hospital Question: How Long Should Records Be Kept?" Modern Hospital, CII, No. 2 (February, 1964), 88.

American Hospital Association--referred to resolution of the board, dated 1947, advising hospitals to retain all medical records for twenty-five years.

American Heart Association, Incorporated--The American Heart Association has not studied or made any recommendations on the retention of electrocardiogram files in hospitals. It is the experience and impression amongst the staff here that it is the common practice of hospitals to keep the electrocardiogram files permanently. We further believe that this is a good practice at least until we know more about electrocardiogram patterns in relation to cardiac pathology. Certainly the electrocardiogram records should be kept as long as the patient's clinical record is kept.[23]

Table 1 shows the "recommended retention" time suggested by the American Association of Hospital Accountants.

Edna Huffman, when summarizing a retention schedule, says the medical record should be kept for a minimum of ten years. Anything kept longer than this is according to the needs of the individual hospital.[24]

Hayt and Hayt go further in their book by giving more specific time limits on records kept for clinical and scientific purposes.

The American Hospital Association in 1960 adopted a resolution recommending that medical records should be retained for clinical and scientific purposes for twenty-five years, but in hospitals with limited clinical and scientific programs, retention should be for 10 years. These standards have been approved by the American Association of Medical Record Librarians.[25]

The main points for a decision on the length of time to keep the medical records is the size of the hospital, the extent of clinical and

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[23]American Association of Hospital Accountants, op. cit., p. i.

[24]Edna K. Huffman, Manual for Medical Record Librarians (5th ed.; Berwyn, Ill.: Physicians' Record Co., 1963) p. 244.

[25]Emanuel Hayt and Jonathan Hayt, Legal Aspects of Medical Records (Berwyn, Ill.: Physicians' Record Co., 1964), p. 47.

TABLE 1

RECOMMENDED RETENTION TIME FOR MEDICAL RECORDS

Record	Recommended Retention	Remarks
Clinic		Microfilm after
Medical records (history)	25 years	10 years
Laboratory and therapy EKG's	25 years	Permanent in unusual cases
Electroencephalograms and Psychiatric case histories	10 years after mental disability is removed	Destroy tracings remaining after selected portions have been cut out for medical records or for research purposes
Test results	3 months	Except cases of unusual interest
Medical records Birth and death certificates	Permanent	
Medical Histories	25 years	Microfilm after 10 years if stored in rolls. If unitized jackets or cards are used, microfilming may be done at time of discharge

SOURCE: American Association of Hospital Accountants, 1958, pp. i-iv.

scientific research done, and the state legal requirements. Although some states, including Texas, have no controlling statutes or regulations, the recommendations of authors previously quoted range from ten years, twenty-five years, to permanently.

The legal requirements in Texas are, described by Overton and Davis, as follows:

> Unfortunately, in Texas, there is no law requiring the keeping of complete medical records.
>
> It is clear that the hospital record is maintained primarily for the use of the hospital and the medical staff in providing better patient care; thus, the length of time a record should be retained should be determined on the basis of sound hospital and medical practices. However, the decision as to the period of record retention cannot be made on the basis of administrative and medical determination alone. The medical records should be maintained for a period of time allowing the statute of limitations to run on possible negligence or malpractice suits.
>
> In Texas the statute of limitations on negligence and malpractice suits where an adult patient was treated is two years after the last treatment of the patient. Where the treatment was extended to a minor, the statute of limitations on possible negligence or malpractice suits is two years after the minor reaches his twenty-first birthday. Therefore, where a minor is involved, the records should be kept until the minor reaches his twenty-third birthday.[26]

Retention of Duplicate Copies of Records

Writers in the hospital administration field seem rather reluctant to state just how long a department should retain duplicate copies of its medical reports. MacEachern sets this precedent when he gives the following guidance for the retention of records in the laboratory and the radiology department:

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[26]Philip Overton and Dean Davis (compilers), Legal and Consent Manual (Austin, Tex.: Texas Hospital Assn., 1963-1964), pp. 1-2.

Laboratories

a. Clinical

Urinalysis and at least a hemoglobin or hematocrit (test) should be routine examinations on all admissions.

Signed reports should be filed with the patient's records and duplicate copies kept in the department.

b. Pathological

Signed reports of tissue examinations should be filed with the patient's records and duplicate copies kept in the department.

Radiology

Signed reports should be filed with the patient's record and the duplicate copies kept in the department.[27]

The Hospital Accreditation Reference offers the same type of advice that MacEachern does. The Association writes:

A. Content

Medical records should contain the following information:

Clinical Laboratory Reports. The original signed laboratory report should be entered in the patient's record. Duplicates are filed in the laboratory.

X-ray Reports. The original signed radiological report should be entered in the patient's record. Duplicates are filed in the department.[28]

Conversely, the American Hospital Association's Manual of Procedures is more positive in its guidance regarding the length of time the copies should be retained. Again, no definite destruction schedule is given; however, it is pointed out that there are no requirements other than those of the department head to keep these copies. They say:

Requests for technical analysis, pathological work, electroencephalographs, electrocardiographs, and basal metabolism rates

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[27]Malcolm Thomas MacEachern, Hospital Organization and Management (3d ed.; Chicago: Physicians' Record Co., 1957), p. 1197.

[28]Hospital Accreditation References (Chicago: American Hospital Association, 1964), pp. 104-105.

are sent to this department by the various hospital services and identified by the patient's name and hospital record number. The request forms are filed alphabetically by patient's name. The request with a copy of the clinical report may be retained in the laboratory file for a period of time determined by use in the department. (The original of the clinical report is filed in the patient's hospital record folder.)

X-ray

Clinical Reports File

The clinical reports may be made in duplicate or triplicate, one for the patient's hospital record, one for the X-ray department's file and one for the physician, if such a policy is in force. The file in the X-ray department may be arranged numerically by case of film number, or by patient's name, if a private outpatient. This file is for the department's use for technical studies and may be destroyed periodically.[29]

Edna Huffman again emphasizes that the department determines the length of time the duplicate copies should be retained. In her book Manual for Medical Record Librarians she states:

Duplicate Laboratory, X-ray and Operative Reports--As long as the original and signed reports are in the medical records, duplicate copies need be kept only as long as needed by the originating department.[30]

Disposition of Nurses' Notes

What should be done with notes made by the nurses has been discussed by authors in both the medical and legal fields. MacEachern feels that these notes should be retained as a permanent part of the medical record. The following quotation from his book says:

---

[29]Hospital Records Administration Manual of Procedures (Chicago: American Hospital Association, 1949), pp. 16-17.

[30]Edna K. Huffman, Manual for Medical Record Librarians (5th ed.; Berwyn, Ill.: Physicians' Record Co., 1963), p. 243.

> There has been some discussion as to the preservation of the nurses' section of the medical record. All authorities in the hospital field agree that the nurses' record has a value which justifies its preservation indefinitely as a part of the complete medical record. It is true that the nurses' record is usually a rather bulky section of the file, but the space utilized for its storage is well used.[31]

The modern trend is to destroy the nurses' notes that are of no value to the record, as quoted in Hospital Management:

> Whether or not you microfilm nurses' notes is a decision to be made by administration. The value of the notes will be the deciding factor. In the "Tri-State" area: Wisconsin, Michigan, Illinois, and Indiana, fifty-five percent of the hospitals discard nurses' notes.[32]

Hayt and Hayt agree that there is no reason to retain the nurses' notes unless there is a potential danger of a law suit.

> In most cases there is no need for retaining nurses' notes for as long a time as the remainder of the record. Some hospitals remove the nurses' notes from the record and destroy these sheets two or three years after the patient's discharge, unless a malpractice or negligence action has been brought.
>
> There are cases where it would appear advisable that such notes be retained for a longer period, as where patients have threatened suicide, have been noticeably disgruntled, threatened legal action or have suffered an accident in the hospital. Should a nurse or other hospital employee be involved in an accident to the patient, it is suggested that the nurses' notes be retained with the record or microfilm.[33]

Use of Microfilm for Medical Records

Trade magazines, such as Hospitals, Hospital Management, Modern Hospital, Medical Record News, and Library Journal, provide a background

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[31]MacEachern, op. cit., pp. 727-28.

[32]Adaline Hayden, "Medical Records, Nurses' Notes," Hospital Management, C., No. 1 (July 9, 1965), 24.

[33]Hayt and Hayt, op. cit., p. 56.

as to what other hospitals are doing in microfilming and whether they are satisfied. The Library Journal ran a series of articles which explains the background of microfilming, describes the filming equipment needed, and presents a glossary of terms.

A current pamphlet published by the National Microfilm Association contains a complete and precise glossary entitled "Glossary of Terms for Microphotography and Reproductions Made from Micro-Images."[34]

In MacEachern's book Hospital Organization and Management, there is a concise and surprisingly up-to-date explanation of the use of microfilm. The author also explains the different methods of storing the filmed record and presents some of the advantages and disadvantages of using microfilm.[35]

Edna K. Huffman, in her book Manual for Medical Record Librarians, has a complete chapter devoted to microfilming medical records. This chapter is very informative and should be read by any person who is considering the use of microfilm in a hospital. Her book covers the advantages and disadvantages of using microfilm and explains the problems involved in preparing the record for filming, the legal acceptance of the microfilmed record, and the use of contract services. She also tells about the type of equipment that is available for filming and systems to store the records.[36]

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[34]Avedon, op. cit.

[35]MacEachern, op. cit., pp. 756-759.

[36]Huffman, op. cit., pp. 261-276.

Eight contract microfilming companies combined their efforts and printed an educational booklet on microfilming that is called Handbook of Hospital Microfilming.[37]

This publication is one of the most informative sources on how to microfilm medical records. It is slanted toward contractual services and plainly indicates what should be done by the administrator who is considering microfilming his medical records and what specifications should be in the signed contract.

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[37] Handbook of Hospital Microfilming, op. cit.

CHAPTER IV

DISCUSSION

General Considerations

To evaluate the medical records that must be retained by each department in the hospital, the length of time they should be retained, and in what form they should be retained, one should know the purpose of a medical record and the nature of its contents.

The following history, as stated in the Manual for Medical Record Librarians, suggests that the importance of a medical record has been recognized since the beginning of time.

> The history of medical records runs parallel with the history of medicine. Records are as necessary for the practice of medicine as medications are for effective treatment, and they seem to have been made from earliest antiquity. Polychrome murals have been found in the caves of the Old Stone Age, and silhouettes depicting trephining and amputation of fingers appear on the walls of paleolithic caverns of Spain. These date back to about 25,000 B.C.[38]

The merits of the medical records are not disputed, but the content and purpose of records must be questioned in order to properly evaluate the retention usage of the record.

MacEachern describes the medical record as having well-recognized values.

> It serves the patient in his present illness and could be of value if the patient should become ill in the future. The medical

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[38]Huffman, op. cit., p. 1.

record is not only valuable in the treatment of the patient, but to the medical profession as a tool of medical research.[39]

The Manual for Medical Record Librarians recognizes the purpose of the medical record to be a help in patient care and a quality control gauge. It says:

> The medical record today presents tangible evidence of the care rendered by the hospital and medical staff, and is one of the major units in gauging the quality of overall care. It serves as a means of communication between the physician and all the professional groups contributing to the care of the patient. It is also important source material for the analysis, study, and evaluation of the quality of medical care rendered. Thus during hospitalization of the patient, the medical record serves a dual purpose:
>
> 1. It contributes to the professional care rendered the patient.
> 2. It reflects the quality of medical care rendered the patient.[40]

If the modern medical record is to serve its purpose, it must contain the information needed to help in patient care and research. The Hospital Accreditation Reference suggests that the medical record contain the following information:

1. Identification data
2. Complaint
3. Present illness
4. Past history
5. Family history
6. Physical examination
7. Provisional diagnosis
8. Clinical laboratory reports
9. X-ray reports
10. Consultations
11. Treatment: medical and surgical
12. Tissue report
13. Progress notes
14. Final diagnosis
15. Discharge summary
16. Autopsy findings.[41]

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[39] MacEachern, op. cit., p. 721.

[40] Huffman, op. cit., p. 33.

[41] Hospital Accreditation Reference, op. cit., p. 102.

Departments Generating Records

Medical records at St. Paul Hospital are generated in four departments: Medical Record Department, Pathology Department, Radiology Department, and Electrocardiogram-electroencephalogram Department.

Medical Record Department

The Medical Record Department at St. Paul Hospital maintains complete medical records of each patient admitted to the hospital or seen in the emergency room and protects the confidential nature of this material. It also maintains a patient name file and indices of physicians, diseases, and operations as required by the Joint Commission of Hospital Accreditation.[42]

This department is staffed by twenty-two full-time employees. In addition, there are two secretaries whose primary duty is to transcribe Radiology reports but who may also assist with dictation.

The Medical Record Department occupies 3,200 square feet and is divided into five working areas: medical record librarian's office, physicians' work area, transcription department, general office, and the current filing area.

The records are filed by the serial Unit System and contain all the information required by the Hospital Accreditation Reference. The patient's medical history and the summary of hospitalization are transcribed. All reports are assembled, reviewed, and presented for the

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[42]Interview with Ellen L. Farmer, R.R.L. Manager Medical Records Department, St. Paul Hospital, Dallas, Texas, February 1, 1966.

attending physician's signature within fourteen days after discharge of the patient. There have been, however, instances where laboratory and X-ray reports have arrived in the department for filing two months after the record had been signed.[43]

In an interview with James Borkowski,[44] he stated that the cost of storage of medical records at St. Paul Hospital is $3.40 per square foot. He also stated that because the storage areas in the basement are not separated by solid walls, a fire hazard exists. If the medical records cannot be removed from this area, it will be necessary to construct fire barriers. He stated, however, it was not desirable to build these fire barriers, because in the expansion plans for St. Paul Hospital this area is designated as the outpatient clinic.

In the treatment of a patient, a physician frequently needs to refer immediately to the patient's previous medical record. Medical records less than five years old are stored in a current filing area and account for 31.7 percent of the total area or 1,008 square feet. Records of more than five years are retired to a basement storage area occupying 1,332 square feet. Prior to transferring the records to the basement, the nurses' notes are removed. The average number of documents in the remaining portion of the medical record is twenty pages.[45]

The present plan of the hospital is to retain all of the medical records for twenty-five years, as recommended by the Joint Commission

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[43] Ibid.

[44] Borkowski, loc. cit.

[45] Farmer, op. cit.

on Accreditation of Hospitals. The Texas State Statutes do not require keeping complete medical records for any specific period of time, but, as noted in the review of the literature, medical records involving a minor should be maintained for two years after the minor's twenty-first birthday (See Appendix A).

St. Paul Hospital had the misfortune of having all of the medical records dating back to 1919 destroyed by fire in 1950. Consequently, records covering only the last ten years (1951-1961) are retained in the current filing area of the Medical Record Department.

Communications are very adequate and requested medical records may be copied and sent, in part or in total, by pneumatic tube to each department or nursing unit.

Pathology Department

The Pathology Department provides clinical laboratory procedures and anatomic pathology studies for all services of the hospital and clinics. Each division of the laboratory is staffed by Registered Medical Technologists and Pathologists who are always available for consultation.

The Pathology Department has three major sections: Anatomical Pathology, Clinical Pathology, and a blood bank. The laboratory is open for service twenty-four hours a day.

In a memorandum to James Borkowski, Miss Mary Clinton stated:

> Records in the Pathology Department are divided into several groups. Clinical laboratory reports are kept for a period of two years; the latest six months' records are kept in the electric kard-veyer as active records. Reports older than six months are filed in an inactive file and retained for one year. These reports are then placed in file boxes and retained another year. At the end of this time they are disposed of.

> Records of surgical tissue reports are never destroyed. A numerical file of the tissue reports is kept and the reports are bound in volumes of 1000. An alphabetical cross index card file is also kept on each patient and this too is a permanent file. In addition, an anatomical file is kept which is a diagnosis code file. The pathology accession number is entered on the proper card and if the diagnosis is not a malignant neoplasm or a rare benign tumor, these reports are discarded. However, the diagnosis card remains in a permanent file.
>
> A permanent numerical file on autopsy reports is kept and bound in groups of 100. In addition, an alphabetical card file is kept on these reports. This card is a key punch type and is kept permanently.[46]

Miss Mary Clinton stated that the clinical laboratory reports are rarely referred to after a sixty-day period. She felt that they should be retained at least sixty days for the convenience of the physicians located in the department, and for availability in case the originals were misplaced and not filed in the permanent record. Presently the clinical laboratory reports that are over six months old are kept in two filing cabinets which occupy 5.2 square feet in the laboratory department.[47]

The medical records kept on permanent file contain the clinical laboratory report, the surgical tissue report, and the autopsy report.

According to Miss Clinton, it has been the practice since 1926 at St. Paul Hospital to bind the surgical tissue and autopsy reports because they are thought to be necessary for research conducted by the residents and physicians. These bound copies are stored in wall cabinets that were provided at the time of the construction of the building.[48]

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[46]Interview with Miss Mary Clinton, Executive Secretary, Pathology Department, St. Paul Hospital, Dallas, Texas, February 1, 1966.

[47]Ibid.

[48]Ibid.

Radiology Department

The Radiology Department at St. Paul Hospital is divided into two sections--diagnostic radiology and therapeutic radiology.

When the investigation of the Radiology Department was begun, radiology reports were maintained in the department for two years, and a copy maintained in the Medical Record Department.

A space of fifteen square feet is utilized in the Radiology Department to retain the doctor's radiology reports.[49]

Electrocardiogram-Electroencephalogram Department

The Electrocardiogram-Electroencephalogram Department is under the direction of a Cardiologist and a Neurologist. All electrocardiogram-electroencephalogram tracings are initiated, processed, and maintained by the technicians in the department.

There are two storage rooms with open-shelf files for the retention of the original electrocardiogram-electroencephalogram tracings. Due to an inadequate storage system and no filing clerk (the technicians do the filing), the records sometimes become lost for a period of time.[50]

In order to retain the in-patients' electrocardiogram records, two copies of the tracing and of the doctor's report are Xeroxed, one of which is stored with the medical record and the other copy is sent to

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[49]Interview with Rudolph Crane, Manager, Radiology Department, St. Paul Hospital, Dallas, Texas, February 2, 1966.

[50]Interview with Miss Beverly Dickerson, Supervisor, EKG-EEG Department, St. Paul Hospital, Dallas, Texas, February 2, 1966.

the doctor who ordered the report. The original tracing is retained in the department for five years. It is then moved to the basement storage area for permanent storage.[51]

Outpatient electrocardiograms are Xeroxed and the copy is sent to the requesting doctor. No copies are sent to the Medical Record Department but the original tracing is maintained in the same manner as described above.

The electroencephalograms are retained in the department area for a six-month period, then transferred to the basement storage area. The doctor's report is Xeroxed and sent to the Medical Record Department to be retained permanently.

A card file with a copy of the doctor's report is kept in the department. This card notes the storage location of the electroencephalogram as either in the department or in the basement.

These records occupy 274 square feet in the department. More important, the records occupy a room which could be utilized as an examination room. The records in the basement occupy 135 square feet.[52]

The following sections are concerned with microfilming medical records. This work is being done my many hospitals today, as was pointed out by Dr. John D. Porterfield when he said: "Most hospitals are now going to microfilm for their permanent records, and if they can afford such a system I think it is a good one."[53]

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[51] Ibid.

[52] Ibid.

[53] Interview with Dr. John D. Porterfield, Director of the Joint Commission on Hospital Accreditation, February 15, 1966.

Microfilming Medical Records

Reasons for Microfilming

The administrator of a hospital must consider the advantages and disadvantages of using microfilm. If there is excess storage space in the hospital or in close proximity, he might not want to go to the expense of microfilming medical records. At the present time at St. Paul Hospital, there is no excess storage space. The record storage in both the current medical records area and in the retired medical records area is close to capacity.

Huffman lists some of the advantages of microfilming records:

1. Saving of space. Medical records contained in one file drawer can usually be filmed on one 100-foot roll of film measuring 4 x 4 x 1 inches. It is estimated that ninety-eight percent of the space can be saved when film rolls are used, or 75-80 percent when microfilm cards are used, the variation in the latter percentage depends on the type of card used.

2. Accessibility. Microfilmed records can be stored in the medical record department itself and so are readily available at all times. High shelves on stacks of drawers are eliminated, thus reducing the danger of accidents.

3. Protection. Medical records on film cannot be easily altered.

4. Elimination of misfiling. Misfiling of a medical record is impossible after it has been filmed, provided it has been left on a roll.

5. Saving of time. Filing films in the medical record department itself eliminates the time consumed in going to outlying storerooms for records. Time saved is money saved.

Huffman lists only one definite disadvantage:

Inconvenience for study. Research is almost impossible from film unless the film strips have been put in jackets.[54]

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[54]Huffman, op. cit., pp. 263-64.

However, the advantages as given by Huffman far outweigh the disadvantage. The drawback as stated can be easily overcome by the use of the Micro-thin jacket to store the microfilm.

Technical Aspects

There are four technical aspects to be considered in microfilming medical records: the quality of the film, storage and security, density, and reduction ratios.

In the early days of microfilming, there were problems with the film becoming brittle and spotting. However, the manufacturer has virtually eliminated most of these faults as was pointed out in 1957 by MacEachern:

> The film best adapted to microfilming has been found to be that of 16mm size. It has a cellulose acetate base and, according to the National Bureau of Standards, has a life under ordinary conditions equal to that of 100 percent rag-content paper, which is approximately 100 years or more.[55]

In the past, the lack of regulation of humidity created a storage problem. In newer hospitals, however, such as St. Paul, where air-conditioning and heating control keep the moisture content at an acceptable range, the storage of the film is no longer a problem.

The question of using special cabinets to store microfilm is answered in the Handbook of Hospital Microfilming as follows:

> To the extent that you should use a cabinet properly compartmented for rolls or Micro-Folio--yes. But do not waste your money buying a cabinet that is promoted and sold as a humidifying cabinet, as there is a real danger that your films can be harmed by the improper use of a cabinet of this type.

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[55]MacEachern, op. cit., p. 757.

> We have encountered instances in a number of hospitals where mold has attacked and nearly ruined the film due to the excessive humidification induced by this type of cabinet.
>
> Humidification is NOT necessary unless the prevailing relative humidity is under 25% for considerable periods of time.[56]

Huffman points out in her book that most hospitals at the present time are filming their records on two rolls of film, one of these being cut and inserted in a jacket, and the other being stored on the roll in another location as insurance against the loss of the record by fire.[57]

Most of the filming apparatus manufactured today is equipped to mount two rotary cameras which operate simultaneously.

Film produced today is no more of a fire hazard than ordinary paper. The fact that it takes up less space than the original record lessens the danger of fire. Huffman has this to say about film and fire:

> The film used has a cellulose acetate base and is rated by the Underwriters' Laboratory as the equivalent of the original sheets from the standpoint of fire hazard. The film burns as quickly as, but not more freely than, paper; and since the film occupies approximately 1/100th of the space occupied by the original records, the fire hazard is in reality reduced in just that proportion.[58]

The microfilming equipment that is now produced has manual adjustments so the operator can preset the density desired when filming. It is recommended by the Handbook of Hospital Microfilming that the

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[56] Handbook of Hospital Microfilming, op. cit., pp. 12-13.

[57] Huffman, op. cit., p. 271.

[58] Ibid., p. 264.

density of filming a medical record should not be less than 1.0 nor more than 1.2. This eliminates film which is too light when filmed less than 1.0 and too dark when the density is more than 1.2.[59]

The best and most economical reduction rate to film a record is 24 to 1. According to Poe, anything smaller than this is difficult to read and if it is larger one is wasting film.[60]

This reduction rate is also specified by the Handbook of Hospital Microfilming in its recommendations on what should be included in a contract.[61]

Legal Aspects

The use of microfilm or a hard copy produced from microfilm is as admissible in court proceedings as the original record.

An act approved by Congress in 1951 includes this provision (See Appendix B).

Texas law also has provisions allowing microfilm to be introduced as evidence in court. The Legal and Consent Manual, approved by the Texas Hospital Association, says:

> In Texas there is no law which would prohibit the microfilming of records.
>
> The Texas Statutes allow the use of photographic copies of business and public records as evidence in court. The courts have construed business records in the broad sense, and the definition would encompass medical records.

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[59] Handbook of Hospital Microfilming, op. cit., p. 6.

[60] Poe, op. cit.

[61] Handbook of Hospital Microfilming, op. cit., p. 5.

> Where the medical records have been put on microfilm and the hospital receives a subpoena to produce these medical records, the librarian should locate the roll of film or the individual card or cards into which the microfilmed record has been processed, and should produce it at the time and place requested. Whenever a subpoena is received at the hospital for medical records, the hospital administrator and the hospital's legal counsel should be notified. Since a roll of film may contain many records, the librarian or custodian should not give up possession of the roll, except on order of the court. Of course, photographic reprints may be made of the requested record.[62]

Therefore, if the administrators at St. Paul Hospital decided to convert to the use of microfilm, they would follow the same procedure that they are now using when required to produce a record in court.

Types of Storage Systems

The systems now available to the administrator are those using the reel, the aperture card, the micro-strip, the microfiche, and the micro-thin jacket.

The Reel

Each storage system, with the exception of microfiche, is first filmed with a rotary camera which utilizes film on a reel. Prior to the filming process, the record should be prepared for filming. This is normally done under the supervision of the Medical Record Librarian who, because of her position, is the person most familiar with the medical record.

Each record should have all of the staples and paper clips removed so that they will not damage the camera apparatus during the

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[62] Overton, op. cit., pp. 3-4.

filming process. Any part of the chart which has folded or torn documents should be repaired so that they will be fed into the filmer. The chart should be reviewed for proper sequence of the report. If it is discovered that some of the sheets have information on both sides of the paper, the person preparing the chart should indicate it so that the person doing the filming will know to film both sides.

A system should be devised so that a person viewing the reel can easily tell where an individual record begins and ends. One simple method is to insert a blank sheet of paper at the end of each patient's record before inserting the sheet of paper with the next chart's name and registrar number.

After a reel has been developed, it should be checked for completeness and defects prior to destroying the original medical record. After the reel is approved, the container in which the reel is kept should indicate what records are included, the sequence of the records, and their linear position on the film.

There are varied retrieval systems, for example, binary code on the microfilm for random access by descriptors or searches by descriptors on a computer. To describe each system is beyond the scope of this paper.

The Aperture Card

The aperture card utilizes a small area in a card in which pieces of microfilm are inserted. The amount of space available to place microfilm is limited by the amount of information placed on the card. The aperture card is designed for use when frequent references to individual frames are necessary.

The use of the aperture card would not be feasible at St. Paul for the storage of medical records because the average medical record contains twenty sheets to be photographed.

The Micro-strip

The Micro-strip is stored in a twelve-inch plastic sleeve which is placed in a molded plastic rack. A list must be maintained to denote the location of the record. This method of storage would not be practical at St. Paul Hospital because of the Serial Unit filing system. The revising of the strips and locater list would be continuous and the hazard of misfiling the records would increase because of this continual handling of the record.

The Microfiche

The process of bonding microfilm to an acetate sheet is used by several contracting services. In the Handbook of Hospital Microfilming, a description is given of this process and what the completed job will look like when it is returned to the hospital.

> (5) The contractor shall furnish microfolio tri-acetate sheets, sizes 3-1/4 x 5 inches.
>
> (6) After microfilm rolls have been inspected and approved, the strip of film comprising each individual case history will be cut from the roll, mounted on the individual micro-folio master acetate sheet, and indexed by the patient's case history number.
>
> (7) The Micro-Folio sheet (or sheets) comprising each patient's record will be placed in protective envelopes, which shall be die-cut so that the case history number is plainly visible through the envelope.
>
> (8) All completed Micro-Folios will be delivered to the hospital in their correct numerical sequence.[63]

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[63] Handbook of Hospital Microfilming, op. cit., p. 7.

It is easy for a hospital to reproduce the record by using either the Diazo or Kalvar System. The cost of this reproduction is approximately five cents per copy and can be done in the Medical Record Department. Another distinct advantage pointed out by Myra R. Enkelis is that the film is impregnated in the body of the sheet of film and scratches on the surface cannot harm the record itself.[64]

The major disadvantage to this system is that the microfiche card may not be completely used with the average admission and, if that patient is readmitted, a new card must be issued.

Microfiche has several advantages over the previously-mentioned systems. These advantages are listed in the State of the Library Art as follows:

1. A natural convenient sectionalization of the material.
2. A system of filing which makes every unit immediately accessible.
3. A means of identification which is integral with each unit and can be read without optical aid.
4. A medium more adaptable to handling and processing in small units than ribbon film.
5. A possibility of an inexpensive reading machine of limited scope and use.[65]

The Micro-thin Jacket

A patient's chart is first microfilmed on a reel, and that portion of the reel is cut out and inserted in a micro-thin jacket. The thin jacket can then be placed in a typewriter and the necessary

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[64]Myra R. Enkelis, "Film Your Record and Have It, Too," Medical Records News, XXXV, No. 5 (October, 1964), 191.

[65]Ralph R. Shaw (ed.), State of the Library Art, Vol. 5, Part 2 (New Brunswick, N. J.: Rutgers University Press, 1960), p. 57.

identification typed on it. This identification will be picked up on copies made by the three previously-mentioned methods.

The major advantage of the micro-thin jacket over the microfiche system is that additional records can be inserted if a patient is readmitted. The importance of this feature is emphasized by MacEachern:

> An outstanding feature of this method is the possibility, with type card, of adding to the microfilm record when readmissions occur. Usually a microfilm will fill only about one-third to one-half of the available opening in the card, thus leaving ample space for later additions. If a record should be so long as to fill an entire card, a second card may be added for readmissions. Another important feature is that filming of the microfilmed records in a card file makes them immediately available for reference.[66]

During an interview with Duwain J. Pingenot, he mentioned two aspects that should be considered when choosing the type of micro-thin jacket for a hospital:

> The thin jackets adapt themselves to reproduction when utilizing the Diazo or Kalvar method. The thicker acetate or card type jackets will not allow for a sharp infocus image to be produced on the microfiche copy.
>
> The microfiche image would be out of focus; however, a microfiche image produced from the micro-thin jacket would be of high quality. The quality of the hard copy reproduction is also superior when produced from the micro-thin jacket.[67]

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[66]MacEachern, op. cit., p. 759.

[67]Interview with Duwain J. Pingenot, Sales Representative, Recordak Company, February 5, 1966.

Methods of Microfilming Records

The three methods of microfilming records are the contract service, the hospital purchase, and the rental of the equipment. These three methods are explained in the following paragraphs.

Contract Service

The administrator who plans contract service considers carefully the reputation of the firm with whom he is dealing. In a speech, John V. Prather said:

> If the work is done on contract the wise administrator will be sure that he knows what he is doing. He will check with other hospitals where the contractor has performed similar work to see if they are satisfied.[68]

The preparation of the medical record is time consuming, and if the hospital personnel or auxiliary help can be utilized to perform this rather than the contractor, a savings can be realized by the hospital.

The questions that should be asked by the administrator of the contractor while negotiating the contract for microfilming are pointed out in the Handbook of Hospital Microfilming as follows:

1. Who will provide packing cartons?
2. Who will pack the cartons?
3. Who will provide transportation to the contractor's lab and back to the hospital?
4. What procedure will be used to microfilm the record?
5. How long will the records remain outside the hospital?
6. How and when will the original record be destroyed?
7. What is the cost per thousand images?
8. Is the safeguarding of the record guaranteed?
9. What is the quality of the work performed?[69]

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[68] Prather, op. cit.

[69] Handbook of Hospital Microfilming, op. cit., pp. 4-9.

If the administrator of St. Paul Hospital decides to use contract service to microfilm the medical records, he will find it necessary to purchase the following hardware:

1. Readers--priced from $195 to $595
2. Reader-printer--priced from $1,095 to $1,250
3. Diazo or Kalvar printer--priced from $300 to $1,075.[70]

The foregoing costs will be in addition to the fee paid the contractor for his service. This fee will vary with the terms of the contract. Some of the factors determining this cost are the one who will prepare the medical record for microfilming, the place where the record will be microfilmed, the time involved, and the quality of the work required by the hospital.

It is not necessary to consider the price of microfilm storage cabinets at St. Paul Hospital because there are adequate cabinets available.

A disadvantage is that the medical records have to be removed from the hospital to be filmed. However, in Dallas, there are microfilming companies, and if one of these were selected the record would not have to leave the city.

Hospital Purchase

When purchasing microfilm equipment, the administrator takes the same approach in regard to the manufacturer's reputation and the quality of his products as that which was cited in considering contract services.

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[70]Hubbard W. Ballou (ed.), Guide to Microreproduction Equipment (3d ed.; Md.: National Microfilm Assn., 1965), pp. 165, 195, 211, 213; Pingenot, op. cit.

In regard to a company's reputation, Frank J. Kerford said: "One of the most important things to look for when purchasing microfilm equipment is the reliability of the company to perform maintenance when it is necessary."[71]

The purchase of microfilm equipment has several advantages over contract service. One of the most important is that the medical record never leaves the hospital premises, and it is filmed under the supervision of the Medical Record Librarian. This eliminates the danger of loss during transportation of the record to and from the contractor's laboratory, or while in the hands of the contractor. This inhouse security provides the same controls in handling the medical record that has been continuously practiced at St. Paul.

Another important advantage is that after the back-log of old records is microfilmed, the new records can be filmed prior to filing, thereby eliminating preparation of the medical record for microfilming at a later date. The original record can then be retained for the period of time decided on by the administration, then destroyed.

One other advantage in the hospital owning the microfilming equipment is that, if at a later time the decision is made to expand the microfilming program into other areas, the equipment is available.

The disadvantage of purchasing equipment is the initial investment in the equipment. However, as compared to contract services,

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[71]Interview with Frank J. Kerford, Administrative Assistant for Methods and Procedures, United Services Automobile Association, April 28, 1966.

the only additional hardware necessary to purchase is the microfilmer and jacket filler (if jackets are used).

If the decision is made to microfilm the medical records, Theodore H. Poe suggests that:

> . . . arrangements be made with the microfilm companies, whose equipment is being considered, to put on a demonstration of their equipment to the members of the medical staff. This way the medical staff can evaluate the quality of the readers and reader-printers, and can indicate to the administrator which type they prefer. This accomplishes two objectives. It indicates which equipment is preferred by the medical staff, and it helps to acquaint them with the microfilm program.[72]

One of the earlier considerations in purchasing equipment was the time taken to train personnel to use the equipment. With the refinements on the newer machines, training is a simple procedure which is done by the manufacturer. The operator of the microfilmer simply presses a color code button to designate the color of the document, then the document is fed into the microfilmer.

If the administration at St. Paul decides to purchase microfilming equipment, it will need the following equipment and supplies:

1. Filming Device--priced $2,895 to $3,592.50.
2. Reader-Printer--priced $1,095 to $1,250.
3. Readers (14)--each priced $195 to $595.
4. Diazo or Kalvar Printer--priced $300 to $1,075.
5. Micro-thin Jackets--priced $63.65 to $58.35/thousand.
6. Micro-Jacket Filler--priced $55 to $1,395.
7. Film 200' rolls--priced $8.75 to $9.05
   This price includes processing.[73]

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[72]Interview with Theodore H. Poe, Registrar, Brooke Aero-Space Medical Center, April 2, 1966.

[73]Ballou, op. cit., pp. 77, 85, 211-13, 165, 195; Pingenot, op. cit.

When considering the amount of film necessary for purchase, one can use the following formula:

$$\frac{200 \times 12 \times D}{L \times 1} = \text{Number of images}$$

200 = 200' length of film

12 = inches

D = Reduction ratio

L = Length of document[74]

An example of this formula using an 8" x 11" document run on the 8" side at 24:1 reduction ratio is as follows:

$$\frac{200' \times 12'' \times 24}{8'' \times 1} =$$

$$\frac{57,600''}{8''} =$$

7,200 images per 200' roll.

Rental of Equipment

A search of the literature revealed no account of a hospital renting microfilm equipment. However, in an interview with Duwain Pingenot, he stated:

> Normally, the only time the personnel of a hospital might consider renting microfilm equipment is when they are interested only in microfilming on a periodic basis. Thus, they would microfilm once every three or four years the medical records that they are retiring to their permanent storage area.[75]

If they decide to do this, they should have the records already prepared for microfilming so they will not have to waste time while the filming equipment is in the hospital.

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[74]Kerford, op. cit.

[75]Pingenot, op. cit.

Summary

The central problem of this study was to evaluate the present methods of medical records storage and retention procedures at St. Paul Hospital in Dallas, Texas, and to make receommendations concerning the types of medical records to be retained, the length of time to keep them, and the method of preserving them.

Literature pertaining to the retention of permanent records recommends that the original medical record be maintained by hospitals for twenty-five years. Duplicate copies of reports filed in the original medical record are not required when the original is filed in the completed medical record. Experiences of the manager of the Medical Record Department and the Executive Secretary of the Pathology Department indicate that a sixty-day period is adequate to insure that the original reports are properly filed in the medical record.

Currently an area covering 2,340 square feet is being used to store the permanent copy of the medical record, and 429.2 square feet to store copies of parts of the medical record. The use of this combined square footage costs St. Paul Hospital $9,415.28 annually. Further, 1,467 square feet of this storage area are needed for future use as an outpatient clinic.

The section of this study pertaining to microfilm shows the use of microfilm as a legal method of retaining the medical record. The advantages of using microfilm outweigh the disadvantages in solving a hospital's medical record storage problem. In transposing its medical records to microfilm, which should be stored in Micro-thin jackets, the hospital can purchase microfilm equipment or contract services.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The following conclusions have been derived as a result of this study:

1. The medical record retained by the Medical Record Department should be kept for twenty-five years.

2. Duplicate copies of the doctor's X-ray reports need not be retained more than sixty days.

3. Duplicate copies of the clinical laboratory reports need not be retained more than sixty days.

4. Duplicate copies of the doctor's report of the electrocardiogram and the electroencephalogram are not required after a one-year period. Using the Serial Unit Filing System, all active records should be filed in the current year.

5. Abnormal electroencephalograms and those that might be needed for legal reasons should be kept intact and maintained for twenty-five years. Those not needed may be destroyed annually.

6. Microfilming is a legal and logical method to use for saving space in storing the medical record.

Recommendations

Based on the evidence presented in this study, the following recommendations are made:

1. That the complete medical record retained in the Medical Record Department be kept for twenty-five years.

2. That duplicate copies of the doctor's X-ray reports be destroyed after sixty days. (Action taken on recommendation: Duplicate copies are not retained. A copy of the diagnosis with the doctor's signature is affixed to the X-ray jacket and retained as long as the X-ray is retained.)

3. That the duplicate copies of the clinical laboratory reports be destroyed after sixty days.

4. That duplicate copies of the doctor's reports of the electrocardiogram tracing and the electrocardiogram-electroencephalogram be destroyed after one year. (Action taken on recommendation: See Appendix C.)

5. That the medical record be retained on microfilm, the original hard copy remaining in the Medical Record Department for three years and then being destroyed.

6. That the administrator of St. Paul Hospital contact companies representing both contract service and microfilm equipment sales for in-plant use to compare which method would be better suited to microfilm the records.

7. That the medical records now residing in the Medical Record Department be stored in Micro-thin Jackets.

8. That the medical records that are now retired and stored in the basement be retained on rolls.

9. That a security roll be produced and then stored off premises.

10. That three clinical laboratory reports be placed on a page to facilitate filming.

Future studies should be conducted to determine:

1. If records kept in the business office can be placed on microfilm or destroyed.

2. If medical records kept in the outpatient clinic can be maintained in the Medical Record Department.

3. If an underground centralized storage area for the security rolls of microfilmed medical records generated by all the hospitals under control of the Sisters of Charity would be feasible.

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APPENDIXES

APPENDIX A

HOSPITAL RECORDS

LEGAL AND CONSENT MANUAL

PHILIP OVERTON AND DEAN DAVIS (Compilers)

Austin, Texas

HOSPITAL RECORDS

The Patient's Hospital Record

The patient record is generally composed of two distinct parts. The first part contains information about the patient's history. The data in this section of the record are usually compiled on admission. The second part of the record usually contains the clinical information about the patient, that is: physical history, nature of complaint, temperature chart, admitting and other diagnosis, consultations, medication notes, laboratory reports, x-ray readings, surgical and delivery records (including anesthetic records, operative procedures, and findings), nurses notes, summaries, condition of patient at the time of discharge, and autopsy findings. This record is usually maintained by the professional staff and other authorized personnel. Therefore, the patient's hospital record is a complete, accurate, up-to-date indication of the history, condition and treatment of the patient, and the result of his hospitalization.

Legal Requirements

Unfortunately, in Texas, there is no law or regulation requiring the keeping of complete medical records. Certain records which would constitute a part of a complete medical record are required by law, for example, the narcotics laws require a record of the dispensing of certain narcotics.

There are nongovernmental agencies, such as the Joint Commission on Accreditation of Hospitals, which provide high standards for

the maintenance of medical records. While there is no state law which directly requires hospitals to maintain complete medical records, the practice of maintaining such records is uniform within this State.

Medical records are very important as tools in the practice of medicine and the operation of the hospital, not only because they serve as the basis for planning patient care and providing a means of communication between the persons contributing to the welfare of the patient, but also because they serve as a basis for review, study and evaluation of the medical care rendered the patient.

Accurate complete hospital medical records are the best possible evidence in defending against possible negligence or malpractice suits.

Retention of Records

It is clear that the hospital record is maintained primarily for the use of the hospital and the medical staff in providing better patient care; thus, the length of time a record should be retained should be determined on the basis of sound hospital and medical practice. However, the decision as to the period of record retention cannot be made on the basis of administrative and medical determination alone. The medical records should be maintained for a period of time allowing the statute of limitations to run on possible negligence or malpractice suits.

In Texas the statute of limitations on negligence and malpractice suits where an adult patient was treated is two years after the last treatment of the patient. Where the treatment was extended to a minor, the statute of limitations on possible negligence or malpractice suits is two years after the minor reaches his twenty-first

birthday. Therefore, where a minor is involved, the records should be kept until the minor reaches his twenty-third birthday.

The hospital owns the records that it keeps on a patient. Although it is good practice to have a signed authorization, the hospital may send records to another hospital or doctor presently caring for the patient without the patient's permission. If the records are forwarded to another hospital or doctor without the patient's consent, the hospital may be running the risk of being sued for a breach of confidential relationship or an invasion of privacy. The hospital should keep the original copy of their records as a defense against possible negligence or malpractice suits. When copies of these records are desired by other hospitals or doctors, a copy may be furnished, but the original should be kept by the hospital.

Microfilming And Other Processes

Where it is possible, the hospital might solve the retention problem by microfilming the records and destroying the originals. This would reduce the need for storage space but might raise other administrative problems. The members of the medical staff, for example, might object to the restrictions on the availability of particular records for purposes of research and review.

In Texas there is no law which would prohibit the microfilming of records.

The Texas Statutes allow the use of photographic copies of business and public records as evidence in court. The courts have construed business records in the broad sense, and the definition would encompass medical records.

Where the medical records have been put on microfilm and the hospital receives a subpoena to produce these medical records, the librarian should locate the roll of film or the individual card or cards into which the microfilmed record has been processed, and should produce it at the time and place requested. Whenever a subpoena is received at the hospital for medical records, the hospital administrator and the hospital's legal counsel should be notified. Since a roll of film may contain many records, the librarian or custodian should not give up possession of the roll, except on order of the court. Of course, photographic reprints may be made of the requested record.

Out of Court Disclosure Without the Patient's Consent

Where the patient cannot or will not consent to the release or disclosure of his records, a very crucial question presents itself. Of course, where a court order directs that the records be opened, consent is not required. If the hospital is sued by the patient, the hospital may use the hospital records in its own defense. The hospital may allow physicians to consult its medical records for the purposes of study and may employ the information in the record, or the record itself, for the purposes of statistical evaluation, research and education. Also see discussion of Article 5506 (a), 4a in the following pages of this manual.

Release of Information From Patient Record

Disclosure of items from a patient record to insurance companies without proper authorized consent, in Texas, may very well be an invasion of the right of privacy of that patient. For this reason

consent from the patient should be required before information from the patient record is made available to a third party. Before third parties, such as insurance companies, are given access to patient records and information with respect to patients, properly authorized consent from the patient should be first obtained. The only exception recognized in Texas is where the request is by a workman's compensation carrier. In those cases, because of the structure of the Workman's Compensation Law in Texas, the position has been taken that consent is implied. This does not mean, however, that a patient may not, even in a workman's compensation case, request the physician or the hospital not to make the information with respect to his physical condition available to the compensation carrier. Should the patient decline to make the information available to the compensation carrier, of course, the carrier is under no obligation to pay for the physical examination of the patient to the physician or for any hospital expenses. The physician and the hospital would be obliged to look to the patient for the payment of his bill under these circumstances.

The underlying philosophy of the law in Texas with respect to disclosure of information from the patient record is that the relationship between the hospital and a patient is one containing the highest confidentiality. Though not recognized by statute in Texas as a "privileged communication," as between a hospital and a third party, the hospital should consider the wishes of its patients when deciding whether or not to release information from the patient record.

An additional exception is contained in Article 5506(a), 4a. It states:

> "Sec. 4a. Any person or persons, firm or firms, corporation or corporations legally liable, or against whom a claim shall be asserted for compensation for such injuries, shall be permitted to examine the records of any such association, corporation, or other institution or body maintaining such hospital in reference to such treatment, care and maintenance of such injured person, under such reasonable rules and regulations as such hospital may require, and the hospital record with respect to the injured person or persons may be admitted in evidence in any proceeding with respect to the recovery of damages."
> See Forms 31, and 32.

As a matter of courtesy, the patient's physician may be informed of nonroutine requests for information from his patient's medical record.

APPENDIX B

AN ACT

PUBLIC LAW 129, 82d CONGRESS

UNIFORM PHOTOGRAPHIC COPIES OF BUSINESS

AND PUBLIC RECORDS AS EVIDENCE ACT

Approved August 28, 1951

Public Law 129 - 82d Congress

Chapter 351 - 1st Session

H. R. 4106

AN ACT

To amend section 1732 of title 28, United States Code, entitled "Judiciary and judicial procedure" by adding a new subsection thereto "To permit the photographic reproduction of business records and the introduction of the same in evidence."

* * * * *

"If any business, institution, member of a profession or calling, or any department or agency of government, in the regular course of business or activity has kept or recorded any memorandum, writing, entry, print, representation or combination thereof, of any act, transaction, occurrence, or event, and in the regular course of business has caused any or all of the same to be recorded, copied, or reproduced by any photographic photostatic, microfilm, micro-card, miniature photographic, or other process which accurately reproduces or forms a durable medium for so reproducing the original, the original may be destroyed in the regular course of business unless held

in a custodial or fiduciary capacity or unless its preservation is required by law. Such reproduction, when satisfactorily identified, is as admissible in evidence as the original itself in any judicial or administrative proceeding whether the original is in existence or not and an enlargement or facsimile of such reproduction is likewise admissible in evidence if the original reproduction is in existence and available for inspection under direction of court. The introduction of a reproduced record, enlargement, or facsimile does not preclude admission of the original."

* * * * *

APPENDIX C

PROPOSAL SUBMITTED BY MISS BEVERLY DICKERSON

AND APPROVED BY THE HOSPITAL ADMINISTRATOR

TO: Mr. James Borkowski, Assistant Administrator

FROM: Beverly J. Dickerson, EKG-EEG Supervisor

DATE: March 30, 1966

RE: EKG & EEG Files

Effective April 1, 1966, the following procedures will be followed on EKG and EEG files:

(1) The original EKG's with the cardiologists' reports will be kept in this department for a period of 3 years, and will then be destroyed if no subsequent EKG's have been run.

(2) Copies of the EKG's and their reports will be kept in the Medical Records Department for an indefinite period.

(3) Since Medical Record Department only has copies of the EKG's from 1961 on, older original EKG's and their reports will be filed in the basement, so that they may be obtained if necessary.

(4) When EKG's more than 3 years old are needed by the EKG Department, EKG will call Medical Records and request the charts of those patients by the hospital number at the time of their last confinement. When a patient has always been an out-patient, the EKG personnel will so state.

(5) Copies will be made and sent to Medical Records on all out-patients.

(6) An alphabetical list of all EKG's destroyed will be kept by the EKG Department, with the last hospital number of each patient.

(7) EKG's and reports older than 3 years will be kept with the recent ones in the EKG Department, when a patient has had subsequent EKG's.

(8) The last hospital number of patients having subsequent out-patient EKG's will be clearly written on the EKG reports by the EKG personnel, so that these out-patient EKG's may be filed with the patient's previous EKG's.

(9) The original 1961 and 1962 EKG's will be destroyed by the EKG Department as soon as time will allow.

(10) EKG's over 3 years old will be destroyed by the EKG Department, starting the first of every year, as soon as time will allow.

(11) All EEG's except legal cases and abnormal tracings will be thinned down to 2 pages of each run, and 2 years' records and their reports will be kept in the department. Abnormal records and those involving legal cases will be kept intact.

(12) All EEG's over 10 years old, except on people under 23, legal cases and abnormal records of people having subsequent EEG's will be destroyed as soon as time will allow each year, and only the reports kept.

(13) When time allows, the EEG's presently in storage will be thinned as in No. 11, above.

(14) EEG will continue to keep a card file on all EEG's run.

BIOGRAPHICAL SKETCH OF THE WRITER

Major Gerald D. Allgood [redacted]

From 1952 until 1956 he attended Oklahoma Agriculture and Mechanical College where he received a Bachelor of Science Degree in Animal Husbandry. Upon graduation he also received a reserve commission as a Second Lieutenant through the R.O.T.C. program and reported to duty at Fort Sam Houston, Texas, on July 7, 1956, where he attended the Basic Officers' Orientation Course.

Upon completion of the orientation course he was assigned to the 39th Infantry Regiment at Fort Carson, Colorado. He served there from August 16, 1956, until August 17, 1959. During this time, he held positions as Executive Officer of a Medical Company assigned to the infantry and as Administrative Assistant of a twenty-five-bed dispensary. He was then assigned to the U.S.A.H. where he was placed in the Registrar career field and integrated into the Regular Army.

In August, 1959, he was transferred to Regensburg, Germany, where he served as the Administrative Assistant of the 26th Station Hospital until July 31, 1962. After returning from Germany he attended the Career Officers' Course at the Medical Field Service School, Fort Sam Houston, Texas. Upon completion of this course in

May, 1963, he was assigned as Aide-de-Camp to the Commanding General of Walter Reed Army Medical Center. He served in that position until August, 1965. He then attended the U. S. Army-Baylor University graduate program in Hospital Administration. He is presently residing with his wife and two children at Fitzsimons General Hospital, Denver, Colorado, where he is doing the residency phase of the graduate program.