A STUDY TO DEVELOP A MODEL THAT WILL ESTABLISH THE OPTIMUM LENGTH OF STAY FOR SELECTED DIAGNOSES AT IRELAND ARMY HOSPITAL FT. KNOX, KENTUCKY

A Problem Solving Thesis

Submitted to the Faculty of

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In Partial Fulfillment of the

Requirements for the Degree

of

Master of Hospital Administration

By

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ABSTRACT

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A Problem-Solving Thesis Submitted to the Faculty of Baylor University in Partial Fulfillment of the Requirements for the Degree of Master of Hospital Administration

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The purpose of this study was to develop a model that would establish an optimum length of stay (LOS) for selected diagnoses at Ireland Army Hospital. Utilizing an established computerized data system (IPDS), sixteen single, specific diagnoses were chosen for study, based on frequency of occurrence. The data were further broken down into specific age groupings, type of beneficiary, and included only bed days occupied. The study compared three Army Hospitals of similar size, population served, services provided, and mission.

The findings were that the techniques used in this study provided a means by which the physicians could evaluate the individual patient LOS against the average LOS and range for the average LOS during medical audit. The study resulted in the following conclusions: (1) military personnel have a longer average LOS for diagnoses related to heart disease and fractures than dependents or retired personnel; (2) utilization of the Inpatient Data System would facilitate data collection and analysis; (3) administrative policy of placing patients on "quarters" has a definite effect on the average LOS; (4) age and sample sizes were factors in determining the average LOS; and (5) the average LOS and ranges for average LOS could be determined for dependents or retired personnel and compared to those in the civilian community.

The most important recommendations of this study were: (1) ranges for the average LOS should be utilized as a benchmark for the establishment of LOS criteria; (2) physicians should consider establishing separate LOS criteria for active military personnel, dependents, and retired personnel; (3) physicians should consider adding administrative delays as an additional element to be considered when reviewing LOS for active military personnel; (4) patients on quarters should be excluded from data utilized to determine LOS in future studies; (5) ranges should be established for the average LOS, based on the averages obtained from the separate categories of patients; and (6) Army hospitals should request historical data from the Inpatient Data System to establish LOS for specific diagnoses.

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CHAPTER I

INTRODUCTION

The determinants of medical care utilization in this country are receiving increased attention. This attention appears to have resulted from the emergence of related values and perceptions including: (1) a growing belief that all people have a right to medical care regardless of ability to pay; (2) the general belief that certain segments of the population such as the "poor," black, Spanish-speaking Americans, and American-Indians are not receiving medical care which is comparable to the rest of the population in terms of quality and quantity; (3) the growing concern that the "crisis in medical care" has been stimulated by rapidly rising prices and growing dissatisfaction about the availability of services; and (4) high expectations concerning the extent to which medical care can contribute to the general health level of the population.[1]

As a result, and in response to the growing concerns, quality assurance (Appendix A) is now the subject of an intensive study by nationally known organizations as well as federal and state governments. In addition, there is increased recognition within the health profession that a more viable and visible accountability is warranted.[2] Those

in the health services are more closely scrutinizing some of health care, including criteria for admission, length of stay, services provided, and costs.

To achieve optimum quality patient care is the unifying goal of all health professionals.[3] The Federal Government, of course, seeks the same goal. Public Law 92-603 provides for federal monitoring of patient care evaluation and optimal utilization of limited health resources without reduction in quality of care.[4]

The Joint Commission on Accreditation of Hospitals (JCAH) has required that hospitals seeking accreditation include provisions within their organizational structure for medical records audit and utilization reviews. In addition, due to the recent Legislation PL 92-603, the Commission will require that an acceptable audit procedure be established for continuing hospital accreditation by 1974. The JCAH has already published a guideline regarding the type of audit it would like to see established in its retrospective patient care audit procedures. The American Hospital Association's Quality Assurance Program also provides data on utilization review procedure.

On August 1, 1973, the Army included two pages of guidelines in AR 40-400, "Patient Administration," for Army hospitals concerning medical audit and utilization review committees. This document included what should be reviewed, by whom, and when. A forthcoming change to AR 40-400 will

require an audit procedure similar to the JCAH retrospective audit procedure in all Army hospitals.

It is obvious from these examples that emphasis has been placed on a visible and viable form of accountability, that will meet the demands of consumers and other interested parties. As a result, hospital administrators, members of the Board of Trustees, and physicians must be more concerned with the quality of patient care and with more effective and efficient utilization of scarce and limited health resources.

Established medical record audit and utilization review committees are also means by which visible and viable accountability may be rendered. Ultimately, the medical record forms a basis for evaluating medical care since it is only from such a record that data can be collected and analyzed. However, the ability to analyze a medical record properly requires a valid interpretation of its compliance to established criteria. These criteria include indicators for admission, types of services required, length of stay, complications extending length of stay, and indicators for discharge.[5] Once such criteria are established, the medical audit and utilization review committees will form a basis on which to validate and compare the findings. This study addresses one specific criterion, the length of stay.

Statement of the Problem

The problem was to develop a technique establishing the optimum length of stay for selected diagnoses at Ireland

Army Hospital, Ft. Knox, Kentucky.

Conditions Prompting the Study

Conditions prompting the study were:

1. The concern of a progressive hospital to establish criteria for quality patient care and effective use of its resources.

2. The JACH's request that some criteria for medical audit be established by 1974.

3. The AR 40-400 requirement for medical audit and utilization review.

Factors Bearing on the Problem

The following factors had a definite bearing on the problem:

1. Hospital staffs were highly mobile since assignments changed every two to four years.

2. There were no regulatory constraints in terms of bed utilization or length of stay provided. Services were available for correct diagnosis and treatment.

3. There were no standard criteria developed for length of stay at Ireland Army Hospital.

4. The patient's financial position was not a determinant when length of stay was to be considered.

5. Inasmuch as there was no equipment for computation at this particular facility, all data were sent to Ft. Detrick, resulting in a time lag of approximately three months.

Objectives

The objectives of this study were to:

1. Obtain and average the length of stay (LOS) for sixteen specific diagnoses.

2. Provide a method by which physicians could evaluate the average LOS during medical audit.

3. Provide the physicians with historical LOS data as a tool to assist in their development of criteria for medical audit.

4. Compare data collected on average LOS for specific diagnoses to those of the civilian community.

5. Recommend a method that would facilitate data collection and analysis.

Criteria

Criteria considered in the development of a technique to establish optimum LOS for Ireland Army Hospital were as follows:

1. Establish a visible means by which comparison LOS studies for selected diagnoses could be carried out among Army hospitals.

2. Display parameters for LOS for specific diagnoses.

3. Base LOS on historical data taken from a legal document, the clinical medical record.

4. Establish a visible means by which comparison LOS studies for specific diagnoses could be carried out between military hospitals and those in the civilian community.

Limitations

For the purpose of this study, the following limitations were established:

1. The study will be limited to approximately sixteen diagnoses which should be sufficient to facilitate data collection.

2. Hospital data concerning LOS prior to January, 1971, were not available and, therefore, not used.

3. The study will be limited to singly coded diagnoses.

4. A marked increase in dependents' living off-post and/or retired personnel in the area may account for the increase in hospital admissions. However, without in-depth research, it is impossible to state with assurance why the changes occurred.

5. The age ranges selected to study are 15-25, 25-35, 35-55, and over 56. This selection insures that all military patients treated will be included in the study.

6. Only excessive LOS will be considered for length of stay.

Assumptions

The following assumptions were made:

1. The population mix at Fort Knox will remain essentially the same.

2. The basic mission of the hospital will remain the same.

3. The LOS will not be affected by the volume of the workload.

4. The physicians will establish the criteria for LOS.

5. No major changes in the treatment for the selected diagnoses will occur in the near future.

6. The sixteen diagnoses selected are representative of all diagnoses which might be ultimately subjected to techniques developed herein.

7. The population mix at Fort Knox, Fort Leonard Wood and Fort Jackson are sufficiently similar to provide a basis of comparison.

Research Methodology

The research methodology for this study consisted of the following:

1. Review the literature concerning quality patient care and utilization review as a basis of this study.

2. Present several viewpoints concerning quality patient care by those providing health care.

3. Develop and present information on how medical charts were presently being reviewed and audited at Ireland Army Hospital.

4. Analyze the data collected for the average length of stay.

The writer interviewed the Hospital Commander; Executive Officer; and Chief, Department of Patient Administration at Ireland Army Hospital for the purpose of obtaining a general overview of the problem. Since the development of standards and criteria were primarily the function of the physicians, further interviews were also conducted with the various department chiefs in order to ascertain if LOS was a beneficial area to pursue.

Current policies and procedures for the medical audit and utilization review committees at Ireland Army Hospital were analyzed. Although there were no written criteria for medical audit or utilization review, physicians were now utilizing guidelines as published by the Joint Commission on Hospital Accreditation and AR 40-400. It was found that a study had already been completed comparing LOS at Ft. Knox and Ft. Leonard Wood. Both hospitals were of comparable size and the workload was similar. The study was based on the workload of various general services, such as orthopedics, general surgery, urology, and others. There was a significant variation between the different departments of

the two facilities. Since such variances were not explained, it was decided to do a LOS study for specific diagnoses.

Interviews were then conducted with the chiefs of the various specialties to ascertain whether or not individual backgrounds or differences in medical schools had any impact on the LOS for specific diagnoses. In their opinion, diagnosis and treatment were based on sound, scientific principles and should not differ sufficiently to preclude a study on LOS.

With the assistance of the medical records administrator, selected medical records to obtain LOS data for specific diagnoses were determined. Despite the fact that the sample was small, there appeared to be a difference between LOS for dependents and for active military personnel of sufficient significance to warrant further study. Average LOS for dependents were more in line with the averages for the civilian population.

The problem was to obtain samples sufficiently large to validate the study. It was decided to use the data collected from the medical record cover sheets dating from January, 1971. By using this information, a sufficient sample size could be obtained to validate the findings. The data was used to compute average LOS for selected specific diagnoses, based on frequency of occurrences. The data was also broken down to show age groupings and status, active duty or dependent.

Review of the Literature

A contract exists between a hospital and the society which it serves. This contract "stipulates that the hospital guarantees the care it provides to be of the highest quality; that it is maintained at the highest level for all of the patients all of the time."[6]

To comply with the contract, many elements of patient care must be considered. These include the facility's availability and accessibility of services, qualified personnel, patient satisfaction, and medical practices and results.[7] The hospital must be structured and operated on sound organizational principles. Its medical staff should include only those with valid credentials whose privileges have been judiciously assigned. The hospital should know the quality of care it provides, not just because it is legally responsible but because it is morally responsible as well.[8]

Years ago, it was realized that information was needed about the institution in its entirety. The philosophy, at the time, was that quality was difficult to define. Therefore, organizations concentrated on reportable facts such as how number of patients treated at a particular hospital, how long they stayed, what the death rates were, and the results of autopsies. As early as the 1940s, such reports were used as a basis of comparison between hospitals in the Rochester Hospital Council, Rochester, New York.

In 1950, the Southwestern Michigan Hospital Council adopted a similar approach. The patient's medical record for a given hospitalization was condensed into a standardized summary, enabling transfer to punch cards and implement computer analysis. By 1955, the system matured and computers were developed for creating "expected" average hospital stay for individual patients. The Professional Activities Study (PAS) is the outgrowth of those early efforts of the Southwestern Michigan Council. PAS is an organization which views "average" LOS for certain diagnoses in member hospitals and compares it to the averages in similar nonmember hospitals.[9]

Another organization is the Hospital Utilization Project (HUP), founded in 1963 under the joint sponsorship of the Allegheny County Medical Society Foundation and the Council of Western Pennsylvania. It was expanded in 1967 to include all of Pennsylvania. Its primary function was to provide useful and meaningful data to hospitals, medical staffs, and medical record departments. The program provides comparative reports and profiles on hospital use. The HUP organization computerizes and summarizes medical record abstracts received from member hospitals. The organization then compiles reports which can be used to assist and facilitate the activities of the hospital staff in auditing and evaluating the quality of patient care. The technique is based on the determination by each medical staff of its own criteria for quality care. HUP's length-of-stay reports indicate, by age

groups, the number of patients by single and multiple diagnoses, a median, and an average LOS (Appendix B).[10]

The Army utilizes the Individual Patient Data System developed in 1971. It was designed to provide a world-wide centralized and automated method for collection and dissemination of medical and administrative data from the U. S. Army medical treatment facilities. Information was obtained from the clinic or medical record, coded, and, with the aid of a computer, compiled and analyzed.[11] Certain routine information was returned to the hospitals, but most information was obtained by request only. Due to the volume of services provided, there was usually a time lag of two to three months before data results were returned. The types of information available were: number of dispositions by clinical service; number of dispositions by type of beneficiary; days of hospital-bed occupancy by clinical service; and average daily hospital beds occupied by type of beneficiary.

In addition to this type of information, other data were also withdrawn. Each month, medical records were coded for specific information. The material was sent to the computer for computation and storage. The type of information coded contained the diagnosis code number; patient identification by Social Security number; the hospital register number; surgical procedures; units of blood used; causes of injury, if any; disposition by month and year; total days on census; total occupied bed days in the facility; convalescent

leave; and total days the patient was hospitalized in all facilities. This system offered a wealth of information that could be utilized by the medical treatment facilities in reviewing their managerial resources. Conversely, the criteria for the measurement of quality of care rendered are not so clearly defined. Maniaci observed that:

> The hospital's medical staff traditionally has been charged with the responsibility for the quality of care rendered to hospital patients and with evaluating this care by determining whether diagnosis, courses of treatment, and results were warranted.[12]

Approximately fifteen years ago another concept was added: whether or not the use of hospital facilities was appropriate. This was brought about because of high occupancy rates, increased costs, and other pressures from third-party payers.[13]

In the past, the validity of the term "quality patient care" was not questioned because of the belief that the providers of health services were best qualified to evaluate what services were needed. Presently, the trend is to reduce the subjectivity of this term by establishing standards and criteria by which care can be measured and evaluated.[14]

A standard is a measure of expectation, high or low, against which actual performance can be compared, and corrective action initiated when performance is above or below standard. They should be developed prior to the review of care, should be in writing, should be regularly revised, and should be provided to the staff. Once standards are established, surveillance should be instituted to ensure

compliance, and corrective action should be taken when surveillance reveals failure to meet these standards.[15] The hospital and professional staff can assure the public that quality care is provided for in the same sense as a corporation would prove it is "sound" by showing the financial balance sheet.

To have quality control in any business venture, three things are required:

1. There must be standards.

2. There must be surveillance--the process of watching to see whether or not the standards are being met; and

3. Corrective action must be taken when surveillance reveals failure to meet the standards.[16]

Medical standards generally come from three main sources: research, expert judgment, and observations or statistics on how medicine is actually practiced. Research generally provides the most defensible standards. For example, clinical investigation supports the present position that patients with acute myocardial infarctions should be monitored and should be in coronary care units. However, expert judgment, on an individual or consultation basis backed by literature review is responsible for most of the standards in use today. Finally, observations based on statistical sampling on how medicine is practiced can provide a profile to compare various hospitals or be used as a benchmark on which to base averages.[17]

Most hospitals employ a medical audit committee which evaluates the outcome and process of care. However, the audit as now established does not satisfy all demands for standards but, rather, professional demands for self-regulation.[18] According to the JCAH, standards must be established and organized so that they can be made applicable to all patients. In this way, hospitals can ensure that care given will be evaluated on an objective basis and, if it meets established standards, ensure quality.

The medical audit, combined with the utilization review committee, would evaluate and review all resources at a given facility; it would also provide the mechanism by which the hospital could give a viable and visible accountability for quality care. At the time of this writing, there was no universal agreement or precise guidelines about the kind of utilization review program which is best, or most appropriate, for any specific hospital.[19]

Footnotes

[1]Ronald Anderson and John F. Newman, "Societal and Individual Determinants of Medical Care Utilization in the United States," Health and Society, LI (Winter, 1973), 95.

[2]Joint Commission on Hospital Accreditation, Quality Assurance Program (Chicago: American Hospital Association, 1972), p. 1, Sec. 12.

[3]Ibid.

[4]"New Health Care Legislation: Challenge to Medical Record Practitioners," Medical Record News, XLII (April, 1973), 28.

[5]Ibid.

[6]Vergil N. Slee, "How to Know if You Have Quality Control," Hospital Progress, LIII (January, 1972), 38.

[7]Ibid.

[8]Ibid.

[9]George Joseph Foegen, "A Study of the Use of Stepwise Multiple Regression in the Prediction of Length of Hospitalization of Lower Extremity Injury Patients" (unpublished Ph.D. dissertation, Baylor University, January, 1971), p. 13.

[10]The PAS System (Ann Arbor: Commission on Professional and Hospital Activities, 1973), p. ii; Hospital Utilization Project, Length of Stay in HUP Hospitals (Pittsburgh: Hospital Utilization Project Publication, 1971), p. iii.

[11]HQ., Department of the Army, "Patient Admissions," AR 40-400, August 1, 1973, p. 91.

[12]Marie Maniaci, "Review Must be Comprehensive," Hospitals, XLVIII (March, 1974), 81.

[13]Ibid.

[14]John D. Porterfield III, "To the Defense of the System," Hospitals, XLVIII (March 1, 1974), 49.

[15]Slee, p. 40.

[16]Ibid.

[17]Ibid.

[18]Maniaci, p. 81.

[19]Ibid.

CHAPTER II

DISCUSSION

Overview of Military Medicine

Hospitals on military posts in the United States function as community hospitals for the local military community in addition to rendering care for other eligible personnel. They are, in fact, the focal point of the health care system on the post. Medical personnel usually have duties outside the hospital complex, including dispensary duty, preventive medicine, and public health. The hospitals have other functions as well: Serving as evacuation stations for injured personnel returning from overseas, and providing physical examinations for cadets or National Guard members.[1]

Military hospitals have suffered from the same problems as civilian hospitals: the demand for outpatient services has increased drastically, there has been a shortage of trained personnel, and cost has risen steadily. Nevertheless, military hospitals are well organized and staffs are capable and qualified to cope with many problems.[2]

The primary characteristic with a direct bearing on the average length of stay that differentiated the military hospital from its civilian counterpart was the population served. The military population differed as follows:

1. Good health was required for military service, and the population served was comparatively young and healthy. Thus, the mix of diseases and injuries differed. Bone injuries, skin disorders, and upper respiratory infections were more common, but terminal diseases were rare.

2. Military personnel frequently encountered long delays in administrative matters, such as obtaining orders, medical boards, and physical discharges, resulting in many patients remaining in the hospital longer than was medically necessary.[3]

3. At those military hospitals serving as training centers, particular attention was paid to controlling contagious diseases such as meningitis, influenza, and rheumatic fever. Such careful attention also led to prolonged length of stay.[4]

4. Military patients did not have as much accessibility to family care at home as the nonmilitary beneficiaries. Consequently, many patients who could be cared for at home had to remain in the hospital longer.

5. Cost accounting played a different role from that of the civilian community. Only a few items were billed directly to the patients. These included subsistence fees to officers, dependents, and civilians. Collection of fees, however, did not require as sophisticated a billing system as that of civilian hospitals.

6. There could be dramatic fluctuations in the workload for the health care system. Conflicts and disasters

could flare up, large units could be transferred, and missions changed. Thus, the workload of the military hospitals was not as predictable as that in the civilian community.[5]

Hospital History and Setting

Fort Knox has been a continuous provider of health services since 1917 when the Field Artillery Training Center was established there. The original hospital consisted of a World War I cantonment building located near the present site of the U. S. Treasury Gold Vault. After its destruction by fire in 1928, the hospital was relocated in a frame-and-stone building near the Illinois Central Railway Station.

In 1934, the building, now known as the old brick hospital, was built. This facility served as the post hospital until 1940 when a 1,000-bed, wooden-mobilization hospital was constructed. A second cantonment section was completed in 1941, bringing the wartime capacity to 2,400 beds.

In 1946, this cantonment section was converted into family housing, and the hospital continued to operate from the original cantonment building and brick hospital until 1957. In June, 1954, construction began on the new 500-bed, multi-story, permanent structure known as Ireland Army Hospital. The foundation was built to support an additional 500 beds; thus, potentially it can become a 1,000-bed facility (including foundations for two additional wings.)

In July, 1968 a reorganization of Army Medical Facilities resulted in the formation of the Fort Knox Medical

Department Activities (MEDDAC). The new concept provided for all medical departments' activities for which Fort Knox is responsible to be organized as a simple functioning group.

The Fort Knox MEDDAC is responsible for the provision of military medical, dental, veterinary, and certain administrative and logistical services in an area consisting mainly of Ohio and Kentucky (except for the five-country area surrounding Fort Campbell). Fort Knox MEDDAC also serves as the coordinator for U. S. Army Health Services Command Region I and as the Army Coordinator for the Tri-service Military Medical Region 8. Medical care is provided for all eligible military personnel and their dependents. Care is also provided to retired military personnel and their dependents. Other eligible categories receive care, based on availability of adequate staffing and budgetary limitations. The hospital's most recent accreditation was on July 31, 1972.[6]

In addition to the service provided and shown in its organizational chart (Appendix C), Ireland Army Hospital has an active program of nurse clinicians in the areas of obstetrics, pediatrics, and ambulatory care. The hospital also operates and maintains a mobile health van, under the supervision of the public health team, which visits the housing areas. The hospital has instituted an evaluation and screening clinic for orthopedics under the direction of the Chief, Orthopedics, and Chief, Department of Physical Therapy, thus enabling them to see more patients and reduce waiting time.

Ireland Army Hospital has an active on-going education program for in-house personnel which is under the direction of the educational coordinator, and also maintains affiliation for training purposes for the students from the University of Kentucky and Elizabeth Town Community College.

Since 1971, Ireland Army Hospital has experienced a slight decline in the number of military personnel and their dependents living on post (Table 1). During the years 1971 to 1973, the post experienced a decline of 94,372 active-duty military and 5,229 dependents living on the military reservation. The number of live births has dropped by 140, and clinic visits by 80,319 the same time frame. In contrast, the hospital's admissions, hospital beds occupied, laboratory procedures, and LOS increased. After experiencing a decline of 183 admissions for the year 1972, the hospital increased admissions by 4,463 over what was recorded in 1971. The beds occupied increased by 25,450 between the years 1971-1972. The previous year's increase from 1971 to 1972 was only 975 beds occupied. The laboratory procedures have increased 390,663 between 1971 and 1972; the average LOS increased by 0.2 days since 1971.

Termination of the Vietnam conflict, plus the establishment of the Modern Voluntary Army Program, explain some of these changes, such as the decline of active-duty military and their dependents residing on-post. The actual decline in post population also explains the decline in birth rates

TABLE 1

AVERAGE WORK LOAD STATISTICS FOR IRELAND ARMY HOSPITAL, 1971 THROUGH 1973

	1971	1972	1973
I. Military and on post dependent strength			
Military	394,382	324,736	314,996
Dependents	178,981	176,681	173,752
II. Occupied beds	147,062	148,019	173,449
III. Live births	1,425	1,391	1,285
IV. Clinic and dispensary visits	776,276	710,315	695,957
V. Hospital admissions	15,006	14,823	19,469
VI. Laboratory procedures	1,268,369	1,593,018	1,659,032
VII. Average length of stay by month (Days)	9.8	9.9	10.0

Source: Management Office, Ireland Army Hospital, Ft. Knox, Kentucky, March 6, 1974.

and outpatient clinic visits. Another factor is that the hospital, no longer experiencing the influx of battle casualties, is able to shift its resources and schedule more elective surgical and medical procedures, thus increasing its admissions, laboratory procedures, and length of stay. Finally, although on-post population is a significant factor in terms of work load for Ireland Army Hospital, no data are available concerning the total population served by the hospital.

Development of a Retrievable Technique

Hospitals, military and civilian, in order to have both medical and administrative excellence, need certain information, including medical problems encountered, the care and treatment provided, and results of that care. The system of documentation which has been developed is commonly referred to as the clinical medical record. This document contains patient identification, medical history, physical findings, problems the patient presents, treatment, and results of the treatment. This record also provides the documentation that administration needs to budget supplies, equipment, facilities, and personnel required to care for patients.[7]

All hospitals utilize various committees to evaluate patient care. Two of those committees are the medical audit and utilization review committee. Where "Medical Audit is the evaluation of the quality of medical care, its purpose is to

assess, identify and correct patterns of deficient care."[8]

According to AR 40-400:

> Utilization review is a concurrent evaluation of health resources, management, and the appropriateness of admissions, services ordered and provided, length of stay, discharge planning and practice, and outpatient services.[9]

Combined, these two services review the institution's approach to quality care.

Under the present system of medical audit at Ireland Army Hospital, there are no written criteria for quality patient care. The physicians follow the guidelines as published by Health Services Command Regulation 40-400. There are various committees, including the medical audit and utilization review committee, charged with the responsibility of reviewing quality patient care. However, each committee examines only specific aspects of the medical record. As a result, "splintering" rather than integration of quality care assurance may occur.

The medical audit committee is charged with reviewing medical records for adequacy, timeliness, completeness, and clinical pertinence. It also reviews the records of selected deaths, unimproved cases, errors in diagnoses or treatment, and cases that are unresolved.

The utilization committee functions may or may not be performed in conjunction with the medical audit. It is charged with the review of management resources, availability and alternate use of ambulatory care services, length of stay,

effects of preadmission workups on length of stay, diagnostic and nursing resources provided, and indications for discharge.[10]

Two additional committees utilized are the infection control committee and the tissue committee. The infection control committee supervises the overall hospital's infection control program to include detection of infection and the review of medical records with positive laboratory findings. It also assists in the development of programs to prevent infections.[11]

The tissue committee reviews preoperative and post-operative diagnoses, indications for surgery, and actual diagnoses of tissue removed. This committee also reviews the charts where surgery had been performed and no tissue removed. Charts are selected at random and are based on some characteristic of the record. This is done independently of the nature of the case and is accomplished by using the digits of the register number.[12]

Currently, the physicians at Ireland Army Hospital are working on the development of criteria for a medical audit and utilization review. Criteria chosen by the physicians to study were developed by the Pennsylvania Medical Society. Using these criteria as a starting point, physicians will develop criteria which will meet the needs and requirements for Ireland Army Hospital. The first two criteria chosen for study are fractured ankle and cirrhosis of the liver (Appendix D).

The criteria outlines: indications for admissions, hospital services required, hospital services consistent with diagnoses, expected length of stay, complications extending length of stay, and indications for discharge. Once criteria of this type are developed, individuals such as the medical records administrator may review the medical charts for compliance with the criteria. Should there be any unexplained deviation from the criteria, the records would be placed aside for further review by the medical audit committee. Technically, this procedure facilitates the review process and saves a valuable resource, physician time.

This method also enables the medical staff to evaluate patterns of care rather than just review isolated incidents of care. The comparison of actual practice with adopted criteria makes the process uniform and maximizes objectivity. When there are no set standares or criteria, the evaluation of the physician can readily lend itself to subjectivity. Concurrent with the trend to reduce this subjectivity, the development of criteria by qualified personnel will allow nonphysicians to review most of the records. A typical example is seen in Appendix E, the American Hospital Association's Quality Assurance Program (QAS). The example of QAS does not mean that it will be the policy adopted by the Army. Since Health Services Command (HSC) directs the program it desires, the final choice will rest with HSC and not with an individual hospital.

During the initial review of medical audit and utilization review committee activities at Ireland Army Hospital, the writer found that a comparison of length of stay had been accomplished between Ft. Knox and Ft. Leonard Wood (Table 2). The comparison showed many unexplained variances. The study does not address the time frame in which the data were collected, nor does the study include the number of dispositions and number of bed days occupied. All of the services, except dental, show a longer length of stay reported at Ft. Knox than at Ft. Leonard Wood. A closer approximation of length of stay would be expected since these two facilities are of similar size, size of age-sex breakdown and nonactive-duty population, volume of services, total workload, and basic mission--both being facilities that serve a basic training post.

According to the JCAH, a difference of two or three days in average LOS is acceptable when developing criteria. Thus, General Medicine, Pediatrics, General Surgery, Urology, Obstetrics, Gynecology, and Otolaryngology fell within acceptable ranges for comparison as all report a length of stay difference of only two to three days. However, Neurology (eight days), Psychiatry (seven days), Ophthamology (fourteen days) and Orthopedics (nineteen days) deviated of the acceptable range. Had the study been more complete, it might have explained some of the differences but at this point no explanations can be given.

TABLE 2

COMPARISON--AVERAGE LENGTH OF STAY: (DAYS)
FT. KNOX, AND FT. LEONARD WOOD

Service	Ft. Knox	Ft. Leonard Wood	Difference
Gen. Medicine	6.7	6.1	0.6
Ped. Less NB	4.9	2.6	2.3
Neurology	31.5	23.5	8.0
Psychiatry	20.4	12.7	7.7
Dental	4.3	20.2	15.9
General Surgery	9.5	7.4	2.1
Opthamology	18.6	4.5	14.1
Otolaryngology	4.8	4.8	-
Urology	6.9	4.4	2.5
Obstetrics	3.9	3.2	0.7
Gynecology	4.6	4.5	0.1
Orthopedics	29.5	10.4	19.1

Source: Ireland Army Hospital, Ft. Knox, Kentucky

Length of Stay

Length of stay indices yield total hospital days of individuals: total number of hospital days per person per year and mean length of stay per hospital admission. Researchers have found that there is an inverse relationship between admissions rate and average length of stay. Records show that in 1935 there were 59 admissions per 1,000 population, and the average length of stay was 15 to 16 days. Currently, the rate of admissions has increased to 130 per 1,000 population, with the average stay 9.4 days. Other factors that researchers have found which have a direct bearing on length of stay are: age, sex, education, marital status, race, diagnosis, and size of hospital.

Age

Age is an important factor primarily because of its close association with morbidity. Increases in age are related to increases in morbidity which result in longer length of stay.[13]

Sex

According to Robert L. Eichhorn, sex influences the use of health services, primarily due to morbidity patterns. An example of this is seen in a greater need for obstetrical care by females.[14]

Education

Education is an important factor for overall hospital use and, especially, for preventive care-seeking behavior.

The consumption of physician services increases according to the educational level. Hospital admissions and/or discharge rates are lower for the lower-income group. The average length of stay is longer for the least educated because they wait longer to consult a doctor.[15]

Marital status

Marital status is linked to age, sex, and morbidity patterns. Hospital admissions and length of stay reflect the age and sex composition and morbidity status of the various marital status categories. Married women use more obstetrical services; widowed or persons who are separated tend to be older, which can lead to a prolonged length of stay.[16]

Race

Race influences the volume of services consumed and the site of the visit. It has been found that whites consume more physicians' services than nonwhites. Nonwhites, in general, however, average longer stays in hospitals.

Diagnoses

This factor contributes greatly to the determination of length of stay. Any complication or additional diagnosis has a tendency to prolong the average stay.

Size of hospital

The average length of stay is slightly longer in hospitals with more than 500 beds. This is due, in part, to the severity of cases treated. Larger hospitals have

facilities that enable them to provide more definitive diagnoses and treatment services.[17] These factors, plus the special characteristics of military medicine, can all affect the length of stay, resulting in the variances as seen in the comparison study.

Studies have been made comparing average LOS between military hospitals and their civilian counterparts. One such study was made by Pieter Kingsland Van Winkle, Naval Post-graduate School, Monterey, California.[18] His study subject was "A Model for Analysis and Management, Regional Medical Centers." Here, he compared length of stay for inpatients between the military and civilians for specific diagnoses (Appendix F).

There is a significant variance between the military and civilian community, largely because of the special factors that keep military patients in the hospital longer than the civilians. The primary factor being that when a military patient is discharged from the hospital he is frequently expected to return to duty immediately and, therefore, must complete his convalescent stage in the hospital rather than at home.

The Joint Commission on Hospital Accreditation suggests that when establishing initial criteria for length of stay, hospitals may use norms obtained from a local standard index such as those maintained by Blue Cross and Blue Shield. National and regional length of stay developed by Professional

Activities Study also could be used. Then the criteria can be modified, based on the hospital's initial audit findings. However, this presents a problem to the military community because its average LOS differs so greatly from the civilian community.

In order to refine the comparison that had been accomplished between Ft. Knox and Ft. Leonard Wood, and at the same time assist physicians in the development of length-of-stay criteria for their particular hospital, a similar length-of-stay study had to be done. It was decided to study specific diagnoses, not total volume of services provided by each facility.

Keeping the unique characteristics of military medicine in mind, plus other factors that have a bearing on length of stay, the specific data requested included the following:

Data requested

Only data on specific, single diagnoses were requested. This eliminated complicated diagnoses leading to a prolonged length of stay.

Certain age groupings--Age groupings included the following: ages 15 to 25, 25 to 35, 35 to 45, and 45 to 55. Children under 15 were eliminated because of the instances in which specialists might be involved.

Sex grouping--female and male categories were to be broken down to show if there were any differences. Only

total bed days were requested, thus eliminating the possibility of patients on convalescent leave being included.

Type of beneficiary--was requested to separate the active-duty patient from the dependents. In this way, it was thought the results for the dependent length of stay would be more in line with the civilian community. The selected diagnoses chosen were based on frequency of occurrence.

Specific diagnosis--After reviewing the number of dispositions for specific diagnoses in a given year, the diagnoses chosen to study were based on the highest frequency of occurrence. Given to this data, it was requested that the average length of stay be computed on a comparative basis among Ft. Knox, Ft. Leonard Wood, and Ft. Jackson. Fort Jackson was included in the study for a further comparison because it also serves as a basic training post, has a similar on-post population, similar size hospital, and services provided. It was further requested that all the data stored since 1973 be included for the purpose of obtaining a sample of sufficient size.

The diagnoses selected for the study were as follows:

Code 0092--Gastroenteritis/colitis

Code 0340--Strep sore throat

Code 0560--Rubella

Code 2509--Diabetis Mellitis

Code 2740--Gout

Code 2770--Obesity

Code 4010--Essential Benign Hypertension

Code 4109--Acute Myocardial Infarction without hypertension

Code 4129--Chronic Ischemic Heart disease without hypertension

Code 4550--Hemorrhoids

Code 4650--Acute Upper Respiratory Infection

Code 4860--Pneumonia unspecific

Code 5500--Ingunial Hernia without obstruction

Code 7360--Flat foot

Code 8240--Fractured ankle,closed

Code 8500--Concussion[19]

These are codes from the International Coding for Diseases.

Results of Data

The data obtained from the Inpatient, Data System were as follows:

1. Specific Diagnosis.
2. Number of Dispositions.
3. Total Bed Days.
4. Average Length of Stay.
5. Specific age categories.
6. Status of the individual (active-duty military, dependents of active-duty military, retired, or other).

7. The data showed three consecutive years (1971-1972-1973) for these Army hospitals: Ft. Knox, Ft. Leonard Wood, Ft. Jackson (Appendix G).

The general breakdown of the data showed the majority of the dispositions were active military, and very few were in the age range of 56 years or over. This was due to the fact that the average retirement age for active duty was between 50 and 55 years of age, with approximately 25 years of service. Some individuals remained longer and could be older than 55 upon retirement, depending on their age upon entering the service.

The next largest number of dispositions was for dependents of active military within the age range of 36 to 55 years. Dispositions for dependents, age 15 to 25 were small, as children lose their dependent status at age 18 for males and age 21 for females. There was an exception: children attending college and living at home could still retain their dependent status. The last number of dispositions were classified as "other." This category included retired military, individuals eligible for care based on federal employment, and civilian emergencies.

The average length of stay was computed by taking the number of days divided by the number of dispositions. Should there be only one reported case of a specific diagnosis, then the corresponding bed days would be the average length of

stay. Averages would obviously vary, according to the number of dispositions and bed days. If there was a small number of dispositions with a large number of bed days, the length of stay would be long. As an example, Ft. Leonard Wood in 1972 reported 12 cases of Diabetis Mellitis (age 15 to 25) and 377 bed days occupied. The average LOS was 31.4 days (377 ÷ 12 = 31.4).

Since the larger the sample size, the better chance of obtaining a true average. When reviewing the yearly data as shown in Appendix G, many of the sample sizes were found to be few in number (under thirty) and the corresponding average LOS varied greatly. To obtain a larger size that would include both short and long LOS and yet result in an average, the yearly data for the three hospitals were combined. Bearing in mind that age was a factor in determining LOS, the age categories were added separately. The results, as shown in Table 3 were the totals by age categories (15 to 25, 26 to 35, and so forth), and the sum total by status of individual (active military and dependents). This resulted in the averages for the military, dependents, and retired as reflected in Table 3. Once the averages were obtained, ranges were established. These were the ranges in which the average LOS would fall. They included the longest and shortest LOS out of the possible six averages which would serve as a basic criteria. These were shown in the bottom right-hand corner of each table.

TABLE 3

NUMBER OF DISPOSITIONS, TOTAL BED DAYS OCCUPIED, AVERAGE LOS, AND RANGES FOR LOS FOR CODE 2509, DIABETIS MELLITIS, FOR THREE ARMY HOSPITALS, 1971-72-73

	15-25	25-35	35-55	55	Total by Status of Individual
Active Military:					
No. of Disp.	77	31	123	0	231
No. of Bed Days	3,064	906	3,452	0	7,422
Average LOS	*39.8	29.2	*28.0	0	32.1
					*Range 28-39 days
Dependents:					
No. of Disp.	52	64	33	16	165
No. of Bed Days	442	349	588	206	1,585
Average LOS	8.5	5.5	17.8	12.8	9.6
Other/Retired:					
No. of Disp.	20	12	84	45	161
No. of Bed Days	105	75	1,236	769	2,185
Average LOS	5.3	6.3	14.7	17.0	13.6
TOTAL (excluding Military) by AGE CATEGORY	72	76	117	116	*Range 5-15 days
	547	424	1,824	2,185	
	7.6	*5.6	*15.3	13.6	

A discrepancy in factors that affected the LOS for active military as reported was that the data requested included patients placed on "quarters." Quarters meant home care. This type of medical treatment occurred when a military individual was ill yet did not need hospitalization, provided he had some means to care for himself. The individual remained at home until he could return to duty. This was not a policy for the basic trainee.

Whenever the data showed dispositions but did not have any corresponding bed days, the individual had been placed on quarters. As an example, one diagnosis, Code 0092, gastroenteritis, age 36 to 55, showed dispositions but no bed days. Table 4 shows how quarters are displayed in the data found in Appendix G. The only other time the data reflected dispositions but no bed days indicated a death or clerical error.

To gain an appreciation of how this would affect the LOS, Ft. Jackson Army Hospital was contacted to see if they could report how many patients were placed on quarters in 1973 for Code 0092 gastroenteritis. Ft. Jackson Army Hospital reported a total of 118 patients placed on quarters. Table 5 shows the effect it would have on the total LOS. Since ages were not given, the total military population was added and 118 was subtracted, thus correcting the average LOS.

With the corrected count, the average LOS for patients in the hospital with gastroenteritis had been doubled because

TABLE 4

QUARTERS REFLECTED IN THE DATA FOUND
IN APPENDIX G FOR ACTIVE MILITARY
AT FORT KNOX, FOR CODE 0092, GASTROENTERITIS

Military	15-25			26-35			36-55			>55
	1971	'72	'73	1971	'72	'73	1971	'72	'73	
No. of Disp.	284	269	118	46	83	23	11	28	7	0
No. of Bed Days	300	159	143	13	15	25	*-	-	4	0
Average LOS	1.1	0.6	1.2	0.3	0.2	1.1	-	-	0.6	0

* The dash indicates there are no corresponding bed days for the diagnoses.

TABLE 5

FT. JACKSON'S REPORTED CASES OF CODE 0092, GASTROENTERITIS, FOR 1973, THE AVERAGE LOS, AND CORRECTED LOS DUE TO QUARTERS

Active Military	1973	
No. of Disp.	234	
No. of Bed Days	520	
Length of Stay	2.2	520 ÷ 234 = 2.2
No. of Disp.	234	
No. of Quarters	118	
Corrected count	116	
Total Bed Days	520	
Corrected LOS	4.4	520 ÷ 116 = 4.4

of the quarters factor. Should the total number of military patients placed on quarters be as large for the other hospitals, the stay would be lengthened. Out of the sixteen diagnoses selected for study, six were identified from the appendix as having patients placed on quarters. These were: Code 0092, Gastroenteritis; Code 0340, Strep sore throat; Code 7360, Flat foot; Code 4650, Acute Upper Respiratory Infection; Code 2770, Obesity nonspecific; and Code 2763, Gout.

Four diagnoses did not have sufficient numbers to obtain a true average length of stay. These were: gout, flatfoot, rubella, and strep sore throat. The group sizes

were too small for the dependents and retired to obtain a true average. The group sizes for the military were large but it was not known if these diagnoses were affected by quarters.

LOS not involving quarters

The first diagnosis Code 2509 was Diabetis Mellitis. The other diagnoses were more serious in nature. This is a chronic, hereditary disease of metabolism which results in the body's inability to utilize glucose (sugar) because of the failure of the pancreas to secrete insulin in sufficient quantity to take care of the glucose consumed in the normal diet. There is probably no other disease in which it is so important that the patient understands his condition and its management. Since part of his treatment consists of a measured, balanced diet, he would be instructed in diet requirements (the self-administration of insulin, if not controlled by diet, and general hygenic care). All of these factors play an important part in the length of the patient's stay.

When analyzing the data in Appendix G, it can be noted that each year there are very small samples and the average LOS's varies greatly. One LOS was 136 days; several consisted of three dispositions (individual cases) each with a different LOS (33.3 days, 4.7 days, and 86.7 days, respectively). Combining the data, there was a total of 231 cases reported for military, 165 cases for dependents,

and 161 for retired. The average LOS was 32.1 for military, 9.6 days for dependents, and 13.6 for retired (Table 3).

The range for the average LOS was 5 to 15 days for dependents and retired and 28 to 39 days for the military. This data supports the theory that the average LOS for military exceeds that for the dependents. There could be several reasons for this. Diabetis often requires a moderation in life style and less strenuous activity; thus, the military person might have to change jobs or even medically retire from the service because of the condition. The largest factor is still the establishment of a correct balance between activity, diet, and insulin, if required. The dependent and retired person would not have as much difficulty in this type of moderation as the active military soldier.

The second diagnosis was Code 4109, Acute Myocardial Infarction. This condition is damage to a portion of the heart muscle, usually caused by an occlusion of the coronary artery that supplies blood to the heart muscle. The patient usually has pain, profuse perspiration, weakness, shortness of breath, and nausea. A rapid or slow heart beat is also a characteristic of this ailment. Since damage to the heart can result in death, rest is of prime importance. The patient usually remains in the hospital for a time, thus allowing the heart to rest and heal. Medications, special diets, and careful monitoring (watching) is very important. The data reflect that there is an increase of heart disease

within the age range of 36 and older. There were no reported cases for the ages 15 to 25; three cases were reported for ages 25 to 36; but the reported cases are increasing rapidly. There were a total of 30 cases for dependents, 141 cases for retired personnel, and 58 cases for military personnel. Two of the reported cases for dependents had a very short LOS--3.5 days. Both cases were from Ft. Jackson, one in 1971 and one in 1973 (Appendix G). It was assumed that these were suspected cases, and not a true myocardial infarction, that were discharged without a change in the admitting diagnoses. A reported case for the military category had a long LOS of 122.0 days. This probably was the result of an administrative delay, such as a medical discharge or retirement.

The average LOS for dependents was 18.7 days, 16.7 days for retired, and 62.3 days for military. The range for the average LOS was 14 to 20 days for dependents and retired, and 29 to 76 days for the military. This data also supported the theory that military personnel remain in the hospital longer. As with diabetis, this diagnosis requires a moderation in life-style, often to such an extent that the individual has to change jobs (Table 6).

The third diagnosis was Code 4129, Chronic Ischemic Heart disease. This diagnosis is a description of pathology. "Chronic" means longstanding and slow in occurrence. Ischemic is a disease that is caused by a lack of blood supply to meet

TABLE 6

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS OCCUPIED, AVERAGE LOS, BY AGE CATEGORIES, AND POPULATION AND RANGES FOR AVERAGE LOS FOR CODE 4109, ACUTE MYOCARDIAL INFARCTION, WITHOUT HYPERTENSION

	15-25	25-36	36-55	55	Total by Population
Active Military:					
No. of Disp.	0	1	39	18	58
No. of Bed Days	0	122	2,971	524	3,617
Average LOS	0	122.0	*76.2	*29.1	62.4
				*Ranges 29-76 days	
Dependents:					
No. of Disp.	0	2	18	10	30
No. of Bed Days	0	7	366	189	562
Average LOS	0	3.5	20.3	18.9	*18.7
Other/Retired:					
No. of Disp.	0	0	98	43	30
No. of Bed Days	0	0	1,705	564	562
Average LOS	0	0	17.4	13.1	18.7
TOTAL (excluding Military) by AGE CATEGORY	0	0	116	53	141
	0	0	2,071	753	2,269
	0	0	17.8	*14.2	16.1
				*Ranges 14-18 days	

tissue need. The area involved is the heart. Arterioscherosis is an example. The blood vessels that carry the vital oxygen supply to the tissues becomes thicker, harden, and lose their elasticity. This disease can lead to many complications that are more serious in nature, such as a heart attack. Since this disease usually affects the older population and may appear mild in nature, the young person, who can be affected as well, may be overlooked. The treatment will vary, depending on the particular nature of the disease. Rest with intermittent exercise is one form of treatment; however, should a blood clot be involved, treatment would consist of rest with medication to dissolve the clot.

Data on this diagnosis support the fact that the older population is affected more than the younger age groups. There was a total of 76 cases reported for dependents, 461 for retired, and 120 cases for military. The majority of these were in the age range of 36 or older, although there were a few cases for the younger age ranges. The average LOS for dependents was 13.2 days, 11.2 days for retired, and 39.2 days for military. The ranges for the average LOS were 6 to 13 days for dependents and retired, and 37 to 39 days for the military. This data also supported the longer LOS for the military patient. Again, it was assumed that the military was hospitalized longer because of administrative reasons, or for medical retirement and/or opposition changes (Table 7).

TABLE 7

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORIES, AND TOTAL POPULATION AND RANGES FOR LOS FOR CODE 4129, CHRONIC ISCHEMIC HEART DISEASE, WITHOUT HYPERTENSION

	15-25	25-36	36-55	55	Total by Population
Active Military:					
No. of Disp.	0	11	109	0	120
No. of Beds	0	410	4,294	0	4,704
Average LOS	0	*37.3	*39.3	0	39.2
					*Ranges 37-39 days
Dependents:					
No. of Disp.	1	2	44	29	76
No. of Bed Days	8	23	551	420	1,002
Average LOS	8.0	11.5	12.5	14.5	13.2
Other/Retired:					
No. of Disp.	2	2	301	156	461
No. of Bed Days	10	30	3,243	1,900	5,183
Average LOS	5.0	15.0	10.7	12.1	11.2
TOTAL BY AGE CATEGORIES	3 18 *6.0	4 53 *13.3	345 3,794 10.9	461 5,183 11.2	
					*Ranges 6 - 13 days

The fourth diagnosis was Code 4010, Essential Benign Hypertension. This is commonly known as high blood pressure. The cause is unknown and obscure, although heredity has been emphasized as an important, predisposing factor. Obesity and motor hyperactivity frequently appear to be associated with the disease. Primary hypertension is usually present for many years before the individual has any sign of the disease. The signs can be fatigue, nervousness, dizziness, headaches, weakness, and palpitation. If not controlled by medication, change in diet, or changes in life style, the disease can lead to death at an early age. The main causes of death are cerebral hemorrhage, congestive heart failure, or heart attack. These data support the fact that the disease is found at all ages. There were 304 reported cases for the military age 15 to 25, the largest of the age categories. The reason was due to military being the largest population and, because of frequent physicals, could be diagnosed sooner. It was assumed that these individuals were predisposed to the disease and, due to the change in life style or basic training, produced signs or symptoms of the disease. Normally, an individual with high blood pressure is denied entry into the service taken upon the entrance physical.

A breakdown of this diagnosis follows: 54 cases for dependents, 124 cases for retired personnel, and 482 cases for the military personnel. The average LOS for dependents was 7.5 days, 6.5 days for retired, and 11.0 days for military

personnel. The range for the average LOS was 4 to 11 days for dependents and retired personnel and 6 to 20 days for military personnel (Table 8).

The average LOS for the military personnel was longer for this diagnosis, as were the others reported earlier; however, the LOS was not as long. If the individual is released from the service because of high blood pressure in the first few years of his service life, the process is usually much quicker; thus, his stay in the hospital would be shorter.

The fifth diagnosis was Code 5500, Inguinal Hernia. This condition is a protrusion of an organ or structure from its normal position. It can be congenital or acquired through straining, lifting, vigorous exercise and coughing. Age, sex, and obesity are factors that can contribute to the development of a hernia. Most hernias can be surgically corrected and are more common in males than females. After the hernia is corrected, the patient is usually discharged from the hospital but should refrain from strenuous activity for several weeks.

The majority of the cases reported for the military personnel fell in the age range of 15 to 25. Reported cases for dependents and retired personnel were within the age range of 36 to 55. There were 60 cases reported for dependents, 236 for retired personnel, and 796 for the military personnel. The average LOS for dependents and retired personnel was 7.7 days. The military personnel had a 9.7 day LOS. The range

TABLE 8

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORIES, AND TOTAL POPULATION AND RANGES FOR AVERAGE LOS FOR CODE 4010, ESSENTIAL BENIGN HYPERTENSION

	15-25	25-36	36-55	55	Total by Population
Active Military:					
No. of Disp.	304	55	123	0	482
No. of Bed Days	2,441	383	2,495	0	5,319
Average LOS	8.0	*6.9	*20.3	0	11.0
					*Range 6-20 days
Dependents:					
No. of Disp.	6	17	30	7	54
No. of Bed Days	61	100	180	64	405
Average LOS	10.2	5.8	6.0	9.1	7.5
Other/Retired:					
No. of Disp.	25	4	81	14	
No. of Bed Days	82	16	607	105	
Average LOS	3.3	4.0	7.5	7.5	
TOTAL BY AGE CATEGORY (Military not included)	31 143 *4.6	21 116 5.5	111 787 7.1	21 109 *8.0	124 810 6.5
					*Range 4- 8 days

for the average LOS was 5 to 9 days for dependents and retired personnel, and an 8 to 12 day LOS for the military personnel (Table 9).

This diagnosis shows a closer range for the average LOS between the dependents and military personnel. Apparently, it was felt that the military personnel could be discharged after an 8 to 12-day stay after surgery. The convalescent period after surgery could be accomplished without injury to the patient, if he did not participate in strenuous activities. The military personnel could accomplish this by using a profile. The patient was discharged from the hospital and the physician issued him a profile. This was a prescription that controlled physical activity, and the patient was restricted from performing certain types of activities for a definite period of time. This data further supported the theory that the military patient remain longer in the hospital than the dependents and the retired patient.

The sixth diagnosis was Code 4550, Hemorrhoids. This condition is dilated veins located directly beneath the rectal mucosa or the skin of the anus. The condition can cause a great deal of pain and prevent the individual from walking or sitting comfortably. Heredity, occupations that require long periods of standing or sitting, constipation, and pregnancy are all factors that can lead to hemorrhoids. The treatment can be surgical correction or local application of ice and analgesic ointments. If the patient has surgery, he

TABLE 9

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORIES AND TOTAL POPULATION, RANGE FOR LOS FOR CODE 5500, INGUINAL HERNIA, FOR THREE ARMY HOSPITALS, 1971-72-73

	15-25	26-35	35-55	55	Total by Population Status
Active Military:					
No. of Disp.	596	88	110	2	797
No. of Bed Days	5,518	789	1,418	21	7,746
Average LOS	9.3	*8.9	*12.9	10.5	9.7
					*Range 8-12 days
Dependents:					
No. of Disp.	12	6	30	12	60
No. of Bed Days	64	28	268	104	464
Average LOS	5.3	4.6	8.9	8.6	7.7
Other/Retired:					
No. of Disp.	15	4	163	54	236
No. of Bed Days	80	26	1,219	503	1,828
Average LOS	5.3	6.5	7.5	9.3	7.7
TOTAL BY AGE CATEGORIES	27 144 *5.3	10 54 *5.4	193 1,487 7.7	66 607 *9.2	

*Range 5-9 days

is advised to avoid constipation by eating a diet containing adequate fruit and roughage, drinking plenty of fluids, and resting.

There were 52 cases reported for the dependents, 73 cases for the retired personnel, and 446 cases for the military personnel. The average LOS was 6.8 for both dependents and retired personnel, and 6.4 days for the military personnel. The range for the average LOS for dependents and retired personnel was 5 to 7 days, and 5 to 9 days for the military. This diagnosis showed a closer range for the average LOS for the dependents and military personnel. If quarters are not a factor affecting this diagnosis, then it is assumed that the military personnel are discharged from the hospital and placed on profile (Table 10).

The seventh diagnosis was Code 8550, Concussion. This condition results when the head strikes a solid object, and the soft tissues within the head continue to move. Whenever a person loses consciousness, even for a few moments after such an injury, concussion is suspected. The patient is closely observed for internal bleeding. Signs of this condition would be loss of consciousness, nausea, vomiting, bleeding from the ears or any changes in the dilatation of the eye. Since these signs do not appear immediately, the patient remains under observation in the hospital for at least two days before being discharged. Depending upon the severity of the injury, the time spent in the hospital varies. After a

TABLE 10

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORIES, AND STATUS OF POPULATION AND RANGE FOR AVERAGE LOS FOR CODE 4550, HEMORRHOIDS

	15-25	26-35	36-55	55	Total by Population Status
Active Military:					
No. of Disp.	261	108	77	0	446
No. of Bed Days	1,524	634	714	0	2,872
Average LOS	*5.8	5.8	*9.3	0	6.4
					*Range for LOS 5-9 days
Dependents:					
No. of Disp.	10	13	26	3	52
No. of Bed Days	52	73	210	20	355
Average LOS	5.2	5.6	8.1	6.6	6.8
Other/Retired:					
No. of Disp.	1	6	62	4	73
No. of Bed Days	6	36	430	26	498
Average LOS	6.0	6.0	6.9	6.5	6.8
TOTAL BY AGE CATEGORY (Military not included)	11	19	88	7	
	58	109	640	46	
	*5.2	5.7	*7.3	6.6	

*Range 5-7 days

few days' rest, the patient should be able to resume his normal activities.

There were 32 cases reported for dependents, 45 for retired personnel, and 316 for military personnel. The majority fell within the age range of 15 to 25 years. The average LOS for dependents was 3.2 days, 5.5 days for retired personnel, and 9.7 days for the military personnel. The range for the average LOS for dependents and retired personnel was 2 to 7 days, and 2 to 12 days for the military personnel. All these patients remained in the hospital for at least two days, then, depending on the severity of the injury, could remain 7 to 12 days.

Since the most common cause of concussions is car accidents, it is logical that the majority would be in the younger population. Another cause of injury is various activity in sports like baseball and football; again, the data support the younger age range. The military personnel is exposed to more activities during basic training than the dependent, thus contributing the large numbers in this age range (Table 11).

The eighth and last diagnosis, not suspected of having the quarters factor, was Code 8240, Fractured Ankle. A bone is fractured when there is an interruption in its continuity, usually caused by a fall or a blow. When the skin is not broken, it is termed a simple fracture. It is painful upon movement. The most important part of the

TABLE 11

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS DAYS BY AGE CATEGORIES, AND TOTAL POPULATION AND RANGE FOR LOS FOR CODE 8550, CONCUSSION, FOR THREE ARMY HOSPITALS, 1971-72-73

	15-25	25-36	36-55	55	Total by Population
Active Military:					
No. of Disp.	276	29	11	0	316
No. of Bed Days	2,698	348	26	0	3,072
Average LOS	9.7	*12.0	*2.4	0	9.7
					*Range 2-12 days
Dependents:					
No. of Disp.	24	5	3	0	32
No. of Bed Days	69	13	21	0	103
Average LOS	2.8	2.6	7.0	0	3.2
Other/Retired:					
No. of Disp.	23	5	17	0	45
No. of Bed Days	118	13	117	0	248
Average LOS	5.1	2.6	6.8	0	5.5
TOTAL BY	47	10	20	0	
AGE	187	26	138	0	
CATEGORY	3.9	*2.6	*6.9	0	
					*Range 2 -7 days

treatment of a fracture is immobilization, until the bone is healed. The injured extremity is reduced (placement of the fragments in their correct position), and a cast is applied until the fracture heals. In a simple fracture, the individual can be discharged from the hospital when the cast is dry.

The majority of the cases reported fell within the military ages 15 to 25. Cases were reported in every category. The number of cases reported for dependents was 22, 32 for retired personnel, and 177 for the military personnel. The average LOS for dependents was 6.7 days, 11.2 days for retired personnel, and 39.1 days for military personnel. The range for the average LOS for dependents and retired personnel was 6 to 12 days, and 21 to 41 days for the military personnel. This data reinforced that military LOS are more prolonged than military and retired personnel. The number of cases reported for dependents was under 30; however, when compared withthe retired personnel, the average LOS fell within the ranges.

The longer LOS for the military personnel can be due to the nature of the injury, or the fact that the military personnel must convalesce longer with this type of injury before returning to duty. The healing process differs with each individual. The older population usually heal slower than the young. This is seen in Table 12.

TABLE 12

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS DAYS BY AGE CATEGORIES, AND TOTAL POPULATION AND RANGE FOR LOS FOR CODE 8240, FRACTURED ANKLE, FOR THREE ARMY HOSPITALS, 1971-72-73

	15-25	25-36	36-55	55	Total by Population
Active Military:					
No. of Disp.	135	28	14	0	177
No. of Bed Days	5,545	699	671	0	6,915
Average LOS	411	*24.9	*47.9	0	39.0
					*Range 24-47 days
Dependents:					
No. of Disp.	8	7	5	2	22
No. of Bed Days	56	44	23	26	149
Average LOS	7	6.3	4.6	13	6.7
Other/Retired:					
No. of Disp.	8	1	18	5	32
No. of Bed Days	49	16	232	61	358
Average LOS	6.1	16.0	12.8	12.2	11.2
TOTAL BY AGE CATEGORY (Military not included)	16 105 *6.5	8 60 7.5	23 255 11.0	7 87 *12.4	
					*Range 6-12 days

LOS involving quarters

The remaining diagnoses were affected by the quarters factor. The number of codes for the dependents and retired personnel are of sufficient size to establish an average LOS.

The first of the diagnoses was Code 4860, Pneumonia. This is a communicable, respiratory illness primarily caused by the organism pneumococcus. It can occur during any season, but is more frequent in early spring and winter. Individuals are usually affected when their resistance is lowered due to malnutrition, frequent exposure to cold, and a poor health condition. Anyone can be affected by this disease. The patient usually has an elevated temperature, chills, and difficulty in breathing. Bed rest is a must, along with plenty of fluids and medication.

There were 52 reported cases of pneumonia for the dependents, 88 for the retired personnel, and 3,465 for the military personnel. The military personnel are exposed to the elements more than the dependents, and sometimes their resistance is lowered due to fatigue. This accounts for the numerous cases for military personnel. The larger population of the military personnel must also be considered. The average LOS for the dependents was 6.6 days and 11.7 days for retired personnel. The military average LOS was 7.4 days. The range for the average LOS for dependents was 4 to 12 days, and the military was 3 to 8 days (Table 13).

TABLE 13

NUMBER OF DISPOSITIONS, TOTAL BED DAYS OCCUPIED, AVERAGE LOS AND RANGE FOR LOS FOR CODE 4860, PNEUMONIA, FOR THREE ARMY HOSPITALS, 1971-72-73

	15-25	26-35	36-55	55	Total by Population
Active Military:					
No. of Disp.	3,263	121	80	1	3,465
No. of Bed Days	24,717	530	258	8	25,513
Average LOS	7.6	4.4	*3.2	*8.0	7.4
					*Range 3-8 days
Dependents:					
No. of Disp.	15	12	19	6	52
No. of Bed Days	74	61	170	41	346
Average LOS	4.9	5.1	8.9	6.8	6.7
Other/Retired:					
No. of Disp.	9	2	55	22	88
No. of Bed Days	53	12	651	310	1,026
Average LOS	5.8	6	11.8	14.1	11.7
TOTALS BY	24	14	55	22	
AGE	127	73	651	310	
CATEGORIES	5.3	5.2	11.8	14.1	
					*Range 5-12 days

The second diagnosis was Code 2770, Obesity. This is a condition where the individual is overweight. In most cases, obesity is due to overeating. The overweight person usually has serious emotional problems and needs help to overcome improper eating habits. This individual is a greater surgical risk and often must lose weight before having surgery. He runs the risk of a shorter life expectancy, cardiac problems, and other medical problems as he grows older. The individual may be hospitalized and placed on a rigid diet.

It is surprising to find so many cases reported for the active military personnel, ages 15 to 25. Supposedly overweight people classified as obese are not allowed to enter the service; however, there were 461 cases reported for the military ages 15 to 25. The military had a total of 474 cases reported, 26 for the dependents, and 14 for the retired personnel. There were very few cases reported in the age category of 36 to 55 where one would normally expect them. As an individual grows older, the body does not require as many calories and his physical activities usually decrease. Frequently, the individual does not change his eating habits, and he gains weight.

The average LOS for the dependents on rigid diets was 10.5 days, 24.8 days for retired personnel and 21.7 days for the military personnel. The range for the average LOS was 5 to 24 days for dependents and retired personnel and

18 to 29 days for the military personnel (Table 14).

The third diagnosis was Code 0092, Gastroenteritis, an inflammation of the stomach and the intestine. It usually follows the ingestion of large amounts of food, alcohol, food contaminated by organisms, and certain drugs. The patient complains of nausea, vomiting, and diarrhea. The disease is of short duration but leaves the patient very weak due to loss of body fluids. He should rest and eat lightly until he can tolerate solid foods again.

There were 63 cases reported for the dependents, 45 for the retired personnel, and 1,819 cases for the military personnel. The average LOS for dependents was 4.8 days, 3.2 days for the retired personnel, and 1.4 days for the military personnel. The range for the average LOS for the dependents and retired personnel was 3 to 5 days (Table 15).

The last diagnosis was Code 4650, Acute Upper Respiratory Infection. This is the common cold and is caused by a virus. It affects all ages throughout the year; however, the fall and winter months are usually when most individuals are affected. The common cold is not serious but makes the patient uncomfortable. The treatment is rest, plenty of fluids, and a good diet. If the patient does not rest, the cold may develop into pneumonia or bronchitis.

There were 72 cases reported for the dependents, 54 cases for the retired personnel, and 62,236 cases for the military personnel. The average LOS for dependents was 3.9

TABLE 14

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORIES AND TOTAL POPULATION STATUS, AND RANGE FOR AVERAGE LOS FOR CODE 2770, OBESITY

	15-25	26-35	36-55	55	Total by Population Status
Active Military:					
No. of Disp.	461	11	2	0	474
No. of Bed Days	10,009	218	58	0	10,285
Average LOS	21.7	19.8	29.0	0	21.7
					*Range 19-29 days
Dependents:					
No. of Disp.	7	6	12	1	26
No. of Bed Days	32	30	129	83	274
Average LOS	4.6	5.0	10.8	83.0	10.5
Other/Retired:					
No. of Disp.	3	2	9	0	14
No. of Bed Days	54	17	276	0	347
Average LOS	18.0	8.5	30.6	0	*24.8
TOTAL BY AGE CATEGORY (Military not included)	10 86 8.6	8 47 *5.8	9 276 30.7	1 83 83.0	
					*Range 5-24 days

TABLE 15

NUMBER OF DISPOSITIONS, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORY, AND TOTAL POPULATION STATUS, RANGE FOR LOS FOR CODE 0092, GASTROENTERITIS

	15-25	26-35	36-55	55	Total by Population Status
Active Military:					
No. ofDisp.	1,398	335	86	0	1,819
No. of Bed Days	2,285	137	16	0	2,438
Average LOS	1.6	.40	.19	0	1.4
					Range not established
Dependents:					
No. of Disp.	40	11	9	3	63
No. of Bed Days	192	57	44	0	302
Average LOS	4.8	5.2	4.8	3.0	4.8
Other/Retired:					
No. of Disp.	18	3	21	3	45
No. of Bed Days	51	15	58	22	146
Average LOS	2.8	5.0	2.8	7.3	*3.2
TOTAL BY	58	13	30	6	
AGE	243	72	102	31	
CATEGORIES	4.2	*5.5	3.4	5.1	

*Range 3-5 days

days, 5.3 days for the retired personnel, and 2.9 for the military personnel. The range for the average LOS was 3 to 8 days for the dependents and retired personnel (Table 16).

Comparison of LOS ranges

The range chosen to study for comparison were established by Blue Cross-Blue Shield Insurance Program for Federal Employees. Blue Cross has established and provided ranges to hospitals upon request.

When an individual is hospitalized for a certain diagnosis, a length of stay is established by the utilization coordinator. If the average LOS exceeds the established range, the LOS is not extended due to complications, and reimbursement by third-party payers can be terminated. The LOS is closely linked to discharge criteria and complications extending LOS. When established criteria are not available, the JCAH suggests using regional norms. These norms come from organizations like PAS, HUP, Blue Cross, etc.

Table 17 shows the comparison of ranges for the average LOS established in this study and those published by Blue Cross. These ranges were established for specific diagnoses such as those in this study. The age ranges are very similar except Blue Cross starts at age 14 instead of 15 and both extend to over 55 years of age.

The ranges of the average LOS for the same diagnoses were similar between the civilian community and those established for the dependents and retired personnel. The

TABLE 16

NUMBER OF DISPOSITION, NUMBER OF BED DAYS, AVERAGE LOS BY AGE CATEGORIES AND TOTAL POPULATION BY STATUS, RANGE FOR AVERAGE LOS FOR CODE 4650, ACUTE UPPER RESPIRATORY INFECTION, FOR THREE ARMY HOSPITALS, 1971-72-73

	15-25	26-35	36-55	55	Total by Population Status
Active Military:					
No. of Disp.	58,518	2,761	943	14	62,236
No. of Bed Days	182,092	2,611	406	41	185,150
Average LOS	3.1	.94	.43	2.9	2.9
			Range not established because of quarters.		
Dependents:					
No. of Disp.	40	22	5	5	72
No. of Bed Days	153	80	20	31	284
Average LOS	3.8	3.6	4.0	6.2	3.9
Other/Retired:					
No. of Disp.	14	11	16	13	54
No. of Bed Days	52	34	149	53	288
Average LOS	3.7	3.1	9.3	4.0	5.3
TOTAL BY AGE CATEGORY (Military not included)	54 208 3.8	33 114 *3.5	21 169 *8.0	18 84 4.6	

*Range 3-8 days

TABLE 17

COMPARISON OF RANGES FOR AVERAGE LOS FOR SPECIFIC DIAGNOSES ALL AGE CATEGORIES AND TOTAL POPULATION

I.P.D.S. Code	Military	Dependents/ Retired	Blue Cross
2509- Diabetis Mellitis	28-39 days	5-15 days	4-15 days
4109- Acute MI W/O Hypertension	28-76 days	14-20 days	5-24 days
4129- Chronic Ischemic Heart Disease	37-39 days	6-12 days	4-22 days
4010- Essential Benign Hyper-tension	6-20 days	4- 8 days	4-16 days
5500- Ingunial Hernia	8-12 days	5- 9 days	5-10 days
8500- Concussion	2-12 days	2- 7 days	1- 8 days
8240- Fractured Ankle	24-47 days	6-12 days	2- 9 days
4800- Pneumonia	*	5-12 days	3-15 days
2770- Obesity	19-29 days	5-24 days	*
0092- Gastroenteritis	*	3- 5 days	1-10 days

Table 17--Continued

I.P.D.S. Code	Military	Dependents/ Retired	Blue Cross
4650- Acute Upper Respiratory Infection	*	3 - 8 days	3 - 8 days
4550- Hemorrhoids	5 - 9 days	5 - 7 days	4 -10 days

*Not Established.

military had a much longer LOS. In only one case, Code 4550, Hemorrhoids, was the military range shorter than the civilian. Several cases were within a two- to four-day range, but were still longer. The ranges for the dependents were shorter, or the same as the civilian community, except for Code 8240, Fractured Ankle, which showed a longer LOS of three days. The main concern was not if the patients' stay was shorter than established ranges, but if it was longer.

It was felt that the physicians could develop LOS criteria for dependents and retired personnel, using civilian norms as a base. Once LOS criteria had been established, it could be reconstructed at a later date, if found to be unrealistic. The military patient would require an independent set of LOS criteria. Should the physicians decide not to establish two separate sets of LOS criteria, they could establish another element to the criteria. This element would

provide an explanation for the administrative delays experienced by the military patient. The additional element could then be listed under either "complications extending LOS," or "discharge criteria" (Appendix D). Listed would be factors such as awaiting orders, medical discharge/retirement and unauthorized convalescent leave. When reviewing the medical records during a medical audit, the reason for a long LOS would be documented and better understood. The patients' condition and services rendered should not be considered alone, but the administrative delays involved with military personnel also need to be contemplated.

Footnotes

[1]Arthur D. Little, Inc., Systems Analysis for a "New Generation" of Military Hospitals, Vol. I: Analysis of Military Health Care (Cambridge, Mass.: Arthur D. Little, Inc., April 1971), p. 1.3.1.

[2]Ibid.

[3]Ibid.

[4]Ibid., p. 1.3.2.

[5]Ibid.

[6]Certificate of Accreditation and letter, Department of the Army, Ireland Army Hospital, Fort Knox, Kentucky, March, 1974.

[7]Health Services Command, Army Regulation 40-400 (Fort Sam Houston, Tex.: Health Services Command, July, 1973), pp. 10-13.

[8]Ibid.

[9]Ibid., pp. 10-14.

[10]Ibid.

[11]Ibid.

[12]Ibid.

[13]Robert L. Eichhorn, The Utilization of Health Services: Indices and Correlates; A Research Bibliography, 1972 (Lafayette, Ind.: Purdue University, 1972), p. 37.

[14]Ibid., p. 38.

[15]Ibid., p. 39.

[16]Ibid.

[17]Ibid., p. 32.

[18]Pieter Kingsland Van Winkle, "Regional Medical Centers: A Model for Analysis and Management" (unpublished Master of Science thesis, Naval Postgraduate School, Monterey, California, March, 1974).

[19]U.S., Department of Health, Education, and Welfare, Public Health Service Publication. International Classification of Disease Adopted Vols. I and II (Washington, D.C.: Government Printing Office, December, 1968).

CHAPTER III

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study to develop a technique that would establish the LOS for specific diagnoses at Ireland Army Hospital resulted in the following conclusions:

1. That age and sample sizes are factors in determining the average LOS.

2. That the military personnel has a longer average LOS for diagnoses related to heart disease and fractures than dependents or retired personnel.

3. That administrative policy of placing patients on "quarters" has a definite effect on the average LOS.

4. Utilization of the Inpatient Data System would facilitate data collection and analyses.

5. That the average LOS and ranges for average LOS could be determined for dependents/retired personnel and compared to those in the civilian community.

6. That the technique used in this study provides a means by which the physicians can evaluate the individual patient LOS against the average LOS, and ranges for the average LOS, during medical audit.

Recommendations

This study resulted in the following recommendations:

1. Army hospitals should request historical data from the Inpatient Data System, from which the average LOS could be established for specific diagnoses.

2. Ranges should be established for the average LOS, based on the averages obtained from the separate categories of patients.

3. Ranges for the average LOS could be utilized as a benchmark for the establishment of LOS criteria.

4. Physicians should consider establishing two separate sets of LOS criteria: one for the active military personnel and one for the dependents and retired personnel.

5. Physicians should consider adding "Administrative Delays" as an additional element to be considered when reviewing LOS for the active military personnel.

6. Patients on quarters should be excluded from data utilized to determine LOS in future studies.

APPENDIX A

DEFINITIONS

DEFINITIONS

Acceptability.--From the point of view of the population served, the degree to which the provided service meets the health care need and is pleasing.

Accessibility.--Degree of ease with which the individual or the population can enter, i.e., gain needed admittance to the various segments of the health care delivery system.

Accountable.--Condition of being responsible for providing a reckoning to the persons who gave the authority to act. Such an accounting might be made to the public, a review committee of peers, or an employer.

Activity.--Action that causes change.

Adequacy.--Degree to which the total need, or the portion of the total need that is specified in the program objectives, is met.

Appropriateness.--Degree of importance and priority of the objectives that are specified for a particular program when compared with other possible objectives for the particular program, or other programs.

Assess.--Estimate or judge the characteristics, qualities, or attributes.

Assure.--Act of making sure and of giving confidence or trust (see Quality Assurance).

Audit.--Examine the record of transactions and attest to the excellence of them.[1]

Average Stay.--The definition of this measure is really a description of how it is calculated. This is an arithmetic mean and is the sum of the number of days' stay divided by the number of cases. Although this is a commonly used indicator, it is important to note that the arithmetic mean is affected by extremely long and short-stay cases within the distribution from which it is derived.[2]

Classes of criteria.--Criteria sets that measure the same aspect of care (such as outcome criteria or process criteria.)[3]

Continuity.--Course or procession; or, the continuous, orderly, harmonious, forward-moving arrangement of persons or events. In delivery of health care, continuity is the sequence of events in the delivery of care, the coordination among different segments of the system, and the integrated action among members of the team.[4]

Criteria.--Medical care criteria are predetermined elements of health care used to measure quality. They are developed by professionals relying on professional judgment, consensus, and expertise.[5]

Criteria screens.--Classes of criteria used in the screening process to measure conformity to standards for one aspect of care (such as outcome screens or process screens.)[6]

Criterion.--A standard, model, norm, test, or rule used in comparisons.[7]

Criterion measure.--A quality, attribute, or characteristic of a variable that can be measured to provide scores by which subjects or events of the same class may be compared with respect to the variable.[8]

Effectiveness.--Degree to which specified objectives are attained as a result of activities.

Efficiency.--Cost of the resources used to attain the specified objectives.

Evaluate.--Determine the outcome achieved by an activity (or activities) designed to attain a valued objective. Can also be applied to measurement of the quality of other parameters, such as activities, continuity, and resources.[9]

Justification criteria.--Criteria used to confirm a specific diagnosis or justify a procedure.

Management criteria.--Same as process criteria.[10]

Measure.--A quantity, considered to be a single whole or unit within a larger whole, that can be used as the basis for comparison with other quantities.[11]

Median.--The median is the middle value in a distribution, so that one-half of the cases have a number of days' stay equal to, or less, than the median, and one-half of the cases have a number of days' stay equal to, or greater than, the median. The median has the same meaning as the fiftieth percentile.[12]

Multiple diagnosis.--The cases accounted for under this heading had a primary diagnosis and one or more secondary diagnoses recorded on the abstract.[13]

Norms.--Medical care evaluation norms are averages or medians of observed performances as measured by criteria for specific diseases or problems.[14]

Objective.--That which one's activities are intended to accomplish.[15]

Optimal care.--The care that produces the best results with the resources available.[16]

Outcome.--The end result of one's activities.[17]

Outcome criteria.--Criteria used to evaluate optimal quality of medical care by measurement of the results of treatment (outcome measurement).[18]

Peer review.--Formal, concurrent or retrospective, critical examination of the activities, continuity, and outcomes of the work of either the individual or the group, with a view to improvement. It is conducted by the persons who are involved together in delivery of care.[19]

Process.--The whole or totality of the service. This includes the outcomes, activities, continuity, resources, and population dimensions.[20]

Process criteria.--Criteria used to evaluate optimal quality of medical care by measurement of management or specific elements of care provided in the course of treatment.[21]

Program.--Prearranged plan for an action or group of actions that will result in change.

Program care.--Actions taken to fulfill responsibility for positive well being of persons.

PSRO.--Professional Standards Review Organization provided in the 1972 amendments to the Social Security Act. The amendments require that by January 1, 1974, PSROs be implemented by physician groups of between 300 to 1,000 members on a regional basis for review of care of patients financed under the Social Security amendments. The Act also provides for PSRO Councils at the state and national level. Full implementation is required by January 1, 1976.

Quality.--The distinguishing characteristics. The characteristics that determine the value, rank, or degree of excellence.

Quality assurance.--Estimation of the degree of excellence in: (1) the alteration of the health status of consumers attained through providers' performance, or (2) diagnostic, therapeutic, prognostic, and other health care activities. Includes use of the results of estimation to fulfill consumer trust in better future outcomes or activities.

Rate.--Review by an external body of charges for health care for the purpose of controlling or containing the rise in cost of care. External bodies may be formed voluntarily by groups such as hospital associations and third-party payers, or by government.

Resources.--The human and material means that assist to, helps, or supports.

Review.--Formal concurrent or retrospective, critical examination with a view to improvement (see Peer Review).[22]

Screening.--The process of separating out from a group all individual medical records that do not conform to certain standards.[23]

Single diagnosis.--The cases accounted for under this heading had only one final diagnosis recorded on the medical record abstract.[24]

Standards.--Standards are professionally developed ranges of acceptable variation from a norm considering optimal care as determined by local circumstances.[25]

Structure.--The arrangement and functional union of the related parts in a combination that forms a whole. Also, in health care, structure is sometimes used as a synonym for resources and organization.

Utilization review.--Formal concurrent, or retrospective, critical examination of appropriate use of segments of the health care system, such as hospital, nursing home, emergency room, clinic, and home care.[26]

Footnotes

[1]American Hospital Association, Quality Assurance Program for Medical Care in the Hospital (Chicago: American Hospital Association, 1972).

[2]Hospital Utilization Project.

[3]American Medical Association, Peer Review Manual (Chicago: American Medical Association, 1972).

[4]American Hospital Association.

[5]American Medical Association.

[6]Ibid.

[7]American Hospital Association.

[8]Ibid.

[9]Ibid.

[10]American Medical Association.

[11]American Hospital Association.

[12]Hospital Utilization Project.

[13]Ibid.

[14]American Medical Association.

[15]American Hospital Association.

[16]American Medical Association.

[17]American Hospital Association.

[18]American Medical Association.

[19]American Hospital Association.

[20]Ibid.

[21]American Medical Association.

[22]American Hospital Association.

[23]American Medical Association.

[24]Hospital Utilization Project.

[25]American Medical Association.

[26]American Hospital Association.

APPENDIX B

HOSPITAL UTILIZATION PROJECT,

LENGTH OF STAY BY DIAGNOSIS

HOSPITAL UTILIZATION PROJECT

LENGTH OF STAY BY DIAGNOSIS

Age Group	Single Diagnosis						Multiple Diagnosis					
	Medical			Surgical			Medical			Surgical		
	Patients	Median	Average	Patients	Median	Average	Patients	Median	Average	Patients	Median	Average
541 - APPENDICITIS, UNQUALIFIED												
0-19	26	2	2.7	130	5	5.8	14	3	4.0	61	7	7.2
20-34	15	4	4.7	59	6	6.2	3	2	2.3	52	8	9.8
35-49	3	6	5.3	19	6	7.1	1	3	3.0	9	13	13.6
50-64	1	4	4.0	6	7	7.0	2	7	8.5	11	12	15.4
65+	1	10	10.0	1	10	10.0	1	8	8.0	7	13	17.4
TOTAL	46	3	3.7*	215	6	6.1*	21	3	4.3*	140	8	9.8*
Avg. L.O.S. — Single Dx.—			5.7	Multiple Dx.—		9.0	Total L.O.S.—		7.0	Median—		6
542 - OTHER APPENDICITIS												
0-19	36	3	3.4	228	6	6.5	22	3	3.9	162	7	8.0
20-34	14	3	4.0	105	7	7.4	16	4	4.3	61	7	9.5
35-49	5	2	2.6	23	7	7.5	5	9	8.2	32	8	11.2
50-64	2	3	3.5	11	11	10.5	1	5	5.0	14	13	12.9
65+	2	2	3.0	8	10	12.0	1	6	6.0	8	13	18.6
TOTAL	59	3	3.5*	375	6	7.1*	45	4	4.6*	277	7	9.2*
Avg. L.O.S. — Single Dx.—			6.6	Multiple Dx.—		8.6	Total L.O.S.—		7.4	Median—		6
543 - OTHER DISEASES OF APPENDIX												
0-19	3	4	4.0	65	6	6.2	2	3	5.5	39	6	7.1
20-34	5	5	4.6	26	6	7.3	2	4	5.5	23	9	10.0
35-49	1	8	8.0	7	6	8.0				9	11	13.2
50-64	1	9	9.0	3	7	7.0	2	12	13.0	4	8	9.0
65+				3	10	9.3				9	12	15.0
TOTAL	10	5	5.2*	104	6	6.7*	6	7	8.0*	84	8	9.5*
Avg. L.O.S. — Single Dx.—			6.6	Multiple Dx.—		9.4	Total L.O.S.—		7.8	Median—		6

HOSPITAL UTILIZATION PROJECT

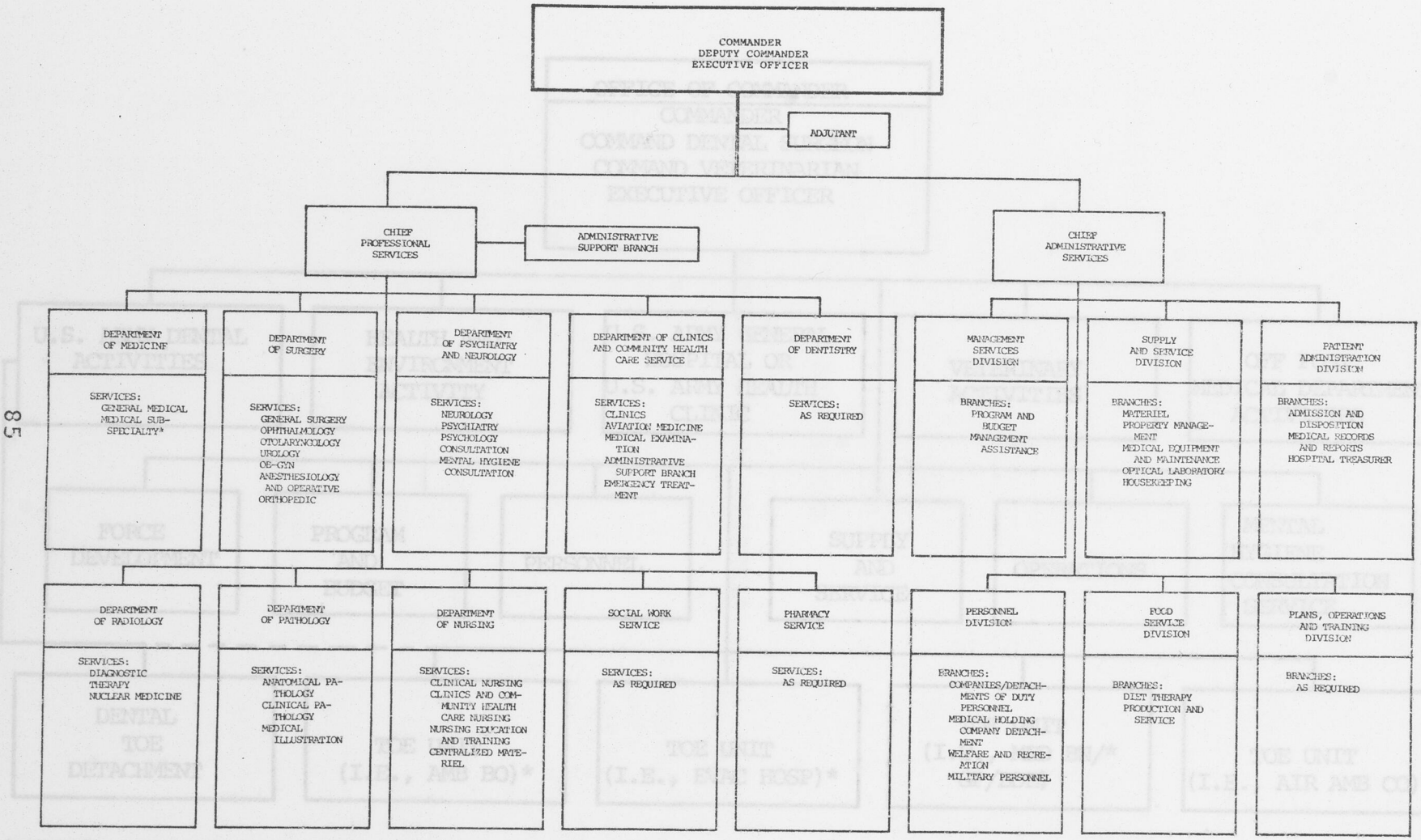
LENGTH OF STAY BY DIAGNOSIS

Age Group	Single Diagnosis						Multiple Diagnosis					
	Medical			Surgical			Medical			Surgical		
	Patients	Median	Average	Patients	Median	Average	Patients	Median	Average	Patients	Median	Average
550 - INGUINAL HERNIA WITHOUT MENTION OF OBSTRUCTION												
0-19	19	1	1.5	3078	2	3.1	131	1	2.9	1605	3	3.7
20-34	8	1	2.0	1192	6	6.3	12	1	3.0	370	7	7.6
35-49	5	2	2.4	1829	7	6.9	15	5	6.5	858	8	8.6
50-64	10	4	5.7	2588	7	7.6	50	6	6.6	1636	9	9.9
65+	13	4	6.5	1151	8	8.6	75	7	9.7	1220	10	12.1
TOTAL	55	1	3.6*	9838	6	6.0*	283	3	5.5*	5689	7	8.3*
Avg. L.O.S. – Single Dx.–			6.0	Multiple Dx.–		8.1	Total L.O.S.–		6.8	Median–		6
551 - OTHER HERNIA OF ABDOMINAL CAVITY WITHOUT MENTION OF OBSTRUCTION												
0-19	18	2	2.5	846	2	3.3	62	2	3.9	143	4	6.2
20-34	40	5	5.9	246	6	6.8	90	6	6.5	168	8	9.4
35-49	177	5	5.9	555	8	9.1	415	7	8.3	546	11	12.4
50-64	214	5	6.0	687	9	10.1	830	7	8.1	809	12	14.3
65+	128	6	7.3	290	11	11.5	938	9	10.4	475	14	16.0
TOTAL	577	5	6.1*	2624	7	7.5*	2335	8	8.9*	2141	11	13.2*
Avg. L.O.S. – Single Dx.–			7.3	Multiple Dx.–		11.0	Total L.O.S.–		9.4	Median–		8
552 - INGUINAL HERNIA WITH OBSTRUCTION												
0-19	3	3	2.7	109	3	3.7	7	3	2.9	60	4	5.3
20-34	1	1	1.0	33	6	6.3				9	7	7.0
35-49	1	1	1.0	47	7	7.8	1	9	9.0	25	8	8.8
50-64	1	1	1.0	74	7	7.7	5	2	7.2	72	10	12.8
65+	5	3	3.6	110	9	10.4	20	8	8.3	184	12	14.1
TOTAL	11	1	2.6*	373	7	7.2*	33	4	7.0*	350	10	11.8*
Avg. L.O.S. – Single Dx.–			7.1	Multiple Dx.–		11.4	Total L.O.S.–		9.2	Median–		8

Source: Hospital Utilization Project, Length of Stay in HUP Hospitals (Pittsburgh: HUP Publication, 1971), p. iii.

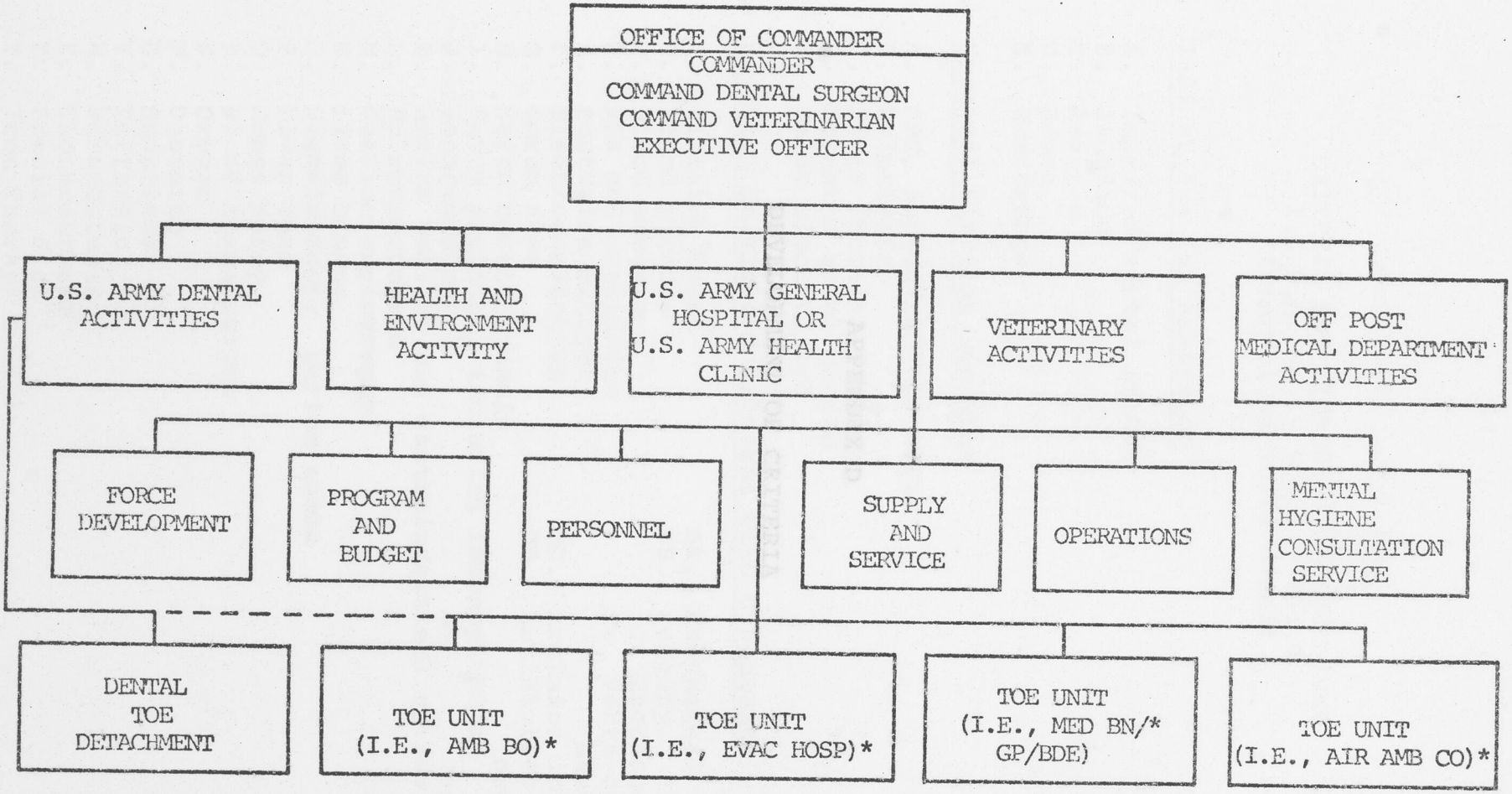
APPENDIX C

ORGANIZATIONAL CHART, IRELAND ARMY HOSPITAL AND ORGANIZATIONAL STRUCTURE MEDICAL DEPARTMENT ACTIVITY (MEDDAC)



*Medical Sub-Specialty Service: Allergy-Immunology, Cardiology, Endocrine-Metabolism, Gastroenterology, Hematology, Nephrology, Rheumatology, Pulmonary disease, Infectious Disease, Dermatology, Pediatric.

Source: Health Services Command Regulation 40-4.



*MEDICAL TOE UNITS ARE UNDER THE COMMAND AND CONTROL OF THE FORCES COMMAND. THEY MAY BE ATTACHED TO A MEDDAC PER APPROVAL OF THE COMMANDER, FORCES COMMAND AND IN COORDINATION WITH THE COMMANDER, US ARMY HEALTH SERVICES COMMAND.

Source: Health Services Command Regulation 40-4.

APPENDIX D

DEVELOPMENT OF CRITERIA

CRITERIA FOR CIRRHOSIS OF THE LIVER
I.C.D.A. No. - 571.0 - 571.9
(Internal Medicine Panel)

I. Indications for Admission

A. Impaired mental status
B. Jaundice
C. Ascites
D. Edema
E. Hemorrhage

II. Hospital Services Required

A. CBC, including hematocrit
B. Urinalysis
C. Liver function studies
D. Repeated stool guaiac
E. Serum electrolytes

III. Hospital Services Consistent with Diagnosis

A. Platelet count
B. Blood glucose
C. Blood ammonia
D. BUN and creatinine
E. Australia antigen
F. Electrocardiogram
G. Gerum iron
H. Serum cerulo plasmin
I. Serum proteins, including immunoglobulin
J. Esophagoscopy
K. Barium swallow and gastrointestinal series
L. Splenoportogram
M. Coeliac angiography
N. Liver biopsy
O. Sigmoidoscopy, barium enema
P. Liver scan
Q. Chest X-ray
R. Blood transfusions
S. Oxygen
T. Diuretic
U. Sedatives
V. Pitressin
W. Paracentesis
X. Thoracentesis
Y. Special diet
Z. Iron Therapy
AA. Esophageal tamponade
BB. Surgery
    1. Esophageal
    2. Porta-caval shunt
CC. Arginine infusion
DD. Antibiotics, i.e. neomycin

IV. Expected Length of Hospital Stay

A. 5-21 days

V. Complications Extending Length of Stay

A. Infection
B. Prolonged liver failure
C. Recurrent hemorrhage
D. Refractory edema

VI. Indications for Discharge

A. Correction or stabilization of indications for admission
B. Achievement of maximum hospital benefit

CRITERIA FOR FRACTURES OF THE ANKLE*
I.C.D.A. No. - 824.0 - 824.9
(Orthopedic Panel)

I. Indications for Admission

A. If cast applied after manipulation, admission for observation and crutch training for a minimum of 48 hours indicated. (If no manipulation required, can be an outpatient procedure.)
B. Extensive swelling. Further attempts at reduction may be in order after swelling has disappeared
C. Presence or probability of infection after compound fracture
D. Non-union requiring bone grafting

II. Hospital Services Required (Any of the following consistent with specific contingencies)

A. CBC
B. Urinalysis
C. Repeated X-rays of ankle joint
D. Casting - use of fracture room

III. Hospital Services Consistent with Diagnosis

A. Bacteriological studies
B. Blood sugar
C. BUN
D. Chest X-ray
E. Operating room for open reduction, fixation or other traction devices and bone grafting
F. Antibiotics
G. Narcotics
H. Analgesics
I. Transfusion, type and cross-match
J. Anesthesia
K. Wound culture
L. Blood culture

IV. Expected Length of Hospital Stay

A. Fractures with manipulation and satisfactory reduction: 2-3 days
B. Fractures requiring repeated manipulations for adequate reduction: 3-10 days
C. Surgery with or without devices for fixation of fragments: 7-10 days, post-operative

V. Complications Extending Length of Stay

A. Infection
B. Displaced and/or unstable fractures - fracture dislocation
   1. Displaced internal malleolus
   2. More than 1/4 of the weight bearing surface of the tibia
   3. Diastasis of the tibiofibular ligament
   4. Severe comminution of ankle joint necessitating ankle arthrodesis
C. Impairment of circulation secondary to delayed emergency care or severe dislocations
D. Sudeck's atrophy - possibly requiring admission for sympathetic nerve blocks and physiotherapy
E. Persistent unusual pain
F. Multiple injuries (as in automobile accidents)
G. Non-union of medial malleolus requiring bone grafting

VI. Indications for Discharge

A. Adequate approximation and maintenance of fractured fragments
B. Integrity of circulation
C. Absence of infection
D. Absence of unusual or persistent pain
E. Afebrile
F. Satisfactory ambulation without personal assistance.

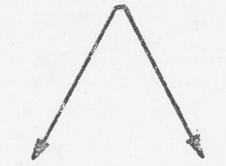
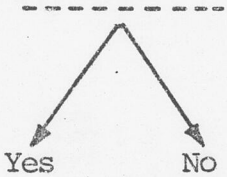
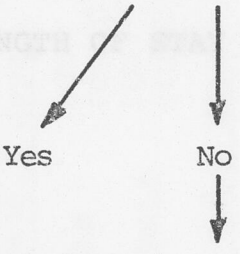
*Includes fractures of external, internal and posterior malleoli alone or in combination.

Source: Pennsylvania Medical Society, Inpatient Medical Care Criteria (Pittsburgh: Pennsylvania Medical Society, n.d.), p. iii.

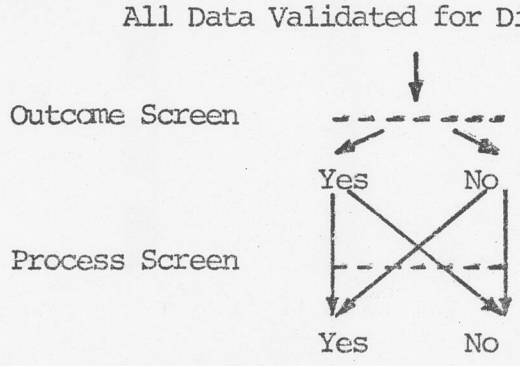
APPENDIX E

CRITERIA SCREENS TO VALIDATE PROCESS CRITERIA

BY COMPARISON WITH OUTCOMES

Screen	Criteria Met?	Disposition
Justification Screen (Conformance to Justification Criteria)	Individual Medical Record   Yes No	YES If chart meets justification criteria, continue abstract. NO Chart referred to a physician member of the utilization committee. Determine if the diagnosis is justified even though conformance to criteria cannot be established. If "no," then abstract is done for the correct diagnosis using different criteria sets.
Outcome Screen (Conformance to Outcome Criteria)	 Yes No	YES If chart meets outcome criteria need for physician review is eliminated. NO If chart does not meet outcome criteria, it must be passed through the process screen.
Process Screen	 Yes No To Physician Review	YES If chart meets the process criteria, it does not need to be referred for physician review. NO If chart does not meet the process criteria, it goes to the audit committee for review.

USE OF CRITERIA SCREENS (JUSTIFICATION, OUTCOME, AND PROCESS) TO REDUCE NUMBER OF CHARTS REQUIRING PHYSICIAN REVIEW



USE OF CRITERIA SCREENS TO VALIDATE PROCESS CRITERIA BY COMPARISON WITH OUTCOMES

APPENDIX F

EXAMPLES OF INPATIENT LENGTH OF STAY DISTRIBUTION

EXAMPLES OF INPATIENT LENGTH OF STAY DISTRIBUTION

			Military	Civilian	10-18	18-40	40-55	>55
CODE 301 COUNT=509 LOS=23.2 days								
	MALE	LOS	23.1	4.5	22.9	23.1	-	-
		COUNT	471	2	98	373	-	-
	FEMALE	LOS	43.4	15.7	35.8	26.5	-	-
		COUNT	14	22	4	28	-	-
CODE 303 COUNT=207 LOS=30.3 days								
	MALE	LOS	40.2	13.0	16.3	40.4	16.1	15.2
		COUNT	132	57	7	124	44	14
	FEMALE	LOS	-	13.0	-	-	13.4	-
		COUNT	-	18	-	-	11	-
CODE 401 COUNT=320 LOS=14.2 days								
	MALE	LOS	35.5	11.8	-	30.0	21.1	9.6
		COUNT	57	102	-	42	72	44
	FEMALE	LOS	-	8.2	-	8.5	7.4	9.0
		COUNT	-	161	-	35	61	61
CODE 500 COUNT=326 LOS=4.6 days								
	MALE	LOS	11.0	2.1	4.6	10.7	-	-
		COUNT	90	97	30	82	-	-
	FEMALE	LOS	-	2.1	2.0	2.9	-	-
		COUNT	-	133	42	38	-	-
CODE 626 COUNT=350 LOS=4.0 days								
	FEMALE	LOS	17.5	3.4	-	5.3	3.1	2.6
		COUNT	15	335		146	168	30
CODE 650 COUNT=527 LOS=3.6 days								
	FEMALE	LOS	-	3.6	3.8	3.6	-	-
		COUNT	-	526	43	479	-	-

APPENDIX G

EXAMPLES OF INPATIENT LENGTH OF STAY DISTRIBUTION BY ARMY HOSPITAL SPECIFIC DIAGNOSIS

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 0092												
Count	284	269	118	46	83	23	11	28	7	-	-	-
Total Bed Days	300	159	143	13	15	25	-	-	4	-	-	-
Length of Stay	1.1	0.6	1.2	0.3	0.2	1.1	-	-	0.6	-	-	-
Dependents of Active Duty Military												
Code 0092												
Count	10	6	5	2	-	2	1	-	1	1	-	-
Total Bed Days	106	20	16	13	-	7	6	-	9	4	-	-
Length of Stay	10.6	3.3	3.2	6.5	-	3.5	6.0	-	9.0	4.0	-	-
Other Eligible												
Code 0092												
Count	2	2	1	-	-	2	3	1	1	-	-	1
Total Bed Days	7	3	1	-	-	4	7	-	2	-	-	10
Length of Stay	3.5	1.5	1.0	-	-	2.0	2.3	-	2.0	-	-	10.0

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	> 64 YRS 1971
Code 0092 *					
Count	487	113	59	58	26
Length of Stay	4.2	4.4	5.1	5.3	5.3

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Gastroenteritis/colitis

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			> 56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 0340												
Count	54	170	72	2	14	8	-	3	1	-	-	-
Total Bed Days	138	638	242	6	15	14	-	6	-	-	-	-
Length of Stay	2.6	3.8	3.4	3.0	1.1	1.8	-	2.0	-	-	-	-
Dependents of Active Duty Military												
Code 0340												
Count	-	-	-	-	-	-	-	-	-	-	-	-
Total Bed Days	-	-	-	-	-	-	-	-	-	-	-	-
Length of Stay	-	-	-	-	-	-	-	-	-	-	-	-
Other Eligible												
Code 0340 *												
Count	-	-	-	1	-	-	-	1	1	-	-	-
Total Bed Days	-	-	-	4	-	-	-	5	4	-	-	-
Length of Stay	-	-	-	4.0	-	-	-	5.0	4.0	-	-	-

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	> 64 YRS 1971
Code 0340					
Count	174	33	6	3	1
Length of Stay	5.2	4.8	4.3	11.3	5.0

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Strep sore throat

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			> 56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 0560												
Count	649	627	201	6	3	2	-	1	-	-	-	-
Total Bed Days	1722	2055	610	13	2	7	-	1	-	-	-	-
Length of Stay	2.7	3.3	3.0	2.2	0.7	3.5	-	1.0	-	-	-	-
Dependents of Active Duty Military												
Code 0560												
Count	-	-	-	-	-	-	-	-	-	-	-	-
Total Bed Days	-	-	-	-	-	-	-	-	-	-	-	-
Length of Stay	-	-	-	-	-	-	-	-	-	-	-	-
Other Eligible												
Code 0560												
Count	-	1	-	1	1	-	-	-	-	-	-	-
Total Bed Days	-	3	-	4	3	-	-	-	-	-	-	-
Length of Stay	-	3.0	-	4.0	3.0	-	-	-	-	-	-	-

	0-19 YRS	20-34 YRS	35-49 YRS	50-64 YRS	> 64 YRS
	1971	1971	1971	1971	1971
Civilian Institution					
Code 0560 *					
Count	95	2	-	-	-
Length of Stay	3.5	2.5	-	-	-

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Rubella

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 2509												
Count	16	11	7	5	-	4	21	15	12	-	-	-
Total Bed Days	567	564	389	89	-	129	210	272	612	-	-	-
Length of Stay	35.7	51.7	55.6	17.8	-	32.3	10.0	18.1	51.0	-	-	-
Dependents of Active Duty Military												
Code 2509												
Count	11	5	6	8	8	8	9	4	5	3	-	3
Total Bed Days	51	36	79	66	42	92	164	47	60	41	-	80
Length of Stay	4.6	7.2	13.2	8.3	5.3	11.5	18.2	11.8	12.0	13.7	-	26.7
Other Eligible												
Code 2509												
Count	4	3	2	5	-	1	10	10	13	12	2	2
Total Bed Days	23	7	22	29	-	3	243	158	158	242	10	10
Length of Stay	5.6	2.5	11.0	5.8	-	3.0	24.3	15.8	12.2	20.2	5.0	5.0

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	> 64 YRS 1971
Code 2509 *					
Count	667	398	503	799	530
Length of Stay	8.3	7.9	9.2	10.5	11.2

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Diabetis Mellitis

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 2740												
Count	3	2	-	-	-	-	6	-	1	-	-	-
Total Bed Days	7	24	-	-	-	-	95	-	5	-	-	-
Length of Stay	2.3	12.0	-	-	-	-	15.8	-	5.0	-	-	-
Dependents of Active Duty Military												
Code 2740												
Count	-	-	-	-	-	-	-	-	-	-	-	-
Total Bed Days	-	-	-	-	-	-	-	-	-	-	-	-
Length of Stay	-	-	-	-	-	-	-	-	-	-	-	-
Other Eligible												
Code 2740												
Count	-	-	-	-	1	-	1	-	-	-	-	-
Total Bed Days	-	-	-	-	25	-	5	-	-	-	-	-
Length of Stay	-	-	-	-	25.0	-	5.0	-	-	-	-	-

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 2740 *					
Count	4	11	40	64	35
Length of Stay	6.8	9.7	6.7	7.9	9.3

Source: Produced by Admin. & Biostat. Div. USAHSOSA.

*Gout

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 2770												
Count	1	4	4	-	1	-	-	-	-	-	-	-
Total Bed Days	-	40	-	-	13	-	-	-	-	-	-	-
Length of Stay	-	10.0	-	-	13.0	-	-	-	-	-	-	-
Dependents of Active Duty Military												
Code 2770												
Count	-	-	-	-	-	1	-	1	2	-	1	-
Total Bed Days	-	-	-	-	-	2	-	20	19	-	83	-
Length of Stay	-	-	-	-	-	2.0	-	20.0	9.5	-	83.0	-
Other Eligible												
Code 2770												
Count	-	-	-	1	-	-	1	-	1	-	-	-
Total Bed Days	-	-	-	14	-	-	16	-	7	-	-	-
Length of Stay	-	-	-	14.0	-	-	16.0	-	7.0	-	-	-

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 2770 *					
Count	44	17	15	13	2
Length of Stay	11.8	13.9	10.5	12.5	4.0

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Obesity

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			> 56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 4010												
Count	44	22	15	6	9	6	10	14	18	-	-	-
Total Bed Days	84	276	147	43	142	39	490	351	1120	-	-	-
Length of Stay	1.9	12.6	9.8	7.2	15.8	6.5	49.0	25.1	62.0	-	-	-
Dependents of Active Duty Military												
Code 4010												
Count	-	-	-	1	-	2	2	1	5	-	2	-
Total Bed Days	-	-	-	6	-	4	18	36	18	-	40	-
Length of Stay	-	-	-	6.0	-	2.0	9.0	36.0	3.6	-	20.0	-
Other Eligible												
Code 4010												
Count	16	6	-	-	-	1	1	7	8	-	2	1
Total Bed Days	43	18	-	-	-	2	16	59	83	-	11	11
Length of Stay	2.7	3.0	-	-	-	2.0	16.0	8.4	10.4	-	5.5	11.0

	0-19 YRS	20-34 YRS	35-49 YRS	50-64 YRS	> 64 YRS
Civilian Institution	1971	1971	1971	1971	1971
Code 4010 *					
Count	58	149	345	301	93
Length of Stay	7.1	6.9	8.1	8.2	8.4

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Essential Benign Hypertension

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 4109												
Count	-	-	-	-	1	-	6	7	8	-	-	-
Total Bed Days	-	-	-	-	122	-	299	799	1375	-	-	-
Length of Stay	-	-	-	-	122.0	-	49.8	114.1	171.9	-	-	-
Dependents of Active Duty Military												
Code 4109												
Count	-	-	-	-	-	-	3	1	1	-	2	1
Total Bed Days	-	-	-	-	-	-	90	36	15	-	40	17
Length of Stay	-	-	-	-	-	-	30.0	36.0	15.0	-	20.0	17.0
Other Eligible												
Code 4109												
Count	-	-	-	-	-	-	9	21	26	4	7	8
Total Bed Days	-	-	-	-	-	-	103	476	472	15	103	106
Length of Stay	-	-	-	-	-	-	11.4	22.7	18.2	3.8	11.0	13.3

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 4109 *					
Count	1	47	820	1632	922
Length of Stay	3.0	16.8	19.6	20.6	21.1

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Acute Myocardial Infarction without hypertension

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 4129												
Count	1	-	-	3	-	1	15	15	18	-	-	-
Total Bed Days	-	-	-	15	-	2	643	825	928	-	-	-
Length of Stay	-	-	-	5.0	-	2.0	42.9	55.0	51.6	-	-	-
Dependents of Active Duty Military												
Code 4129												
Count	-	-	-	1	-	-	1	3	4	-	1	3
Total Bed Days	-	-	-	21	-	-	14	45	47	-	35	29
Length of Stay	-	-	-	21.0	-	-	14.0	15.0	11.8	-	35.0	9.7
Other Eligible												
Code 4129												
Count	-	-	-	-	1	-	42	64	56	15	13	23
Total Bed Days	-	-	-	-	21	-	468	620	599	215	143	449
Length of Stay	-	-	-	-	21.0	-	11.4	9.7	10.7	14.3	11.0	19.5

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 4129 *					
Count	4	66	808	1492	1066
Length of Stay	12.8	7.6	6.8	7.9	11.2

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Chronic Ischemic Heart disease without hypertension

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			> 56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 4550												
Count	22	12	12	14	8	12	16	8	10	-	-	-
Total Bed Days	197	63	79	193	51	55	200	40	135	-	-	-
Length of Stay	9.0	5.3	6.6	13.8	6.4	4.6	12.5	5.0	13.5	-	-	-
Dependents of Active Duty Military												
Code 4550												
Count	2	1	1	2	5	3	3	2	2	-	-	1
Total Bed Days	10	4	7	9	27	26	32	17	9	-	-	6
Length of Stay	5.0	4.0	7.0	4.5	5.4	8.7	10.7	8.5	4.5	-	-	6.0
Other Eligible												
Code 4550												
Count	-	-	-	-	-	-	10	9	8	-	-	1
Total Bed Days	-	-	-	-	-	-	57	51	44	-	-	5
Length of Stay	-	-	-	-	-	-	5.7	5.7	5.5	-	-	5.0

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	> 64 YRS 1971
Code 4550 *					
Count	14	44	71	49	38
Length of Stay	2.9	3.0	4.3	4.3	6.2

Source: Produced by Admin. & Biostat. Div. USAHSOSA.

* Hemorrhoids

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 4650												
Count	3963	7893	3839	158	375	182	38	113	43	-	3	-
Total Bed Days	9275	25304	15033	115	288	312	25	29	13	-	7	-
Length of Stay	2.4	3.2	3.9	0.7	0.8	1.7	0.7	0.3	0.3	-	2.3	-
Dependents of Active Duty Military												
Code 4650												
Count	3	3	2	1	2	3	1	-	-	-	-	-
Total Bed Days	21	19	8	1	4	8	4	-	-	-	-	-
Length of Stay	7.0	6.3	4.0	1.0	2.0	2.7	4.0	-	-	-	-	-
Other Eligible												
Code 4650												
Count	1	1	-	-	6	-	-	2	2	-	1	-
Total Bed Days	3	-	-	-	12	-	-	2	15	-	3	-
Length of Stay	3.0	-	-	-	2.0	-	-	1.0	7.5	-	3.0	-

	0-19 YRS	20-34 YRS	35-49 YRS	50-64 YRS	>64 YRS
Civilian Institution	1971	1971	1971	1971	1971
Code 4650 *					
Count	1069	59	33	44	31
Length of Stay	4.5	4.5	4.3	6.3	5.9

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Acute Upper Respiratory Infection

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 4860												
Count	224	441	240	11	20	13	6	13	7	-	-	-
Total Bed Days	1583	3264	1830	66	92	25	33	67	9	-	-	-
Length of Stay	7.1	7.4	7.5	6.0	4.6	1.9	5.5	5.2	1.3	-	-	-
Dependents of Active Duty Military												
Code 4860												
Count	5	2	1	3	4	-	8	2	-	-	1	-
Total Bed Days	20	6	-	5	24	-	62	29	-	-	9	-
Length of Stay	4.0	3.0	-	1.7	6.0	-	7.8	14.5	-	-	9.0	-
Other Eligible												
Code 4860												
Count	-	-	-	-	-	1	12	10	4	1	2	2
Total Bed Days	-	-	-	-	-	7	83	209	40	8	31	83
Length of Stay	-	-	-	-	-	7.0	6.9	20.9	10.0	8.0	15.5	41.5

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 4860*					
Count	1134	90	87	93	96
Length of Stay	7.2	7.7	8.9	8.7	9.2

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Pneumonia unspecific

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 5500												
Count	73	84	76	10	19	14	16	25	21	1	-	-
Total Bed Days	803	628	496	96	194	81	163	222	445	11	-	-
Length of Stay	11.0	7.5	6.5	9.6	10.2	5.8	10.2	8.9	21.2	11.0	-	-
Dependents of Active Duty Military												
Code 5500												
Count	2	1	2	1	1	1	-	2	-	-	-	-
Total Bed Days	12	-	8	3	4	4	-	6	-	-	-	-
Length of Stay	6.0	-	4.0	3.0	4.0	4.0	-	3.0	-	-	-	-
Other Eligible												
Code 5500												
Count	2	2	1	-	-	-	15	26	24	1	5	11
Total Bed Days	8	10	3	-	-	-	124	150	183	13	38	95
Length of Stay	4.0	5.0	3.0	-	-	-	8.3	6.2	7.6	13.0	7.6	8.6

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 5500 *					
Count	3078	1192	1829	2588	1151
Length of Stay	3.1	6.3	6.9	7.6	8.6

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Ingunial Hernia without obstruction

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 7360												
Count	76	67	182	-	2	-	-	1	-	1	-	-
Total Bed Days	-	333	107	-	8	-	-	14	-	-	-	-
Length of Stay	-	5.0	0.6	-	4.0	-	-	14.0	-	-	-	-
Dependents of Active Duty Military												
Code 7360												
Count	-	1	-	-	-	-	-	-	-	-	-	-
Total Bed Days	-	14	-	-	-	-	-	-	-	-	-	-
Length of Stay	-	14.0	-	-	-	-	-	-	-	-	-	-
Other Eligible												
Code 7360												
Count	-	-	-	-	-	-	-	-	-	-	-	-
Total Bed Days	-	-	-	-	-	-	-	-	-	-	-	-
Length of Stay	-	-	-	-	-	-	-	-	-	-	-	-

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 7360 *					
Count	2	-	-	-	-
Length of Stay	4.5	-	-	-	-

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Flat foot

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 8240												
Count	21	18	18	4	4	5	3	2	2	-	-	-
Total Bed Days	1072	643	541	127	26	128	88	32	295	-	-	-
Length of Stay	51.1	35.7	30.1	31.8	6.5	25.6	29.3	16.0	147.5	-	-	-
Dependents of Active Duty Military												
Code 8240												
Count	2	2	-	1	2	-	2	-	-	-	-	-
Total Bed Days	7	16	-	2	20	-	2	-	-	-	-	-
Length of Stay	3.5	8.0	-	2.0	10.0	-	2.0	-	-	-	-	-
Other Eligible												
Code 8240												
Count	-	-	-	-	-	-	3	1	-	2	-	-
Total Bed Days	-	-	-	-	-	-	43	15	-	23	-	-
Length of Stay	-	-	-	-	-	-	14.3	15.0	-	11.5	-	-

Civilian Institution	0-19 YRS	20-34 YRS	35-49 YRS	50-64 YRS	>64 YRS
	1971	1971	1971	1971	1971
Code 8240 *					
Count	95	38	61	61	37
Length of Stay	3.7	4.4	4.5	7.1	9.8

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Fractured Ankle, Closed

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS, DAYS OF HOSPITAL BED OCCUPANCY,
AGE AND SELECTIVE DIAGNOSIS FOR FT. KNOX, 1971-72-73

	15-25 YRS			26-35 YRS			36-55 YRS			>56 YRS		
	1971	'72	'73	1971	'72	'73	1971	'72	'73	1971	'72	'73
Active Duty Military												
Code 8500												
Count	23	23	23	3	3	1	-	2	-	-	-	-
Total Bed Days	168	185	69	3	11	13	-	10	-	-	-	-
Length of Stay	7.3	8.2	3.0	1.0	3.7	13.0	-	5.0	-	-	-	-
Dependents of Active Duty Military												
Code 8500												
Count	-	1	2	-	1	-	-	-	-	-	-	-
Total Bed Days	-	1	5	-	1	-	-	-	-	-	-	-
Length of Stay	-	1.0	2.5	-	1.0	-	-	-	-	-	-	-
Other Eligible												
Code 8500												
Count	-	1	1	-	-	-	-	1	1	-	-	-
Total Bed Days	-	7	3	-	-	-	-	5	1	-	-	-
Length of Stay	-	7.0	3.0	-	-	-	-	5.0	1.0	-	-	-

Civilian Institution	0-19 YRS 1971	20-34 YRS 1971	35-49 YRS 1971	50-64 YRS 1971	>64 YRS 1971
Code 8500 *					
Count	1525	350	131	50	41
Length of Stay	2.6	3.5	4.2	5.8	6.4

Source: Produced by Admin. & Biostat. Div. USAHSOSA.
*Concussion

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1971

	Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	35	66	1.9	5	3	0.6	3	3	1.0			
0340	Strep Sore Throat	44	162	3.7	4	4	1.0	1		-			
0560	Rubella	225	598	2.7	3	9	3.0	1		-			
2509	Diabetes Mellitis	12	377	31.4	7	154	22.0	19	505	26.6	1	136	136.0
2740	Gout				1	8	8.0	3	36	12.0			
2770	Obesity Nos	28	433	15.5	2	7	3.5	1	3	3.0			
4010	Ess Bngn Hypertens	40	215	5.4	3	7	2.3	10	170	17.0			
4109	Acute MI WO Hypert							2	40	20.0			
4129	C I Schm HD WO Hypt				3	165	55.0	13	657	50.5			
4550	Hemorroids	45	208	4.6	14	116	8.3	5	19	3.8			
4650	AC UP Respiratory	6558	20949	3.2	249	298	1.2	89	89	1.0	2	3	1.5
4860	Pneumonia Unspecif	113	1021	9.0	5	43	8.6	3	13	4.3			
5500	Ing Hernia WO Obst	75	673	9.0	6	54	9.0	10	84	8.4	1	10	10.0
7360	Flat Foot	1		-									
8240	Fx Ankle, Closed	11	678	61.6	3	213	71.0	3	131	43.7			
8500	Concussion Cur, Uns	37	286	7.7				1	1	1.0			

Source: Produced by Admin & BioStat Div USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1971

	Dependents of Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAY	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	4	14	3.5	1	2	2.0	1	5	5.0			
0340	Strep Sore Throat	1	5	5.0	1	6	6.0						
0560	Rubella												
2509	Diabetes Mellitis	3	50	16.7	4	40	10.0	3	209	69.7	2	32	16.0
2740	Gout												
2770	Obesity Nos	5	25	5.0									
4010	Ess Bngn Hypertens							1	12	12.0	1	7	7.0
4109	Acute MI WO Hypert												
4129	C I Schm HD WO Hypt							3	34	11.3			
4550	Hemorroids				1	5	5.0	2	9	4.5			
4650	AC UP Respiratory	7	18	2.6	1	4	4.0	1	4	4.0			
4860	Pneumonia Unspecif	1	8	8.0	2	10	5.0	1	2	2.0			
5500	Ing Hernia WO Obst	1	3	3.0	1	5	5.0						
7360	Flat Foot												
8240	Fx Ankle, Closed	1	14	14.0	1	3	3.0	1	6	6.0			
8500	Concussion Cur, Uns	3	4	1.3	1	1	1.0						

Source: Produced by Admin & BioStat Div USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1971

	Other	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit							1	3	3.0			
0340	Strep Sore Throat												
0560	Rubella												
2509	Diabetes Mellitis							8	192	24.0	5	141	28.2
2740	Gout												
2770	Obesity Nos												
4010	Ess Bngn Hypertens							4	54	13.5	2	15	7.5
4109	Acute MI WO Hypert							6	128	21.3	1	25	25.0
4129	C I Schm HD WO Hypt							12	183	15.3	7	62	8.9
4550	Hemorroids				1	2	2.0	5	31	6.2			
4650	AC UP Respiratory	1	3	3.0				2	11	5.5	2	13	6.5
4860	Pneumonia Unspecif							3	25	8.3	1	4	4.0
5500	Ing Hernia WO Obst							12	98	8.2	6	61	10.2
7360	Flat Foot												
8240	Fx Ankle, Closed	1	7	7.0	1	16	16.0	1	11	11.0			
8550	Concussion, Cur, Uns	1	1	1.0				1	3	3.0			

Source: Produced by Admin & BioStat Div USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1972

		15-25 YRS		AVE BED	26-35 YRS		AVE BED	36-55 YRS		AVE BED	56 YRS AND OVER		AVE BED
	Active Duty Military	DSPO	DAYS	DAYS	DSPO	DAYS	DAYS	DSPO	DAYS	DAYS	DSPO	DAYS	DAYS
0092	Gstenteritis/Colit	26	7	0.3	6	-		2					
0340	Strep Sore Throat	59	214	3.6	13	4	0.3	4	3	0.8			
0560	Rubella	9	24	2.7	1	2	2.0						
2509	Diabetes Mellitis	4	280	70.0	3	22	7.3	17	636	37.4			
2740	Gout							3	33	11.0			
2770	Obesity Nos	168	4286	25.5	5	142	28.4						
4010	Ess Bngn Hypertens	26	239	9.2	4	39	9.8	18	163	9.1			
4109	Acute MI WO Hypert							3	137	45.7			
4129	C I Schm HD WO Hypt				2	203	101.5	9	58	6.4			
4550	Hemorroids	24	61	2.5	15	40	2.7	8	25	3.1			
4650	AC UP Respiratory	13261	42920	3.2	453	437	1.0	183	85	0.5	2	8	4.0
4860	Pneumonia Unspecif	393	2859	7.3	13	51	3.9	9	13	1.4			
5500	Ing Hernia WO Obst	52	551	10.6	9	72	8.0	8	66	8.3			
7360	Flat Foot	1		-				1	147	147.0			
8240	Fx Ankle, Closed	15	415	27.7	5	108	21.6	1		-			
8550	Concussion, Cur Uns	37	239	6.5	4	49	12.3						

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1972

	Dependents of Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	1	6	6.0	1	7	7.0						
0340	Strep Sore Throat	1	3	3.0									
0560	Rubella												
2509	Diabetes Mellitis	8	69	8.6	3	17	5.7				3	20	6.7
2740	Gout												
2770	Obesity Nos				1	13	13.0						
4010	Ess Bngn Hypertens	1	2	2.0	3	10	3.3	1	1	1.0			
4109	Acute MI WO Hypert												
4129	C I Schm HD WO Hypt							1	8	8.0	3	34	11.3
4550	Hemorroids	1	4	4.0	1	2	2.0	1	5	5.0			
4650	AC UP Respiratory	6	14	2.3	4	23	5.8				1	7	7.0
4860	Pneumonia Unspecif												
5500	Ing Hernia WO Obst	2	13	6.5	1	5	5.0				1	16	16.0
7360	Flat Foot												
8240	Fx Ankle, Closed	1	7	7.0	1	4	4.0						
8550	Concussion, Cur Uns	1	4	4.0									

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1972

	Other	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit												
0340	Strep Sore Throat												
0560	Rubella												
2509	Diabetes Mellitis	1	2	2.0				5	33	6.6	4	33	8.3
2740	Gout							1	16	16.0			
2770	Obesity Nos							1	98	98.0			
4010	Ess Bngn Hypertens	2	14	7.0				6	59	9.8			
4109	Acute MI WO Hypert							5	88	17.6	2		
4129	C I Schm HD WO Hypt							20	232	11.6	11	94	8.6
4550	Hemorroids							2	23	11.5	1	7	7.0
4650	AC UP Respiratory				1	2	2.0	3	20	6.7			
4860	Pneumonia Unspecif	1	5	5.0				1	10	10.0	3	58	19.3
5500	Ing Hernia WO Obst	1	4	4.0	1	5	5.0	9	58	6.4	6	60	10.0
7360	Flat Foot												
8240	Fx Ankle, Closed							2	9	4.5			
8550	Concussion, Cur Uns	1	1	1.0				3	8	2.7			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1973

	Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	14	21	1.5	12	2	0.2	1					
0340	Strep Sore Throat	91	377	4.1	3	4	1.3	2					
0560	Rubella	5	28	5.6									
2509	Diabetes Mellitis	2	13	6.5	3	100	33.3	3	14	4.7			
2740	Gout				3	4	1.3	4	2	0.5			
2770	Obesity Nos	159	3146	19.8	1	25	25.0	1	55	55.0			
4010	Ess Bngn Hypertens	17	194	11.4	9	19	2.1	18	67	3.7			
4109	Acute MI WO Hypert							2	20	10.0			
4129	C I Schm HD WO Hypt							6	252	42.0			
4550	Hemorroids	12	26	2.2	11	11	1.0	8	42	5.3			
4650	AC UP Respiratory	4968	14939	3.0	470	341	0.7	162	53	0.3			
4860	Pneumonia Unspecif	497	3927	7.9	15	67	4.5	14	15	1.1			
5500	Ing Hernia WO Obst	35	361	10.3	12	92	7.7	8	52	6.5			
7360	Flat Foot	5											
8240	Fx Ankle, Closed	12	353	29.4	1	28	28.0	2	7	3.5			
8550	Concussion, Cur Uns	46	81	1.8	6	10	1.7	3	7	2.3			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1973

	Dependents of Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 AND OVER DSPO	56 YRS OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	1	1	1.0	1	7	7.0	1	2	2.0			
0340	Strep Sore Throat				1	3	3.0						
0560	Rubella												
2509	Diabetes Mellitis	3	19	6.3	1	9	9.0	2	30	15.0	1	11	11.0
2740	Gout												
2770	Obesity Nos				1	8	8.0	2	23	11.5			
4010	Ess Bngn Hypertens				1	3	3.0	2	13	6.5			
4109	Acute MI WO Hypert												
4129	C I Schm HD WO Hypt												
4550	Hemorroids							1	9	9.0			
4650	AC UP Respiratory	4	12	3.0	2	4	2.0						
4860	Pneumonia Unspecif	2	6	3.0									
5500	Ing Hernia WO Obst												
7360	Flat Foot												
8240	Fx Ankle, Closed				2	15	7.5						
8550	Concussion, Cur Uns	3	4	1.3									

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. LEONARD WOOD, MO. 1973

	Other	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit							2	5	2.5			
0340	Strep Sore Throat	1	2	2.0									
0560	Rubella												
2509	Diabetes Mellitis							4	94	23.5	10	235	23.5
2740	Gout												
2770	Obesity Nos	1	28	28.0				1	24	24.0			
4010	Ess Bngn Hypertens							10	64	6.4	4	28	7.0
4109	Acute MI WO Hypert							10	159	15.9	5	66	13.2
4129	C I Schm HD WO Hypt							14	136	9.7	14	161	11.5
4550	Hemorroids							2	17	8.5			
4650	AC UP Respiratory	1	2	2.0	1	5	5.0	3	19	6.3	1	3	3.0
4860	Pneumonia Unspecif							4	56	14.0	1	4	3.0
5500	Ing Hernia WO Obst	2	12	6.0				10	84	8.4	3	23	7.7
7360	Flat Foot												
8240	Fx Ankle, Closed	1	4	4.0				4	51	12.8			
8550	Concussion, Cur Uns	4	23	5.8	1	1	1.0	2	11	5.5			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1971

	Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	264	638	2.4	37	9	0.2	18	6	0.3			
0340	Strep Sore Throat	237	734	3.1	7	11	1.6	4	8	2.0			
0560	Rubella	1076	3262	3.0	10	18	1.8				2	6	3.0
2509	Diabetes Mellitis	5	108	21.6	4	33	8.3	7	452	64.6			
2740	Cout	2	13	6.5				2					
2770	Obesity Nos	6	48	8.0									
4010	Ess Bngn Hypertens	54	443	8.2	4	48	12.0	14	58	4.1			
4109	Acute MI WO Hypert							4	135	33.8			
4129	C I Schm HD WO Hypt							11	274	24.9			
4550	Hemorroids	68	383	5.6	12	53	4.4	9	115	12.8			
4650	AC UP Respiratory	6937	18178	2.6	168	201	1.2	75	33	0.4	2	5	2.5
4860	Pneumonia Unspecif	538	3115	5.8	12	59	4.9	12	25	2.1			
5500	Ing Hernia WO Obst	104	902	8.7	6	62	10.3	5	127	25.4			
7360	Flat Foot	3	16	5.3									
8240	Fx Ankle, Closed	11	720	65.5									
8550	Concussion, Cur Uns	40	810	20.3	4	66	16.5	2	4	2.0			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1971

	Dependents of Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	1	4	4.0	2	9	4.5	3	12	4.0	1	4	4.0
0340	Strep Sore Throat												
0560	Rubella												
2509	Diabetes Mellitis	3	10	3.3	2	8	4.0	5	52	20.4	3	15	5.0
2740	Gout							1	1	1.0			
2770	Obesity Nos							2	44	22.0			
4010	Ess Bngn Hypertens				1	3	3.0	4	16	4.0	4	17	4.3
4109	Acute MI WO Hypert				1	5	5.0	13	225	17.3	6	101	16.8
4129	C I Schm HD WO Hypt	1	8	8.0				25	294	11.8	17	212	12.5
4550	Hemorroids	1	8	8.0				13	109	8.4	2	14	7.0
4650	AC UP Respiratory	3	9	3.0	2	8	4.0	3	12	4.0	2	9	4.0
4860	Pneumonia Unspecif	2	21	10.5				6	70	11.7	3	19	6.3
5500	Ing Hernia WO Obst	1	9	9.0				25	229	9.2	10	81	8.1
7360	Flat Foot	1	1	1.0									
8240	Fx Ankle, Closed	1	7	7.0							2	26	13.0
8550	Concussion, Cur Uns	4	10	2.5	1			3	21	7.0			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1971

	Other	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	5	11	2.2				3	15	5.0			
0340	Strep Sore Throat												
0560	Rubella	2	4	2.0	1	3	3.0	1	5	5.0			
2509	Diabetes Mellitis	3	10	3.3	1	3	3.0	1	5	5.0			
2740	Gout												
2770	Obesity Nos	1	9	9.0									
4010	Ess Bngn Hypertens				1	6	6.0	5	27	5.4			
4109	Acute MI WO Hypert										2	42	21.0
4129	C I Schm HD WO Hypt	1	2	2.0				1	3	3.0	2	27	13.5
4550	Hemorroids	1	6	6.0	3	12	4.0	10	81	8.1			
4650	AC UP Respiratory	4	20	5.0	1	5	5.0						
4800	Pneumonia Unspecif	2	6	3.0				4	23	5.8	2	20	10.0
5500	Ing Hernia WO Obst	1	5	5.0	1	4	4.0	2	11	5.5			
7360	Flat Foot												
8240	Fx Ankle, Closed	2	4	2.0				1	14	14.0			
8550	Concussion, Cur Uns	5	12	2.4	3	9	3.0	2	40	20.0			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1972

	Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	231	471	2.0	65	39	0.6	14					
0340	Strep Sore Throat	207	837	4.0	2	3	1.5						
0560	Rubella	946	2914	3.1	10	34	3.4						
2509	Diabetes Mellitis	13	423	32.5	2	119	59.5	16	409	25.6			
2740	Gout	2	17	8.5				2	1	0.5			
2770	Obesity Nos	9	64	7.1	1	10	10.0						
4010	Ess Bngn Hypertens	49	492	10.0	4	9	2.3	10	44	4.4			
4109	Acute MI WO Hypert							1	19	19.0			
4129	C I Schm HD WO Hypt							15	316	21.1	1		
4550	Hemorroids	47	384	8.2	10	96	9.6	11	130	11.8			
4650	AC UP Respiratory	8154	26165	3.2	322	295	0.9	110	41	0.4	5	18	3.6
4860	Pneumonia Unspecif	554	4339	7.8	14	57	4.1	9	61	6.8	1	8	8.0
5500	Ing Hernia WO Obst	56	681	12.2	6	92	15.3	9	133	19.8			
7360	Flat Foot	3	16	5.3									
8240	Fx Ankle, Closed	12	229	19.1				1					
8550	Concussion, Cur Uns	26	153	5.9	4	193	48.3	3	4	1.3			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1972

	Dependents of Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	8	18	2.3	2	12	6.0	2	10	5.0	1	1	1.0
0340	Strep Sore Throat	1	6	6.0									
0560	Rubella												
2509	Diabetes Mellitis	3	18	6.0	5	72	6.0	2	19	9.5			
2740	Gout												
2770	Obesity Nos				3	7	3.5	2	11	5.5			
4010	Ess Bngn Hypertens	1	3	3.0	6	53	8.8	4	23	5.8			
4109	Acute MI WO Hypert												
4129	C I Schm HD WO Hypt				1	2	2.0	5	67	13.4	1	53	53.0
4550	Hemorroids	3	14	4.7	1	4	4.0	1	13	13.0			
4650	AC UP Respiratory	3	7	2.5	1	2	2.0						
4860	Pneumonia Unspecif	3	13	4.3	2	18	9.0	2	7	3.5	1	6	6.0
5500	Ing Hernia WO Obst	3	18	6.0				2	25	12.5	1	7	7.0
7360	Flat Foot												
8240	Fx Ankle, Closed							1	13	13.0			
8550	Concussion, Cur Uns	7	33	4.7	2	8	4.0						

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1972

	Other	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	5	24	4.8				3	5	1.7	3	22	7.3
0340	Strep Sore Throat	1	5	5.0									
0560	Rubella												
2509	Diabetes Mellitis	5	34	6.8	4	36	9.0	18	195	10.8	9	88	9.8
2740	Gout							1	7	7.0			
2770	Obesity Nos							1	17	17.0			
4010	Ess Bngn Hypertens							18	104	5.8	2	6	3.0
4109	Acute MI WO Hypert							11	141	12.8	4	71	17.8
4129	C I Schm HD WO Hypt	1	8	8.0				43	336	7.8	26	296	11.4
4550	Hemorroids				2	22	11.0	12	94	7.8	1	4	4.0
4650	AC UP Respiratory	4	13	3.3	2	10	5.0	1	6	6.0	5	15	3.0
4860	Pneumonia Unspecif	4	37	9.3				7	110	15.7	3	28	9.3
5500	Ing Hernia WO Obst	4	30	7.5	1	14	14.0	38	291	7.7	17	175	10.3
7360	Flat Foot												
8240	Fx Ankle, Closed							3	61	20.3	1	10	10.0
8550	Concussion, Cur Uns	5	67	13.4	1	3	3.0	4	15	3.8			

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1973

	Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	157	480	3.1	58	37	0.6	19	3	0.2			
0340	Strep Sore Throat	45	225	5.0	6	12	2.0	3					
0560	Rubella	193	645	3.3									
2509	Diabetes Mellitis	7	343	49.0	3	260	86.7	13	342	26.3			
2740	Gout												
2770	Obesity Nos	87	1992	22.9	1	21	21.0						
4010	Ess Bngn Hypertens	37	351	9.5	10	37	3.7	11	32	2.9			
4109	Acute MI WO Hypert							6	147	24.5			
4129	C I Schm HD WO Hypt				2	25	12.5	7	341	48.7			
4550	Hemorroids	19	123	6.5	12	19	1.6	2	8	0.4			
4650	AC UP Respiratory	2945	9329	3.2	384	324	0.8	130	38	0.3			
4860	Pneumonia Unspecif	263	2779	10.6	18	70	3.9	7	22	3.1			
5500	Ing Hernia WO Obst	41	423	10.3	6	46	7.7	8	126	15.8			
7360	Flat Foot	13	96	7.4									
8240	Fx Ankle, Closed	17	894	52.6	6	69	11.5	2	118	59.0			
8550	Concussion, Cur Uns	21	707	33.7	4	3	0.8						

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1973

	Dependents of Active Duty Military	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	4	7	1.8									
0340	Strep Sore Throat	2	4	2.0									
0560	Rubella												
2509	Diabetes Mellitis	10	110	11.0	1	3	3.0	3	7	2.3	1	7	7.0
2740	Gout												
2770	Obesity Nos	2	7	3.5				3	12	4.0			
4010	Ess Bngn Hypertens	4	56	14.0	3	21	7.0	10	43	4.3			
4109	Acute MI WO Hypert				1	2	2.0				1	31	31.0
4129	C I Schm HD WO Hypt							2	42	21.0	4	57	14.3
4550	Hemorroids	2	5	2.5				1	7	7.0			
4650	AC UP Respiratory	9	45	5.0	6	26	4.3				2	15	7.5
4860	Pneumonia Unspecif				1	4	4.0				1	7	7.0
5500	Ing Hernia WO Obst	1	1	1.0	1	7	7.0	1	8	8.0			
7360	Flat Foot												
8240	Fx Ankle, Closed	1	5	5.0				1	2	2.0			
8550	Concussion, Cur Uns	3	8	2.7	1	3	3.0						

Source: Produced by Admin & BioStat Div. USAHSDSA

I.P.D.S. DATA RETRIEVAL
NO. OF DISPOSITIONS AND DAYS OF HOSPITAL BED OCCUPANCY
BY TYPE OF BENEFICIARY, AGE AND SELECTED DIAGNOSIS
FT. JACKSON, N. C. 1973

	Other	15-25 YRS DSPO	15-25 YRS DAYS	AVE BED DAYS	26-35 YRS DSPO	26-35 YRS DAYS	AVE BED DAYS	36-55 YRS DSPO	36-55 YRS DAYS	AVE BED DAYS	56 YRS AND OVER DSPO	56 YRS AND OVER DAYS	AVE BED DAYS
0092	Gstenteritis/Colit	3	5	1.7	1	11	11.0	7	21	3.0			
0340	Strep Sore Throat												
0560	Rubella												
2509	Diabetes Mellitis	2	7	3.5	1	4	4.0	15	158	10.5	1	10	10.0
2740	Gout							1	6	6.0			
2770	Obesity Nos	1	17	17.0	1	3	3.0	4	114	28.5			
4010	Ess Bngn Hypertens	1	7	7.0	2	8	4.0	22	141	6.4	5	45	9.0
4109	Acute MI WO Hypert							10	138	13.8	12	136	11.3
4129	C I Schm HD WO Hypt				1	9	9.0	49	648	13.2	45	453	10.1
4550	Hemorroids							4	32	8.0	2	17	8.5
4650	AC UP Respiratory	3	6	2.0				3	12	4.0	4	19	4.8
4860	Pneumonia Unspecif	2	5	2.5	1	15	15.0	10	95	9.5	7	74	10.6
5500	Ing Hernia WO Obst	2	8	4.0	1	3	3.0	27	220	8.2	5	38	7.6
7360	Flat Foot												
8240	Fx Ankle, Closed	4	34	8.5				3	28	9.3	2	28	14.0
8550	Concussion, Cur Uns	5	4	0.8				3	34	11.4			

Source: Produced by Admin & BioStat Div. USAHSDSA

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