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Patient Reasons for Non-Urgent Utilization of the Dwight David Eisenhower Army Medical Center Emergency Department

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2004

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
30 JUN 2004	**N/A**	**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Patient Reasons for Non-Urgent Utilization of the Dwight David Eisenhower Army Medical Center Emergency Department	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Eisenhower Army Medical Center Ft Gordon, GA 30905**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited

13. SUPPLEMENTARY NOTES
The original document contains color images.

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**UU**	**94**	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18

Acknowledgements

First and foremost I would like to acknowledge that the Lord and his grace has sustained me throughout these past two years. “Trust in the Lord with all thine heart; and lean not unto thine own understanding. In all thy ways acknowledge him, and he shall direct thy paths” (Proverbs 3:5-6). There have been many individuals that contributed to the completion of this graduate management project, and without their assistance and guidance this study would not have been possible. I would like to extend my sincerest gratitude to Dr. David Mangelsdorff, COL Samuel Franco, LTC Ron Moody, LTC Brian Canfield, COL John Wesley, LTC Randall Voyles, MAJ Rolando Torres, MAJ Jennie Irizarry, LTC Robert Goodman, COL Debbie Lomax-Franklin, Mr. Keith Sickafoose, Ms. Toni Cosby, Ms. Kathleen Haskel, MAJ James Laterza, MAJ William Love, MAJ Jeffrey Hillard, MAJ Kevin Bonds, and the entire staffs of the Emergency Department and the Ambulatory Care Center.

Abstract

The purpose of this research study was to identify the reasons why non-urgent patients utilize the Emergency Department at Dwight David Eisenhower Army Medical Center, from the patients' perspective. A review of the present body of literature revealed common themes why non-urgent patients typically present at emergency departments, the impacts to hospitals, and possible initiatives that could be undertaken to help alleviate non-urgent utilization of emergency departments. This study sought to explore associations between reasons for non-urgent patients visiting the emergency department through a descriptive cross-sectional design, which utilized the computation of frequencies, cross tabulation, and Chi-Square testing. A random sample of n=206 non-urgent patients who presented to the emergency department in January and February, 2004, were solicited for demographic information, as well as reasons for their visit. The results of this study will enable the hospital to gain insight into their patient population's care seeking behaviors. This information may facilitate the formulation of strategies to continue to increase the quality of care, while better meeting the health care demand.

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Introduction

Conditions that prompted the study

The significant number of “inappropriate”, non-urgent patients presenting at the Emergency Department (ED) at Dwight David Eisenhower Army Medical Center (DDEAMC) prompted this study. Across the United States, and in many other countries, Emergency Departments are overcrowded and are being utilized beyond their maximum capacity. True emergencies, however, do not necessarily comprise the majority of the patients being seen in these emergency departments.

Ideally, an environment, in which patients are able to access timely, quality health care, in the most appropriate setting, is most beneficial to both the patient and the health care industry. This access to timely health care in the most appropriate setting is not occurring in the national health care environment, nor is it occurring at Dwight David Eisenhower Army Medical Center. In many emergency departments, there is neither the staff nor additional resources to accommodate the over-utilization by non-urgent patients, nor are these emergency departments intended to operate as a primary care setting. Long waiting times often result in a more stressful working environment

for staff, as well as increased patient dissatisfaction. Unfortunately, there exist situations, in which patients become frustrated to the point of leaving without being seen, and the opportunity to provide timely, quality health care to the patient may be lost. In order to provide the highest quality health care possible to our patients, the organization must capture the reasons why patients are opting to utilize the emergency department for non-urgent and/or routine health care. Once there is a good understanding of the rationale, from the patients' perspective, we can then combine this data with the current data on ED utilization at DDEAMC, and pursue plausible alternatives to alleviate the non-urgent utilization of the ED.

Presently at DDEAMC the ED receives from 80 to 100 plus visits per day, of which 80% or more are defined as non-urgent patients. These patients are triaged as a lower priority, and may experience an ED visit wait time of up to six hours. The highest utilization of the ED tends to be on weekends, when the primary care clinics are closed (Moody, 2003). Approximately half of the patients leaving without being seen cite having to "wait too long" as their primary reason (Moody, 2003). Therefore, the primary conditions

that prompted this study are as follows. First, and foremost, the organization desires to increase the proper utilization of the emergency department, while ensuring quality health care is delivered, in the appropriate setting, and, ultimately increase patient satisfaction. This will also increase the efficient utilization of limited resources to include a more appropriate expenditure of ED funds.

Secondly, the organization has indicated that two primary goals are to identify areas, such as internal processes, that may be further developed to facilitate emergency department operations, and to identify patient perceptions and rationale for non-urgent ED utilization. The latter will provide a base of information to explore patient education opportunities, which may ultimately change both patient perception and ED utilization behavior.

Statement of the problem

What are the prevailing reasons, from a patients' perspective, that result in presenting at the ED, who are later determined to be non-urgent.

Literature review

Effective and efficient utilization of medical services, providing timely, quality health care in the appropriate setting is a fundamental goal of most health

care organizations. The core functions of an emergency department are the provision of specialized clinical skills that are focused on the assessment and management of urgent or emergent medical needs, and the provision of continuous 24-hour access to these services (Mustard, Kozyrskyj, Barer, and Sheps, 1998). Emergency department utilization often departs from this fundamental managed care goal, and goes beyond the core functions, becoming a primary care setting. Ideally, emergency department visits should occur only when truly needed, avoiding unnecessary, non-urgent utilization. Optimization of the emergency department, with regards to proper utilization, is crucial to ensure the most efficient cost expenditures, as well as consistent quality care.

What delineates emergency services from primary care services? One definition of emergency services describes these services as:

> ...those health care services provided to evaluate and treat medical conditions of recent onset and severity that would lead a prudent layperson, possessing an average knowledge of medicine and health, to believe that urgent and/or unscheduled medical care is required (Koziol-McLain, Price, Weiss, Quinn, and Honigman, 2000, p.10).

This definition was chosen, for it relays the responsibility of initial determination of need for urgent care to the patient, or layperson, regardless of whether or not it is a true emergent condition.

In many cases, it is the patient's perception that drives their decision to seek urgent care. Also, one may ask what is the definition of "inappropriate" utilization or what constitutes an actual urgent or emergent condition? The term inappropriate is difficult to define, since there is no national, international, or gold standard. Parents may have a different definition than physicians, who both may differ from the definition applied by an insurance company. To compound the matter, studies have shown that physicians of varying specialties have poor interrater reliability with regards to defining what constitutes an emergency (Foldes, Fischer, and Kaminsky, 1994). Although literature indicates that there can be substantial differences in definitions of what constitutes an urgent condition, an emergent condition, or an "inappropriate" non-urgent condition between emergency departments, for the purposes of this study, non-urgent conditions were considered as an "inappropriate" utilization of the emergency department. The DDEAMC ED delineates the

difference between emergent, urgent, and non-urgent medical conditions as follows:

> Emergent cases are those conditions that present a danger of loss of life, limb, or eyesight. Urgent cases are those cases, which require prompt care, but will not cause loss of life, limb, or eyesight if untreated for several hours. Non-urgent cases are those, which require evaluation and treatment, but time is not a critical factor. These cases can be managed as a clinic visit within 24 hours (Irizarry, 2004, p.1).

Regardless of the exact definition of what truly constitutes an urgent or emergent condition, in a given ED, research has indicated that when non-urgent utilization is prevalent in the emergency department, both the cost and quality of rendered care are negatively impacted, primarily due to overcrowding and long wait times (Tufts, 2001). ED overcrowding can result in poor patient outcomes, patient dissatisfaction, increased cost, decreased physician productivity, increased frustration among medical staff, and potential violence (DeAngelis, Farmer, Brewer, and Reeder, 2002). A study conducted to explore the effect of having a regular doctor on non-urgent emergency department visits reported that 65% of emergency department directors

surveyed reported that overcrowding was having a negative impact on their quality of care, and research suggests that emergency departments have a higher rate of negligent injuries than any other location in the hospital. This same study suggested that maintaining a relationship with a regular physician may promote appropriate use of the emergency department, regardless of socioeconomic status, health status, or comorbidity. This could potentially alleviate a quality of care issue in the ED, due to overcrowding (Petersen, Burstin, O'Neil, Orav, and Brennan, 1998).

Patients often seek ED care for conditions that could be treated in a primary care setting. In a study of 56 emergency departments nationwide, 37% of all ED visits were triaged as non-urgent (Young, Wagner, Kellermann, Ellis, and Bouley, 1996), while in another study of emergency departments in New York City, approximately 75% of the patients were triaged as non-urgent or treatable in a primary care setting (Billings, Parikh, and Mijanovich, 2000). It is now estimated that as much as two-thirds of emergency department visits are for non-urgent conditions on average (Mustard, Kozyrskyj, Barer, and Sheps, 1998). These studies are fairly representative of the present body

of research, however, as a benchmark, they may very well be on the conservative side for many locations.

According to the 1999 National Hospital Ambulatory Medical Care Survey (NHAMCS) by the Center for Studying Health System Change ED utilization increased 14% from 1992 to 1999. This equated to an increase from 89.8 million to 102.8 million visits, or about 38 visits per 100 persons (Tufts, 2001). This data is fairly consistent with other research from 2000 and later indicating 95 million and greater visits per year (Petersen, Burstin, O'Neil, Orav, and Brennan, 1998). In a recent presentation at the annual Congress of the American College of Healthcare Executives, in Chicago, Illinois, it was relayed that in the past decade: emergency room visits are up 20% from 89.8 million to 107.5 million; the number of emergency departments are down 15%; time to treatment is up 32% to 67.7 minutes; 54% of visits are non-urgent or semi-urgent; and the average ED saw a 33% increase in visits (Shiver and Ferguson, 2004).

This is not a new phenomenon. The use of emergency departments for non-life-threatening problems has been documented as early as 1849 in England. Some studies have estimated that as high as 85% of emergency department visits are made for non-urgent problems (Koziol-McLain, et al., 2000). There are many health care organizations in the

United States, as well as other countries, that have devoted considerable time and effort to shifting these “inappropriate,” non-urgent visits from the ED to non-emergency settings. This may include shifting patients to ambulatory primary care clinics, implementing patient co-pays, requiring prior authorization to be seen, and, in some countries, actually denying access to emergency department care. These are all efforts to change patient behaviors in seeking care to conform to more appropriate care seeking decisions (Koziol-McLain, et al., 2000).

Naturally, shifting visits to primary care settings is based on some assumptions, one of which is the fact that the primary care system is willing and can accommodate these patients, and another is that it is more fiscally prudent to shift these patients to a primary care setting. A study conducted in Colorado, revealed that 34% of emergency patients had no access to health care, other than the emergency department (Prochazka, Koziol-McLain, Tomlinson, and Lowenstein, 1994). This indicates that, for persons without access to primary care in a primary care setting, the ED is their safety net, and possibly their only avenue for accessing health care (Derlet, Richards, 2000).

Fiscally, it is estimated that non-urgent care rendered in an emergency department can cost up to six times as much as the same care rendered in a primary care setting (Tufts, 2001). The fixed costs, such as staffing and equipment, associated with operating an emergency department are higher than the primary care setting, and there are numerous, more costly variable costs as well. Some of these variable costs include laboratory, x-ray, magnetic resonance imaging (MRI) tests, as well as items to be taken home by the patient and the higher credentialing costs of emergency medicine qualified professionals.

Additionally, this patient shifting philosophy assumes that patients would prefer to have their care rendered in a less hectic primary care setting, and the continuity of care and prevention focus that is provided in a primary care setting results in better overall health care(Koziol-McLain, et al., 2000). However, one must consider, that in the current health care environment and culture in America, some people may prefer episodic health care, possibly due to not desiring an attachment to a primary care provider, or the anonymity that episodic care affords, or possibly they may just find a 1 to 2 day wait for care as too burdensome or inconvenient. One study cited that of the sample population surveyed, only 47% would have preferred a

visit with their primary care physician, as opposed to utilizing urgent care (Plauth, Pearson, 1998). This leads one to the question about the other 53% and their desires and reasoning (Koziol-McLain, et al., 2000).

Three main factors for increased emergency department utilization were outlined in a 1999 National Hospital Ambulatory Care Survey, NHAMCS, report by the Center for Studying Health System Change. First, due to consumer backlash and prudent layperson laws in over 40 states, health plans are required to pay ED bills if the patient is in great pain or believes that he or she is experiencing a medical emergency (Tufts, 2001). Secondly, is a stricter enforcement of the Federal Emergency Medical Treatment and Labor Act (FEMTALA), which requires hospitals that receive Medicare reimbursement to provide screening for an emergency condition, provide necessary stabilizing treatment, and conduct appropriate transfers for patients. This is regardless of a patient's ability to pay (Tufts, 2001). Also, hospitals that refuse to evaluate a patient violate the federal Consolidated Omnibus Budget Reconciliation Act (COBRA), and may be fined or lose Medicare revenue (Bristow and Herrick, 2002). Thirdly, there

has been an increase in ED utilization among patients without insurance, nationwide (Tufts, 2001).

In taking a closer look at the rationale or reasons why non-urgent patients are presenting at emergency departments in ever-increasing numbers, some common themes in the present body of literature can be noted. First, however, one should consider the predominately humanistic perspective through the eyes of the patient presented by a study, which indicated 5 themes for seeking care: toughing it out, symptoms overwhelming self-care measures, calling a friend, nowhere else to go, and convenience (Koziol-McLain, et al., 2000).

This study took a human science perspective to explore the experiences of persons seeking help. They found that typically, non-urgent patients did not perceive themselves as having an urgent problem, but had had difficulty in accessing alternative primary care settings.

In “toughing it out”, patients typically had been suffering for some time, attempting to “bear with it”, until they decided to seek medical attention. In the case of “symptoms overwhelming self-care measures,” patients had been attempting to control the symptoms, often with over the counter medications, but were unsuccessful, and they began

to experience difficulties in their ability to function. The predominant symptom was pain, with an adverse impact on sleeping and/or ability to work. Many patients were encouraged to utilize the ED, upon consulting or “calling a friend” or parent. The “nowhere else to go” category included non-urgent patients referred to the ED by the primary care provider (PCP) or clinic/office, due to unavailability of appointments. The “convenience” category patients primarily were such due to work schedules, child-care issues, and transportation barriers to accessing primary care. This study affords us some insight into typical patient help seeking behaviors, which should not be overlooked or discounted, however, these behaviors will not be addressed in detail or explored in this particular study.

More common themes throughout the current body of literature, include primary care physician referral as a common theme (Koziol-McLain, et al., 2000), as well as presenting to the ED due to a lack of knowledge of alternative health care sites or options (DeAngelis, Farmer, Brewer, and Reeder, 2002). Other common reasons are lack of insurance, the patient’s perceived urgency of their condition, ease of access due to limited clinic hours and appointment availability (Reeder, Locascio, Tucker,

Czaplijski, Benson, and Meggs, 2002). There were some patients presenting who considered the health care received in the ED as superior to that received in a clinic, and were willing to endure increased wait times to receive their care in the ED (DeAngelis, et al., 2002). Finally, many studies indicate that lower socioeconomic status contributes to increased ED utilization for non-urgent conditions. It has been found that mean neighborhood household income is strongly and inversely related to the proportion of total ambulatory care received in the emergency department (Petersen, et al., 1998).

Beyond non-urgent individuals presenting themselves to the emergency department, parents also present their children for non-urgent conditions. Over 20 million children visit the ED each year in the United States, which equates to 1 in every 4 emergency department visits involving a child. Previous studies indicate that between one third and one half of these visits are non-urgent (Phelps, Taylor, Kimmel, Nagel, Klein, and Puczynski, 2000). These non-urgent visits are attributed to parental misperception of a true emergency, convenience factors, access factors, such as getting to the PCP’ office when it is open, lack of telephone triage access, and PCP referrals.

One disconcerting statistic from this study is that 30% of parents who did not contact the PCP stated that they did not see any reason why they should have to call the PCP prior to going to the emergency department (Doobinin, Heidt-Davis, Gross, and Isaacman, 2003). This is of significance, since research indicates that primary care physicians are better positioned to emphasize a more comprehensive, family oriented approach to the health maintenance of children (Doobinin, et al., 2003). The primary care physician's training, the setting in which they practice, having knowledge and context of the child's medical history, knowledge of previous responses to treatment, immunizations, preventive and follow-up care, family issues, rapport and compliance are all critical factors in providing quality care to children. Without these factors, the care is fragmented, and less than optimal (Phelps, Taylor, Kimmel, Nagel, Klein, and Puczynski, 2000).

Not only is the fact that non-urgent utilization of emergency departments increasing, but also the fact that the number of patients presenting whom often have co-morbidities and chronic illnesses that require the use of many medical resources, is increasing (Bristow, et al.,

2002). Another contributing fact to the demand growth is the aging of our population. The life expectancy in the United States has been increasing steadily, from 70.8 years in 1970 to an estimated 76.4 years in 2000. This increase is expected to continue at a rate of approximately one month every two years (Altman, Shactman, 2002). Our older population typically present with higher acuities, and more often to the ED, which places increasing demands on the system (Reeder, et al., 2002).

Patient populations presenting with transplants, cancer, congenital illness, and premature infants all result in greater health demands on emergency departments. More stringent admission criteria, coupled with the increased use of outpatient therapies and higher acuity rates also increase the burden on the ED. Patients that make multiple visits to emergency departments are often termed “heavy users”, “repeaters”, and “frequent fliers” (Malone, 1996). These patients may have complex problems, which include psychosocial problems, and lack access to primary care settings. These patients can account for as much as 11% of the ED patient population (Ovens and Chan, 2001). Thus, emergency departments are becoming the leading provider of fragmented and uncontrolled costly health care. They are the leading providers of unscheduled

primary and acute care that are forced to operate beyond their design and capabilities. In many cases, the ED has become the family physician, especially at night and on weekends (Shi, Singh, 2001).

Each stakeholder in the health care system, to include doctors, nurses, administrators, legislators, insurers, and patients have their own unique perspectives about the system. It is the latter that this study is intended to focus on. This study will explore why non-urgent patients present, for the specific geographical population serviced by the Emergency Department, at Dwight David Army Medical Center (DDEAMC), Fort Gordon, Georgia.

The ED at DDEAMC provides medical care to all patients who present, 24 hours per day, 365 days per year. The mission statement of the Emergency Department is as follows:

> The Emergency Department’s primary missions are (1) the delivery of quality emergency care to include initial management and stabilization of seriously ill and injured patients. Care is to be provided in a compassionate, timely and cost effective manner. (2) Support DDEAMC in providing 24 hours, 7 days a week access to non-urgent medical care. (3) Training of medical students, residents, nursing students and

> others in the practice of Emergency Medicine. (4) Provide pre-hospital Advanced Life Support Service for Fort Gordon, and inter facility transportation service for DDEAMC (Moody, 2002, p.2).

The vision statement of the Emergency Department is to provide, “Excellence in the delivery of emergency and acute medical care, and the highest quality medical education to interns, residents, medical students, and other health care professionals” (Moody, 2002). The staffing of the ED at DDEAMC includes both military board certified Emergency Medicine MD/DOs, military Registered Nurses (RN), Licensed Practical Nurses (LPN), and Combat Medics (91W), as well as Government Schedule (GS) Emergency Medicine Physicians, RNs, LPNs, Paramedics, and Emergency Medical Technicians (EMT). In addition to the government employees, the ED is also augmented by contract RNs and LPNs. The functional areas of the ED include the provision of triage, emergency medical care, non-urgent care, quick access, and ambulance services (Moody, 2003).

When patients present to the DDEAMC ED, the waiting room clerk greets them and records the purpose of the patient’s visit, logging them into the Composite Health Care System (CHCS) and Ambulatory Data System (ADS) databases. The clerk makes an initial assessment as to

whether the patient has an immediate life threatening complaint, and notifies the RN at Triage, if necessary. The Triage Nurse, the clerk, the triage area, and triage waiting area are all located in one large room. The triage room is partitioned off from the main room, as well as the clerk/reception area for privacy. The close proximity allows for adequate monitoring and quick response by the Triage Nurse, should the need arise. In the case of an emergent or urgent condition, the completion of administrative documentation is accomplished when possible. If the patient is not experiencing a life threatening condition, the clerk confirms the patient's eligibility to receive treatment by accessing the Defense Enrollment Eligibility Reporting System (DEERS). If the patient is not eligible to receive treatment, he or she is signed in as a civilian emergency (Moody, 2003).

The ED maintains daily performance statistics, consisting of the total number of patients seen, the number of non-urgent patients presenting, the number of patients waiting more than two hours, but less than four hours, the number of patients waiting over four hours, but less than six, and those patients that are in the ED six hours or more. Additionally, they track and report the number of daily admissions from the ED, the number of patients

transferred out to other local medical facilities, referrals to the Ambulatory Care Center (ACC), as well as those who leave without being seen (LWOBS). Typically, the daily percentage of non-urgent patients presenting to the ED are 80% or more of the patients seen (Moody, 2003).

Purpose

The primary purpose for conducting this study is to identify the reasons why non-urgent patients utilize the Emergency Department at Dwight David Eisenhower Army Medical Center. Through capturing the patients' rationale, the hospital will gain valuable insight, adding to the body of research already conducted in the Emergency Department. Ultimately, this could better position the hospital to understand this patient population's care behavior in seeking health care, and develop educational initiatives aimed at modifying this behavior. Potential results of implementing such initiatives or formulating strategies may be the increased quality of rendered care, increased continuity of care to this specific patient population, significant cost savings, increased patient satisfaction, reduction in workload, and increased staff satisfaction.

Method and Procedures

The research method for this study was a non-experimental, descriptive cross-sectional design, which

utilized the computation of frequencies, cross tabulation, and Chi^2. The setting of the study was the Emergency Department at Dwight David Eisenhower Army Medical Center, Fort Gordon, Georgia. A survey/questionnaire was developed for randomly administering to previously triaged, non-urgent patients who have presented to the ED, capturing demographic data, as well as their reasons for accessing care via the emergency department. The questionnaire was entirely anonymous and voluntary, and was submitted to the hospital's ethics committee and leadership for approval. Personal information, such as name and social security number was not solicited, and respondents completed the questionnaire independently to ensure patient confidentiality.

The questionnaire was randomly administered in January and February 2004. Patients who presented to the ED during the survey period, and who were triaged as non-urgent were eligible to be administered the questionnaire. The population for this study period was estimated to be 980 non-urgent patients, based on historical data from years past for the like timeframe. Sample size was projected to be 400, and was determined by utilizing power analysis and a sample size calculator (see Figure 1) located on the Internet (Raosoft, 2004). The margin of error was set at

5%, the confidence level was set at 90%, and the expected population size was set at 980.

Instrumentation

The survey/questionnaire consisted of two pages, one of which was a cover sheet informing patients that it was only applicable to non-urgent patients; it was voluntary, and completely anonymous. The cover page also informed participants that their responses would be utilized in a study to help DDEAMC further understand patients' perspectives to better serve DDEAMC patients, as well as be part of a graduate project. The backside of the cover page provided space for additional comments. The second page consisted of 10 questions, that all of the respondents were qualified to answer. All of the questions were designed to solicit first hand, specific information from each respondent.

The following are the items that were on the questionnaire: (1) What is the patient's age? (2) What is the patient's gender? (3) Please select the category below that applies to you, for this visit to the emergency department (please check one). This question addressed beneficiary status to include Active Duty, Active Duty Family Member, Military Retiree, Military Retiree Family Member, Civilian, and other. (4) Where do you regularly go

to get medical care? (5) How long ago did the symptoms begin before coming to the emergency department (minutes, hours, days, weeks)? (6) How many times have you visited a hospital emergency department for medical care in the past 12 months? (7) How many times have you visited the Dwight David Eisenhower Army Medical Center Emergency Department in the past 12 months? (8) If you are a TRICARE Prime member, in your opinion is it easier for you to receive health care using the Dwight David Eisenhower Army Medical Center Emergency Department, or to make an appointment to be seen by your primary care physician in the clinic where you are enrolled? (9) What type of health insurance do you have? This question was in regards to whether the respondent was TRICARE Prime, Extra, or Standard, and/or utilized Medicare, Medicaid, private health insurance, or had no health insurance. (10) Why did you choose to come to the Emergency Department? Responses to the latter question were permitted to be multiple.

Data from the surveys was be compiled in an EXCEL spreadsheet, then entered into SPSS (Statistical Package for the Social Sciences). Data was primarily coded as binary, and descriptive statistics were run, as well as frequencies, cross tabulation, and Chi^2. Significance level was set at $p<.05$.

Validity

The validity of the instrument refers to the ability of the instrument to effectively measure what it purports to measure (Soeken, 1985). The survey instrument/questionnaire utilized in this study was designed by utilizing instruments from previous studies as a template. This primarily promotes construct validity of the instrument (Soeken, 1985). The studies that were referenced for the design of the design of the questionnaire include A Study on Non-urgent Utilization in the Ambulatory Care Reception Center and Emergency Department at Darnell Army Community Hospital (Baine, 1997), A Comparative Analysis of Emergency Room Utilization Before and After TRICARE Implementation at Renyolds Army Community Hospital (Gamerl, 1996), and Reasons for Utilization of the Emergency Room at Irwin Army Community Hospital by Patients Classified as Non-Urgent (Hillard, 1999).

These studies were conducted at U.S. Army medical treatment facilities that provide health care to similar demographic populations in the context of eligible beneficiaries. The similar survey questions administered in these previous studies were both valid and adequate in gathering the appropriate data for analysis for the

respective research questions. Hence, applicable questions from these survey instruments were utilized as a template for this study. Also, the survey instrument/questionnaire solicited first hand information that each respondent was individually, uniquely qualified to answer. This information included questions regarding age, gender, where they regularly received medical care, insurance type, reason for visiting the ED, etc.

Reliability

Reliability refers to whether or not the proper trait or characteristic being measured is correct, and is developed by utilizing the same instrument, under similar conditions, repeatedly with a comparison of outcomes (Soeken, 1985). A measure is reliable, therefore, to the degree that it produces consistent results (Cooper, Schindler, 2001). One way to evaluate this study's survey instrument's reliability would be to administer the questionnaire to similar populations at similar military medical treatment facilities, and conduct a comparison of the results to those obtained at DDEAMC. The survey instrument utilized in this study was pilot tested by the researcher to ensure that the questions would facilitate the gathering of pertinent data, and that the appropriate characteristics would be measured. The design of the

questionnaire was appropriate for measuring the reasons that patients chose to visit the emergency department, based upon the similar instruments utilized in the aforementioned studies and their adequacy in gathering the requisite, appropriate information. During the pilot study, the survey instrument/questionnaire was randomly distributed to Emergency Department staff personnel, leadership and management personnel, as well as randomly to additional staff personnel. This was to ensure that the items on the survey instrument were applicable to the intent of the research, easily read, easy to comprehend, and facilitated quick, easy response.

The initial questionnaire was determined to be too long, visually unappealing, and not conducive to quick, easy answering. Thus, the number of questions was reduced to only those pertinent to this study, the format was revised to include simple boxes to be checked, and the 10 applicable questions were placed on the front and back of a single page. Reliability was promoted through attempts to standardize the conditions under which the questionnaires were administered, as well as ensuring investigator consistency. The Triage Nurses were well briefed on procedures for administering the survey and daily

reinforcement of the procedures was supplied by supervisory staff.

Results

Response Rate

The survey/questionnaire was administered to an eligible population of 980 non-urgent patients in January and February 2004. The population size was based on previous years historical data for the like timeframe. The survey was offered to all non-urgent patients that presented, yielding 206 completed surveys. This resulted in a 21% return rate, with an accepted margin of error of 5% and a confidence level of 90% (Raosoft, 2004).

Respondent Demographics

Respondent demographics are depicted in Table 1. The median age of the study participants was 28 years (range, .1 to 86). Children under the age of one year were represented by their appropriate fraction of 12 months. All 206 respondents reported their age on the questionnaire.

Table 1

Demographic Information of Study Respondents (N=206)

	No.(%)
Demographic Information	
Gender	
Male	94 (45.6)
Female	112 (54.4)
Age	
Median, years	28
.1-18 years	61 (29.6)
19-64 years	116 (56.3)
≥ 65 years	29 (14.1)

Respondent Insurance Type

Table 2 depicts the type of insurance reported by the study respondents, with 196 participants (95.1%) of the 206 listing some type of insurance. One hundred and sixty-one of the respondents reported that TRICARE Prime was their insurance, which included 51 active duty service members (31.7%). Two of these were actually enrolled in TRICARE Prime at another military treatment facility (MTF). Fifty-four active duty family members were enrolled in TRICARE

Prime (33.5%), with one being enrolled at another MTF, as well as 21 Retirees (13.0%) enrolled in TRICARE Prime at DDEAMC, with one enrolled at another MTF. Thirty-three retiree family members (20.6%), and two civilians (1.2%) were enrolled in TRICARE Prime at DDEAMC.

One, active duty family member, one retiree, and one retiree family member were enrolled in TRICARE extra, and four active duty family members were enrolled in TRICARE Standard. Ten retirees identified Medicare as their insurance, while one active duty family member and one retiree family member also indicated as such. One retiree and two retiree family member respondents indicated that they had Medicaid as insurance. Lastly, one retiree respondent and three retiree family member respondents indicated that they had no health insurance.

Table 2

Type of Insurance of Study Respondents (N=206)

	No.(%)
Insurance Type	
TRICARE Prime, enrolled at DDEAMC	161 (82.1)
TRICARE Prime, enrolled at other MTF	4 (2.0)
TRICARE Extra	3 (1.5)
TRICARE Standard	4 (2.0)
Medicare	12 (6.1)
Medicaid	3 (1.5)
Private health insurance	5 (2.6)
No health insurance	4 (2.0)

Note. 10 respondents did not answer insurance type.

Location of Regular Medical Care

Table 3 depicts where study respondents regularly go to receive their primary medical care. The five most common locations of regular medical care are as include forty-four of the 206 respondents (21.4%) who listed the Primary Care Clinic (PCC) as their regular source of primary care, while 77 respondents (37.4%) cited the Family Practice Clinic (FPC) as their regular source of care. Twenty-five respondents (12.1%) listed the Troop Medical Clinic (TMC)

as their primary source of care and the fourth most common source of care was the Internal Medicine Clinic (IMC), with 20 respondents (9.7%) regularly receiving care there. Twelve study respondents (5.8%) listed the Connelly Health Clinic as their regular source of care and six respondents (2.9%) listed the DDEAMC Emergency Department as their source of regular care.

Table 3

Location where Study Respondents Regularly Receive Medical Care (N=206)

	No.(%)
Location of Regular Medical Care	
Primary Care Clinic, DDEAMC	44 (21.4)
Family Practice Clinic, DDEAMC	77 (37.4)
Internal Medicine Clinic, DDEAMC	20 (9.7)
Emergency Department, DDEAMC	6 (2.9)
Troop Medical Clinic (TMC) 4	25 (12.1)
Connelly Health Clinic	12 (5.8)
Other MTF Primary Care Clinic	3 (1.5)
Veterans Affairs (VA) Hospital	2 (1.0)
Civilian Hospital	4 (1.9)
Civilian DR. Office/Clinic	5 (2.4)
Other Emergency Department	1 (0.5)
Don’t Know	2 (1.0)
Other	5 (2.4)

Frequency of Emergency Department Utilization

The frequency of DDEAMC ED visits by age is represented in Table 4. The age categories were divided

into .1 to 18 years; 19 to 64 years; and greater than or equal to 65 years of age. A total of 74 respondents (35.9%) answered that they had not visited the DDEAMC ED in the last 12 months, and one respondent did not answer the question. One hundred and ten respondents reported that they had visited the DDEAMC ED from one to four times (53.4%) in the last 12 months. The most frequent utilizing age group was the 19 to 64 age group, which accounted for 61 respondents (55.5%).

Sixteen respondents (7.8%) cited visiting the DDEAMC ED between 5 to 9 times in the past 12 months. Eight respondents (50.0%) from the ages of 19 to 64 years reported visiting the ED 5 to 9 times, comprising the largest utilizing age category for this range of visits. A total of five respondents (2.4%) reported visiting the DDEAMC ED ten or more times in the last 12 months.

Table 4

Frequency of DDEAMC Emergency Department Visits in the Past 12 Months by Age (N=206)

	1-4 Visits No.(%) (n=110)	5-9 Visits No.(%) (n=16)	≥ 10 Visits No.(%) (n=5)
Age			
.1-18 years	35 (31.8)	7 (43.7)	1 (20.0)
19-64 years	61 (55.5)	8 (50.0)	3 (60.0)
≥ 65 years	14 (12.7)	1 (6.3)	1 (20.0)

Table 5 depicts the frequency of DDEAMC Emergency Department visits in the past 12 months by the beneficiary category of the study respondents. The table is divided into 5 beneficiary categories: active duty (AD), active duty family member (ADFM), retiree, retiree family member, and civilian, as well as three visit ranges: 1 to 4 visits; 5 to 9 visits; and 10 or more visits. A total of 130 respondents reflected that they had visited the DDEAMC ED from one to four times in the past 12 months. The greatest number of respondents, which reported 1 to 4 visits, was in the ADFM category. This equated to 41 study respondents (37.6%). Twenty-three of the study respondents (21.1%) that visited the ED 1 to 4 times were active duty

military, while 22 respondents (20.2%) were retiree family members. Three of the respondents in this visit category were civilians (2.8%).

In the range of 5 to 9 visits, once again, the active duty family member category was predominant, with 9 study respondents (56.2%) reporting in this range. Four retiree study respondents (25.0%), as well as two retiree family member respondents (12.5%) also reported 5 to 9 visits in the past 12 months. Only one active duty member (6.3%) and no civilians reported between 5 and 9 visits. In the range of 10 or more visits in the past 12 months, only five of the study respondents reported as such. Two ADFM respondents (40.0%), and one each active duty member (20.0%), retiree (20.0%), and retiree family member (20.0%) cited visiting the DDEAMC ED 10 or more times.

Table 5

Frequency of DDEAMC Emergency Department Visits in the Past 12 Months by Beneficiary Status of Study Respondents (n=206)

	1-4 Visits No.(%) (n=109)	5-9 Visits No.(%) (n=16)	≥ 10 Visits No.(%) (n=5)
Beneficiary Status			
Active duty military	23 (21.1)	1 (6.3)	1 (20.0)
Active duty family member	41 (37.6)	9 (56.2)	2 (40.0)
Retiree	20 (18.3)	4 (25.0)	1 (20.0)
Retiree family member	22 (20.2)	2 (12.5)	1 (20.0)
Civilian	3 (2.8)	0 (0.0)	0 (0.0)

The comparison of study respondents categorized by insurance type and the number of visits in the past 12 months is shown in Table 6. The table represents 8 possible insurance categories, to include TRICARE Prime, TRICARE Prime enrolled in another military treatment facility (MTF), TRICARE Extra, TRICARE Standard, Medicare, Medicaid, private health insurance, and no health insurance. The number of DDEAMC ED visits is divided into ranges of 1 to 4 visits, 5 to 9 visits, and 10 or more visits, and the number of respondents in each insurance category is

depicted within each of these ranges. Eighty-seven respondents (82.9%) who presented at the DDEAMC ED in the past 12 months from 1 to 4 times were TRICARE Prime beneficiaries.

Thirteen TRICARE Prime study respondents (86.6%) cited visiting the DDEAMC ED from 5 to 9 times, and one TRICARE Extra respondent (6.7%). Five study respondents reported visiting the ED 10 or more times, who were TRICARE Prime (83.3%), and one who listed Medicare as insurance (16.7%).

Table 6

Frequency of DDEAMC Emergency Department Visits in the Past 12 Months by Insurance Type (n=206)

	1-4 Visits No.(%) (n=105)	5-9 Visits No.(%) (n=15)	≥ 10 Visits No.(%) (n=6)
Insurance Type			
TRICARE Prime, enrolled DDEAMC	87(82.9)	13(86.6)	5(83.3)
TRICARE Prime, enrolled other MTF	2 (1.9)	0 (0.0)	0 (0.0)
TRICARE Extra	1 (0.9)	1 (6.7)	0 (0.0)
TRICARE Standard	2 (1.9)	0 (0.0)	0 (0.0)
Medicare	7 (6.7)	0 (0.0)	1(16.7)
Medicaid	2 (1.9)	0 (0.0)	0 (0.0)
Private health insurance	2 (1.9)	1 (6.7)	0 (0.0)
No health insurance	2 (1.9)	0 (0.0)	0 (0.0)

Reasons for Visiting the Emergency Department

Table 7 shows the reasons why respondents sought care in the DDEAMC ED, and compares the reasons to the insurance type listed by participants. The table depicts the following categories or types of insurance reported by study respondents: TRICARE Prime, TRICARE Prime enrolled in another MTF, TRICARE Standard, and TRICARE Extra. Study participants were permitted to choose more than one reason for attendance at the ED. Therefore, sums may exceed the number of participants in a given insurance category, as well as percentages may sum to greater than 100%. Seventy-three respondents (45.3%) who listed TRICARE Prime as their insurance presented to the ED because they believed that they had an emergent condition. Additionally, thirty-one respondents (19.3%) who listed TRICARE Prime as their insurance presented to the ED because they could not get to sick call, and 26 (16.1%) presented because there were no appointments available where they regularly received their medical care. These three reasons equated to a little over 80% of the reasons that TRICARE Prime respondents presented at the DDEAMC ED during the study period.

Twenty-two respondents (13.7%), who were TRICARE Prime patients, listed “other” as their reason for visiting the ED. Of those, 7 cited having a sense of urgency in needing

care or needing to be seen, and 15 cited some type of access to care difficulty. The latter most often related to their respective clinic being closed, on weekends or after hours.

Table 7

Reason for Visit to DDEAMC Emergency Department by Insurance Type:TRICARE (n=206)

Reason for ED Visit	TRICARE Prime No.(%) (n=161)	TRICARE Prime Other MTF No.(%) (n=4)	TRICARE Extra No.(%) (n=3)	TRICARE Standard No.(%) (n=4)
Perceived emergent condition	73 (45.3)	2 (50.0)	1 (33.3)	1 (25.0)
Referred by provider	21 (13.0)	0 (0.0)	0 (0.0)	0 (0.0)
Referred by appointment line	15 (9.3)	0 (0.0)	0 (0.0)	0 (0.0)
Perceived better care in ED	15 (9.3)	0 (0.0)	1 (33.3)	1 (25.0)
Couldn’t get to sick call	31 (19.3)	1 (25.0)	0 (0.0)	1 (25.0)
Too sick to go elsewhere	3 (1.9)	2 (50.0)	0 (0.0)	0 (0.0)
Dissatisfied with care at clinic	5 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)
Clinic not open at convenient time	15 (9.3)	0 (0.0)	1 (33.3)	0 (0.0)
Could not get off work to visit clinic	10 (6.2)	0 (0.0)	1 (33.3)	0 (0.0)
No appointments available	26 (16.1)	0 (0.0)	1 (33.3)	1 (25.0)
Transportation problems	1 (0.6)	1 (25.0)	0 (0.0)	0 (0.0)
Clinic doesn’t accept walk-in patients	10 (6.2)	0 (0.0)	0 (0.0)	0 (0.0)
No health insurance	2 (1.2)	0 (0.0)	0 (0.0)	0 (0.0)
Cannot afford to pay for a clinic visit	1 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)
Do not have to pay for ED care	6 (3.7)	0 (0.0)	0 (0.0)	0 (0.0)
Insurance pays for ED care	5 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)
Other	22 (13.7)	1 (25.0)	1 (33.3)	1 (25.0)

Table 8 also shows the reasons that study respondents presented at the DDEAMC ED, with regards to the insurance type. Table 8 depicts the Medicare, Medicaid, private health insurance, and having no health insurance categories. Once again, study participants were permitted to choose more than one reason for their visit, thus, percentages may sum to greater than 100% and the number of reasons exceeds the number of respondents. Seven (58.3%) of those who listed Medicare as their insurance type believed that they actually had an emergent condition, and 5 respondents (41.7%) were referred to the ED by a provider.

Additionally, four respondents (33.3%) who listed Medicare as their insurance reported the reason for their visit to the ED was because they felt that they received better care in the Emergency Department. Three (100%) of the study respondents, who listed Medicaid as their insurance type, were referred to the ED by a provider. Perception of an actual emergent condition by the study respondents was the most frequent listed reason in both the private health insurance (60.0%) and no health insurance categories (75.0%).

Table 8

Reasons for Visit to DDEAMC Emergency Department by Insurance Type: Medicare, Medicaid, Private health insurance, and None (n=206)

Reason for ED Visit	Medicare No.(%) (n=12)	Medicaid No.(%) (n=3)	Private Health Insurance No.(%) (n=5)	No Health Insurance No.(%) (n=4)
Perceived emergent condition	7 (58.3)	0 (0.0)	3 (60.0)	3 (75.0)
Referred by provider	5 (41.7)	3 (100)	1 (20.0)	1 (25.0)
Referred by appointment line	0 (0.0)	0 (0.0)	0 (0.0)	1 (25.0)
Perceived better care in ED	4 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)
Couldn’t get to sick call	0 (0.0)	0 (0.0)	0 (0.0)	1 (25.0)
Too sick to go elsewhere	0 (0.0)	0 (0.0)	0 (0.0)	1 (25.0)
Dissatisfied with care at clinic	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Clinic not open at convenient time	1 (8.3)	0 (0.0)	1 (20.0)	0 (0.0)
Could not get off work to visit clinic	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
No appointments available	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)
Transportation problems	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Clinic doesn’t accept walk-in patients	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
No health insurance	0 (0.0)	0 (0.0)	0 (0.0)	1 (25.0)
Cannot afford to pay for a clinic visit	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Do not have to pay for ED care	2 (16.7)	0 (0.0)	1 (20.0)	0 (0.0)
Insurance pays for ED care	2 (16.7)	0 (0.0)	1 (20.0)	0 (0.0)
Other	0 (0.0)	0 (0.0)	1 (20.0)	1 (25.0)

The reasons for respondent visits to the DDEAMC Emergency Department by beneficiary category are listed in Table 9. The beneficiary categories depicted are active

duty member, active duty family member, retiree, retiree family member, and civilian. The largest category was the active duty family member category, of which 29 respondents (40.8%) reported presenting because they believed that they had an actual emergent condition. In this category, 13 respondents (18.3%) reported that no appointments were available, and 9 respondents (12.7%) were referred to the ED by a provider.

With regards to active duty respondents, 30 participants (58.9%) reported visiting the ED because they could not get to sick call, and 18 participants (35.3%) believed that they had an actual emergent condition. Six of the active duty respondents (11.8%) reported that they believed that they received better care in the ED, and 5 (9.8%) reported that there were no appointments available. Twenty retiree respondents (51.3%) cited the perception of better care in the ED as the reason for their visit, while 18 (46.2%) perceived that they had a valid emergent condition. Seven of the retiree respondents (17.9%) were referred to the ED there by a provider.

Twenty of the study respondents (51.3%) that were retiree family members presented at the ED because they perceived that they had an emergent condition, and 8 (20.5%) presented because no appointments were available.

Seven respondents (17.9%) in this beneficiary category were referred by a provider to the ED. Two respondents (50.0%) in the civilian beneficiary category listed a perception of an emergent condition for their reason for coming to the ED.

Table 9

Reasons for visit to DDEAMC ED by Beneficiary category (n=206)

Reason for ED	Active Duty No.(%) (n=51)	Active Duty Family Member No.(%) (n=71)	Retiree No(%). (n=39)	Retiree Family Member No.(%) (n=39)	Civilian No.(%) (n=4)
Perceived emergent condition	18 (35.3)	29 (40.8)	18 (46.2)	20 (51.3)	2 (50.0)
Referred by provider	2 (3.9)	9 (12.7)	7 (17.9)	7 (17.9)	1 (25.0)
Referred by appointment line	3 (5.9)	7 (9.9)	3 (7.7)	3 (7.7)	0 (0.0)
Perceived better care in ED	6 (11.8)	5 (7.0)	20 (51.3)	5 (12.8)	0 (0.0)
Couldn’t get to sick call	30 (58.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Too sick to go elsewhere	4 (7.8)	0 (0.0)	2 (5.1)	0 (0.0)	0 (0.0)
Dissatisfied with care at clinic	3 (5.9)	0 (0.0)	0 (0.0)	2 (5.1)	0 (0.0)
Clinic not open at convenient time	4 (7.8)	6 (8.5)	3 (7.7)	5 (12.8)	0 (0.0)
Could not get off work to visit clinic	2 (3.9)	4 (5.6)	1 (2.6)	4 (10.3)	0 (0.0)
No appointments available	5 (9.8)	13 (18.3)	2 (5.1)	8 (20.5)	0 (0.0)
Transportation problems	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (25.0)
Clinic doesn’t accept walk-in patients	3 (5.9)	0 (0.0)	2 (5.1)	5 (12.8)	0 (0.0)
No health insurance	0 (0.0)	0 (0.0)	3 (7.7)	0 (0.0)	0 (0.0)
Cannot afford to pay for a clinic visit	0 (0.0)	0 (0.0)	1 (2.6)	0 (0.0)	0 (0.0)
Do not have to pay for ED care	3 (5.9)	1 (1.4)	3 (7.7)	1 (2.6)	0 (0.0)
Insurance pays for ED care	1 (2.0)	0 (0.0)	3 (7.7)	3 (7.7)	0 (0.0)
Other	7 (13.7)	12 (16.9)	5 (12.8)	3 (7.7)	1 (25.0)

Note: Respondents were permitted to cite more than one reason for visiting the ED. 2 respondents listed their beneficiary category as “other”.

The results for the Chi-square test (2 X 2 tables) and descriptive statistics are shown in Appendix A, tables A1 through A14. Significance was set at a probability of $p < .05$. Association between the variables of insurance type, to include TRICARE Prime, TRICARE Prime Other MTF, TRICARE Extra, TRICARE Standard, Medicare, Medicaid, private health insurance, and no health insurance was explored with the variables of reason for visit. The variables of reason for visit included the following: perceived emergent condition; referred by provider; referred by appointment line; perceived better care in ED; couldn't get to sick call; too sick to go elsewhere; dissatisfied with care at clinic; clinic not open at convenient time; could not get off work; no appointments available; transportation problems; clinic doesn't accept walk-in patients; no health insurance; can't afford to pay for a clinic visit; don't have to pay for ED care; insurance pays for ED care; and other. Also, the variable of beneficiary type to include active duty, active duty family member, retiree, retiree family member and civilian were tested against the reasons for visit to determine associations.

Tables A1 through A4 depict the associations with TRICARE Prime, TRICARE Prime Other MTF, TRICARE Extra, and TRICARE Standard insurance types. Significance at the $p <$

0.05 level was attributed to being too sick to go anywhere else and TRICARE Prime, while for TRICARE Prime Other MTF, significance was attributed at the $p < 0.01$ level. Significance at the $p < 0.01$ level was also attributed to transportation problems and TRICARE Prime Other MTF, as well as couldn’t get off work and TRICARE Extra.

Tables A5 through A8 reflect the significance of association between the reasons for visit and the insurance categories of Medicare, Medicaid, private health insurance, and no health insurance. Significance at the $p < 0.05$ level was attributed to Medicare and insurance pays for ED care, and at the $p < 0.01$ level for referred by provider, perceived better care in the ED, and don’t have to pay for ED care reasons. Significance at the $p < 0.01$ level was also attributed to the association between Medicaid and referred by provider, as well as no health insurance and the reason of no health insurance. Lastly, significance at the $p < 0.05$ level was attributed to the association between private health insurance and the reason of insurance pays for ED care, as well as no health insurance and the reason of being too sick to go elsewhere.

Tables A9 through A13 depict the significance between the variables of beneficiary category and reason for ED visit. Significance at the $p < 0.01$ level was attributed to the associations between active duty and couldn't get to sick call; retiree and no health insurance; retiree family member and clinic doesn't accept walk-in patients; and civilian and transportation problems. The associations between active duty and referred by provider; active duty and too sick to go elsewhere; active duty family member and clinic doesn't accept walk-in patients; and retiree and can't afford to pay for a clinic visit yielded significance at the $p < 0.05$ level.

Additionally, associations between the variables of where the regular source of health care was and the reason for the ED visit were explored. Significance at the $p < 0.05$ level was attributed to the association between civilian hospital as the regular source of care and provider referral, as well as civilian clinic and my insurance pays for emergency department care. Significance at the $p < 0.01$ level, however, was attributed to the associations between the Primary Care Clinic and being referred by a provider; the Internal Medicine Clinic and not being able to afford a clinic visit; TMC 4 and unable

to go to sick call; Connelly Health Clinic and unable to go to sick call; Connelly Health Clinic and transportation problems; ant the VA and being too sick to go elsewhere.

Discussion

The majority of additional comments made on the questionnaires referred to the inability to make routine, same day appointments, or urgent care appointments. This inability to secure timely appointments accounted for twenty-one (48%) of the additional comments. As submitted in one study, visiting the ED with a non-urgent problem should not be labeled “inappropriate” if treatment cannot be secured at an alternative location (Young, et al., 1996). This coupled with the wait times in the ED for non-urgent patients are common themes of complaint among the study respondents. Naturally, this is exacerbated by the fact that often the perception of the patient of their emergent or urgent condition is not the same as the provider’s perception, nor is it reflected in their triaged category. Twelve of the forty-four additional comments (28%) reflected a perception of urgency that resulted in decisions not to wait for an appointment.

A general lack of understanding of the triage system, what is considered a true emergent condition, urgent condition, or non-urgent condition, and the ramifications

of such, increase the frustration on behalf of the patient. Although most patients presenting to the ED realize that patients with more acute or serious problems receive first priority for care, some patients truly do not understand why they must wait two to six hours to be seen. This is reflected in six of the comments (4%) in the comment sections of the questionnaires. Five of the comments (11%) indicated either a provider, or the appointment line had referred the patient to the ED. Lastly, four comments (9%) were complimentary, with regards to overall service.

Patient education about the Emergency Department policies, triage process, and associated wait times should serve to narrow the gap between the patient's perceptions and the provider's perceptions. The DDEAMC ED has made advancements in the patient education arena, as well as streamlining ED process to facilitate operations, during this study. In the latter part of February 2004, the ED implemented a new triage process, which is intended to increase efficiency, decrease wait times, and reduce the number of non-urgent patients being seen in the ED. Integral to this new process is a patient education effort in the ED, via well-placed information poster boards.

The old triage process consisted of a patient presenting to the ED, checking in at the reception desk and

waiting to be triaged. Once triaged, the patient was, either seen in the ED, referred to another clinic, or transferred out. The new process entails the patient taking a number, having a seat, and the triage nurse conducting the triage prior to the patient checking in with the clerk (see Figure 2). An algorithmic sign is posted in plain view for the patients to quickly read, upon entering the ED waiting area. The sign informs the patient of the triage process: first, take a number; second, have a seat outside the triage door, and the triage nurse will be with you shortly. The sign further reads that if you are experiencing chest pain or difficulty breathing, please inform the clerk or triage nurse ASAP (as soon as possible). Finally, the sign thanks the patient for their cooperation and lists points of contact for questions.

The ED has a second sign posted on the triage door, in good view of the waiting area, which explains what triage is for the benefit of the waiting patients. The sign reads as follows:

> The triage process is based on many factors. Objectivity on the part of the triage nurse allows him/her to systematically assess the complaint and document findings. The result category of triage may or may not reflect the patient's or patient's family's

> perception of their illness or injury. Therefore, triage is a fluid process allowing for reassessment and reassignment of the patient's triage category as their condition changes. The atmosphere of the waiting area may not reflect the tempo of the activity in the ED patient care area itself. Patient acuity, ambulance arrivals, availability of in-house beds, availability of certain specialty services, and staffing patterns are several factors which dictate length of the ED visit, and "waiting" time in the reception area (Emergency Department, 2004).

The entire triage area, waiting area, and reception/clerk area are all located in one room, with the actual triage area partitioned off as a separate room. Since everything is in such close proximity, the waiting patient can observe the efforts of the triage nurse to quickly and effectively triage waiting patients. The triage nurse calls the number of the patient, and conducts triage, categorizing the patient as emergent, urgent, or non-urgent. Emergent cases are those conditions that present a danger to loss of life, limb, or eyesight. Urgent cases are those cases, which require prompt care, but will not cause loss of life, limb, or eyesight if untreated for several hours. Non-urgent cases are those, which require evaluation and treatment,

but time is not a critical factor. These cases are manageable as a clinic visit within 24 hours. Upon being triaged as non-urgent, the patient proceeds to the clerk to be made an appointment that same day. Attempts to appoint in the Acute Care Clinic (ACC) are made first. If there are no appointments available in the ACC, the patient is appointed to another clinic, such as the Primary Care Clinic (PCC) or the Family Practice Clinic (FPC), not necessarily with their primary care manager. If appointing is still not feasible, the patient may be appointed in the ACC, after hours, or the patient can wait to be seen in the ED when possible (see Figure 1).

Although it is still too early to definitively determine whether these initiatives will result in increased efficiency, decreased wait times, decreased number of non-urgent patients presenting to the ED, and increased patient satisfaction, early indicators are that at least efficiency and wait times have been positively impacted. This may very well be due to the efforts at same day appointing in other clinics, upon presenting with a non-urgent condition. One must consider, however, in the cases of patients who present to the ED, because of initially being unable to make a same day appointment, the inconvenience and wait time is merely extended. For

example, a patient attempts to call at 7:30 a.m., is unable to obtain an appointment due to non-availability, believes that he or she has a more urgent condition which requires more timely care, presents to the ED only to be appointed after hours in the ACC. This scenario is a very likely scenario, given the number of respondents in the study who presented due to the non-availability of appointments.

Thus, it appears as though we are alleviating some of the symptoms of a potential problem, by deferring same day appointing until the patient presents at the ED. This indicates that a closer evaluation of the appointing process is warranted, to more effectively address the reason of patients presenting at the DDEAMC ED due to non-availability of appointments (Bonds and Laterza, 2004). Primary care sources must be able to accommodate their patients, especially their enrollees.

Two other common themes were apparent in the additional comments of the questionnaires. There were many comments made with reference to the ED being the only option on weekends, since the clinics are closed over the weekends. Once again patient education could play a major impact on non-urgent ED utilization, by better informing patients about the Ambulatory Care Clinic on the weekends.

Another common theme in the remarks of the questionnaires was the fact that patients had been advised or told to go to the ED by either a loved one, a senior Non-Commissioned Officer (NCO) or Officer. The DDEAMC has already implemented one of the options that is prevalent in literature, and that is the option of shifting patients to an ambulatory care clinic. Presently, the staffing has been augmented in the ACC by adding providers and support staff in order to accommodate some primary care appointments directly out of the ACC. This is in addition to receiving non-urgent patients from the ED.

The implementation of a nurse triage telephone line for patients to call, and seek guidance is another option, in addition to patient education and an overflow clinic, such as DDEAMC's ACC. A nurse triage line is well supported in the present body of literature, as a plausible initiative to reduce the number of non-urgent patients utilizing the ED (Tufts, 2001). This valuable resource would assist patients in making informed decisions on when and where to seek their medical care, or provide advice on appropriate self care measures. One particular study on the effectiveness of telephone-based nurse triage services found a 90% or greater patient satisfaction rating, and a return of $1.70 in reduced ER and physician visits for

every $1.00 invested in the service (O'Connell, Stanley, Malakar, 2001).

In dialogue with the head nurse of DDEAMC's ED, with regards to the potential implementation of such a triage line, some significant aspects for consideration were posed. First and foremost, the telephone triage nurse must have nationally accepted protocols/algorithms that have been approved by the hospital. In order to increase the effectiveness of the telephone triage nurse, he or she should be allocated appointments for each primary care manager, for which to appoint non-urgent patients who call, as well as ready access to a physician for any needed clarification, guidance, or judgments. Possibly, the telephone triage nurse or center could be collocated with the same day appointing center. Further study would have to be conducted to determine appropriate staffing, hours of operation, technology requirements, space requirements, desired metrics for future analysis, marketing initiatives, etc (Irizarry, 2004). Some additional, potential initiatives that are purported in literature are the implementation of an ED staging area, or possibly an off site ambulatory care center. The latter may be staffed after hours, or possibly 24/7, dependent upon demand (Frank, 2001). The emergency department staging area (EDSA)

is not an observation unit or holding area, rather, it is a monitored bed unit for extended stay ED patients. These are patients who need skilled nursing facility placement, have social service issues, or may just need rehydration or pain management for a short period of time. The estimated time of stay for these patients should be approximately 4, but no more than 12 hours. Lastly, increased staffing is always a possible recourse, whether it is in the ED, or in those primary care settings where available appointments are not sufficient to meet the demand (Frank, 2001).

Although this study has provided valuable data with reference to reasons for non-urgent visits to the DDEAMC Emergency Department, from the patient's perspective, there are some limitations. The sample size of n=206 is lower than preferred, due to difficulty in consistent administration of the questionnaires by ED staff. Constraints in time and opportunity, often resulting from a significant workload, made administration difficult at various times in the ED. Cooperation of ED staff personnel to effectively and consistently administer the questionnaires was challenging. Adjustments were made in the placing of the forms and collection box in the ED in an attempt to help facilitate their distribution, which had a minimal effect.

Another distinct limitation of the study was the design of the survey instrument itself. The questionnaire was two pages with information and/or questions on both sides of each page. On occasion, the respondent failed to turn the second page over and answer the questions on the back page. This could possibly be remedied by printing, “over please” at the bottom of the front page. These three questionnaires were not utilized in the study, since the primary question of reason for ED visit was located on the back of the page. A distinct weakness in utilizing an anonymous survey instrument is that the quantity and quality of the information depends entirely upon the ability and willingness of the survey respondents to cooperate and answer truthfully. Also, respondents may interpret questions differently than what was intended by the researcher (Cooper and Shindler, 2001). Hence, another limitation to this study was that the answers obtained from the respondents of the questionnaire were not independently verified.

The data collected by the survey instrument was primarily nominal, binomial data. Although the nominal scales do not reflect information about varying degrees of the item being measured, this research was non-experimental, exploratory in nature, in which the objective

was to determine if relationships existed between certain variables. Lastly, since this study was only conducted at one military, medical treatment facility, the results cannot be generalized to all other military treatment facilities, or to private sector facilities.

Conclusions

This study indicated that the most prevalent reasons why non-urgent patients are presenting at the Dwight David Eisenhower Army Medical Center Emergency department are a perception of their individual conditions being of a true emergent nature, an inability to get to sick call, and a lack of available appointments where they regularly receive primary medical care. These reasons are very much in accordance with existing studies and the current literature in the private sector.

The inability to get to sick call is primarily a reason that is only pertinent to active duty service members, and is consistent with at least one previous military emergency department utilization study (Hillard, 1999). However, this ultimately reflects an inability to access appointments, since sick call is conducted on a same day appointment basis. This indication warrants further investigation to determine potential reasons for active duty soldier members having difficulty in getting to sick

call at Fort Gordon. However, even with the large proportion of soldiers relaying an inability to get to sick call as a reason for ED utilization, the perception of needing immediate care is still a very large factor. Upon closer examination with reasons for visiting the ED compared with the insurance type and beneficiary type, the perception by the presenting patient of having a true emergent condition was a driving factor, with 73% of the TRICARE Prime enrollees citing this reason.

The Dwight David Eisenhower Medical Center Emergency Department has made progress in implementing many of the options purported in the literature with regards to decreasing this phenomena. This includes the implementation of their Ambulatory Care Clinic, augmenting the ACC with primary care physicians, streamlining the patient triage process and same day appointing for presenting non-urgent patients, and the patient education efforts involved in the latter.

Recommendations

Knowing the predominant reasons for non-urgent ED utilization at DDEAMC allows the organization to conduct further analysis to determine if the current organizational structure, existing health care services, and processes are adequate to meet the demands of the patient population.

Strategies should be considered to include a more comprehensive patient education initiative, evaluating and redesigning primary care services to meet patient demand, potential implementation of a dedicated nurse triage line that is staffed by ED personnel, and continued initiatives to improve quality and customer service. Patient education initiatives may include the distribution or strategic placement of brochures or fliers, mailing out information, or more web based alternatives.

Patients who are sick, in pain, or discomfort are going to seek care, regardless of their ability or inability to access it in the most appropriate setting. Colonel Samuel D. Franco, Chief of Staff, South East Regional Medical Command, relayed this perspective in one of our meetings, “...you can’t argue with a sick mind” (Franco, 2003). In the words of Mary Daly, professional officer at the Health Visitors’ Association, “Anxious, worried people must still have access to a competent, qualified person in an emergency. They are not qualified to evaluate their own health” (Healy, 1996). Through its present and future initiatives in the emergency department, Dwight David Eisenhower Army Medical Center will continue to provide quality care in the most efficient and effective

manner feasible, ensuring fiscal viability and increasing patient satisfaction.

Sample size calculator		Raosoft, Inc.
What margin of error can you accept? 5% is a common choice	5 %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer *yes*, while 10% answer *no*, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? Typical choices are 90%, 95%, or 99%	90 %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer *yes* would be more than one standard deviation away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? If you don't know, use 20000	980	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? The most conservative choice is 50%	40 %	For each question, what do you expect the results will be? If the sample is skewed highly to one end, the population probably is, too. If you don't know, use 50%. This gives you the largest sample size.
Your recommended sample size is	**206**	

Fig. 1 Power Analysis Sample Size Calculator

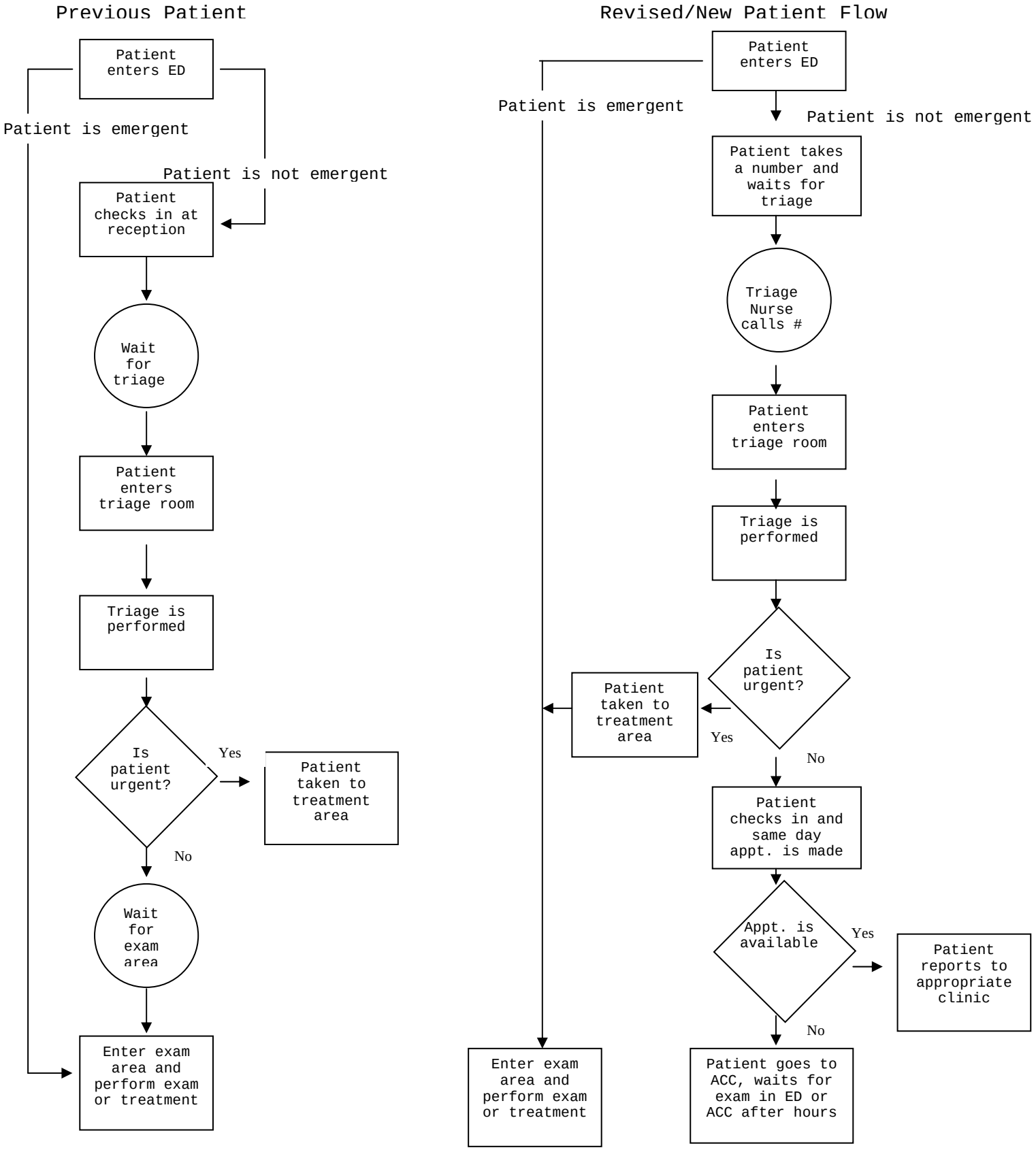

Fig. 2 DDEAMC ED Patient Flow

Appendix A

Table A1

Chi-Square (X^2) Values for Variables of Reason and TRICARE Prime

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.000	.985
Referred by provider	.857	.355
Referred by appointment line	1.262	.261
Perceived better care in ED	1.293	.256
Couldn’t get to sick call	1.636	.201
Too sick to go elsewhere	5.243*	.022
Dissatisfied with care at clinic	.988	.320
Clinic not open at convenient time	.004	.950
Could not get off work to visit clinic	.429	.513
No appointments available	.849	.357
Transportation problems	1.711	.191
Clinic doesn’t accept walk-in patients	2.031	.154
No health insurance	.665	.415
Cannot afford to pay for a clinic visit	.194	.660
Do not have to pay for ED care	.483	.487
Insurance pays for ED care	.828	.363
Other	.131	.718

* $p < 0.05$
** $p < 0.01$
df = 1

Table A2

Chi-Square Values for Reason and TRICARE Prime Other MTF

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.036	.849
Referred by provider	.668	.414
Referred by appointment line	.371	.542
Perceived better care in ED	.475	.491
Couldn’t get to sick call	.149	.699
Too sick to go elsewhere	29.650**	.000
Dissatisfied with care at clinic	.100	.741
Clinic not open at convenient time	.423	.516
Could not get off work to visit clinic	.248	.618
No appointments available	.727	.394
Transportation problems	22.748**	.000
Clinic doesn’t accept walk-in patients	.224	.636
No health insurance	.065	.799
Cannot afford to pay for a clinic visit	.021	.884
Do not have to pay for ED care	.178	.673
Insurance pays for ED care	.155	.694
Other	.404	.525

* $p < 0.05$
** $p < 0.01$
df = 1

Table A3

Chi-Square Values for Variables: Reason and TRICARE Extra

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.176	.674
Referred by provider	.499	.480
Referred by appointment line	.277	.599
Perceived better care in ED	1.715	.190
Couldn’t get to sick call	.656	.418
Too sick to go elsewhere	.098	.754
Dissatisfied with care at clinic	.081	.775
Clinic not open at convenient time	2.059	.151
Could not get off work to visit clinic	4.300*	.038
No appointments available	.790	.374
Transportation problems	.032	.858
Clinic doesn’t accept walk-in patients	.167	.682
No health insurance	.048	.826
Cannot afford to pay for a clinic visit	.016	.899
Do not have to pay for ED care	.133	.716
Insurance pays for ED care	.115	.734
Other	.937	.333

* $p < 0.05$
** $p < 0.01$
df = 1

Table A4

Chi-Square for Variables of Reason and TRICARE Standard

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.680	.410
Referred by provider	.668	.414
Referred by appointment line	.371	.542
Perceived better care in ED	.931	.335
Couldn’t get to sick call	.149	.699
Too sick to go elsewhere	.132	.717
Dissatisfied with care at clinic	.109	.741
Clinic not open at convenient time	.423	.516
Could not get off work to visit clinic	.248	.618
No appointments available	.312	.576
Transportation problems	.043	.836
Clinic doesn’t accept walk-in patients	.224	.636
No health insurance	.065	.799
Cannot afford to pay for a clinic visit	.021	.884
Do not have to pay for ED care	.178	.673
Insurance pays for ED care	.155	.694
Other	.404	.525

* $p < 0.05$
** $p < 0.01$
df = 1

Table A5

Chi-Square (X^2) Values for Variables of Reason and Medicare

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.876	.349
Referred by provider	8.071**	.004
Referred by appointment line	1.164	.281
Perceived better care in ED	7.204**	.007
Couldn’t get to sick call	2.754	.097
Too sick to go elsewhere	.413	.520
Dissatisfied with care at clinic	.342	.559
Clinic not open at convenient time	.016	.898
Could not get off work to visit clinic	.778	.378
No appointments available	.458	.499
Transportation problems	.135	.714
Clinic doesn’t accept walk-in patients	.703	.402
No health insurance	.203	.652
Cannot afford to pay for a clinic visit	.067	.796
Do not have to pay for ED care	5.009*	.025
Insurance pays for ED care	6.178*	.013
Other	2.095	.148

* $p < 0.05$
** $p < 0.01$
df = 1

Table A6

Chi-Square (X^2) Values for Variables of Reason and Medicaid

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	2.525	.112
Referred by provider	18.624**	.000
Referred by appointment line	.277	.599
Perceived better care in ED	.359	.552
Couldn’t get to sick call	.656	.418
Too sick to go elsewhere	.098	.754
Dissatisfied with care at clinic	.081	.775
Clinic not open at convenient time	.315	.574
Could not get off work to visit clinic	.185	.667
No appointments available	.542	.462
Transportation problems	.032	.858
Clinic doesn’t accept walk-in patients	.167	.682
No health insurance	.048	.826
Cannot afford to pay for a clinic visit	.016	.899
Do not have to pay for ED care	.133	.716
Insurance pays for ED care	.115	.734
Other	.499	.480

* $p < 0.05$
** $p < 0.01$
df = 1

Table A7

Chi-Square (X^2) Values: Reason and Private Health Insurance

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.447	.504
Referred by provider	.150	.699
Referred by appointment line	.467	.495
Perceived better care in ED	.597	.440
Couldn’t get to sick call	1.105	.293
Too sick to go elsewhere	.166	.684
Dissatisfied with care at clinic	.137	.711
Clinic not open at convenient time	.682	.409
Could not get off work to visit clinic	.312	.576
No appointments available	.913	.339
Transportation problems	.054	.816
Clinic doesn’t accept walk-in patients	.282	.595
No health insurance	.081	.775
Cannot afford to pay for a clinic visit	.027	.870
Do not have to pay for ED care	3.223	.073
Insurance pays for ED care	3.909*	.048
Other	.150	.699

* $p < 0.05$
** $p < 0.01$
df = 1

Table A8

Chi-Square Values for Reason and No Health Insurance

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	1.453	.228
Referred by provider	.404	.525
Referred by appointment line	1.485	.223
Perceived better care in ED	.475	.491
Couldn’t get to sick call	.149	.699
Too sick to go elsewhere	6.457*	.011
Dissatisfied with care at clinic	.109	.741
Clinic not open at convenient time	.423	.516
Could not get off work to visit clinic	.248	.618
No appointments available	.727	.394
Transportation problems	.043	.836
Clinic doesn’t accept walk-in patients	.224	.636
No health insurance	14.590**	.000
Cannot afford to pay for a clinic visit	.021	.884
Do not have to pay for ED care	.178	.673
Insurance pays for ED care	.155	.694
Other	.404	.525

* $p < 0.05$
** $p < 0.01$
df = 1

Table A9

(X^2) Values for Reason and Active Duty Beneficiary Status

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	1.953	.162
Referred by provider	5.423*	.020
Referred by appointment line	.421	.516
Perceived better care in ED	.236	.627
Couldn't get to sick call	85.493**	.000
Too sick to go elsewhere	5.516*	.019
Dissatisfied with care at clinic	30211	.073
Clinic not open at convenient time	.114	.736
Could not get off work to visit clinic	.331	.565
No appointments available	1.232	.267
Transportation problems	.637	.425
Clinic doesn't accept walk-in patients	.111	.739
No health insurance	1.044	.307
Cannot afford to pay for a clinic visit	.344	.557
Do not have to pay for ED care	.630	.427
Insurance pays for ED care	.482	.487
Other	.014	.906

* $p < 0.05$
** $p < 0.01$
df = 1

Table A10

(X^2) Values for Reason and Active Duty Family Member Status

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.077	.782
Referred by provider	.015	.902
Referred by appointment line	.680	.410
Perceived better care in ED	.870	.351
Couldn’t get to sick call	21.642**	.000
Too sick to go elsewhere	3.244	.072
Dissatisfied with care at clinic	2.689	.101
Clinic not open at convenient time	.610	.922
Could not get off work to visit clinic	.020	.886
No appointments available	1.654	.198
Transportation problems	1.059	.304
Clinic doesn’t accept walk-in patients	5.526*	.019
No health insurance	1.596	.206
Cannot afford to pay for a clinic visit	.527	.468
Do not have to pay for ED care	1.771	.183
Insurance pays for ED care	3.805	.051
Other	1.092	.296

* $p < 0.05$
** $p < 0.01$
df = 1

Table A11

(X^2) Values for Reason and Retiree Beneficiary Status

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.646	.422
Referred by provider	1.249	.264
Referred by appointment line	.003	.955
Perceived better care in ED	.047	.828
Couldn’t get to sick call	4.225*	.040
Too sick to go elsewhere	.948	.330
Dissatisfied with care at clinic	1.144	.285
Clinic not open at convenient time	.033	.857
Could not get off work to visit clinic	.654	.419
No appointments available	2.943	.086
Transportation problems	.451	.502
Clinic doesn’t accept walk-in patients	.022	.882
No health insurance	13.671**	.000
Cannot afford to pay for a clinic visit	4.509*	.034
Do not have to pay for ED care	2.080	.149
Insurance pays for ED care	2.956	.086
Other	.002	.976

* $p < 0.05$
** $p < 0.01$
df = 1

Table A12

(X^2) Values for Reason and Retiree Family Member Status

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	1.876	.171
Referred by provider	1.062	.303
Referred by appointment line	.000	1.000
Perceived better care in ED	.572	.449
Couldn’t get to sick call	6.778**	.009
Too sick to go elsewhere	1.429	.232
Dissatisfied with care at clinic	1.522	.217
Clinic not open at convenient time	1.063	.303
Could not get off work to visit clinic	2.376	.123
No appointments available	1.751	.186
Transportation problems	.466	.495
Clinic doesn’t accept walk-in patients	6.762**	.009
No health insurance	.703	.402
Cannot afford to pay for a clinic visit	.232	.630
Do not have to pay for ED care	.214	.644
Insurance pays for ED care	2.771	.096
Other	1.360	.243

* $p < 0.05$
** $p < 0.01$
df = 1

Table A13

(X^2) Values for Variables of Reason and Civilian Status

Reason for ED Visit	X^2	Asymp. Sig. (2-sided)
Perceived emergent condition	.036	.849
Referred by provider	.404	.525
Referred by appointment line	.371	.542
Perceived better care in ED	.475	.491
Couldn’t get to sick call	.149	.699
Too sick to go elsewhere	.132	.717
Dissatisfied with care at clinic	.109	.741
Clinic not open at convenient time	.423	.516
Could not get off work to visit clinic	.248	.618
No appointments available	.727	.394
Transportation problems	22.748**	.000
Clinic doesn’t accept walk-in patients	.224	.636
No health insurance	.065	.799
Cannot afford to pay for a clinic visit	.021	.884
Do not have to pay for ED care	.178	.673
Insurance pays for ED care	.155	.694
Other	.363	.547

* $p < 0.05$
** $p < 0.01$
df = 1

Table A 14

Descriptive Statistics for Reasons of Non-Urgent ED Visit

Reason for ED Visit	n	% of Sample	Mean	Std Dev
Perceived emergent condition	87	28.2	.453	.499
Referred by provider	27	8.8	.141	.349
Referred by appointment line	16	5.2	.083	.277
Perceived better care in ED	20	6.5	.104	.306
Couldn’t get to sick call	30	9.7	.177	.383
Too sick to go elsewhere	6	1.9	.031	.174
Dissatisfied with care at clinic	5	1.6	.026	.160
Clinic not open at convenient time	18	5.8	.094	.292
Could not get off work to visit clinic	11	3.6	.053	.233
No appointments available	29	9.4	.151	.359
Transportation problems	2	0.6	.010	.102
Clinic doesn’t accept walk-in patients	10	3.2	.052	.223
No health insurance	3	1.0	.016	.124
Cannot afford to pay for a clinic visit	1	0.3	.005	.072
Do not have to pay for ED care	8	2.6	.042	.200
Insurance pays for ED care	7	2.3	.037	.188
Other	28	9.1	.145	.353

Appendix B

Emergency Department Patient Questionnaire

(Non-urgent patients only)

The purpose of this questionnaire is to provide feedback to the Dwight David Eisenhower Army Medical Center (DDEAMC) Emergency Department (ED) regarding patients' perspectives on utilization of the Emergency Department.

This questionnaire should take no more than five minutes to complete, and is completely voluntary and anonymous.

The data collected will serve two purposes. First, it will be utilized by Emergency Department and the Department of Family and Community medicine to better understand patients' perspectives on utilizing the ED to help better serve our patients. Secondly, the data will be analyzed as part of a Graduate Thesis for Baylor University that will contribute to the body of knowledge regarding ED utilization.

Thank you in advance for taking the time to complete this short questionnaire.

MAJ Charles J. Sizemore
Baylor Administrative Resident

Additional comments are welcome on the reverse of this page.

Please place the questionnaire in the collection box located at the front sign-in desk, when completed

Additional comments welcome:

Emergency Department Questionnaire

Please take a moment to answer the following 10 questions:

If the person completing this questionnaire is doing so for the patient, please answer from the patient's point of view.

Today's Date:_____ **Current Time:**_____ ☐ a.m. or ☐ p.m.

1. Age? _____ **2. Gender?** ☐ **Male** ☐ **Female**

3. Please select the category below that applies to you, for this visit to the emergency department (*please check one*):

☐ Active Duty Military
☐ Family Member of Active Duty Military
☐ Military Retiree
☐ Family Member of Military Retiree
☐ Civilian
☐ Other

_____

4. Where do you regularly go to get medical care (*please check one*):

☐ Primary Care Clinic, Dwight David Eisenhower Army Medical Center
☐ Family Practice Clinic, Dwight David Eisenhower Army Medical Center
☐ Internal Medicine Clinic, Dwight David Eisenhower Army Medical Center
☐ Emergency Department, Dwight David Eisenhower Army Medical Center
☐ TMC 4
☐ Connelly Health Clinic
☐ Other military hospital primary care clinic
☐ Veterans Affairs (VA) hospital
☐ Civilian hospital
☐ Civilian doctor's office/clinic
☐ Emergency Department, other military or civilian hospital
☐ Don't know
☐ Other:_____

5. How long ago did the symptoms begin before coming to the Emergency Department?

_____ ☐ minutes ☐ hours ☐ days ☐ weeks

6. How many times have you visited a hospital emergency department for medical care in the past 12 months?

_____ **times**

7. How many times have you visited the Dwight David Eisenhower Army Medical Center Emergency Department in the past 12 months?

_____ **times**

8. If you are a TRICARE Prime member, in your opinion, is it easier for you to receive health care using the Dwight David Eisenhower Army Medical Center Emergency Department, or to make an appointment to be seen by your primary care physician in the clinic where you are enrolled? (*please check one*):

☐ It is easier to use the Emergency Department
☐ It is easier to make an appointment with my primary care physician
☐ I am not a TRICARE Prime member

9. What type of health insurance do you have? (*please check all that apply*):

☐ TRICARE Prime, enrolled at Eisenhower
☐ TRICARE Prime, enrolled to another military hospital
☐ TRICARE Extra
☐ TRICARE Standard
☐ Medicare
☐ Medicaid
☐ Private health insurance
☐ No health insurance

10. Why did you choose to come to the Emergency Department (*please check all that apply*):

☐ I believe that I have a medical condition that is an emergency or that must be seen within the next 2 to 4 hours.

☐ I was told to go to the emergency department by a health care provider at my clinic

☐ I was told to go to the emergency department by the Dwight David Eisenhower Army Medical Center appointment line (787-7300)

☐ I believe that I get better care in the emergency department

☐ I was unable to go to sick call

☐ I'm too sick to go anywhere else

☐ I'm not satisfied with the care I receive at my doctor's office/clinic

☐ My doctor's office/clinic is not open at a convenient time for me

☐ I could not get off work during the hours that my doctor's office/clinic is open

☐ I called today, and my primary clinic had no available appointments

☐ I have transportation problems that prevent me from getting to my doctor's office/clinic

☐ My doctor's office does not accept walk-in patients

☐ I do not have health insurance

☐ I cannot afford to pay for a visit to my doctor/clinic

☐ I do not have to pay for the care I get at this emergency department

☐ My insurance pays for emergency department care

☐ Other:_____

Thank you for your participation. Please place this questionnaire in the survey collection box located at the front sign-in desk.

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