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A STUDY TO DETERMINE
THE BEST METHOD TO ASSURE THE PROMPT AND
ACCURATE COMPLETION OF INPATIENT MEDICAL RECORDS
OF PATIENTS DISCHARGED FROM WALTER REED ARMY MEDICAL CENTER



A Graduate Research Project

Submitted to the Faculty of

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In Partial Fulfillment of the

Requirements for the Degree

of

Master of Health Administration

by

Major Michael C. Hicks, US Army Medical Service Corps

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CHAPTER 1

Introduction

The timely and accurate completion of medical records is a problem not only for Walter Reed Army Medical Center, but for most other hospitals as well. For at least four decades, the health care literature has been replete with periodical article titles such as "Solving the Incomplete Record Problem" (Christian, 1946), "The Dog House Method for Handling Incomplete Charts" (McNabb, 1959), "Chicago Hospital Humors Its Doctors into Keeping their Medical Records Up to Date" (Unnamed, Modern Hospital, 1964), "Weekly Reminders, Suspension Notices Spur Physicians to Complete Records" (Reeder and Art, 1970), "Medical Records Completion: New Guidelines Specified" (Affeldt, 1983), "Timely Completion of medical records defined" (Affeldt, 1984), and "The fate of 'outstanding' postdischarge data" (Khuppenstein, 1985). The literature reflects many different approaches to resolving the delinquent medical records problem. No single approach or methodology appears to be equally applicable to all hospitals. In providing a solution to this challenge, each facility must review its procedures and devise a strategy which is both consistent with its management philosophy and which can be "sold" to its staff.

Conditions Which Prompted the Study

This study was prompted by a request from the Chief of Staff, Walter Reed Army Medical Center (WRAMC). The Chief of Staff expressed concern that the current control system for the timely completion of inpatient medical records at WRAMC was ineffective.

Under the current organization, there is no centralized medical records processing system for inpatient treatment records. Each inpatient floor administrator is individually responsible for devising and executing his own program for completion of inpatient treatment records. With no standardized method in place to perform this function, the current delinquency rate (averaging well above the Joint Commission on Accreditation of Hospitals (JCAH) standard of 50% of monthly dispositions) shows no sign of improvement. The Chief of Staff expressed a need to establish an effective control system to assure the prompt completion of medical records. He is concerned that more aggressive measures need to be taken with regard to the completion of inpatient treatment records to enhance the Medical Center's ability to comply with the Joint Commission on Accreditation of Hospitals (JCAH) medical records and quality assurance standards.

Current literature indicates that the perennial problem of delinquent records is an area where the JCAH is actively clarifying and tightening its standards. Until 1985, JCAH standards for medical record completion specified that records should be completed within a "reasonable period of time." The 1985 JCAH standards amended the pre-1985 guidelines to read, "The records of discharged patients shall be completed within a period of time that will in no event exceed 30 days following discharge; the period of time shall be specified in the medical staff rules and regulations." These changes to the JCAH accreditation standards were made concurrently with its increased emphasis on quality assurance--an area of significant concern and visibility within both the JCAH and the Department of Defense (DOD). In tying quality assurance to the process of completing the medical record, the JCAH has stated (as of 1985) that, "The quality of the medical record depends in part on the timeliness, meaningfulness, authentication, and legibility of the

informational content." The Joint Commission's 1987 Medical Records Standards are identical to the 1985 guidelines.

In addition to the important goals of meeting JCAH and DOD standards, timely completion of medical records makes good business sense. Timely completion of medical records facilitates greater accuracy in providing useful documentation of the medical treatment provided. Obviously, an accurate and complete medical record is beneficial to the patient's care. Additionally, an accurate, timely, and well documented record is often a critical element in establishing a defense for the hospital and practitioner in malpractice claims. The literature cites examples of patients who were discharged before results of lab tests or radiographs became available. In a number of cases, positive test results were placed in medical records and, when not discovered in a timely manner, untoward patient outcomes resulted. In other cases, due to a lack of timely follow-up on requested tests or procedures, results were lost and patients were needlessly required to submit to costly, and sometimes potentially dangerous, retests or repeat procedures. Based on the above, a case can be made to support the importance of timely completion of medical records and the resultant enhancement in the quality of medical care provided to patients at the Walter Reed Army Medical Center.

Research Question:

To determine the best method to assure the prompt and accurate completion of inpatient treatment records of patients discharged from Walter Reed Army Medical Center (WRAMC).

Objectives:

1. To perform a literature review on the topic of completing post-discharge inpatient treatment records. The literature review will be conducted to identify current trends, issues, and related research which are pertinent to the research question.
2. To determine the requirements of US Army Health Services Command and Walter Reed Army Medical Center Regulations and the Joint Commission on Accreditation of Hospitals (JCAH) standards as they pertain to quality assurance and the prompt and accurate completion of post-discharge inpatient treatment records.
3. To determine, through an analysis of statistical data, the extent of Walter Reed Army Medical Center's compliance with US Army Health Services Command Regulations and the requirements of JCAH as they relate to prompt completion of post-discharge inpatient treatment records and the quality assurance program.
4. To assess the impact of the implementation of the Automated Quality of Care Evaluation Support System (AQCESS) as it relates to the delinquent inpatient treatment records problem/solution at WRAMC.
5. To develop standardized methods, procedures, and organizational structures for WRAMC administrators to utilize in the processing of inpatient treatment records.
6. To determine which new or improved technologies (such as automation techniques and equipment) would best facilitate the prompt completion of inpatient treatment records at WRAMC.
7. To develop a cost-benefit analysis of contract versus in-house typing of narrative summaries and operation reports to assess the economic desirability of one option over the other.

8. To evaluate the adequacy of the existing medical records typing contract.

Criteria:

1. Requirements and standards for the accurate and timely completion of inpatient treatment records, as prescribed by the Joint Commission on Accreditation of Hospitals (JCAH), must be met.

2. Requirements and standards for the accurate and timely completion of inpatient treatment records as prescribed by US Army Health Services Command regulations must be met.

3. Walter Reed Army Medical Center Regulations and guidelines for the accurate and timely completion of inpatient records should adhere to the requirements specified by the JCAH and the US Army Health Services Command.

4. Proposed methods for facilitating the timely completion of inpatient medical treatment records should be acceptable to the command group (e.g. the Commanding General, the Chief of Staff, and the Deputy Commander for Clinical Services) and to a majority of the medical and administrative staff.

Assumptions:

1. As the Joint Commission on Accreditation of Hospitals (JCAH) increases its focus on quality assurance activities, timely completion of inpatient treatment records will continue to be an important aspect of the accreditation process.

2. The degree of timeliness of inpatient treatment record processing is an indicator of the degree of quality of care rendered. The provision of high quality care is a major goal

of the organization.

3. Existing historical data concerning delinquency statistics, for example, reports of delinquency rates and information contained in the individual inpatient treatment records (that is to say, date of discharge, date of laboratory test results, date of completion of inpatient treatment record, and responsible party for the deficiency, etcetera), is accurate.

4. The Walter Reed Army Medical Center Command Group will support a plan aimed at reducing inpatient treatment record delinquency rates.

Limitations:

None identified at outset of research activity.

Terms and Abbreviations: Important terms and abbreviations used throughout this study:

AMH Accreditation Manual for Hospitals

AR Army Regulation

DMAA Directorate of Medical Activities Administration

DOD Department of Defense

HSC Health Services Command

ITR Inpatient Treatment Record; the terms "ITR" and "chart" are used synonymously throughout this paper.

JCAH Joint Commission on the Accreditation of Hospitals

MRT Medical Record Technician

MRTT Medical Record Technician Typist; the terms "MRTT" and "transcriptionist"

are used interchangeably throughout this study.

MTF Medical Treatment Facility

PAD Patient Administration Directorate

WRAMC Walter Reed Army Medical Center

Review of the Literature:

Medical records administration has been an area of management concern for a great number of years. While articles attesting to problems with delinquent and incomplete medical records can be found dating back at least as far as 1946 (Christian, 1946), the realities and complexities of today's hospital environment call for a more current look at the providers and the systems that contribute to the challenges we face today with delinquent inpatient treatment records.

The medical record is clearly central to everything that we do in providing quality health care in today's hospitals. It is the document that is used to guide the differing members of the health care provider team in rendering coordinated, timely, and effective patient care. It is the document which is used to defend health care providers when they are challenged concerning the care provided or concerning care not provided. It is the document that is used to justify reimbursements. It is a document used to provide historical data for research and education as medical science strives for more effective and efficacious treatment methodologies. All these uses combine to make the timely, accurate, and complete recording of a patient's care absolutely essential in providing and monitoring quality health care.

As we move into the 21st century there are opportunities to automate many of the

activities associated with medical record processing. Personal computers and word processors give the medical records professional the tools necessary to track the processing of large numbers of records through complex systems. The Journal of the American Medical Records Association contains untold numbers of advertisements and reviews for automated record tracking systems that can operate on desktop personal computers. One such series of articles proclaims that

Nowhere has the ever-increasing impact of computerization in health care been felt more strongly than in medical records departments. Computer technology has been applied successfully to virtually all of the functions carried out in medical records departments, and most medical record professionals, at one time or another, have investigated the possibility of computerizing some of the activities for which they are responsible. (Stachura, September 1986)

Of particular interest to this paper is the software that is currently available for medical record location/tracking and record completion applications. These systems provide information about where a record is at any point in time.

Automated record completion systems provide a tool for monitoring record completion status. Deficiencies can be defined by the user, and as records are analyzed, information about deficiencies in each record can be entered into the system. (Deficiency information can also be entered onto abstracts for batch processing). A number of useful reports can then be generated, including listings of incomplete records by physician, listings of incomplete records by department or service, and summary chart deficiency statistical reports. Some systems also calculate the age of deficiencies based on user-defined time parameters and print physician warning letters and suspension notices. (Stachura, October 1986)

Other articles address the issues surrounding the difficulties and challenges with medical transcription. These articles take differing tacks. One article addresses the methods by which a manager can model a medical transcription system using a discrete system computer simulation model, GPSS (General Purpose Simulation System). When

used on a personal computer , "GPSS allows the medical record supervisor to explore numerous modes of operation and alternative transcription system configurations" (Evert, 1986).

Another article on transcription expounds the virtues, successes, and possibilities available through the use of home-based work stations (Wirth, 1986). This article *"traces how the authors first became involved with home transcription to facilitate more office personnel to work overtime and decrease transcription backlog. The article also describes the initial set-up and how a permanent home program eventually was established. Steps to be taken in setting up a similar program, "pitfalls" to watch for, suggested personnel criteria and environmental requirements are outlined"* (Wirth, 1986).

A very real problem in the District of Columbia and at WRAMC is the shortage of trained and experienced medical records personnel. The most difficult medical records positions to fill at Walter Reed are the medical transcriptionists (MRTTs). The literature supports the Walter Reed experience by indicating that nationwide there are more positions available than wanted in the medical record job market (Burda, 1984). Interviews with Washington, D. C. area Medical Records Administrators confirm that finding qualified medical transcriptionists is a major concern for their institutions.

Staff relations and the ability to maximize cooperation and minimize conflict between physicians and medical records personnel is another topic of critical concern in today's hospital environment. To accomplish these goals, Debra Hostetler tells us to make sure the medical records department is running smoothly. Medical records personnel should convey the attitude of service. The little extras in interpersonal relationships pay

dividends. Ms. Hostetler encourages medical records administrators to be creative, be decisive, and go out and try it. Try to determine what services that are unique to a floor could be offered to expedite getting signatures on a record. Ms. Hostetler says to replace "it's always been done that way" with "there's always a better way to do something." Other tips for improving communication with the physician staff is to be aware that empathy is a valuable asset and that timing and awareness of the other person's frame of mind are vital. Look for allies among the physicians, you can find them if you try. Last, but certainly not least, Ms. Hostetler reminds us that no matter how difficult the situation may get that there is a certain peace to be gained from remembering that, yes, even "this too shall pass" (Hostetler, 1986).

Research Methodology:

The research methodology for this study was accomplished in three phases.

a. The first phase consisted of an in-depth literature search and the collection of retrospective data. The literature search assisted in identifying current trends in delinquent chart management, as well as providing a review of how other organizations have attempted to resolve this problem in their facilities. Collection of retrospective data included efforts to obtain historical reports concerning the inpatient treatment record delinquency problem at Walter Reed. Sources for this information consisted of:

- JCAH report from the 1984 inspection
- IG reports from the 1985 and 1987 inspections
- Previous studies on the same and/or similar topics at WRAMC

b. Phase two is best categorized as empirical research. This phase consisted of concurrent data gathering and site visits.

(1) Concurrent data gathering was performed via interviews and discussions with WRAMC staff and supervisors involved with the completion and/or processing of inpatient treatment records. Specifically, interviews were conducted with physicians, medical records staff and other appropriate personnel (such as the Walter Reed Inspector General, the Quality Assurance Coordinator, Clinical Department and Service Chiefs, Floor and Unit Administrators, etc.) to more accurately assess the perceptions and realities associated with the problem of timely processing of post-discharge inpatient treatment records. Additionally, concurrent data gathering was also gleaned from participation in committee meetings and/or review of pertinent committee minutes (e.g. the Quality Assurance Committee, Professional Staff Conferences, the Medical Records Committee, etc.).

(2) Site visits to other medical treatment facilities in the local area were conducted to learn their methods and degree of success in managing the delinquent inpatient treatment record problem. Facilities visited included hospitals both with and without active teaching programs (residency and fellowship programs) and which represented various management and organizational philosophies (e.g., for-profit hospitals; not-for-profit hospitals; a university hospital (George Washington University Medical Center); a military hospital of similar size and function to WRAMC (Bethesda Naval Medical Center); and a Veteran's Administration Hospital).

c. Phase three consisted of an analysis of the data collected and the development of conclusions and recommendations concerning the most efficient organization for inpatient treatment records' processing at WRAMC. Efforts were made to develop summary and trend information from the data collected. A cost-benefit analysis was prepared to

determine the relative costs of in-house versus contractor completion of medical transcription. The existing transcription contract was evaluated to determine its adequacy in meeting quality and timeliness criteria.

CHAPTER 2

Discussion

Over the eight month period of this study, the author's awareness of the impact of timely inpatient treatment record (ITR) processing on the operation and functioning of the Medical Center has increased exponentially. It is difficult to pinpoint the moment in time or the particular events which brought the realization that timely medical records processing is as important to the overall success of the Medical Center as any other single function. Increasingly apparent is the fact that those who evaluate and pass judgement over Walter Reed's ability to provide quality care, in large measure, base an important part of their assessment on the Medical Center's ability to control the basic, but critical, function of timely ITR processing.

Evaluation of ITR quality and processing rates is made by a number of external agencies--the Joint Commission on Accreditation of Hospitals (JCAH); the local Peer Review Organization--the Commission on Professional and Hospital Activities (CPHA); the Army's Patient Administration Systems and Biostatistics Agency (PASBA); and the U.S. Army Health Services Command Inspector General. Over the past several years each of these agencies have been critical of Walter Reed's inability to gain control of ITR processing. Although the methods and reporting procedures which lead to evaluation by each of these agencies differ to some degree, meeting the JCAH's thirty day standard for completing an ITR after the patient's discharge is the necessary fait accompli to meet all

requirements.

Over the course of this study, much command attention and emphasis have been directed to resolving Walter Reed's ITR dilemma. The expected, and desired, result of this emphasis has been a system that is in a constant state of change and evolution. The fast paced changes that have occurred, and that are in progress, have resulted in special challenges for the researcher. Circumstances and bases for conclusions and recommendations that were valid and pertinent at a point in time, quickly became outmoded and irrelevant as time progressed. While in some respects this situation made the study more difficult, it also added a sense of urgency, purpose, and emphasis for the study. Resolving the delinquent medical record problem is clearly one of the highest, if not the highest, management priority within the command.

The complexity of this problem is compounded by the large numbers of personnel, procedures, and priorities that exist in this very large medical treatment facility. While complex problems do not necessarily demand complex solutions, an appreciation for and understanding of those complexities is essential before appropriate solution options can be reached. As the study developed it became obvious that old ways of doing things, the status quo, were no longer acceptable just because "that is the way we've always done it." A new philosophy became operational which put emphasis on finding new, better, and more efficient ways to achieve the desired result.

Standards and Regulatory Requirements

As a Department of Defense Medical Treatment Facility operated by the United States Army Health Services Command, Walter Reed is obliged to comply with the requirements

of numerous regulatory and accrediting bodies. The requirements of the Joint Commission on Accreditation of Hospitals (JCAH) establish the baseline standards from which Department of Defense (DOD) (to include Department of the Army, U.S. Army Health Services Command, and Walter Reed Army Medical Center) regulations and standards are derived. DOD standards are on occasion somewhat more stringent than JCAH standards, but in no circumstances are they less so.

In the matter of medical records administration, the JCAH standard is the DOD standard and hence the Walter Reed Army Medical Center standard. The 1987 Accreditation Manual for Hospitals (AMH) indicates that the purpose of the medical record is to serve as a basis for planning and continuity of patient care, to serve as documentary evidence of the course of a patient's treatment, to document communications between patient care providers, to assist in protecting legal interests of all parties, and to provide data for continuing education and research. In order to achieve this statement of purpose the medical record must be complete and of high quality. The 1987 AMH states that the "quality of the medical record depends in part on the timeliness, meaningfulness, authentication, and legibility of the informational content." In regard to the issues of timeliness and completion of medical records, the 1987 AMH standard reads:

- * The records of discharged patients are completed within a period of time that in no event exceeds 30 days following discharge.

- * The period of time is [to be] specified in the medical staff rules and regulations.

- * A medical record is ordinarily considered complete when the required contents, including any required clinical resume or final progress note, are assembled and authenticated, and when all final diagnoses and any complications are recorded, without use of symbols or abbreviations.

* Completeness implies that the content of any dictated record has been transcribed and inserted into the medical record.

* Hospital policy defines when those individuals charged with the medical record committee function are otherwise allowed to declare any medical record complete for purposes of filing.

* No medical staff is allowed to complete a medical record on a patient unfamiliar to him in order to retire a record that was the responsibility of another staff member who is deceased or unavailable permanently or protractedly for other reasons.

* Any actions to be taken by the individual charged with medical record department responsibility in the event of medical record deficiencies or delinquency are defined in hospital policy and the medical staff bylaws. (Accreditation Manual for Hospitals/87, 1986)

While the absolute JCAH standard indicates that the records of discharged patients must be completed within 30 days following discharge, the JCAH will allow up to 50% of the monthly dispositions to be delinquent (over 30 days old) without imposing a contingency on the institution's accreditation status. Over the period January 1986-May 1987, Walter Reed has averaged 2007 discharges per month. In order to meet the JCAH standard, the number of delinquent inpatient treatment records at Walter Reed should, on average, be less than 1003 per month.

The Army Regulation which addresses the issue of medical records administration is AR 40-66, Medical Record and Quality Assurance Administration, dated 1 April 1987. AR 40-66 outlines the general procedures for the preparation, use, and completion of Inpatient Treatment Records (ITR) for Army Medical Treatment Facilities. Paragraph 7-10 of AR 40-66 specifies that "After discharge of a patient, the practitioner will complete his or her portion within 4 working days; i.e., final progress note, narrative

summary, cover sheet. (If a test result is pending, 7 working days will be allowed.) Should there be a delay in the transcription of dictated reports, the practitioner will have met his or her requirements as pertains to the completion of the ITR. (Each MTF will establish internal policy to satisfy the requirements of the Joint Commission on Accreditation of Hospitals for a completed ITR)* (Army Regulation 40-73, April 1987).

Walter Reed Regulation 40-73, Inpatient Treatment Records, dated 1 August 1984 (see Appendix A) is the operative guideline for inpatient treatment record processing at Walter Reed. Walter Reed Regulation 40-73 outlines the minimum requirements and provides guidance for the preparation, maintenance and disposition of Inpatient Treatment Records (ITR) at Walter Reed. The regulation includes specific guidelines and time frames for completion of ITRs. In accordance with paragraph 14a of Walter Reed Regulation 40-73, each department, service or directorate is to establish and enforce internal time frames to insure timely completion of the ITR on a schedule which meets the following requirements:

within 24 hours post discharge	ITR to MRTT from MRT
within 2-14 days post discharge	ITR to PAD* from MRTT
within 15-29 days post discharge	ITR in PAD* for coding, transmittal, and permanent filing
30 days or more	ITR delinquent

*PAD is the acronym for Patient Administration Directorate. PAD has the ultimate responsibility for insuring prompt and accurate medical records administration within the Medical Center.

ITR Operations at the Beginning of the Study

The stated purpose of this study was to determine the best method to assure the prompt and accurate completion of inpatient medical records of patients discharged from Walter Reed Army Medical Center. In accomplishing this purpose a series of objectives were outlined in order to develop a concept of not only what the best method was, but also what it was not. To begin with what the best method "was not," we must take a look at the system as it existed at the beginning of the study.

It is important to realize that the processing of inpatient treatment records at Walter Reed is not just a function or responsibility of the Directorate of Patient Administration. The system for inpatient treatment records processing includes interface with many different departments, directorates, and activities. In addition to the Directorate of Patient Administration, the other major players in this "system" include the Directorate of Medical Activities Administration, the Clinical Department Chiefs and their staffs, the Medical Center command element, the Ancillary Services (most importantly are the Laboratory and Radiology) and the medical record transcription contractor(s).

The Directorate of Medical Activities Administration (DMAA), directed by a highly qualified administrator in the grade of Colonel, has the primary responsibility for providing administration to the inpatient wards at Walter Reed. DMAA is organized on the "Floor Administration" concept. Floors 4 through 7 house all of Walter Reed's inpatient units. Each of these floors has a senior administrator, known as the Floor Manager or Associate Administrator. The Associate Administrators are normally field grade officers (Major or Lieutenant Colonel). With each floor having administrative responsibility for

somewhere between 139 to 338 inpatient beds, as well as numerous outpatient clinics, operating rooms, and other miscellaneous administrative and ancillary support functions, the Associate Administrator has, on average, 4-5 Unit Administrators assigned to assist in administration of the floor. The Unit Administrators are either Company Grade Officers (Lieutenants or Captains) or civilian employees (GS-11). See Appendix B for a description of administrator staffing and bed capacity of each floor. Typically, a Unit Administrator is given primary responsibility for several inpatient "units" and several outpatient and/or administrative functions on the floor. While the Department of Nursing maintains control and supervision over all of their personnel on the floors, the Associate Administrators, through their Unit Administrators, are responsible for supervising all of the administrative support elements on the floor. The administrative support elements include the clinic receptionists and Ward clerks (also known as MRTs or Medical Record Technicians), the logistical and linen support functions, housekeeping support, and floor-level inpatient treatment records processing (Medical Records Technician Typists or MRTTs).

The floor-level inpatient treatment records processing responsibilities include accomplishing the following generic actions once a patient is discharged:

- Delivery of the inpatient medical treatment records to the medical record transcription/holding area on the floor
- Funneling all "loose" lab work from the unit through the processing system so that it may end up in the inpatient treatment record.
- Alerting/reminding physicians of their administrative requirements regarding the completion of the record.

- Funneling the physician's tape recorded transcription to the Directorate of Patient Administration so that the tape can be turned over to the transcription contractor.
 - After transcription by the contractor, the typed documents are returned to the floor for incorporation into the inpatient medical treatment record.
 - Once the record has been assembled, the staff of each medical record processing area (these people are generally referred to as the MRTTs--Medical Record Technician Typists) then assists in getting the professional staff to sign, initial, or complete whatever elements are necessary so that the inpatient treatment record (often referred to as the chart) can be transmitted to the Patient Administration Directorate
 - After the chart has been assembled and signed on the inpatient floor, the MRTTs then send it to the inpatient medical records section in the Directorate of Patient Administration for review, coding, and final acceptance of the completed chart. The goal for record completion is achieved when the record has been processed through this area and has met all of the required processing standards within a period of thirty days from the date of the patient's discharge.
- (See Appendix C for a more complete listing of duties and responsibilities of the MRTTs).

While the accomplishment of the above listed actions represent general requirements of the Floor Medical Records Processing areas, as the study began the methods and skills of the individuals on each floor varied significantly. Control of medical records was not strict. Physicians were allowed to take records to their offices or home or wherever they wanted to work on them. Accurate tracking of the status of completion and current location of records was normally very difficult and time consuming, if not impossible, to

accomplish. When records moved between floors or clinical services, such as when a patient was transferred from a medical service to a surgical service, accountability was often lost. The records rooms had no equipment for automated record tracking. They used a manual card file system to track records. This system was slow, cumbersome, and only as reliable as the degree of conscientiousness used when making entries onto it.

In July 1986 the processing "system" for inpatient treatment records was a disjointed effort which was not always totally supported by the approximately 300 staff physicians and the 275 house staff. Procedures and methods for tracking and monitoring the processing of inpatient treatment records were not consistent throughout the organization. While receiving general guidance and direction from the Director of the Medical Activities Administration Directorate, in practice each hospital floor processed records in whatever manner it considered best. (See Appendix D for flow charts of ITR processing on floors 4-7). The floor administrators were basically independent operators. There was no "centralized" or specific "WRAMC method" for processing medical records.

How Effective Is the Current ITR Processing System

Attempting to reach a "final solution" to the ITR delinquency problem at WRAMC is not a new idea. Although historical data is not available to substantiate it, discussions with the Medical Records Administrator and other key staff officers suggest that Walter Reed's delinquency problem has very possibly existed since the facility opened in 1909. While that claim may be an exaggeration, the message is clear--Walter Reed has had a problem with timely completion of ITRs for many years and many initiatives have been made in

efforts to manage the problem. As the years have passed and the size and complexity of its operations have grown, Walter Reed has reached a point where its size (and consequent volume of work) complicates the resolution of even many small administrative tasks. The administration of medical records is certainly no small task; therefore, at Walter Reed, the planning and coordination necessary to establish and maintain a timely processing system for medical records is a task that will require a long-term, focused approach for resolution.

A review of inspection results reported by the United States Army Health Services Command Inspector General did not show delinquent medical records to have been an issue of concern during the 1985 inspection. As shown at Appendix E, the delinquency rates during the period 1984, 1985, and early 1986 showed a remarkable reversal from the high rates of the early 1980s. This positive trend is most probably explained by the massive attention given to this area in preparation for the JCAH inspection of September 1984. Inspector General reports for periods prior to 1985 were not available for review. The most recent Health Services Command Inspector General report (February 1987) indicates that Inpatient Treatment Records (ITRs) at Walter Reed are not being completed in a timely manner, citing that 2964 records were delinquent as of the inspection date. In the 1987 report, the Inspector General commented that, although it was noted "that delinquent inpatient treatment records were a recent priority at this medical center," it appeared to the inspector that there was a lack of medical staff support in completing the ITRs in a timely manner. Some of the problems noted by the Inspector General as contributing to the high rate of delinquent ITRs were the inability to fill vacancies for medical records processing personnel with qualified individuals, the

perceived inability to correct inaccuracies in AQCESS (the Automated Quality of Care Evaluation Support System), problems associated with the civilian contract for transcription services, and a lack of medical staff support and commitment to record processing.

To illustrate the magnitude of the problem at hand, Appendix E lists the number of delinquent inpatient treatment records at Walter Reed over the period January 1980-May 1987. From a cursory review of this data one can discern three trends. The three trends are discussed below. Appendix F reflects information concerning dispositions at WRAMC from 1983-1987. The number of dispositions for the years 1980-1982 could not be determined. For standard comparison purposes, it may be assumed that the average monthly dispositions for Walter Reed during the period January 1980-April 1987 was at no time less than 1800 nor more than 2025; 50% of those figures, or somewhere between 900 and 1013, represents the number of delinquent charts that are allowable under current JCAH guidelines.

Trend I--Over the 1980-1983 time period Walter Reed experienced a low of 903 and high of 2499 delinquent ITRs per month. During this period, the JCAH standard was not specific as to how many ITRs could be delinquent before a hospital was in jeopardy of receiving a contingency on its accreditation. The pre-1985 JCAH Medical Record Services Standards stated that all medical records of discharged patients must be completed within the time specified in the medical staff rules and regulations. Based on the current standard of delinquencies not being allowed to exceed 50% of monthly dispositions, Walter Reed consistently failed to meet that standard during 1980-1983.

Trend II--From January 1984-April 1986, WRAMC's delinquency rates appeared

to be reasonably under control. During this period monthly delinquency rates fluctuated between a low of 447 and a high of 1091. Indications are that the impetus for this noteworthy reversal from Trend I was the JCAH inspection in September 1984. As a result of the relatively low numbers of delinquent ITRs during this period, there were no findings related to delinquent records on the 1984 JCAH inspection report.

Trend III relates to the period April 1986 to May 1987. This period began with the implementation of the Automated Quality of Care Evaluation Support System (AQCESS) in April 1986. AQCESS, as discussed elsewhere in this report, provides for an automated ITR accounting system. Implementation of AQCESS, coupled with personnel staffing problems and serious problems with contract transcription services, resulted in an unchecked increase in delinquent ITRs during the period May 1986 through January 1987. During this period the monthly delinquency rate grew from 755 in April 1986 to 3568 in January 1987. This distressing turn of events occurred despite the fact that considerable command attention was being focused on reducing the delinquency rate with the goal of reaching a level well below the 1984-1985 levels.

With Trend III occurring during the course of this study, the point was made clear that command emphasis alone is not the panacea that some would proclaim it to be. Clearly command emphasis is essential, but without adequate staffing levels and effective processing systems in place the desired outcomes will not be achieved.

The Implications of AQCESS in Relation to ITR Processing

The Automated Quality of Care Evaluation Support System (AQCESS) is a computerized method for aging Inpatient Treatment Records and monitoring the time

required to complete the record after the patient is discharged. AQCESS was brought on-line at Walter Reed in May 1986. Walter Reed was among the last medical treatment facilities in the Department of Defense (DOD) to implement AQCESS. The rationale for this late implementation was the desire by the Department of Defense Tri-Service Management Information System's Program Office to work through as many system "bugs" as possible before putting AQCESS into the largest medical treatment facility in the Department of Defense. Despite those well-meaning intentions, problems with AQCESS have contributed to WRAMC's delinquent ITR rate.

AQCESS was developed as a result of quality assurance concerns that originated with Dr. William Mayer, the Assistant Secretary of Defense for Health Affairs. AQCESS is a major initiative in the DOD's efforts to automate and standardize quality assurance activities throughout the military medical establishment. One objective of the system is to properly affix responsibility and accountability for patient care activities performed by DOD health care providers.

AQCESS consists of several modules--an admissions and dispositions/patient accountability module, a quality assurance module, and an inpatient treatment record control module. While well-intentioned, AQCESS has experienced a number of systems problems which have led to widespread distrust and frustration for administrators and physicians alike. Since data from AQCESS can potentially end up in a health care providers credentials file, system accuracy is of paramount importance. For example, if 30 days elapse after a physician discharges a patient and the medical record has not been processed and cleared from AQCESS by the Patient Administration Directorate, an annotation is made on the physicians "Health Care Provider's Profile" (part of the physician's credentials

file) that she/he has a delinquent medical record. Even after the delinquent record is processed, the anotation remains a permanent part of the physician's profile. Likewise, if a physician has a malpractice claim made against him/her or if the physician experiences an untoward result in the treatment of a patient, the profile is also anotated. Once this data goes into the profile it is a permanent part of that physician's credentials file. When the physician moves from place to place over the course of a military career, the information in the physician profile follows.

A problem with AQCESS at Walter Reed, and at other DOD teaching hospitals, is that AQCESS, being the sophisticated system that it is, requires a certain degree of sophistication in operating it. Once data is entered into the system incorrectly, an operator must be well versed in the operation of the system in order to properly make a correction. Maintaining highly qualified AQCESS system operators is a challenge that Walter Reed strives for but does not always achieve.

The system will only accept "credentialled providers" as "admitting physicians." In teaching hospitals, interns and residents are not considered to be "credentialled providers." At Walter Reed interns and residents frequently initiate patient admission forms and then send the patient with those forms to the admissions office. When the patient gets to the AQCESS entry clerk in the Admission's Office a problem arises when the computer does not recognize the name of the admitting physician. At this point it becomes necessary for the admissions clerk to make a decision concerning the proper course of action. In a most well intentioned manner, the admissions clerk, realizing what is happening, has to decide to either send the patient back to the admitting physician or to attempt to reach the physician on a phone to decide who can admit the patient or, as a third

option; the clerk determines who the admitting service is and enters that Service Chief's name into AQCESS as the admitting physician. The third option, using the Service Chief's name, is the most expedient method for handling this problem and therefore is used most frequently. After the patient is admitted to the ward, as a result of an improving or worsening condition or a requirement for surgery or intensive care, it has been determined that 25-30% of Walter Reed's patients are transferred to a ward different from the one to which they were originally admitted. This action is called an inter-ward transfer. See Appendix G for data on inter-ward transfers. An example of this might be a cardiac patient that is initially placed on a general medicine ward but is later transferred to the Cardiac Care Unit or to the Thoracic Surgery Ward. In the haste to take care of the patient's immediate and most pressing medical needs, the proper documentation to reflect the occurrence of the inter-ward transfer and consequent change in responsible physician (and service) is often forgotten or indefinitely postponed. Too frequently, the end result is that after the patient is finally discharged, the AQCESS roster may continue to identify a Service Chief as being responsible for completing inpatient treatment records on a patient that he or she does not know and who potentially was not even treated by interns or residents on his/her service or specialty ward.

The AQCESS Delinquent Inpatient Treatment Record Roster is printed and distributed every two weeks. The Patient Administration Directorate disseminates the rosters (which are compiled by inpatient service, such as Urology, General Surgery, Nephrology, Pediatrics, or Obstetrics) to the Floor Administrators for Floors 4 through 7. The Floor Administrators, with the assistance of their Medical Records Technicians Typists (MRTTs) annotate the rosters with the most current data available concerning charts for

the patients on the roster. Once this process is complete, the rosters are forwarded to the clinical service chiefs to determine the status of those records that the MRTTs could not locate. Due to the numerous inconsistencies on the AQCESS roster (such as patients being listed on the roster as assigned to a service after they have been transferred to another service; corrections that were requested to be made from previous rosters that remain uncorrected; or records which have been completed and turned-in to PAD, yet remain on the roster as incomplete and delinquent), the physicians and the administrative staff have come to seriously question the validity and expediency of using the AQCESS roster as the management tool it was intended to be. The inconsistencies and inaccuracies in the AQCESS roster, coupled with other management problems discussed elsewhere, have contributed to a significant increase in the ITR delinquency rate since AQCESS was implemented at Walter Reed in April 1986 (see Appendix H).

What Are the Problems with the Current System

Everything has its price. And so, too, does progress. The points of focus for making changes to the ITR processing system are the areas on each inpatient floor where the medical transcription and the medical record processing control functions are supposed to take place. Each floor is physically configured differently and has differing staffing levels. Although all charts eventually ended up in these areas for processing there was no centralized control of the ITRs. Charts are brought to the transcription area by the Medical Record Technicians (MRT) from the wards. The transcriptionists, most often referred to as the Medical Record Technician Typist or MRTT, review the chart, prepare a tracking card (each floor uses different procedures), and then the record is delivered to

the responsible physician, either directly or through a central collection point, such as in the appropriate service chief's office.

One result of this method of chart control is that once charts left the MRTT's office, if the physician did not return the chart in a timely manner, the MRT had to spend a considerable amount of time attempting to track down late charts. Without centralized control of the chart it was difficult to know if the chart was lost, in someone's in-box, filed in a desk drawer somewhere, or being packed with someone's household goods as they left WRAMC for a new assignment. Loose lab work and radiology reports that perennially follow medical records through the processing system had to sit in the MRTT's office awaiting the return of the medical record. On innumerable occasions, patients were readmitted to Walter Reed during this hiatus in the record completion process and the medical records from the previous admission were needed. With records distributed to the physicians for processing, a successful quick retrieval, despite the urgency of the situation, was the exception rather than the rule.

In the search for solutions to the lost and late record problems, this chart control (or rather, lack of control) problem was readily identified by the researcher as needing immediate resolution. Upon conferring with the Medical Records Committee and the Deputy Commander for Clinical Services, the researcher strongly recommended that the feasibility of establishing "centralized chart rooms" for each inpatient floor should be considered. The "chart room" concept was adopted as the most feasible solution to the chart control problem. The Directorate of Medical Activities Administration was then charged with the responsibility for making the Chart Rooms a reality. To emphasize the priority and emphasis that was placed on this project, suffice it to say that the project

went from the initial concept stage to the operational stage in less than three months. This accomplishment is remarkable considering the extensive work required to bring the concept to fruition. The establishment of the Centralized Chart Rooms required a significant amount of coordination and cooperation from a wide variety of administrative and clinical elements. The researcher became intimately involved in the many coordinating activities associated with this project. Rooms had to be identified that were large enough to accommodate the newly established role they were designed to perform. The Chart Rooms were to serve the joint purposes of providing a central holding area for ITRs that were being processed and serving as an area where the physicians could dictate their charts in a relaxed and professional atmosphere. To accomplish these goals, physical plant modifications, such as constructing and/or removing walls and relocating doors, had to be coordinated. Equipment, such as new dictation devices, desks, and chairs, had to be procured. Copy machines were determined to be essential for each chart room. They were justified and purchased using the Quick Return on Investment Program (QRIP). Telephone lines had to be installed. Procedures for the operation of the Chart Rooms had to be developed. Staff had to be informed of the pending changes and had to be "convinced" that the new policies--such as the decision that ITRs may not be removed from the Chart Rooms and that dictation would have to be performed in the Chart Room--were necessary. A new way of thinking about the processing of ITRs at WRAMC was initiated.

Concurrent with the implementation of the Chart Rooms, and the improved control of ITRs, several other parts of the ITR processing system were experiencing serious difficulty. The staffing of MRTTs dropped to an all time low and inadequate performance of WRAMC's civilian contract transcription services caused turn-around time for

transcription to become intolerable. During this period physicians appeared to be doing their dictation, but the administrative processing of that dictation was unforgivably slow.

The MRTTs are the key personnel on the administrative side of the processing system. The MRTTs prepare the ITR cover sheet (which contains demographic and diagnostic data), insure the Inpatient Treatment Record is assembled correctly, insure appropriate signatures have been made into the record, review the transcription that is returned from the contractor, and assist the physicians in countless other ways through performing "other duties as assigned."

As mentioned above, staffing of MRTT positions at Walter Reed is an area of continual frustration. MRTTs are hired at the GS-5 and GS-6 levels. Due to this wage rate being low compared with the salaries paid for similar positions in other medical treatment facilities in the Washington, D.C. area, Walter Reed experiences great difficulty in attracting qualified personnel in this career field. Currently, of 27 authorizations for MRTTs, only 17 are filled. Based on findings of a 1985 US Army Health Services Command Manpower Survey, it was suggested that Walter Reed would require the services of approximately 33 MRTTs and 4 MRTT Supervisors, for a total of 37 MRTT requirements, if all medical transcription was to be performed in-house at WRAMC. See Appendix I for MRTT staffing levels. Too often Walter Reed, out of sheer desperation, is forced to accept minimally qualified personnel in the hope that they can be trained to perform the required duty functions. These people, who are not fully productive during their orientation and OJT period, frequently stay at Walter Reed only long enough to gain proficiency and gain experience that they can list on a job resume for a higher paying job within the D.C. area. These circumstances are the source of a great deal of turmoil and

frustration among the administrative and clinical staff at Walter Reed.

Perhaps one of the avoidable delays which contributes to the inefficiency of the current system is the cumbersome and time consuming system used for getting dictation to the civilian contractors and then getting it back to the chart rooms on the inpatient floors. As currently established the physician dictates over a telephone line to a series of Lanier microcassette decks. The MRTTs then take the microcassettes from the deck and listen to the beginning of each one in order to get patient and physician identification data that is used to prepare a "control sheet" for transmittal to the Patient Administration Directorate's (PAD) transcription contract monitor. PAD then further prepares a log of the microcassettes received from the inpatient floors in order to have positive control as to what dictations have been given to which of the contractors and when the work went out. When the transcribed record comes back from the contractor, the reverse of this process occurs as the cassette and the transcription makes its way back to the inpatient floor. It is estimated that the processing chain associated with getting the cassettes to and from the contractors results in a minimum of four days of time lost in the processing cycle (two days to get the cassette out and two days to return the finished product to the MRTT on the inpatient wards). Depending on the volume of dictations, staffing levels of MRTT and PAD personnel, and other demands placed on the staff, the processing delays resulting from these requirements to "handle" the same microcassette several times periodically delays processing upwards of 7 - 10 days.

Another source of frustration and inefficiency in the MRTT arena is the archaic typing equipment which is being used to perform the "in-house" transcription at Walter Reed. In these days of sophisticated word processing and personal computers, the MRTTs

at Walter Reed continue to be handicapped by having to use electric typewriters with no correction capability. With the constant turnover of personnel in the MRTT jobs and the resultant need to groom replacements through the OJT process, the ability to quickly correct documents is essential. The seriousness of this situation is illustrated in the fact that of the thirteen non-supervisory MRTTs currently assigned only four are qualified medical terminologists. The other nine are in various stages of training in terminology and transcribing. This inexperience manifests itself in many ways, one of which is the need for the individual supervisors to conduct frequent training sessions to help the new MRTTs become familiar with medical terminology as well as the other responsibilities of their jobs. As might be expected, with these personnel in training there is a high rate of typographical and terminology errors. In order to meet quality criteria, corrections and/or revisions of documents typed on the electronic typewriters often have to be completely retyped. Clearly the efficiency and morale of both the individuals in training and their supervisors, as well as those who are already proficient medical transcriptionists, would be enhanced by the acquisition of modern word processing equipment.

Evaluation of the Current Typing Contract

Over the past 20 years Walter Reed has depended on various contractual arrangements to carry out the medical transcription needs of the Medical Center. Of primary concern to this study is the performance of the various medical transcription contractors utilized over the past two years.

Transcription contracts, like most other contracts awarded by agencies of the federal government, are awarded to the lowest bidder. This practice is rationalized by the process

used to find "qualified" bidders. This process includes the advertisement of the government's requirements (i.e. to provide medical transcription in support of xxxxx dispositions per month; specified timeliness and quality criteria, etc.). Interested companies or agencies who feel they are qualified to meet these requirements submit bids. The government then, based on the lowest cost, "fully" qualified bidder , awards the contract. The net result of this process has been that Walter Reed has had seven different medical transcription contractors over the past two years.

In general, the problems experienced with these contractors has been that they have not been qualified to handle either some or all of the following situations: (1) medical transcription vs general business transcription; (2) timeliness standards (i.e. 24 hours processing time for operation reports and STAT reports; 7 days for narrative summaries); (3) providing the necessary quality in the work performed (i.e. too many mistakes through carelessness or too many mistakes as a result of not understanding the terminology used); and/or (4) could not meet the quantity demands placed on them.

The difficulties and dissatisfactions with the various transcription contractors has been exacerbated by the reality that there is limited availability of high quality transcription contractors in the Washington, D.C. area. Based on this limited availability and a reasoned desire to provide our contractors the benefit of the doubt in regard to their performance, Walter Reed has allowed various contractors to continue providing service even when that service fell far short of the specified contractual performance criteria. In fact, until approximately 1985 there was limited emphasis placed on insuring that contractors performed in accordance with the specifications of the contract. The rationale for this practice has traditionally been based on the following factors: (1) the contractors

need a period of time to gear up for the new demands being placed upon them (even though this should have been accomplished as of the time the contractual service was initiated); (2) there is always a period of time required for Walter Reed and the contractor "to get to know each other" and for the two organizations to work out the glitches involved in handling the large volume of transcription cassette tapes that must exchange hands daily; (3) the reality that the deficiencies and difficulties experienced with one contractor would most likely be repeated should that contractor be defaulted (terminated for non-performance) and a new contractor hired; and (4) due to Walter Reed's inability to temporarily halt the creation of new records during times of transition from one transcription service to another. In most cases it was better to have slow but steady production from a contractor than to have no production at all.

As becomes apparent from the scenario described above, the medical transcription contracting process is a far more complicated undertaking than it might appear on the surface. While in theory it would seem to be a "black or white" issue--if the contractor meets the established performance criteria, then keep him; if the contractor fails to meet the established performance criteria, then terminate him and hire another contractor--, in practice making those yes-no, pass-fail, right-wrong decisions have had to be tempered with the mitigating and extenuating circumstances prevailing at the time. Such was the general philosophy and practice until 1985.

In 1985, a change in the outlook regarding how to administer the medical transcription contracts began to emerge. This change in thought concerning the management deficiencies associated with administering the medical transcription contracts led to the practice of contracting with two or more transcription services

simultaneously. Under this scenario, if one transcription service is unresponsive to the performance standards of their contract, they can be terminated without disastrous effects on the organization. The other transcription service(s) should be able to keep the system moving until a replacement could be found for the defaulted contractor. This system worked fairly well until mid 1986.

In mid 1986, Walter Reed's primary transcription source, Transcription LTD, began to experience problems in the retention of its employees. As a result, turn-around times began to grow longer and longer. In the fall of 1986, the two back-ups to the primary contractor, under tremendous pressure to respond to the ever growing workload, defaulted on their contracts and returned approximately 1000 uncompleted transcription tapes to Walter Reed.

A graphic representation of the processing times for Walter Reed's primary transcription contractor during 1986, Transcription LTD, can be found at Appendix J-1. Accurate workload data was available only for the period 7 November 1986 through the week of 27 April 1987. During this period Transcription LTD averaged 5 days turn around time on operative reports and 9.3 days turn around time on narrative summaries. The contract standard is 1 and 7 days respectively.

Of the two back-up contractors used during 1986, Medistat Transcription Service and Overload Transcription Inc, performance data was available only for Medistat (see Appendix J-2). During the period 22 August 1986 through the week of 14 November 1986, Medistat averaged 8.5 days turn around time for operative reports and 16.25 days turn around time for narrative summaries. Both Medistat and Overload defaulted on their contracts with Walter Reed in November 1986, leaving Transcription LTD as the sole

contractor during the month of December 1986. With the constant flow of patients into and out of Walter Reed and the growing numbers of patient procedures and discharges requiring transcription, the backlog of work quickly got out of hand. As a result of these and other compounding problems, the monthly number of delinquent medical records grew from 768 in May 1986 to 3413 as of the end of 1986.

In January 1987, Walter Reed entered into a contract with Medical Records Corporation for transcription services. Medical Records Corporation's performance during the period 5 January through 27 April 1987 is graphically represented at Appendix J-3. Average turn around times during this period for operative reports was 2.1 days and 4.7 days for narrative summaries. Although turn around times for Medical Records Corporation have been very good, the backlog of delinquent records remains at over 2400 as of the end of May 1986.

A review of the existing typing contracts in mid-1986 revealed well-written and adequately enforceable contracts. Specifications in the contracts addressed requirements for timeliness (operative reports to be completed within 24 hours and narrative summaries to be completed within 7 days of receipt), quality (requirements for the contractor to retype, at no cost to the government, any reports containing significant errors or errors that the physician might choose not to make a pen-and-ink correction on), and quantity (to complete x number of lines of operative reports and narrative summary reports over a specified period of time). The conclusion to be reached was that while the existing typing contracts were adequate and appropriate, circumstances precluded them from being fully and consistently administered. In order to rectify this situation, it became necessary to alter the circumstances in which Walter Reed found

itself in order to bring about a final solution to the medical record transcription contract dilemma.

It is unacceptable for Walter Reed to continue to be at the mercy of unqualified medical transcription contractors. Walter Reed must gain a combination of capabilities, both from in-house resources and from several highly qualified back-up transcription contractors, that will allow the Medical Center to have reliable performance for transcription services year round. Resolving the issue of reliability in contract transcription turn-around times is a critical element to solving WRAMC's delinquent ITR problem.

What Must be Done To Solve the Problem

In assessing what Walter Reed must do to solve the problem of delinquent inpatient treatment records, it is instructive to consider what other institutions are doing, consider what new or improved technologies are available to assist in resolving the problem, and consider what standardized methods, procedures, and/or staffing changes might be implemented at Walter Reed in order to better control the delinquency rates.

What Other Institutions Are Doing

Site visits to various medical treatment facilities in the Washington, D.C. area provided valuable information concerning the processing of Inpatient Treatment Records. During the course of this study, the medical records departments of fifteen area hospitals were visited. (See Appendix K for a listing of the hospitals visited).

The purpose of these visits was to develop a better understanding of the medical records administration procedures and to gain insights concerning how the medical

records delinquency problem was being handled in these facilities. This amalgam of treatment facilities represented medical records departments with a variety of profit motivations and varying sizes--from a one person medical records department to a department with over 100 employees. As a result of the variations in the operation of these medical records departments, the researcher was allowed a unique opportunity to compare and contrast the approaches of differing organizations toward resolving a common problem.

These visits were instructive and of significant value to this research effort. Despite the researchers wishes to the contrary, these visits offered no magic solutions to the medical records delinquency problem. Every institution, to a greater or lesser extent, claimed to have difficulty in meeting the JCAH standard for medical record completion. Even those few facilities which claimed to be within the JCAH standard (records for more than 50% of monthly dispositions should be complete within 30 days), met the standard only by a small margin.

Although these visits to area hospital medical records departments indicated that there are a number of different ways to address the medical record delinquency problem, some of the commonalities observed can be summarized as follows:

- The cause of the delinquency problem at civilian hospitals does not appear to be the same problem that Walter Reed has. In fact, it would seem that the cause of the problem at Walter Reed is, in large measure, just the opposite of what was observed in these civilian institutions. Civilian hospitals have a major problem in getting their physicians (who are not employees per se) to complete records in a timely manner. In general, civilian hospitals do not have an administrative handling problem with medical records. Whenever

administrative problems arise, management allocates sufficient resources to meet the demands. Often this means hiring additional full-time equivalents (FTE) on an as-needed basis or purchasing additional automation on short notice. Walter Reed, on the other hand, appears to have less of a problem gaining the cooperation of the physician staff than it has in resolving the administrative processing issues (staffing, equipment, and enforceable procedures) required to insure the timely completion of medical records.

- The author discovered no hospital that has been fully successful in providing all in-house transcription. There is a shortage of qualified medical transcriptionists in the Metropolitan Washington, D.C. area. Competition for these personnel is keen. Each hospital visited accomplished the majority, if not all, of their transcription requirements by contract. Contract performance was closely monitored and turn-around times were strictly enforced. Operative reports were required to be completed within 24-48 hours and the standard for discharge summary reports was 72 hours. Contractors who failed to meet these rigid standards were terminated and new contractors were hired.

- About half of the hospitals visited used telephone transcription which allowed direct-dial by the transcribing physician to the contractor's work site in order to speed processing times.

- Most of the hospitals visited had multiple contracts for transcription. About one-third of the hospitals were involved with "cottage industry" type contracting services with individuals working out of their homes.

- Several hospitals who had some in-house transcription capability have established affiliations with business colleges and/or schools who train medical transcriptionists in order to find and attract qualified applicants for their transcription requirements. A

number of these affiliations provide an on-the-job work experience for the students.

These affiliations allow the organization to evaluate the students (and vice versa) and the best students are often offered jobs and encouraged to come to work for the hospital upon graduation.

- Those hospitals with in-house transcription have developed incentive pay systems to encourage greater productivity from their typists.

- A common practice used by civilian hospitals to encourage physicians to dictate in a timely manner is to offer them "bribes". These "bribes" consist of everything from cookies and refreshments in the delinquent chart room, to free dinners, to tickets to performances at the Kennedy Center. When all else fails, each facility visited has procedures established whereby a physician's admission privileges may be deferred and/or terminated until his or her medical records are completed. In most of the hospitals visited, a letter is sent to each member of the medical staff every two weeks listing the inpatient treatment records that are outstanding and specifying what is to be done on each chart. These systems insure that the physicians are constantly reminded and made aware of the status of deficiencies for which they are responsible.

- In an effort to expedite the processing of medical records, several facilities have placed "coders" on the wards. In these instances one coder is expected to handle the records for approximately 80 beds. The coders evaluate the record for the ICD9-CM (International Classification of Diseases 9th Edition-Clinical Modification) for both insurance payment purposes and for DRG (Diagnoses Related Groups)-based payments from Medicare or Medicaid.

- A common problem experienced by transcriptionists, whether the service is

provided in-house or by contract, is the difficulty in providing transcription services for foreign medical graduates and others who speak English as a second language. This challenge appears to be more prevalent in Washington, D.C. and other metropolitan areas than in smaller communities.

Clearly, problems with timely completion of medical records is not just a situation that is peculiar to WRAMC--most medical treatment facilities find this to be a difficult issue with which to deal. Judicious consideration and application of various methodologies used by other medical treatment facilities may provide WRAMC with assistance in expediting a resolution to its inpatient treatment record (ITR) delinquency problem.

Improved Technologies

The complexities and challenges associated with insuring timely completion of inpatient treatment records in an institution as large and complicated as Walter Reed, require the hospital's administrative staff to marshal its resources in a manner that considers as many of the factors as possible which contribute to the problem's resolution. Recent advances in automation technology (and its increasing affordability) is one of the resources that should be considered. The gains that have been made in computer technology over the past decade appear to have largely remained out of reach of the Walter Reed staff charged with the responsibility for inpatient treatment record processing.

This situation has resulted in Walter Reed being less "automated" in the area of inpatient treatment record processing in general, and in the area of medical transcription in specific, than any of the other District of Columbia area hospitals visited during the course of this study. While it is recognized that the Automated Quality of Care Evaluation

Support System (AQCESS) was a step in the right direction even despite its short comings, as discussed elsewhere in this paper, the lack of basic word processing and inpatient treatment record location/tracking capabilities has certainly had an adverse effect on the productivity of the minimal numbers of Walter Reed staff charged with carrying out these functions. Availability of equipment and software is not the issue. A wide range of record location/tracking and record completion software programs are commercially available that can operate on personal, mini-, or micro- computers (Stachura, October, 1986).

The issue at hand is that, for whatever reason, automation of the transcription and inpatient treatment record processing functions has not received the level of management attention and funding priority necessary to equip Walter Reed with state-of-the-art automation equipment. At minimum, word processing equipment (preferably personal computers) must be obtained for use by the Medical Center's MRTT staff.

The advances of the past decade in providing instantaneous communication links across great distances via telephones lines and modems offers another opportunity for Walter Reed to take advantage of available technologies in its quest to speed the processing of inpatient treatment records. As discussed in the section entitled What Are the Problems With the Current System, the current system for handling the microcassettes of dictation that are destined for the transcription contractors slows the processing turn-around times by an average of 4 days and at times this slowdown has reached 7 - 10 days, exclusive of the time the contractor may have taken to complete the transcription. One solution to this problem is available through currently available technology.

The solution proposed for reducing the handling and processing times associated with the administrative control aspects of using outside transcription contractors is to

establish a system whereby the physician dictates via phone lines directly to the transcription contractor. This system removes the numerous requirements for handling and controlling the movement of microcassettes. To further speed the transmittal process between the institution and the contractor, equipment (i.e. printers, modems, and new or existing computers) can be used to electronically receive the finished product on the inpatient floor. Systems similar to this are currently in operation in the Washington, D.C. area and have been found to be of great benefit in speeding processing turn-around times for medical transcription.

Cost Benefit Analysis of Various Options for Providing Medical Record Transcription

Using a cost-benefit model to evaluate various options for completing the medical record transcription requirements at Walter Reed Army Medical Center is an effort to use a pragmatic approach to a very real problem. As a result of the mandate to complete inpatient treatment records in a timely and proficient manner, management must consider different ways to accomplish the task while assessing both the purely mathematical feasibility of various options as well as the constraints placed upon us by the realities of our environment. In short, for the cost-benefit model to be useful it must be considered within the context of the real world constraints under which an institution must operate. Given the possibility that the Medical Center's transcription goals can be achieved equally as well in more than one way, the pragmatic approach suggests that due consideration be given to each option. For the purpose of this analysis, three options for providing medical transcription services to Walter Reed were evaluated. Analysis of these three options address the respective costs for staffing, equipment, and other related

expenses. Facility costs were omitted from the evaluation due to the fact that these costs are the same for each of the three options, thereby yielding a net effect of zero between the various options.

The three options considered are:

Option 1: Transcription at Walter Reed will be accomplished through a combination of Walter Reed assets (1/3 of the transcription workload) and civilian transcription contractors (2/3 of the transcription workload). This is the current system at Walter Reed.

Option 2: Transcription will be accomplished solely by Walter Reed Army Medical Center assets.

Option 3: Transcription will be accomplished solely by arrangements with civilian contractors.

Assumptions: Assumptions used in this analysis have been made consistent with the most accurate data that could be obtained from the following staff elements at Walter Reed Army Medical Center: Directorate of Resource Management, the Directorate of Patient Administration, the Directorate of Medical Activities Administration and the Medical Center Chief of Staff. It is believed that these assumptions are reasonably true.

1. Evaluation of transcription costs over a three year period will allow for an adequate analysis of the three options.
2. The transcription workload at Walter Reed is currently 2,600,000 lines per year. This number can be expected to increase by 100,000 lines per year over the next two years.
3. The productivity of transcribers at Walter Reed averages 86,050 lines per year.

(Calculation of this rate is shown in Appendix L). The following factors affect the productivity of the transcription personnel at Walter Reed:

a. These employees are typically new to the transcribing profession; therefore, their proficiency is low, their need for training and supervision is great, and the requirement for frequent corrections to their work prohibits maximum efficiency for at least one year.

b. These employees, once trained and proficient, typically seek higher paying jobs outside of the federal sector; therefore, turnover among this workforce is high. These high turnover rates affect the institutions ability to achieve, and sustain, high productivity from the transcription workforce.

c. Another factor affecting the productivity of the transcriptionists at Walter Reed is that they are responsible for much more than just performing transcription. Their duties include obtaining data to complete the Clinical Record Cover Sheet, assembling the chart in proper order, analysis of the chart to determine if deficiencies exists (e.g. missing forms, unsigned orders, etc.), maintaining a tracking record for each chart, coordinating duties associated with the transcription contract, making copies of medical records, assisting clinical and administrative staff with inquiries, and numerous other time consuming tasks associated with inpatient treatment record processing. Appendix C contains a more in-depth discussion of MRTT tasks.

d. Based on the MRTT duties which are not directly related to transcription, a minimum staffing level of 1 Supervisor and 3 MRTTs are required on each floor even if all medical transcription is done by civilian contractors.

4. Salaries, inclusive of benefits, for Walter Reed personnel are as follow:

Transcription (MRTT) Supervisors (GS-6 Step 5)--\$9.53/hour or \$19,827/year

Transcription (MRTT) (GS-5 Step 3)--\$8.31/hour or \$17,292/year

The inflation factor for salaries is estimated at 4% per year over the next three years.

5. Costs for contract transcription services in the Washington D.C. metropolitan area currently average 0.1050 per line. These costs include all expenses incidental to the production of the work (i.e. all expenses incurred from time the dictation is picked up by the contractor from Walter Reed until the finished product is returned to Walter Reed).

There are no hidden costs. Given Walter Reed's past experience and the inflationary upward trend on cost per line of transcribed medical dictation, it is estimated that over the period of this analysis costs per line of transcription will increase by 8% per year.

Table 1 indicates the costs per line for the current year and the succeeding two years.

TABLE 1
Transcription Costs Per Line Over a Three Year Period
Given an 8% per Annum Inflation Rate

<u>Year</u>	<u>Cost per line</u>
1	.1050
2	.1134
3	.1225

6. Word processors or personal computers are essential pieces of equipment for an efficient transcription service. Since Walter Reed currently has no word processing capability in the transcription areas, procurement costs for this equipment have been

included in this analysis. A Zenith Personal Computer System was designed to meet the functional requirements of each MRTT and MRTT Supervisor at a cost of \$3,085.71 each. Annual maintenance contract costs for this equipment are estimated at 5% of the purchase price. The Zenith Personal Computer System includes a Zenith Personal Computer with 20 megabyte hard disk, dot matrix printer, MS DOS, monochrome screen, required cables, and programs for word processing and data base management.

7. Both fixed and variable overhead facility costs (such as utilities, maintenance and housekeeping) will be the same whether the transcriptionists use the available space fully, partially, or not at all. Space currently allocated for use by the transcriptionists (also referred to as Medical Records Technician Typists or MRTTs) will accommodate the 27 MRTT personnel authorized. No additional space will be required.

8. Appendix I outlines the MRTT staffing authorizations for each inpatient floor. Walter Reed currently has authorizations for one MRTT Supervisor for each of the four inpatient floors and 23 MRTTs.

Results of the Analysis

The Cost-Benefit Analysis of three options for the provision of medical transcription services at Walter Reed provided information which merits consideration. Table 2 provides a summary of the analysis. Appendix L may be consulted for an evaluation of the computational methodologies used to arrive at the total costs for each option. From a cost-benefit perspective, option #1 (providing transcription through a combination of Walter Reed assets and civilian contract) resulted in the least cost of the three options considered. The total cost of Option #1 was found to be \$1,622,434. This option has the benefit of offering flexibility for the organization in meeting the transcription challenge.

TABLE 2

Cost-Benefit Analysis of three Options for Providing Medical Transcription
Services to Walter Reed Army Medical Center

	<u>Option #1</u> (current)	<u>Option #2</u> (all in-house)	<u>Option #3</u> (all contract)
Year #1	\$541,193.	\$715,796.	\$572,769.
Year #2	\$523,012.	\$665,981.	\$605,082.
Year #3	\$558,220.	\$711,157.	\$653,833.
TOTAL COST	\$1,622,434.	\$2,092,933.	\$1,831,684.

In-house capability provides quick response for emergency/air evacuation reports that need transcription. This option also offers the institution a source of transcription during periods where the civilian contractors may be experiencing difficulties which results in slow turn around times on transcription. The major draw back of this option is that it is the current system and the current system is not working well at present.

Option #2, providing transcription solely by Walter Reed Army Medical Center personnel, at \$2,092,933 was the most expensive of the three options evaluated. The factors involved in the high cost of Option #2 center on the large staff (between 31 and 33 MRTTs plus 4 MRTT Supervisors) that would be necessary to process over 2,600,000 lines of transcription per year. Walter Reed currently has authorizations for 23 MRTTs and 4 MRTT Supervisors. Due to a shortage of qualified MRTTs in the Washington D.C. area, Walter Reed has only averaged 12-14 of the MRTT positions being filled over the past 12-18 months despite active recruitment efforts. As a result of the very real

difficulty in meeting the recruitment challenge for the currently authorized 23 MRTT positions, it seems prudent to assume that being successful in hiring 30-plus MRTTs is unlikely given the current availability of job seekers with this expertise.

Option #3 addresses the possibility of providing all of Walter Reed's transcription services from a civilian contractor (or contractors). This option, at a cost of \$1,831,684, was the middle ground for cost in the analysis. This option takes away all in-house transcription expertise and leaves only a skeleton crew of medical records personnel to complete quality control, evaluate the chart for proper assembly, track charts, and perform the other administrative processing activities associated with chart maintenance. This option, while on the surface relieving the Medical Center of the need to recruit, train and supervise a large MRTT workforce, leaves the organization in a precarious situation should there be lapses in service between transcription contractors.

In summary, the pros and cons of options# 1 through #3 lead one to believe that continuing with the current system (option# 1) is the most desirable course of action given that necessary improvements/modifications can be made to it. Those improvements/modifications must include resolution of the staffing, equipment, and procedural problems discussed throughout this research paper.

Standardized Methods and Procedures

As indicated in the section entitled What Are the Problems with the Current System, several problems exist (or did exist at the beginning of the research effort) which affect the responsiveness and effectiveness of the ITR processing system. One of those problems was the lack of adequate and standardized record control procedures. Issues involved with

this element of the system were: the lack of a standardized record tracking card for the institution; charts were allowed to be kept by the physicians during the period of time when they were completing their dictation; and there was no way to reasonably inventory (provide accurate accountability for) ITRs that were out for processing.

As referenced earlier, each inpatient floor had developed its own processing procedures for ITRs based on the best judgements of the administrative personnel involved (Appendix F provides a synopsis of the flow of records through the ITR processing system for each inpatient floor). Under the circumstances that existed at the time, those "best judgements" can not be faulted. Considering there were no centralized chart control procedures, the individual floor ITR processing procedures worked as well as could be expected.

Recommendations to improve chart accountability through the establishment of "chart rooms" on each floor were made by an Ad Hoc Committee on Medical Records in 1984. The Ad Hoc Committee on Medical Records was composed of the Director of Medical Activities Administration, the Director of the Patient Administration, and several of the key medical staff. For reasons that remain unknown to the author that committee's recommendations were not adopted by the command. Finally, as the result of new recommendations concerning this critical need, separate "chart rooms" for each inpatient floor were established in the fall of 1986.

The desire to standardize procedures for ITR processing began to become reality with the establishment of centralized chart rooms. With the necessity to develop procedures for the operation of the chart rooms, numerous meetings were held which provided opportunities for coordination and communication among and between various

administrative and clinical staff groups. The net result was the establishment of standardized methods for the processing of ITRs throughout the institution.

At present, the Walter Reed policy is that ITRs are to be delivered to the appropriate central chart room within 24 hours of a patient's discharge. The record remains there until all necessary floor-level processing (to include activities such as: record assembly, preparation of the Clinical Record Cover Sheet, insertion of appropriate transcription, insertion of laboratory and radiologic reports that have been forwarded to the chart rooms, insuring appropriate signatures have been affixed to the reports and orders, general quality control checks of the records, etcetera) is complete. From here the record is sent to the Patient Administration Directorate for coding, analysis and filing.

Further signs of increased standardization of policies and procedures associated with ITR processing can be seen in the recent decision to use only one record tracking card within the Medical Center. Also, monthly training for MRTTs and MRTs is now being accomplished on a centralized basis in an effort to establish a more uniform level of knowledge within the members of these groups. Out of these training sessions better communication has resulted. There is a sharing of ideas concerning what is the most effective way to accomplish common tasks. Standardized methods and procedures are beginning to spontaneously develop with the system. The new life and growth in the current system can be traced back to the implementation of the centralized chart rooms.

The Call for a Systems Approach

Solving the Inpatient Treatment Record (ITR) delinquency problem at Walter Reed is a challenge that will require a multifaceted strategy for its solution. Major reorganization of the administrative structure is not the answer, although some

modification to the current structure and procedures will aid in achieving a more efficient ITR processing system. In general, the current administrative infrastructure is adequate to serve as the basic building block from which to design a model ITR processing system. What is more essential to the resolution of the delinquency problem is the development of a strategy that will lead to a long term solution as opposed to the "quick fix" strategies of the past. An approach that looks to the long term solution has to incorporate the development of a "corporate culture" or organizational philosophy that speaks the message: "Walter Reed takes pride in providing the highest quality medical care available anywhere in the world--that pride must also be reflected in the clinical staff's professional abilities and the timely, well-documented records that they offer to substantiate the delivery of that care."

The coordinated efforts of literally hundreds of people at Walter Reed is necessary to solve the Inpatient Treatment Record delinquency problem. As has been pointed out in the discussion of the problem, there are no easy solutions to the delinquency problem at Walter Reed. The institution is so large and complex, and the numbers of people involved in processing the records are so multitudinous, that the solution requires a true systems approach to resolving it. To fix only one aspect of the problem, without addressing other associated areas that impact on the problem's resolution, results in a less than satisfactory return for the effort. A systematic approach to solving the record's problem must be geared to the long term solutions that will establish the correct milieu for sustainable success.

CHAPTER 3

Conclusions and RecommendationsConclusions

The best method to assure the prompt and accurate completion of inpatient treatment records of patients discharged from Walter Reed Army Medical Center is to return to the basics of productivity--provide the essential resources and systems necessary to accomplish the mission. To achieve maximum productivity, the institution must bring together the essential types and quantities of personnel, equipment and facilities; gain the proactive participation of staff at all levels; and correctly identify and provide timely resolution to problem issues which contribute to the delinquent medical records dilemma.

Conclusions reached are:

1. Walter Reed suffers from a chronic shortage of qualified personnel to perform the essential medical records processing functions. At present this shortage is most acute in the specialty of Medical Record Technician Typists.

2. Walter Reed has inadequate administrative support equipment for efficient ITR processing. This problem is summarized by the facts that the medical record processing centers and the Directorate of Patient Administration do not have: (a) an adequate word processing capability; (b) an automated database storage and retrieval capability; (c) an automated record tracking system; and (d) the capability for an automated communications interface between the medical record processing centers on the various inpatient floors.

3. Walter Reed has a major problem with the functioning of the mechanisms for accountability of medical records. The Automated Quality of Care Evaluation Support

System (AQCESS) has system problems ("bugs") which make its use as a record accounting management tool unreliable. Record accountability in the Centralized Chart Rooms, although much improved over the previous system, is still not totally dependable. The chart rooms depend on established policy and the "honor system" to insure charts remain within the confines of the chart room. Additionally, at present there is no quick and accurate means available to determine if all required charts are present in the chart room.

4. Walter Reed delinquency rates have been made worse as a result of : (a) MRTT processing delays; (b) transcription delays with the contractors; (c) physician dictating and signature delays; and (d) delays resulting from the necessity to wait on loose elements (e.g. x-ray and lab reports) to be received and/or filed by the MRTTs.

5. Lost charts at WRAMC present a dilemma for resolving the delinquent chart problem. With the current chart accountability problems at WRAMC, the exact numbers of lost charts is not known. Accountability is too often based on a total number of charts available for counting versus identifying and counting, by patient name, which charts are present or absent. Both pre-AQCESS and post-AQCESS lost charts need to be identified so that appropriate administrative action may be taken to reestablish accountability and thereby take positive steps to get those charts off of the delinquency list.

Recommendations

Based on the serious concerns expressed in the conclusions section above, recommendations are made herewith that will contribute to solving the delinquent inpatient treatment record problem at Walter Reed Army Medical Center. Although

challenges will always exist in regard to the management of inpatient treatment records and monitoring of delinquency rates, implementation of the following recommendations is a correct step to a much improved situation.

Recommendation 1.

Address, as a matter of highest priority, the issue of Walter Reed's inability to hire sufficient numbers of qualified MRTTs. Specific recommendations are:

a. Seek to attain U. S. Army Health Services Command (HSC) approval for Advanced Hire Rates, which will allow Walter Reed to offer salaries which are more competitive with local area health care institutions.

b. Seek to establish relationships with schools and vocational training programs which will allow for student co-op programs or externships to be performed at Walter Reed.

c. Seek to insure that all Tables of Distribution and Allowances (TDA) requirements for MRTTs and MRTs on the current TDA are designated as "TDA authorized". Once the TDA requirements and authorizations are equal, consideration should be given to evaluating the desirability and/or appropriateness of requesting that a Manpower Survey Team conduct an on-sight survey to assess the adequacy of the TDA staffing levels.

Recommendation 2:

Emphasize and continue to support efforts associated with establishing absolute accountability (by patient and physician name) for records that are in the processing system. A comprehensive WRAMC-wide purge of medical records from inappropriate temporary storage areas (e.g. doctor's offices, desk drawers, clinic file cabinets, brief cases, etc.), preceded by a well publicized no-fault record turn-in period (amnesty

should be granted to those who cooperate), will be necessary to establish credibility in regard to which records are truly lost to the system versus those which are temporarily misplaced within the confines of the Medical Center. From this experience, WRAMC needs to identify problems that contribute to lost charts or missing elements, and propose solutions to resolve them.

Recommendation 3:

Procure word processing equipment (a proposed system is described on page 47 of this report) for all MRTTs in order to increase the production quality, effectiveness, and efficiency of these personnel. State-of-the-art word processing/personal computing equipment is needed for each MRTT. This equipment must offer automated database storage and retrieval capabilities, word processing capability, an automated record tracking system, and the capability for automated communications interface both between the medical record processing centers on the various inpatient floors and with the medical records administration personnel in the Patient Administration Directorate.

Recommendation 4:

Continue to emphasize the importance of training and developing the proficiency of Walter Reed's MRTT staff. Attendance at monthly training sessions (centralized for all MRTTs) should be made a part of the MRTTs job description.

Recommendation 5:

Schedule meetings between PAD and DMAA to reconcile common problems (delinquency statistics, system problems with AQCESS, airing of mutual dissatisfactions, communication of procedural errors, awareness of staffing problems, discussion of new reporting or processing requirements, etc.) no less frequently than monthly.

Recommendation 6:

Seek opportunities to simplify and expedite processing times in order to achieve the JCAH standards for timely and accurate processing of ITRs. Two specific recommendations in this regard are:

a. Place "coders" from the Patient Administration Directorate on each inpatient floor so that coding and analysis of the ITRs can begin earlier in the processing cycle; thereby, expediting completion of the records.

b. Submit a Request for Proposal (RFP) to civilian agencies who provide contract transcription services. This RFP should challenge contractors to provide proposals to Walter Reed that address ways to expedite the handling and processing of dictation. Specific emphasis should be placed on generating proposals that take advantage of the latest technological innovations available for expediting records processing. The winning bidder should be given a contract to serve as Walter Reed's primary transcription contractor.

Recommendation 7:

Reconcile, through assistance from the US Army Tri-Service Management Information System's AQCESS experts, the system "bugs" that have plagued Walter Reed's computerized Automated Quality of Care Evaluation Support System (AQCESS). A multi-disciplinary Ad Hoc Committee should be formed to summarize and address concerns with AQCESS. Additionally, PAD personnel designated to operate the AQCESS system should be carefully selected and trained in an effort to minimize input errors and to facilitate accurate and timely corrections when incorrect data is entered.

Recommendation 8:

Continue to emphasize to the Walter Reed staff the importance of timely ITR processing and closely monitor delinquency rates. A reasonable standard for the institution (a figure within the range of 300-400 would be reasonable) must be established. Weekly reports to the Deputy Commander for Clinical Services and the Chief of Staff from PAD and DMAA should address the institution's degree of compliance with the standard and provide explanations for any trends that indicate a drift toward violating the standard. Personal responsibility for the timely processing of ITRs should be a standard entry on the Officer Efficiency Report (OER) Support Form for all Medical Corps officers who have admitting privileges at Walter Reed. All Medical Service Corps officers who have responsibilities associated with ITR processing should also have a similar objective listed on their OER Support Form.

APPENDIX A

Walter Reed Regulation 40-73, dated 1 August 1984
Inpatient Treatment Records

DEPARTMENT OF THE ARMY
HEADQUARTERS, WALTER REED ARMY MEDICAL CENTER

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WRAMC Regulation
No. 40-73

01 AUG 1984

MEDICAL SERVICES
INPATIENT TREATMENT RECORDS

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1. PURPOSE. To establish minimum requirements and provide guidance for the preparation, maintenance and disposition of the Inpatient Treatment Record (ITR) at this facility.

2. EXPLANATION OF TERMS.

a. Inpatient Treatment Record (ITR). An inpatient treatment record (ITR) is a medical record prepared for every bed patient or live born infant delivered in an Army Medical Treatment Facility (including hospital fixed health clinics or convalescent centers). An ITR is begun on admission to the medical treatment facility (MTF) and completed at the end of hospitalization. ITRs are also prepared for Carded for Record Only (CRO) cases. For the purposes of this document, the term ITR refers to the medical record in the binder on the ward, in the manila folder, and in the terminal digit folder for permanent file in the Patient Administration Directorate (PAD).

b. Admission. The placement of an individual beneficiary or other otherwise eligible person under treatment or observation as an inpatient constitutes an admission to this MTF. Normally, an admission to the MTF takes place only in response to the judgement and order of a physician (medical officer) or dentist. Administrative processing of an individual being admitted to the hospital or Carded for Record Only is accomplished in the Admissions and Dispositions Branch (A&D).

*This regulation supersedes WR 40-73, dtd 7 Jan 82.

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c. Disposition of an Inpatient. The release or discharge of an inpatient from treatment or observation in the hospital. Responsibility for determining the appropriate disposition of inpatients rests with the attending physician (medical officer) or dentist.

d. Convalescent Leave. A period of authorized absence granted to members under medical care for sickness or wounds and not yet fit for duty (or other disposition) which is part of the treatment prescribed for recuperation and convalescence.

3. POLICY.

a. Inpatient Treatment Records. ITRs serve: as a basis for planning patient care, as a means of communication between medical officers and other professional groups contributing to the patient's care, as documentary evidence of the course of the patient's illness and treatment, as a source for clinical research, and for medico-legal purposes.

b. Evaluation of the ITR. The Department of the Army and the Joint Commission on Accreditation of Hospitals (JCAH) evaluate an Inpatient Treatment Record on the basis of whether it contains sufficient recorded information about the patient's care to justify the diagnosis, warrant the treatment, and substantiate the end results. In agreement with this principle, the minimum requirements are: adequate identification data, chief complaint, history and physical examinations, a provisional diagnosis, reports of procedures, clinical laboratory reports, treatment rendered, progress notes, diagnostic and therapeutic orders, evidence of appropriate informed consent, summary and final diagnosis. Consultation, x-ray, tissue and autopsy reports are included.

c. Inpatient Treatment Records will be treated at all times as privileged private communications. The contents will be safeguarded at all times and will not be divulged except in accordance with AR 40-66, AR 340-1, AR 340-21, AR 340-17 and paragraph 15 of this regulation.

d. During hospitalization, the component parts of the ITR will be maintained in the chart holder. All original laboratory, x-ray, consultation reports, etc., will be filed in the ITR on a daily basis. ITR thinning will be accomplished only by or with the consent of the physician. Those portions of the record removed will be temporarily maintained by the Medical Record Technician. Late reports received by the ward on patients discharged or transferred to other nursing units will be forwarded to the responsible ward Medical Record Technician. Loose elements (lab, x-ray, reports, consultation, etc.) will not be turned in to Patient Administration unless the completed ITR has previously been turned into that office. The worksheet copy of the cover sheet shall be maintained in the chart holder for entry of diagnoses and procedures by the attending physician, dentist, podiatrist or midwife in charge of the case.

e. Forms authorized for use are those listed in AR 40-66 and certain local forms approved for use in the ITR by OTSG. All entries will be made in permanent

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black or blue-black ink, or will be typewritten. Individuals making entries in the ITR will sign their name, rank and status. All forms in the ITR should be signed originals and each form shall be used only for its designated purpose. Patient's name, register number, social security account number, with Family Member Prefix (FMP) and name of hospital shall be on each form in the ITR. Addressograph plates will be used to the maximum extent possible.

f. Inpatient Treatment Records will not be removed from the hospital without specific approval from the Director, Patient Administration.

4. RESPONSIBILITIES.

a. The Chiefs of Departments and Services will provide guidelines to insure the proper and timely preparation and completion of Inpatient Treatment Records, within their respective areas, to insure completion as specified in paragraphs 5 through 12.

b. Attending Medical Officers will compile adequate and accurate Inpatient Treatment Records. An admission history and physical examination will be performed and documented in the ITR within 24 hours of admission. The supervising physician or senior resident will initial the signature block on Standard Forms 504, 505, and 506 to indicate that he has reviewed the history and physical examination accomplished by residents and/or interns, and medical students under his supervision. Any additions or differences of findings will be noted by the senior resident or supervising physician prior to his certifying the accuracy and completeness of the history and physical examination.

c. The Chief, Department of Dentistry or his designee will insure that the following requirements are met in the processing of ITRs for patients admitted to the Oral and Maxillofacial Surgery Service. Patients admitted to the Oral and Maxillofacial Surgery Service for dental and oral surgical conditions will be admitted and discharged from the center by the dental officers of that service. A qualified physician or an oral surgeon (who has been granted such a privilege by the medical staff) shall complete an admission history, physical examination and evaluation of overall risk of the patient. The dentist shall be responsible for recording that part of the history and physical examination related to dentistry. A physician shall be responsible for the care of any medical problem that may be present on admission, or that may arise during hospitalization of dental patients.

d. The Chief, Orthopedic Service shall be responsible for insuring that the following procedures are followed regarding patients receiving podiatric care. Patients admitted for podiatric care will be admitted and discharged from the hospital by a member of the Orthopedic Service. An admission history and physical examination of the patient will be performed and the findings recorded in the ITR by a physician. The podiatrist is responsible for completing that part of the history and physical examination related to podiatry. A physician shall be responsible for the care of any medical problems that may be present on admission or that may arise during hospitalization of podiatric patients. Surgical procedures performed by podiatrists shall be under the overall supervision of the Chief of Orthopedics or his designated representative.

e. The Director of Medical Activities Administration (DMAA) will provide guidelines for the planning, organizing, directing and controlling the management of the Inpatient Treatment Record, prior to final disposition.

f. The Director of Patient Administration (PAD) will provide for the review of the ITR for completeness and accuracy; and safeguarding and storage after the patient's final disposition. Insures that the ITR meets the criteria set forth in AR 40-66 and Joint Commission on Accreditation of Hospital Standards, and that all diagnoses and operations are coded in accordance with the ICD-9-CM.

5. SELECTED ELEMENTS OF THE INPATIENT RECORD.

NOTE: A clinical record will be initiated by PAD for every patient admitted or carded for record only (CRO). (See para 3-12, AR 40-66 for specific instructions.) No patient will be retained on boarder status.

a. Abbreviated Clinical Record (SF 539)

(1) The abbreviated Clinical Record may be used for cases of a minor nature that require no more than 72 hours hospitalization. For example, it may be used for lacerations, plaster casts, removal of superficial growths, and accident cases held for observation.

(2) SF 539 may be used when military members are hospitalized for uncomplicated conditions not normally requiring hospitalization in the civilian sector (e.g., measles and URI).

(3) SF 539 will not be used for death cases, admission by transfer, or probable medical board cases.

(4) SF 539 may be used for cases in which general anesthesia was given only if:

(a) The patient is classified as ASA Class I, that is, the patient has no organic, physiologic, biochemical, or psychiatric disturbance. Also, the pathologic process to be operated on is localized and does not entail a systemic disturbance.

(b) The patient will be hospitalized no more than 72 hours. When SF 539 is used for these cases, the physical examination section must fully describe the cardiopulmonary finding. (Terms such as "normal", "WNL", and "negative" will not be used.) It must also describe any exceptions or other pertinent findings.

(c) A patient who was administered a general anesthesia, or undergoes a surgical procedure in the operating room or WRAMC Surgical Center, even though subsequently released from care that same day, will be admitted to the Center. Standard Form 516 (Operation Report) and Standard Form 539 (Abbreviated Clinical Record) will be completed for each patient.

(5) When SF 539 is used, the narrative summary may be replaced by a final progress note. However, when a short stay becomes a long one, i.e., when the admission exceeds 72 hours, a narrative summary must be prepared. In such cases, SF's 504 and 506 need not be completed in addition to SF 539; the reason(s) for the extended stay will be well recorded in the Progress Notes. Conversely, when a long stay is expected but the patient is discharged within 48 hours, SF 539 will not be prepared in addition to the already completed SF's 504, 505, 506; and the case may be summarized in the progress notes instead of in a narrative summary.

(6) Occasionally an outpatient is returned to WRAMC via the air-evac system for follow-up, and is admitted for the purpose of expediting their follow-up evaluation. It is conceivable that the evaluation may take 24-72 hours and upon completion of the evaluation, the patient may be required to wait an additional 24-72 hours for return evacuation. In cases of this nature, the 72 hour rule stated in paragraph 5a (1) above for use of the SF 539, will be extended to cover the time required for return aero-medical evacuation. The reason for the extended hospitalization will be documented in the clinical record. The patient must be reported and returned as an outpatient; the responsible physician will be required to prepare a Standard Form 513, Consultation Sheet (may be handwritten) and a DD Form 602, Patient Evacuation Tag.

b. Standard Form 504 (History - Part I), Standard Form 505 (History - Part II and Part III) and Standard Form 506 (Physical Examination)

(1) An admission workup will be prepared on SF 504, 504 and 506 within 24 hours after admission. They will be prepared in historical, chronological order, giving details of the present illness, dates and places of original condition. The type and nature of injury (how, when, where and exact time and date occurred) will be specified. (Current register number should be on SF 504, 505 and 506.)

(2) If a patient is admitted within 30 days of a previous admission and for the same condition, the physician must write an interval history and physical in the progress notes (SF 509) reflecting any pertinent changes, provided a copy of the original history and physical is in the record, and countersigned by the current physician.

(3) A statement of the conclusions of impressions drawn from the history and physical examination, and a statement of the course of action planned while in the hospital shall be included in the ITR.

c. Progress Notes (SF 509)

(1) Progress notes will be made as frequently as indicated by the nature of the illness. They should be written daily or even every few hours during the acute phase of the illness and will be dated and signed. For surgical patients, there will be a daily note for at least the first four post-operative days. In no case will more than seven days pass without a progress note. A final progress note (discharge note) will be written in such a manner as to

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describe the dates of hospitalization, final diagnosis, procedures performed and dates of procedures (when applicable), treatment given, course in hospital, discharge medications and follow-up care required, including any instructions given to the patient and/or family, and restrictions of activity if any. In nonmilitary cases, the above discharge management will be documented and the approximate date the patient can resume usual activity will be recorded. The above information will facilitate completion by the Directorate of Patient Administration of insurance forms, compensation applications, and other miscellaneous requests for medical history.

(2) To facilitate a more comprehensive chronological record of the patient's progress, all individuals, i.e., therapists, podiatrists, etc., responsible for providing health care services should make pertinent entries to document their evaluation and treatment. All personnel making entries must supply the professional or technical designation of the author, e.g., nurse, clinician, physicians' assistant, etc. Medical students making entries on the progress notes must identify themselves as such and must be countersigned by a staff or resident physician.

(3) In cases of hospital deaths, the final progress note will describe the terminal circumstances, findings and final diagnosis. The final note should also state whether or not an autopsy was requested.

(4) A comprehensive operative progress note shall be entered into the ITR immediately after surgery.

(5) Chronological Record of Medical Care (SF 600), MUST NOT BE USED IN PLACE OF Standard Form 509, Progress Notes. Standard Form 600 is designed for use in Outpatient and Health Records.

d. Operation Report (SF 516)

(1) An operation report will be prepared for all cases involving surgery in the operating room (OR), even when done under local anesthesia. A comprehensive operative progress note shall be entered in the patient's chart immediately after surgery. Operation reports will be dictated immediately after surgery and normally transcribed on SF 516 not later than seven (7) working days after dictation. To the extent possible, operation reports will be transcribed by WRAMC personnel, with no reports being dispatched to the commercial typing vendor for transcription.

(2) Operation reports will be filed in the ITR nine (9) working days after surgery. All procedures performed anywhere other than the OR (e.g., ward, clinic, and emergency room) will be described in the progress notes. Procedural terminology on the operative report or progress notes and narrative summary, will be the same. The surgical report will, as a minimum include:

(a) Pre- and post-operative diagnoses.

(b) Name of the operation.

(c) Full description of the findings, both normal and abnormal, of all organs explored.

(d) Detailed account of the technique used and the tissue removed.

(e) Condition of the patient at the end of the operation.

e. Consultation Forms (SF 513). Requests for consultations will include the date and concise statement of the complaint and present findings. Completed consultation reports shall include findings and recommendations that reflect, when appropriate, actual examination of the patient and the patient's clinical record(s), and the signature of the consultant. A consultation may be requested by the responsible physician when abnormal findings are discovered on routine "clearance", i.e., surgical or medical examinations.

f. Laboratory Forms (SF 546 thru 557) and Radiographic Reports (SF 519a)

(1) These forms are used to request laboratory tests and to report the results of these tests. Generally the laboratory form is a three-part set (original and two copies). After the results are recorded, the third copy is retained in the laboratory files; the original is routed to the requesting service for immediate filing in the patient's ITR; the second copy is routed to the requesting practitioner for use and disposition.

(2) The original authenticated Laboratory and Radiological Reports will be filed in the patient's record and attached to the appropriate sheet (SF 545 or SF 519a) on a daily basis by ward MRT.

(3) Automated and computerized medical reports are filed in the ITR with reports (SF, DD and DA Forms) to which they most closely relate (e.g., EKG and Cardiac Monitoring with SF 520). Undersize reports (except fetal monitoring strips, see c2, AR 40-66; para 7-1(b)) should be mounted by laboratory personnel before forwarding the reports to the ward for filing in the ITR.

g. Autopsy Reports (SF 503)

(1) A complete protocol on SF 503 (Clinical Record - Autopsy Protocol) includes:

(a) The gross anatomical findings.

(b) Provisional pathologic diagnoses.

(c) The final diagnoses based on the definitive microscopic findings.

(2) The pathologist's provisional anatomic diagnoses will be entered in the ITR within 72 hours of the patient's death. The complete protocol will be entered in the ITR within three months.

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h. Certificate of Death

(1) A Certificate of Death must be included in the ITR for definitive coding purposes by Coding & Analysis, PAD, with the exception of injuries and CRO.

(2) In cases of stillbirth, a Certificate of Death must be placed inside the ITR.

(3) The Certificates of Death are placed after the DA 3647 in the ITR.

i. Request For Administration of Anesthesia and For Performance of Operations and Other Procedures (SF 522) will be completed for the following procedures/operations:

(1) All major or minor surgery which involves any entry into the body, either through an incision or through one of the natural body openings.

(2) Any procedure or course of treatment in which anesthesia is used, whether or not an entry into the body is involved.

(3) Any nonoperative procedures which involve more than a slight risk of harm to the patient, or which involve the risk of a change in the patient's body structure.

(4) All procedures where therapeutic x-rays, radium or other radioactive substance is issued in the treatment of the patient.

(5) All procedures which involve electroshock therapy.

(6) All other procedures, which in the opinion of the attending physician, dentist, Chief of Service, or the Commander, require a consent.

(7) Any question as to advisability or necessity of obtaining a written consent form on behalf of the patient should be resolved in favor of procuring such a consent. There must be evidence in the ITR that consent received is an appropriate informed consent. The procedure/operation will be explained in layman's terms and the name of the physician performing the surgery or procedure will be indicated. The patient or person authorized to consent for the patient, the physician and the witness will sign, date and enter the time of completion.

j. Reports of pathology, and clinical laboratory examinations, radiology and nuclear medicine examinations or treatment, anesthesia records, and any other diagnostic procedures should be completed promptly and filed in the record, within 24 hours of completion, if possible.

k. Narrative Summary (SF 502)

(1) A narrative summary (NS) is prepared for all patients in these categories:

(a) Hospitalized beyond 72 hours (see para 5a (5)).

(b) Admitted by transfer.

(c) To appear before a Medical Board.

(d) Hospital deaths.

(e) Administered general anesthesia, (unless it is determined that patient is classified as ASA Class I - see para 5a (4)).

(2) It is this hospital's policy that the narrative summary will be dictated on the day the patient is discharged (or otherwise dispositioned). Patient discharge, however, should not be delayed for the sole purpose of dictating a narrative summary.

(3) The narrative summary should be concise (rarely more than one typewritten, single-spaced sheet) and will include in the briefest words possible:

(a) Provisional diagnosis (reason for admission).

(b) Brief history.

(c) Pertinent laboratory, x-ray and physical findings.

(d) Course and treatment (course, response to treatment; including consultations, etc.).

(e) Condition on discharge or transfer (ambulation, potential for self care, ability to work, restrictions of activity, etc.).

(f) The discharge instructions given to patient or his family (i.e., physical activity permitted, medication (by name and dosage), diet, and follow-up care).

(g) Final diagnoses. Terminology used must be same as that on CRCS (DA 3647), operative reports and progress notes.

(h) Procedures performed and dates performed. (Include types of prosthetic devices permanently implanted).

(4) The original narrative summary must be signed by the responsible physician. Should the narrative summary consist of more than one page, the last page must be signed.

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1. Physical Profile (DA 8274). A physical profile must be completed and filed in the ITR for all military personnel dispositioned from this facility, (AR 40-501).

6. CORRECTION OF ERRORS. Erasures, white-outs or other means of rendering the original entry illegible, will not be used to correct erroneous entries. The incorrect entry will be deleted by drawing a single line in ink through the entry without destroying its legibility and the correct entry. All such corrections will be dated and authenticated by the person making the correction.

7. COUNTERSIGNATURES.

a. The following ITR reports and entries will be countersigned by the supervising physician:

(1) Histories and physicals performed by someone other than the senior resident, staff physician, or certified midwife.

(2) Reports of operations written or dictated by someone other than the surgeon.

(3) Narrative summaries written or dictated by someone other than the attending physician, dentist, podiatrist, or midwife in charge of the case.

(4) Physicians' verbal and telephone orders will be countersigned by the prescribing physician within 24 hours.

b. Progress notes written by medical students may serve as official house-staff notes if countersigned and followed by brief note by countersigner.

8. RECORDING DIAGNOSES AND OPERATIONS.

a. Diagnoses. Diagnostic nomenclature will be recorded in language accepted as good professional usage. Vague and general expressions will be avoided.

b. Complications, hospital acquired infections or conditions arising during hospitalization must be recorded on the Inpatient Treatment Record Cover Sheet and narrative summary. The physician should indicate the diagnosis(es) not treated during current hospitalization, as well as those treated.

c. A diagnosis which was not incurred during a period of any active military service will be identified as "existed prior to service" (EPTS) following the diagnosis. For a death case with more than one diagnosis recorded, select the diagnosis' "underlying cause", in compliance with the "Physicians' Handbook on Medical Certification: Death, Fetal Death, Birth."

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d. Enter all diagnoses, including valid diagnoses made prior to a transferred patient's admission. Do not record transfer diagnoses not verified. The immediate condition which necessitated the admission of the patient to the current period of treatment will be considered as the primary cause of admission and so recorded.

e. Recording Injuries. If the patient is treated for an injury (including any adverse effect of chemical or other external cause or for any residual or sequelae of any injury), the entries will be further qualified with data describing how, when and where the injury incurred. In addition, the first medical examiner will describe the patient's state of sobriety and behavior at the time of admission. Injuries or chronic conditions for active duty personnel will be identified as "previously recorded" (PR) or "not previously recorded" (not PR) as appropriate. Residual conditions will be identified and recorded as secondary to the original injury and attending circumstances of the original injury will be stated (reference AR 40-66).

f. Record operations and special procedures in accepted terminology. Sufficient detail must be provided to permit proper coding. Eponyms are authorized for use in Inpatient Treatment Records if they are listed in ICD-9. Include the date surgery was performed, the technical name of the procedure performed and when appropriate, the anatomical location involved. If more than one surgical procedure is performed in the same surgical site or body cavity on the same occasion, describe one of the procedures as "principal" and the others as "associated". Operations and special procedures will be recorded in chronological order and must be in agreement with those recorded in the ITR. Include any operation(s) or procedure(s) performed before transfer of the patient to this center and the date(s) of performance.

g. The use of abbreviations in the ITR is discouraged. The abbreviations listed in AR 310-50, the abbreviations in the Appendix of AR 40-66 and those in medical dictionaries are authorized. These include abbreviations and symbols for days of the week, month and year, and weights and measures. (It should be noted, however, that except for upper respiratory infections (URIs), abbreviations will not be used when recording diagnoses.)

9. VERBAL ORDERS (VO) AND TELEPHONE ORDERS (PO). Verbal orders will generally be confined to emergency STAT (immediately required) orders and will be accepted only by Army Nurse Corps Officers or Civilian registered nurses. This normally will not be necessary when the physician is physically present. The individual receiving such an order will record it in the Doctor's Orders section of DA 4256 and affix the doctor's name, followed by receiver's signature, grade or status, and a notation of how order was received (VO/PO). All verbal orders and telephone orders will be countersigned by the physician at the earliest possible time, but not later than 24 hours after given.

10. PATIENT IDENTIFICATION.

a. The Patient's Identification section will be completed when each record document is begun. The patient's recording card (blue card) will be used as the inpatient identification plate for the inpatient treatment record.

b. When mechanical imprinting is not available, patient identification will be typed or handwritten in black or blue-black ink.

c. Patient identification will include (as a minimum):

- (1) Patient's name (last, first, and middle initial)
- (2) Rank, grade or status
- (3) Family member prefix (Table 4-1, AR 40-66)
- (4) Sponsor's SSN
- (5) Register Number

11. PROBLEM ORIENTED MEDICAL RECORD (PCMR). Use of the problem oriented medical record or components of the POMR are subject to WRAMC local policy. Problem list format(s) are subject to HQDA (DASG-PSA), Wash, DC approval.

12. TRANSFER RECORDS. When the clinical record of a patient transferred in to WRAMC is received on the ward, that record is filed in the patient's blue binder under the "misc" tab. Upon discharge of the patient, the transfer record is placed in the back of the manila folder under the current WRAMC ITR. The transfer record forms are to be clearly identifiable as originating in the transferring facility; therefore, they should not be stamped with WRAMC identification.

13. DISPOSITIONED CASES.

a. The Medical Officer closing out the ITR will conduct a complete review of the record to determine that all diagnoses made and operations performed, to include those of other services, have been recorded.

b. Types of dispositions for members of the Army:

(1) Full Duty. Patients who meet retention medical fitness standards and are medically fit to perform duty without restrictions or assignment limitations will be returned to full duty. (See para 6-21, AR 40-3).

(2) Temporary Restricted Duty. Patients who meet retention medical fitness standards and who are considered medically fit to perform useful duty while recovering from sickness or injury will be placed on temporarily restricted duty. Such patients will be evaluated at least once every three months with a view to upgrading their duty status. No individual may be placed in this status for more than 12 months. (See Chapter 9, AR 40-501).

(3) Duty with permanent assignment limitations. Patients who meet retention medical fitness standards and who are fit to perform useful duty with specific permanent assignment limitations will be recommended for duty with permanent assignment limitations by a Medical Board. (See Chapter 9, AR 40-501).

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(4) Separations. For patients separated or retired for physical disability (or returned to duty with recommendation for same) with more than one diagnosis recorded, select the diagnosis that is the underlying cause of separation and record after the diagnosis "underlying cause". This "underlying cause" is defined as the disease or injury that led to the principal condition for which patient was separated. For example, if a leg injury (or diabetic) gangrene led to amputation, the leg injury (or diabetes) would be indicated as the "underlying cause". (See para 6-21, AR 40-3).

(5) Transfer to a VA medical facility or other medical facility. When it is determined that a patient will require continued hospitalization for an extended period, action will be initiated to effect transfer to a VA medical treatment facility. Prior to transfer to the VA, coordination will be effected with Physical Medicine/Rehabilitation Service to insure that the patient has received maximum hospital benefit from this facility. Patients in this category will be required to undergo a MED and PEB.

(6) Absentees (AWOL). Military patients who are absent without permission will be carried on the hospital roll for 10 consecutive days of absence. That patient's bed will be blocked only 24 hours, after which time it can be utilized as determined by the physician or nursing staff. After 10 days of unauthorized absence, the ITR will be closed out. Appropriate remarks will be entered in item 31, "Selected Administrative Data" on the Inpatient Treatment Record Cover Sheet. In addition, the Medical Holding Company will be notified as soon as it is determined that the unauthorized absence has occurred. The Daily Ward Roster will also be annotated to reflect the absence.

c. Types of disposition for nonmilitary patients:

(1) Discharge from MTF when patient is released to own custody or custody of the sponsor or next of kin, or other authorized individual.

(2) Transfer to another MTF. Patients that are in this category will be identified and referred to the Air Evacuation Section, PAD. (See WRAMC Reg 40-401).

(3) Absent without release, when the patient departs without proper release or is otherwise unaccounted for. The ITR will be closed out and the appropriate remark entered in item 31, "Selected Administration Data" of the Inpatient Treatment Record Cover Sheet.

(4) Release against medical advise, when the patient and/or his sponsor signs an appropriate release form which states that the patient has been advised of the danger involved in leaving the MTF and he releases the MTF, its staff and the Federal Government of responsibility for any ill effects brought about by failure to remain in the MTF. In lieu of the release form, the aforementioned information may be placed in the ITR Progress Notes. This entry must be signed by the patient and witnessed.

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14. TIME FRAME FOR COMPLETION OF THE INPATIENT TREATMENT RECORDS

a. Each department, service or directorate will establish and enforce internal time frames to insure timely completion of the ITR on a schedule which meets the following requirements:

24	hours post discharge	ITR to MRT/T from MRT
2 - 14	days post discharge	ITR to PAD from MRT/T **
15 - 29	days post discharge	For coding, transmittal and permanent filing
30+	days post discharge	ITR Delinquent

**Completed ITRs must be in PAD no later than 8 days Post Discharge for timely transmittal for inpatient data system (IPDS) reporting.

b. The established time frame for each department, service and directorate becomes a milestone which, if not met, must trigger notification to the proper official who will take action to expedite continued processing. Associate Administrators are best suited to monitor these milestones through the use of a record tracking system. When dictations (or abbreviated records) or Inpatient Treatment Record approvals and signatures are not completed within the established departmental time frames, the Associate Administrator will notify (preferably in writing) the department/service chief or the designated representative, who will be responsible for taking the necessary action required for continued processing.

c. When the patient is discharged, the attending physician is responsible for preparation of a narrative summary (NS) on a SF 502 and completion of the cover sheet (CS) worksheet. Diagnostic and procedural terminology on the NS or progress note (where substitution for NS permitted) and CS will be the same. (C2, AR 40-66).

d. It is the policy of this hospital that once the NS is typed and the ITR is returned to the physician for review and signature, that this review be completed within two working days. A copy of the completed DA Form 2496 (overprint) "Clinical Chart Turn-in Sheet" will be retained on file by the Associate Administrator for four (4) weeks as an audit trail prior to their disposition.

e. After the ITRs have been completed and reviewed, they will be delivered by personnel from DMAA to Patient Administration (Clinical Records Management) as outlined in the time frames stated above (para 14a). ITR's will be turned in under the cover of the DA Form 2495 (overprint) "Clinical Chart Turn-in Sheet".

f. Patient Administration (Coding and Analysis Section) will analyze the ITRs for completeness, accuracy and consistency and extract all needed information for reports to USAHSC. Records not found to meet criteria are returned

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(under cover of the original overprint DA Form 2496) to Clinical Records Management for release to the appropriate Medical Records Technician, Typist (MRT/T) for completion, and/or correction. When complete, these ITRs are returned through Clinical Records Management to Coding and Analysis.

g. ITRs for whom medical boards have been completed will be picked up by the discharge floor for closeout and completion, immediately upon receipt of the patient's control card.

h. The record will be returned to Patient Administration (Clinical Records Management) for permanent filing. The Inpatient Treatment Record will be completed and in the permanent files not later than 30 days after disposition. Inpatient Treatment Records will be considered delinquent if the record has not been turned in to Patient Administration by 30 days after disposition. ✓

i. Patient Administration (Clinical Records Management) will prepare a Clinical Record Control Delinquency Roster each month. Copies of the delinquency roster will be furnished to the Commander, the Deputy Commander, Chief of appropriate departments/services and Director, Medical Activities Administration.

15. CONFIDENTIALITY OF MEDICAL TREATMENT RECORDS

a. Medical Information. All information that pertains to evaluations, findings, diagnosis, or treatment of a patient. The term also includes any other information given to AMEDD health personnel in the course of treatment or evaluation. Medical information is confidential and private.

b. The original ITR of any patient in this facility is the property of the United States Government.

c. The Director of Patient Administration is the custodian of the Inpatient Treatment Record and is responsible for release of all medical information outside of WRAMC. The Chief Medical Record Administrator acts at the custodian on the Director's behalf.

d. The Inpatient Treatment Record will remain in the hands of appropriate hospital personnel; will not be dispatched through the message center or the telelift system. The ITR will be hand-delivered to PAD.

e. In cases where patients are transferred to a military treatment facility or to a Veterans Administration hospital for continued care, the original WRAMC ITR (and a copy of the transfer record received from the previous treating facility, if the patient was transferred in) will accompany the patient. A copy of the ITR cover sheet, narrative summary and operation report(s), if surgery performed, will be maintained at WRAMC. When patients are transferred to a military MTF (as recovered patients) or to a civilian MTF, a copy of their inpatient treatment record cover sheet and the narrative summary must accompany the patient. In these cases, the original ITR remains at WRAMC.

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f. Disclosure Procedures.

(1) Although medical information is private and confidential, it may be disclosed under certain conditions. All requests for medical information will be handled by or through Patient Administration.

(2) Official DA Requests. Army personnel seeking medical information about a patient must request it in writing on DA Form 4254-R, Request for Private Medical Information, from the MTF Commander. Officials must present their credentials, and state the need, citing the authority supporting the need. Patient Administration will be responsible for determining the legitimacy of the request. Advice of the Center Judge Advocate should be sought if there is any doubt concerning whether the information should be released to the requestor.

(3) In certain situations (e.g., cases of rape, assault, child abuse, or death), the need for information may be urgent. In such cases, both the request and permission for disclosure may be given verbally. Immediately after granting permission, a memorandum of the release will be prepared. The requesting agency will follow up the verbal request with a written one using DA Form 4254-R.

(4) Other requests. An unofficial request for release of information to a third party may be received from a patient or directly from the third party. Such requests must:

(a) Be submitted in writing.

(b) Contain an authorization for release signed and dated by the patient (or designated representative). A parent or legal guardian may sign if the patient is a minor or mentally incompetent; next-of-kin, an executor, or an administrator, may sign if the patient has died.

(c) State the period of hospitalization or treatment for which information is requested. Only information on the specific periods will be released.

(d) Name the individual or organization to whom the information is to be released.

(e) State the purpose for which the information may be used.

(f) A copy of the released information and authorization will be filed with the request in the patient's ITR. If the request does not contain an authorization signed by the patient, or appropriate representative, the original request will be retained by PAD and a copy returned to sender with a request for authorization.

(5) Requests from patients. If a physician judges that release of the information could adversely affect the patient's physical or mental health, he or she should provide a written justification for denial of the request.

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to the Director of PAD who will coordinate with the initial denial authority. (Para 2-5d, AR 40-66).

(6) Alcohol and drug abuse records. Normally no information on the treatment, identity, prognosis, or diagnosis for alcohol or drug abuse patients will be released, except IAW AR 600-85 and AR 340-21.

g. Research Projects. All requests for research projects must be approved by the Chief of the Department/Service and sent to the Chief, Medical Records Administration Division, (ATTN: Medical Audit Section) before any clinical records will be retrieved or research of the diagnostic or operative indexes is conducted. The request must state who is authorized to pick-up records. Only 25 records will be released at any time for a research project, and only after the preceding 25 records have been returned. ITRs used for research are not to be removed from the hospital and are to be returned directly to Medical Audit Branch after use.

16. REFERENCES.

- a. AR 40-3 (Medical, Dental and Veterinary Care)
- b. AR 40-66 (Medical Record & Quality Assurance Administration)
- c. AR 40-501 (Standards for Medical Fitness)
- d. AR 340-1 (Records Management Program)
- e. AR 340-21 (The Army Privacy Program)
- f. AR 340-17 (Release of Information and Records From Army Files)
- g. AR 360-5 (Personnel Absence)
- h. AR 600-85 (Alcohol and Drug Abuse Prevention and Control Program)
- i. AR 635-40 (Physical Evaluation For Retention, Retirement or Separation)
- j. WR 40-90 (Personnel Utilization: Medical Students)
- k. WR 40-401 (Air Medical Evacuation System)
- l. Standard Nomenclature of Disease and Operation, American Medical Association
- m. Accreditation Manual for Hospitals (JCAH)

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The proponent agency for the regulation is the Patient Administration Directorate. Users are invited to send comments or suggested improvements to Director, Patient Administration.

HS HL-PAD

FOR THE COMMANDER;

OFFICIAL:

SAM T. SEELEY
COL, MSC
Chief of Staff



LARRY L. JONES
LTC, MSC
Adjutant General

DISTRIBUTION:

A

APPENDIX B

Inpatient Bed Capacity and
Administrative Staffing by Floor

<u>Floor #</u>	<u>Inpatient Bed Capacity</u>	<u>Administrator Staffing</u> <u>Military</u>	<u>Civilian</u>
1 - 3	none	LTC = 1 CPT = 2	GS 11 = 6
		TOTAL = 9	
4	169	LTC = 1 CPT = 2 1 LT = 1	GS 11 = 3
		TOTAL = 7	
5	338	MAJ = 1 CPT = 2	GS 11 = 3
		TOTAL = 6	
6	243	LTC = 1 CPT = 2	GS 11 = 3
		TOTAL = 6	
7	139	LTC = 1 CPT = 2	GS 11 = 2
		TOTAL = 5	

APPENDIX C

Duties of Medical Record Technician Typists

The following is a list of tasks, other than routine transcription duties, that are performed by Medical Record Technician Typists (MRTTs):

1. Completion of the Clinical Record Cover Sheet:

The MRTT must be familiar with the requirements of completing the Cover Sheet to include: (a) Insure correct date of discharge is typed in block #26, type of discharge in block #31, (e.g., active duty, civilians, transfers, deaths, AWOLs and those leaving against medical advice all have different requirements as to documentation). (b) Insure diagnoses and procedures/operations listed in block #34 are the same as those listed on the narrative summary. (c) Obtain appropriate physician's signature at bottom of Cover Sheet and the signature of the reviewing physician. (d) Provide appropriate information in cases of injury in block #33.

2. Assembling the chart in proper order and insuring each page is properly identified.

This continues to be a significant task for the MRTT in spite of efforts to have the MRT/Clerk at the Unit Desk perform the work.

3. Chart Analysis:

A comprehensive chart analysis is performed by the MRTT on every Inpatient Treatment Record to include the following:

a. Determines deficiencies and is responsible for follow up to insure the deficiencies are corrected before final turn-in to Clinical Records Management in the Patient Administration Directorate. Advises those responsible to correct the deficiencies and

insures the chart is given to them and is returned to the MRTT. Specific items monitored include:

- (1) History and Physical (SF 504, 505, 506) must have proper signatures, dates in proper places, and vital signs recorded. SF 539 is used for short stays.
- (2) Progress Notes (SF 509) must have discharge overprinted form or discharge note with correct discharge date. Notes must be in compliance with type of discharge, i.e., death, transfer, AWOL, AMA (Against Medical Advice) or routine.
- (3) Operation Report (SF 516), if required, must be present, signed and dated.
- (4) Nurse's Note (SF 510) must have discharge note with correct date of discharge.
- (5) Doctor's Orders (DA 4256) must have appropriate discharge date and note.
- (6) All active duty patients must have a profile upon discharge. A copy of the profile must be included in the ITR. An appropriate number of copies of the profile must be made to insure the patient has at least two copies for his Health Record and to insure his Commanding Officer has a copy. The MRTT is responsible for obtaining the appropriate signatures for temporary or permanent profiles and to insure the profile form is properly filled out by the physician.
- (7) Must obtain countersignatures on the appropriate forms in the record where required.
- (8) Abstracts from the ITR the appropriate operations and procedures, with dates, insuring they are correct and are performed during the dates the patient was actually hospitalized, then lists them on the Cover Sheet and the Narrative Summary.

4. Transcribes air evac summaries and performs associated duties (filling out appropriate accompanying forms, obtaining signature of dictating physician, xeroxing final narrative, insuring appropriate information is available, i.e., in case of a transfer to another facility the MRTT must insure the name of the accepting physician is available. Insuring the completed air evac work and forms are sent to the Air Evac Office on the first floor.) The MRTT is frequently asked many questions by the patient who will be transported and/or their families which she should be able to answer accurately. Other transcription requirements are associated with transfers to nursing homes who need the narrative summary immediately, death charts that have a different format than the routine narrative summary, and narrative summaries that must be handcarried by the patient back to his/her local facility because of the need for follow-up care.

5. Maintains a tracking record.

Although the tracking and chart control systems may vary from floor to floor in WRAMC, the MRTT must insure the ITR is readily available upon request.

6. Contract Transcription Services

Duties performed in connection with sending dictated microcassettes out to contract services include:

- a. Each dictation must have a completed Request for Transcription Services Card (WRAMC1251) filled out and wrapped around and secured on each microcassette.
- b. A list with appropriate information typed on it, i.e., name of patient, WRAMC register number, social security number of patient, name of doctor and rank, and type of dictation (operation report or narrative) must be completed in triplicate. This list is

wrapped around the microcassettes with the Request for Transcription Services Card. The package is handcarried to the Administrative Support Section of the Patient Administration Directorate on the first floor.

c. The MRTT must carefully monitor the return of the completed work to Administrative Support Section on a day to day basis after approximately one week. This can require time consuming special trips. Requests are often made by doctors and by patients as to the availability of the dictated narrative summaries or operation reports.

d. When the work is returned and is picked up from the box provided in the Administrative Support Section, the MRTT logs in each narrative or operation report and handcarries the typed work back to their office.

e. The MRTT inserts the typed report in the appropriate record, completes the Cover Sheet and continues the chart analysis, obtains signatures, etc.

7. The MRTT compiles a monthly list of the delinquent records and provides the Medical Record Technician Typist supervisor with the report.

8. The lack of a good control system on every floor makes processing records of transfers into WRAMC a very difficult job. It is only by chance that the transfer record from another military facility is received by the MRTT for inclusion beneath the WRAMC ITR as required by regulation. Often the transfer record is received by the MRTT long after the inpatient treatment record generated at Walter Reed has been turned in to Clinical Records Management, PAD.

9. The MRTT answers numerous requests from doctors, nurses, patients, Special Actions in PAD, and other health professionals at WRAMC.

10. Xeroxing. A significant amount of time is spent xeroxing.

11. Medical boards.

While not all MRTTs process medical boards at WRAMC, on the fifth floor the MRTTs for the Neurology and the Neurosurgery Services are responsible for the tracking of the medical boards and insuring appropriate administrative tasks completed. When the physician notifies the MRTT that a medical board is to be done, the following tasks are completed ASAP:

- a. A SF 88 must be completed by the patient and the physician and appropriate signatures obtained.
- b. An overprint DF, Assignment of Active Duty Personnel to Medical Holding Company, is signed by the doctor and the MRTT handcarries it to the PEBLO office.
- c. The dictated microcasstte tape is received from the doctor by the MRTT who immediately completes a request for transcription (WRAMC Form 1251) and takes it to the Medical Board Section. It is the responsibility of the MRTT to monitor for completion of the typed draft of the board, pick it up and handcarry it to the doctor. This draft may be reviewed by more than one physician, e.g., the President of the Medical Board (the Chief of the Neurology Service) always reviews the draft. This entails another trip to and from his office on the part of the MRTT. When the draft is corrected the MRTT again handcarries the draft to the Medical Board Section.
- d. The MRTT again closely monitors the Medical Board Section's Office for completion of the board into its final form, then picks it up and handcarries it to the dictating physician, then to another resident for signature, and finally to the chief of the service or

his designee who sign as president of the board.

E. The Inpatient Treatment Record at the Unit Desk is taken out of the blue ringbinder and assembled appropriately. Xeroxing of necessary elements is completed, and then the ITR is returned to the Medical Board Section.

12. The MRTT/T compiles a list of completed records ready for turn-in on a DF giving the name of the patient, WRAMC register number, social security number, and type of record, i.e., short stay or long stay. Each narrative summary is extracted from the record and all narratives are then placed underneath the typed list on top of the stack of records. The records are then handcarried to the Clinical Records Management Section.

13. Clinical Records Management in PAD xeroxes 4 copies of every narrative summary and operation report which the MRTT picks up and disseminates according to the needs and policy of the individual service. For example, the Neurosurgery and Orthopedic Services request that copies be given to their respective clinics. Neurology and Pediatrics want copies given to their service chiefs, a copy given to the dictating physician, and an extra copy of the narrative summary to keep on file in their offices.

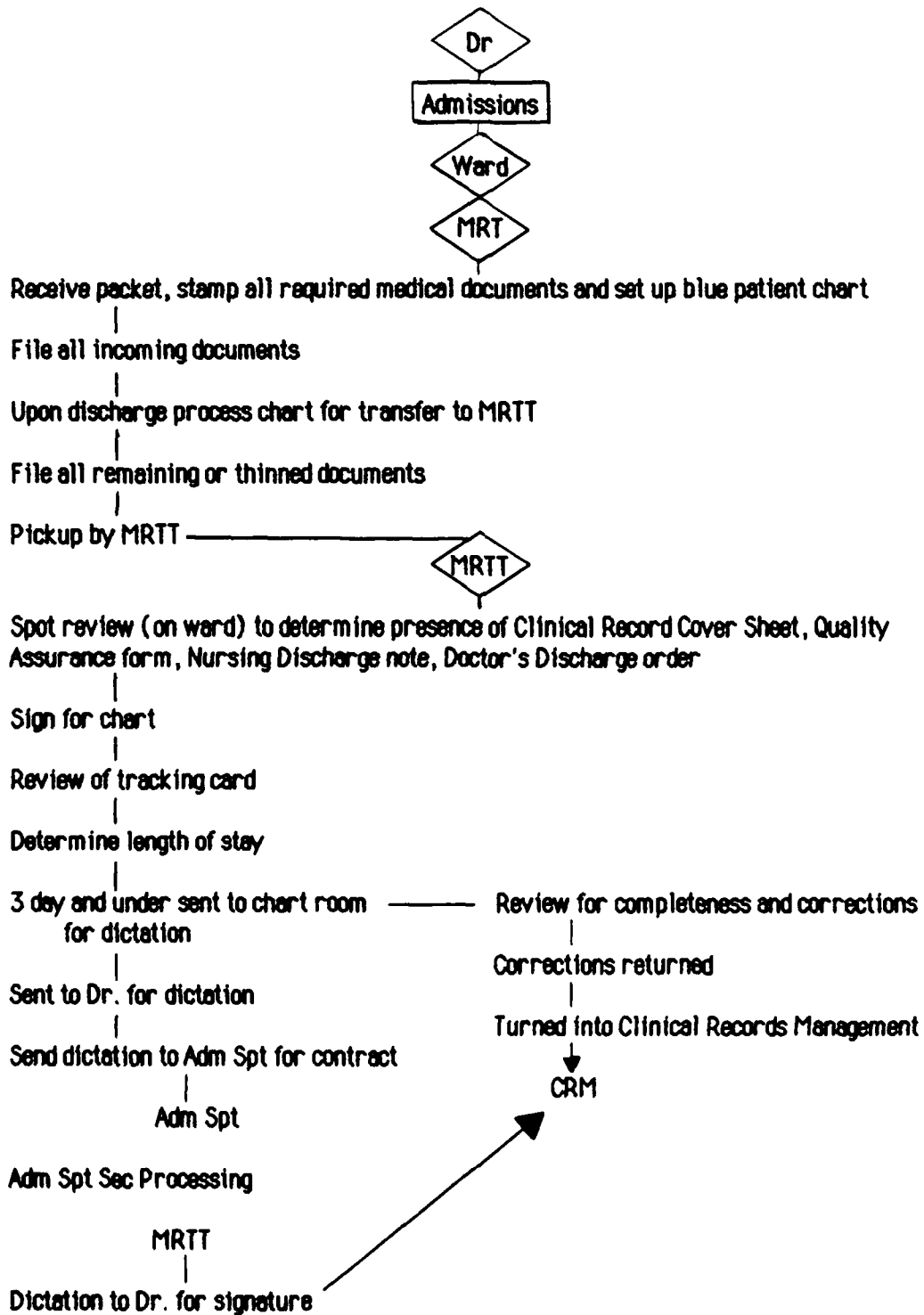
14. Loose elements. It is the responsibility of the MRTT to incorporate into the ITR all loose elements received from the wards after the patient is discharged. This takes a significant amount of time

15. Back logs have occurred in the past that have impacted on the performance of the MRTTs. The back logs were created mainly by an uneven work flow entirely out of the control of the MRTT. For example, a doctor might have 50-60 records for patients discharged in February, March, April, May, and June that had not been dictated. Then,

within a period of less than two weeks the MRTT would received all the dictated tapes for 50-60 records. Some of those records would require immediate attention because of requests from doctors and patients. During this same period the MRTT must continue to accomplish the routine ITR processing that comes in while assisting in the management of other backlogs similar to the situation created by the doctors who amass large volumes of delinquent charts before they begin to catch up on their work.

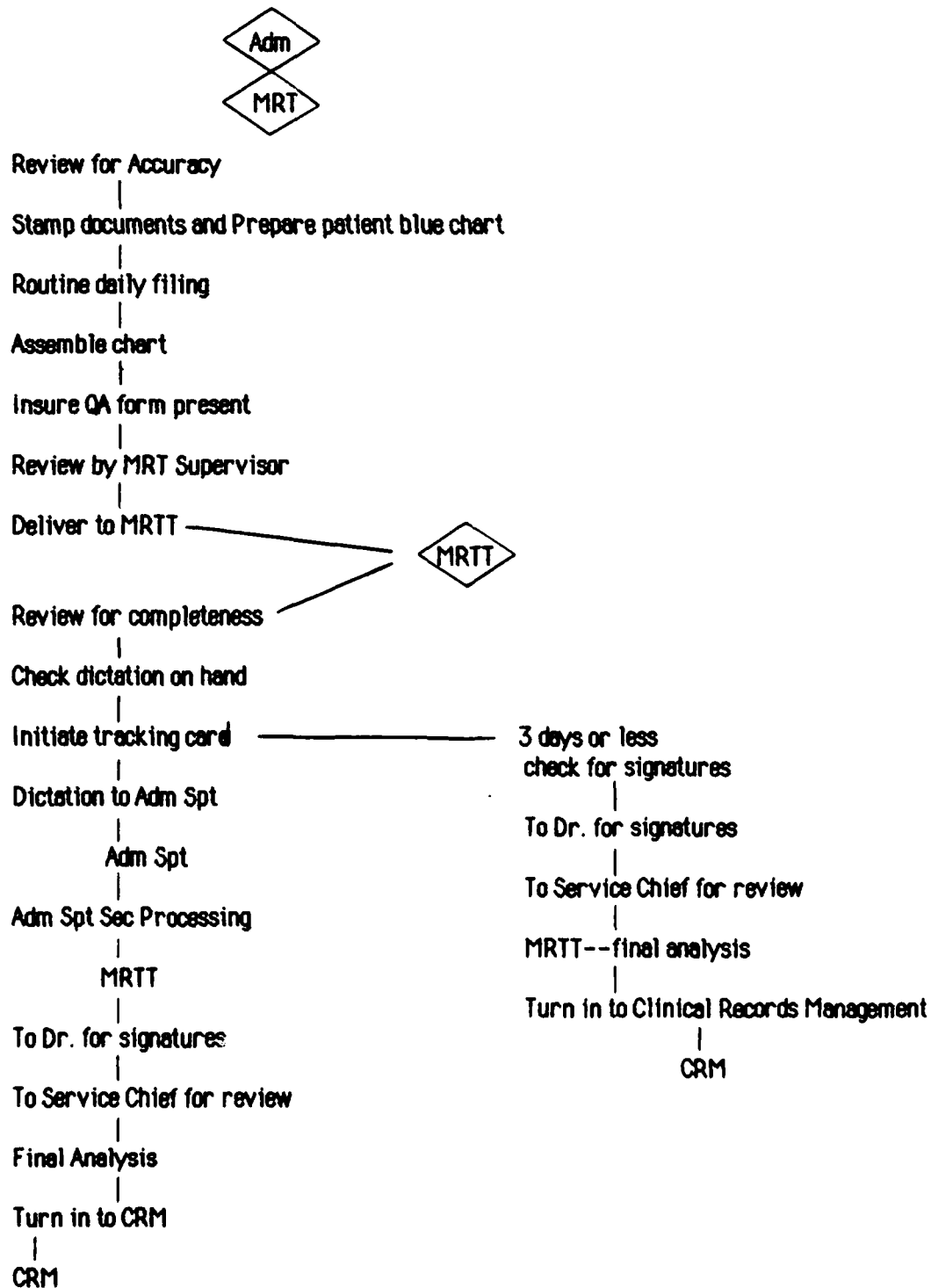
APPENDIX D-1

Flow Charts for ITR Processing
4th Floor



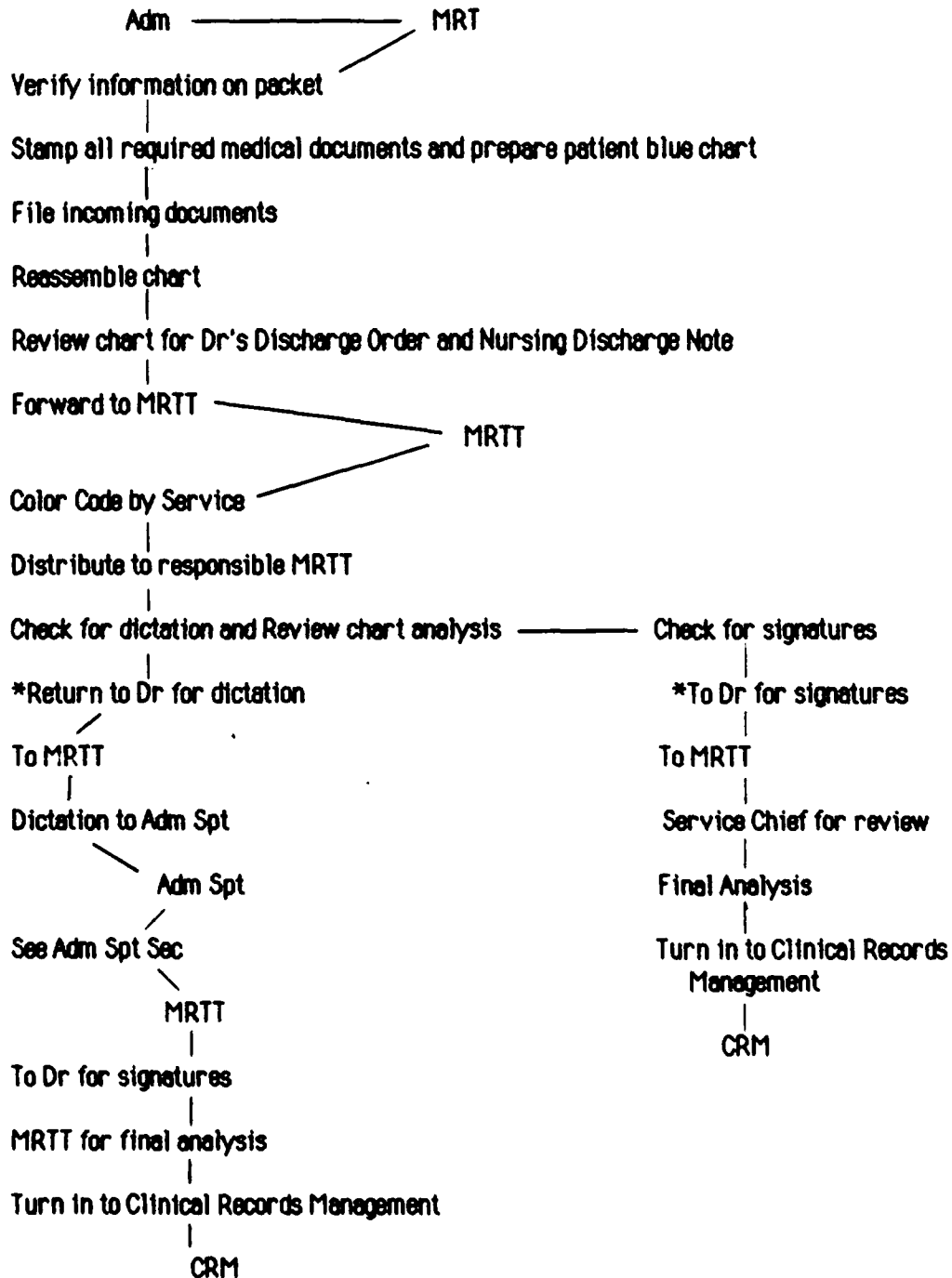
APPENDIX D-2

Flow Charts for ITR Processing
5th Floor



APPENDIX D-3

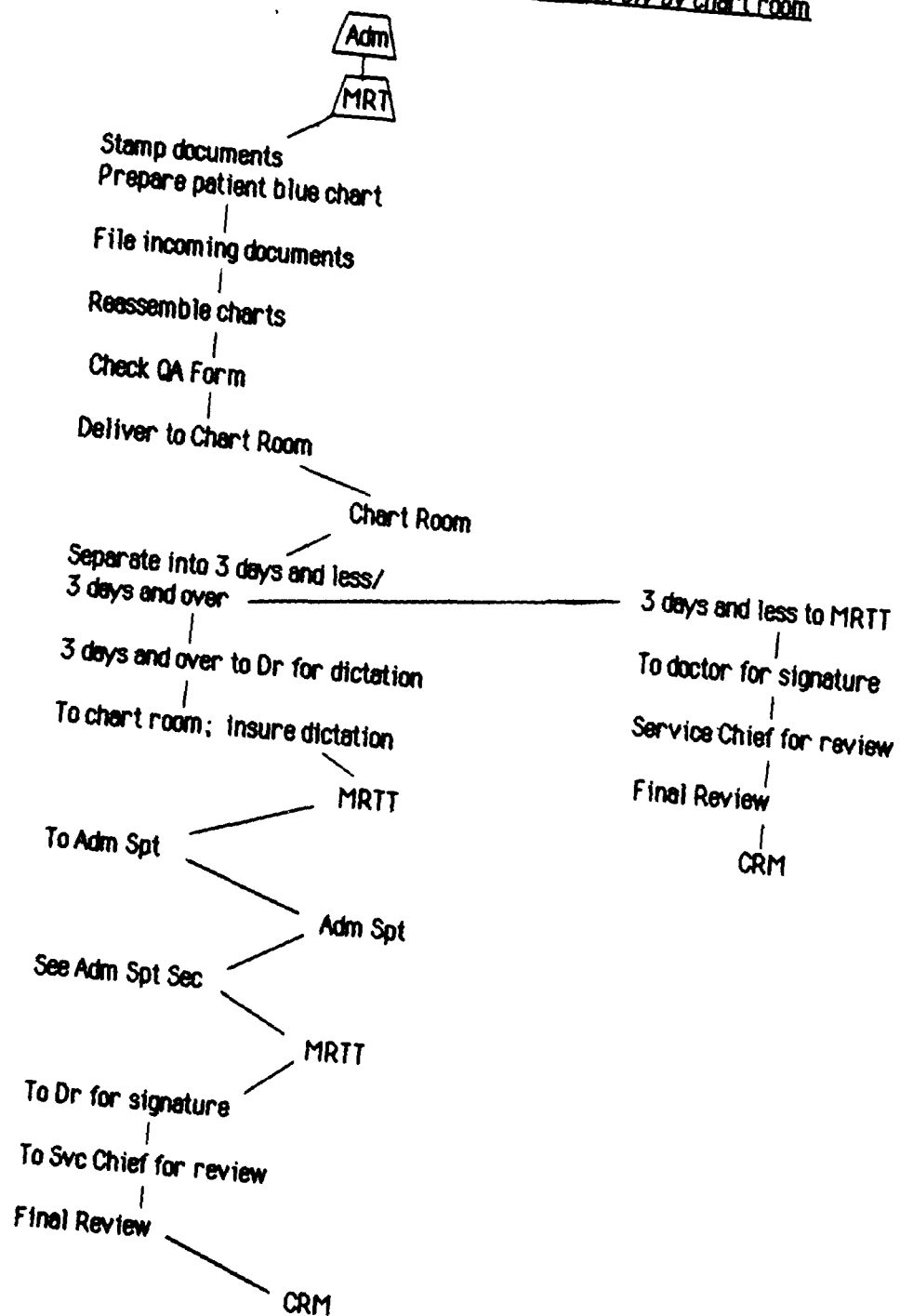
Flow Charts for ITR Processing
6th Floor



*Hand deliver of chart to clinics

APPENDIX D-4

Flow Chart for ITR Processing
7th Floor
Tracking handled entirely by chart room



APPENDIX E

Delinquent Charts1980

Jan	1877
Feb	2036
Mar	1867
Apr	2114
May	1901
Jun	1835
Jul	
Aug	1679
Sep	1978
Oct	1836
Nov	1464
Dec	1653

1983

Jan	1991
Feb	2099
Mar	2287
Apr	2499
May	1731
Jun	1625
Jul	1474
Aug	1396
Sep	1573
Oct	1664
Nov	1832
Dec	1825

1986

Jan	874
Feb	845
Mar	904
Apr	755
May	768
Jun	1448
Jul	1720
Aug	1920
Sep	2170
Oct	2527
Nov	3318
Dec	3413

1981

Jan	1874
Feb	1267
Mar	1179
Apr	1010
May	1147
Jun	1816
Jul	1474
Aug	1398
Sep	1263
Oct	1238
Nov	1110
Dec	

1984

Jan	
Feb	
Mar	601
Apr	522
May	447
Jun	548
Jul	534
Aug	506
Sep	
Oct	
Nov	586
Dec	784

1987

Jan	3568
Feb	2964
Mar	2096
Apr	2433
May	2434

1982

Jan	1087
Feb	982
Mar	903
Apr	1220
May	1177
Jun	1241
Jul	1251
Aug	1517
Sep	1776
Oct	1836
Nov	1742
Dec	1710

1985

Jan	865
Feb	808
Mar	1091
Apr	807
May	842
Jun	661
Jul	648
Aug	610
Sep	746
Oct	766
Nov	958
Dec	995

APPENDIX F

Number of Dispositions

In 1983 there were 22,467 dispositions at Walter Reed for an average of 1872 dispositions per month.

In 1984 there were 23,011 dispositions at Walter Reed for an average of 1926 dispositions per month.

In 1985 there were 23,706 dispositions at Walter Reed for an average of 1976 dispositions per month.

In 1986 there were 24,304 dispositions at Walter Reed for an average of 2017 dispositions per month.

For the first 5 months of 1987 there were 9,920 dispositions at Walter Reed for an average of 1984 dispositions per month.

1986		1987	
Jan	1893	Jan	1881
Feb	1923	Feb	1921
Mar	2075	Mar	2047
Apr	1896	Apr	2083
May	2106	May	1988
Jun	2055		
Jul	2162	Total	9,920
Aug	2113		
Sep	2072		
Oct	2067		
Nov	1898		
Dec	1944		
Total	24,304		

APPENDIX G

Inter-Ward Transfers
May 1987

<u>DATE</u>	<u># TRANSFERS</u>
MAY 1	24
2	9
3/4	47
5	35
6	26
7	40
8	18
9	8
10	6
11	22
12	26
13	17
14	18
15	20
16	9
17	10
18	28
19	28
20	30
21	29
22	16
23	9
24	5
25	4
26	28
27	20
28	25
29	23
30	10
31	15
—	—
TOTAL	605

Admissions for the month of May 1987 = 2030

605

— = .2965 or 30% of May 1987 admissions resulted in inter-ward transfers
 2030

APPENDIX H

Delinquency Rates Since AQCESS

<u>Month</u>	<u>Number of Delinquent Records</u>
May 86	768
Jun 86	1448
Jul 86	1720
Aug 86	1920
Sep 86	2170
Oct 86	2527
Nov 86	3318
Dec 86	3413
Jan 87	3568
Feb 87	2964
Mar 87	2096
Apr 87	2533
May 87	2434

APPENDIX I

Directorate of Medical Activities Administration
Medical Record Technician Typist

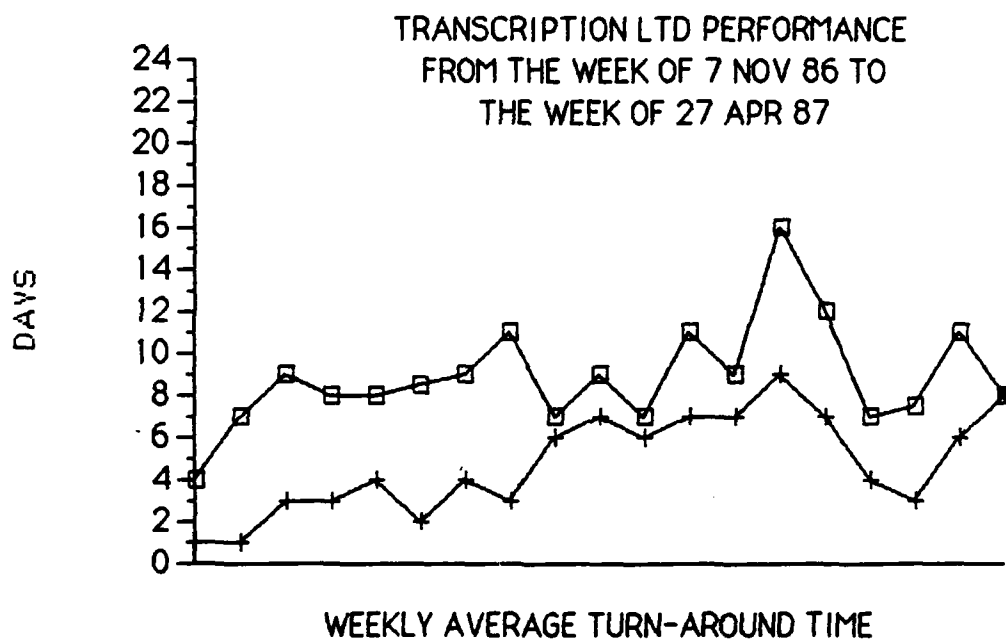
<u>LOCATION</u>	<u>REQUIRED POSITIONS</u>	<u>AUTHORIZED POSITIONS</u>	<u>ACTUAL POSITIONS FILLED*</u>
4th MRTT	10	6	4
5th MRTT	10	8	5
6th MRTT	9	8	7
7th MRTT	7	5	1
	<u> </u>	<u> </u>	<u> </u>
TOTAL	36	27	17

* Data correct as of 20 May 1987

APPENDIX J - 1

Transcription Contractor Processing Rates

Contractor: Transcription Limited



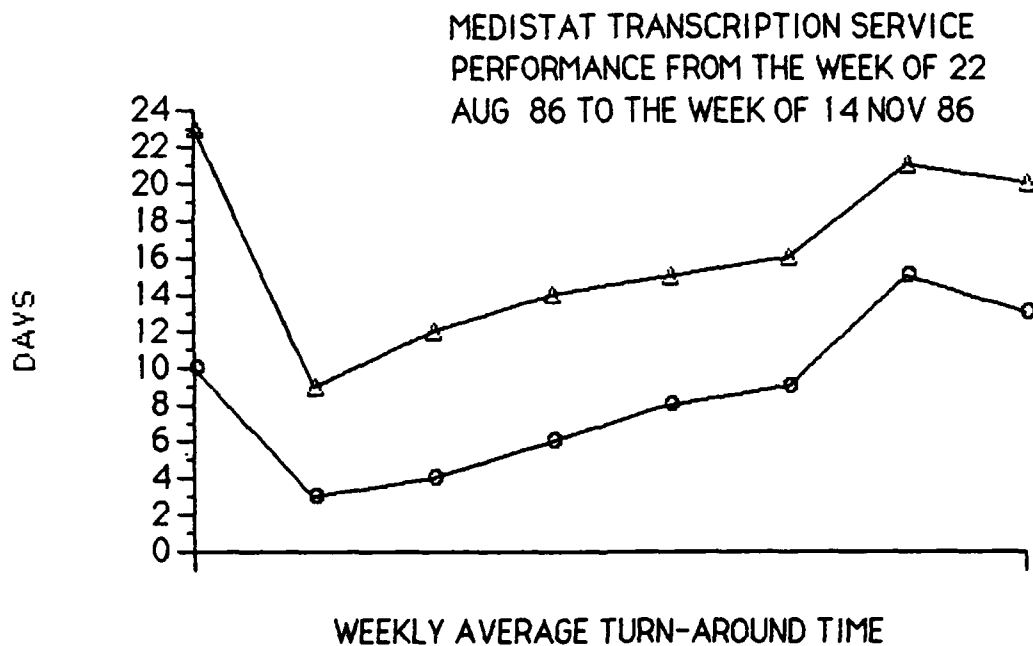
The upper line (which uses the square symbols) indicates average weekly processing time for Narrative Summaries

The lower line (which uses the "plus" symbols) indicates average weekly processing time for Operation Reports

APPENDIX J - 2

Transcription Contractor Processing Rates

Contractor: Medistat Transcription Service



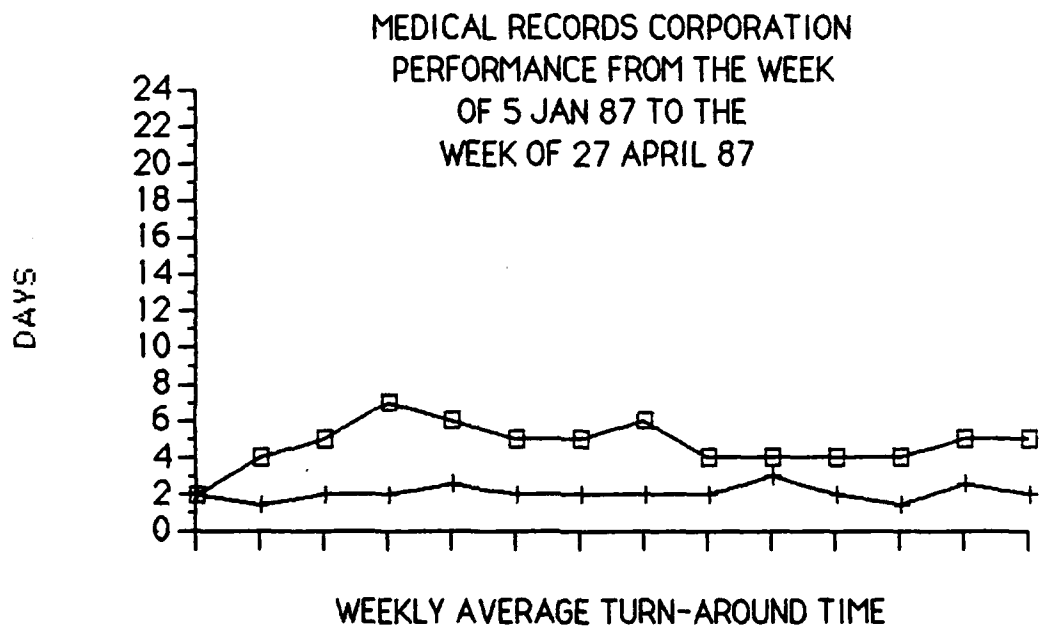
The upper line (which uses the triangular symbols) indicates average weekly processing time for Narrative Summaries

The lower line (which uses the circular symbols) indicates average weekly processing time for Operation Reports

APPENDIX J - 3

Transcription Contractor Processing Rates

Contractor: Medical Records Corporation



The upper line (which uses the square symbols) indicates average weekly processing time for Narrative Summaries

The lower line (which uses the "plus" symbols) indicates average weekly processing time for Operation Reports

APPENDIX K

Hospitals Visited

Sibley Memorial Hospital

Providence Hospital

Hadley Memorial Hospital

Children's Hospital National Medical Center

National Rehabilitation Hospital

Washington Hospital Center

Capitol Hill Hospital

George Washington University Medical Center

District of Columbia Veteran's Administration Medical Center

Alexandria Hospital

Arlington Hospital

Greater Southeast Community Hospital

Columbia Hospital for Women

Hospital for Sick Children

National Naval Medical Center, Bethesda

APPENDIX L

Data Used in Computations of Cost-Benefit
Analysis of Medical Records Transcription

1. Number of lines of transcription generated by Walter Reed Army Medical Center is expected to be:

Year 1	2,600,000 lines/year
Year 2	2,700,000 lines/year
Year 3	2,800,000 lines/year

2. Average productivity for each Walter Reed transcriptionist (MRTT) is:

86,050 lines per year for each MRTT

(52 weeks/year x .84 (productivity factor*) x 1970 lines/week =
86,050 lines per year per MRTT)

(* current guidelines suggest that 16% of a person's time is non-productive;
therefore, 100% - 16% yields a productivity factor of 84% or .84)

3. Salary rates: (allowing 4% inflation for years #2 and #3)

	Year 1	Year 2	Year 3
MRTT (GS-5 step 3)	\$17,292.00	\$17,983.68	\$18,703.03
MRTT Supervisor (GS-6 step 5)	\$19,827.00	\$20,620.08	\$21,444.88

4. Equipment and Maintenance Contract Costs:

Zenith Personal Computer	\$3,085.71 each
Maintenance Contract Costs	\$154.28 per machine per year

5. Contractor transcription costs per line: (allowing an 8% inflation for years #2 and #3)

Year 1	Year 2	Year 3
0.1050	0.1134	0.1225

EVALUATION OF OPTION #1

Option #1--Transcription will be accomplished through a combination of Walter Reed assets (1/3 of the transcription workload) and civilian transcription contractors (2/3 of the transcription workload). This is the current system at Walter Reed.

	Year 1	Year 2	Year 3
Walter Reed Salary Costs	\$304,104.00	\$316,268.16	\$326,918.88
Equipment Costs	\$52,457.07	-----	-----
Equipment Maintenance Costs	\$2,622.85	\$2,622.85	\$2,622.85
Contractor Costs	\$182,009.10	\$204,130.20	\$228,678.10
TOTAL COSTS BY YEAR	\$541,193.02	\$523,021.21	\$558,219.83

TOTAL COSTS FOR OPTION#1 = \$1,622,434.

Computations:

1. Total lines of transcription required per year:

	Year 1	Year 2	Year 3
WRAMC (1/3 of total)	866,580	899,910	933,240
Contractor (2/3 of total)	1,733,420	1,800,090	1,866,760

2. Contractor transcription costs per year:

Year 1	Year 2	Year 3
1,733,420	1,800,090	1,866,760
x .1050	x .1134	x .1225
\$182,009.10	\$204,130.20	\$228,678.10

Total Contractor Cost for Option 1 = \$614,817.40

3. Current WRAMC staffing for transcription is 4 MRTT Supervisors and 13 MRTTs

a. Costs for MRT Supervisors:

	Year 1	Year 2	Year 3
Salary/Supervisor	\$19,827.00	\$20,620.08	\$21,444.88
* of Supervisors	x 4	x 4	x 4
Annual cost for 4 supervisors	\$79,308.00	\$82,480.32	\$85,779.53

Total cost for supervisors for Option 1 = \$247,567.85

b. Cost for MRTTs:

	Year 1	Year 2	Year 3
Salary/MRTT	\$17,292.00	\$17,983.68	\$18,703.03
* MRTTs	x 13	x 13	x 13
Yearly costs for 13 MRTTs	\$224,796	\$233,787.84	\$241,139.35

Total cost for MRTTs for Option 1 = \$701,723.19

c. Total cost for MRTTs and MRTT Supervisors for Option 1 = \$949,291.04

4. Equipment costs:

PC cost/unit	\$3085.71
* of units	x 17
Cost for 17 PCs	\$52,457.07

5. Equipment Maintenance Costs

Cost for 17 PCs	\$52,457.07
Factor for maintenance contract/year	x .05
	\$2,622.85
Duration of contract in number of years	x 3
Total costs for maintenance contract	\$7,868.56

EVALUATION OF OPTION #2

Option #2: Transcription will be accomplished solely by Walter Reed Army Medical Center Assets.

	Year 1	Year 2	Year 3
Walter Reed Salary Costs	\$615,356.00	\$657,958.08	\$702,979.52
Equipment Costs	\$95,657.01	\$3,085.71	\$3,085.71
Equipment Maintenance Costs	\$4,782.85	\$4,937.14	\$5,091.42
TOTAL COSTS BY YEAR:	\$715,795.86	\$665,980.93	\$711,156.65
TOTAL COSTS FOR OPTION #2 =	\$2,092,933.40		

Computations for Option 2:

Total lines of transcription requirements

Year 1	Year 2	Year 3
2,600,000	2,700,000	2,800,000

1. $\frac{\text{\# of lines of transcription requirements per year}}{\text{\# lines of transcription per MRTT per year}} = \text{MRTT required staffing levels}$

a.	Year 1	Year 2	Year 3
	$\frac{2,600,000}{86,050} = 31 \text{ MRTTs}$	$\frac{2,700,000}{86,050} = 32 \text{ MRTTs}$	$\frac{2,800,000}{86,050} = 33 \text{ MRTTs}$

b. Costs for MRTT Supervisors:

	Year 1	Year 2	Year 3
Salary/Supervisor	\$19,827.00	\$20,620.08	\$21,444.88
* Supervisors	x4	x4	x4
Yearly cost for 4 supervisors	\$79,308.00	\$82,480.32	\$85,779.53

Total cost of supervisors for Option #2 = \$247,567.85

c. Costs for MRTTs:

	Year 1	Year 2	Year 3
Salary/MRTT	\$17,292.00	\$17,983.68	\$18,703.03
* MRTTs	x 31	x 32	x 33
Yearly cost for MRTTs	<u>\$536,052.00</u>	<u>\$575,477.76</u>	<u>\$617,199.99</u>

Total Costs for MRTTs for Option 2 = \$1,728,729.70

d. Total Salary Costs for Walter Reed Salary Costs for Option #2:

Year 1	Year 2	Year 3
\$615,356.00	\$657,958.08	\$702,979.52

2. Equipment Costs:

	Year 1	Year 2	Year 3
Cost/unit	\$3,085.71	\$3,085.71	\$3,085.71
* units	x 31	x 1	x 1
Total cost for PCs	<u>\$95,657.01</u>	<u>\$3,085.71</u>	<u>\$3,085.71</u>

3. Equipment Maintenance Cost

	Year 1	Year 2	Year 3
Costs for PCs	\$95,657.01	\$98,742.72	\$101,828.43
Factor for maintenance contract/year	x .05	x .05	x .05
Yearly total cost for maintenance contract	<u>\$4,782.85</u>	<u>\$4,937.14</u>	<u>\$5,091.42</u>

Total Equipment Maintenance Costs for Option #2 = \$14,811.41

EVALUATION OF OPTION #3

Option #3: Transcription will be accomplished solely by arrangements with civilian contractors.

	Year 1	Year 2	Year 3
Walter Reed Salary Costs	\$286,812.00	\$298,284.48	\$310,215.85
Equipment Costs	\$12,342.84	-----	-----
Equipment Maintenance Costs	\$617.14	\$617.14	\$617.14
Contractor Costs	\$273,000.00	\$306,180.00	\$343,000.00
TOTAL COSTS BY YEAR	\$572,768.98	\$605,081.62	\$653,832.99
TOTAL COSTS FOR OPTION #3 = \$1,831,683.59			

Computations

1. Contractor Cost for Transcription Per Year

	Year 1	Year 2	Year 3
* lines of transcription required	2,600,000	2,700,000	2,800,000
Cost per line transcribed	x .1050	x .1134	x .1225
Contractor transcription costs	\$273,000	\$306,180	\$343,000

Total contractor cost for transcription with Option #3 = \$922,180.00

2. Walter Reed Salary costs

a. Cost for MRTT Supervisors:

	Year 1	Year 2	Year 3
Salary/Supervisor	\$19,827.00	\$20,620.08	\$21,444.88
* Supervisors	x 4	x 4	x 4
Yearly cost for 4 Supervisors	\$79,308.00	\$82,480.32	\$85,779.53

b. Costs for MRTTs:

	Year 1	Year 2	Year 3
Salary/MRTT	\$17,292.00	\$17,983.68	\$18,703.03
* of MRTTs	x 12	x 12	x 12
Yearly cost for MRTTs	\$207,504.00	\$215,804.16	\$224,436.32

3. Equipment Costs (under Option #3 only 1 PC is required per floor for the purpose of tracking records)

Cost/unit	\$3,085.71
* of units	x 4
Total cost for PCs	\$12,342.84

4. Equipment Maintenance Costs

	Year 1	Year 2	Year 3
Cost for PCs	\$12,342.84	\$12,342.84	\$12,342.84
Factor for Maintenance Contract/year	<u>x .05</u>	<u>x .05</u>	<u>x.05</u>
Yearly cost for maintenance contract	\$617.14	\$617.14	\$617.14

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