



**STRATEGY  
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**PERCEPTION OF QUALITY OF HEALTH CARE IN THE MILITARY**

**BY**

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## ABSTRACT

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This research study addresses the question of whether Military Health System (MHS) beneficiaries are receiving quality medical/health care. Given the emphasis on accountability in all sectors of health care it looks at the overall MHS quality improvement/management (QI/QM) program, including:

- Current areas of focus for the MHS.
- The effectiveness of DOD public affairs efforts to communicate the quality of care received by MHS beneficiaries.
- MHS versus civilian sector qualifications and licensure standards for physicians, nurses, and other providers.
- MHS versus civilian sector education standards for physicians, nurses, and other providers.
- MHS versus civilian sector malpractice incidence, reporting and other issues.
- Objective indicators of quality within the MHS.
- Examples of popular media reporting about the MHS and the issues above.

The study concludes that most MHS beneficiaries are satisfied with the quality of care they receive, perhaps more so than their counterparts in civilian HMOs; and that the MHS is more similar to than different from the civilian health system.



## TABLE OF CONTENTS

ABSTRACT .....	iii
PERCEPTION OF QUALITY OF HEALTH CARE IN THE MILITARY .....	1
CURRENT AREAS OF FOCUS FOR THE MHS .....	3
EFFECTIVENESS OF DOD PUBLIC AFFAIRS TO COMMUNICATE THE QUALITY OF HEALTH CARE .....	7
QUALIFICATION AND LICENSURE OF HEALTH CARE PROVIDERS.....	8
EDUCATION STANDARDS FOR HEALTH CARE PROVIDERS.....	9
MALPRACTICE INCIDENCE AND REPORTING.....	10
OBJECTIVE INDICATORS OF QUALITY WITHIN THE MHS.....	15
ANALYSIS OF POPULAR MEDIA REPORTING OF THE MHS .....	16
CONCLUSION.....	18
ENDNOTES .....	21
BIBLIOGRAPHY .....	25



## PERCEPTION OF QUALITY OF HEALTH CARE IN THE MILITARY

The Department of Defense (DOD) has pioneered cutting-edge medical technologies such as telemedicine, virtual reality simulations, and robotic surgery. Major medical centers, including Walter Reed Army Medical Center in Washington, D.C., Tripler Army Medical Center in Hawaii, and Wilford Hall Medical Center in San Antonio, Texas, rank among the world's best research, health care, and teaching facilities. An impressive 80% of Army physicians graduated in the top half of their classes, and 96% passed their specialty boards the first time, compared to 64% in the civilian sector.<sup>1</sup>

On the opposite side, an exposé in the Dayton Daily News accused the U.S. military of operating a "flawed and sometimes deadly health care system." In a seven-part series extending from late 1996 through early 1997, Russell Carollo and Jeff Nesmith criticized an array of factors that allegedly govern, and undermine, the standards of health care in the military. Overall, Carollo and Nesmith concluded that due to the different licensing requirements for military physicians, restricted access to physicians' performance records, and restrictions on lawsuits against the government by active duty members of the military, "patients are treated in an environment not governed by some of the most significant safeguards that help protect civilians from bad medicine."<sup>2</sup> Notwithstanding their conclusions, the facts are that 99.5% of military physicians met full civilian licensure standards when Carollo and Nesmith published their series (and that compliance was soon 100%). Fewer than 20% of military patients cannot sue their providers; and access to physician' performance records within the military parallels the civilian sector.

The Dayton Daily News exposé generated a tremendous reaction, including extensive inquiry from within the DOD into the mechanisms governing medical care. The purpose of this report is to examine the state of health care provided by the Military Health System (MHS), the licensing and educational requirements for medical and nursing practice in the military, current directions in health care provision, and distinctions between the military and civilian sectors. Issues of malpractice and reporting, and objective indicators of quality within the MHS will be presented. Two key focal points are the legal ramifications of the Feres doctrine, and the establishment of TRICARE, which has been described as the "world's largest HMO." Due to the significant impact of the Dayton Daily News articles (subsequently reprinted in military

publications) and other popular reporting, this study will include an analysis of popular media reporting of the MHS.

After the Dayton Daily News articles appeared, DOD health officials appeared before congressional committees and veterans' groups acknowledging that problems did occur, and vowed to correct them. Dr. Edward Martin, then acting Assistant Secretary of Defense for Health Affairs, agreed that DOD has an obligation to correct problems in its health care system, but he insisted that problems in military health care do not differ substantially from those in the civilian sector.

Dr. Martin's assertion that both civilian and military health care have problems that should be addressed was supported by the controversial 1999 report by the Institute of Medicine (IOM) that between 44,000 and 98,000 patients die in U.S. hospitals each year as the result of preventable errors. Following publication of the report, a "media frenzy" ensued.<sup>3</sup> Critics of the IOM report questioned the methodology that the researchers used to arrive at their estimates of patient deaths resulting from medical errors and labeled the tone of the report "hot and shrill."<sup>4</sup> The response in the popular media was, in fact, hot and shrill. For example, one newspaper headlined, "Malpractice Kills 100,000." The report made no such claims, nor are errors equivalent to malpractice. While the IOM report remains controversial, the media coverage that followed was no less sensationalized than the Dayton Daily News exposé. However, there is one notable distinction in the way in which Carollo and Nesmith targeted their criticism of the DOD system and the way in which the IOM presented their case. The IOM employed a broad focus encompassing the hospital environment, working conditions, and teamwork. In effect, "The IOM stresses that errors are rarely due to personal failings, inadequacies, and carelessness. Rather, they result from defects in system design and working conditions that lead careful and competent professionals to make mistakes."<sup>5</sup>

The indictment by Carollo and Nesmith was based on the assumption that flaws in the DOD system allow unqualified or incompetent physicians to practice medicine. They singled out the actions of individual doctors independent of the context in which the procedures took place. In contrast, patient advocates commenting on the IOM report emphasize the importance of examining the potential of multiple factors that contribute to medical errors. These include lighting and other physical working conditions; personnel-related factors such as fatigue and norms of communication and authority; and patient-related factors, including undiagnosed conditions.<sup>6</sup>

Both the reporting of problems within the MHS and the IOM report have generated proposals for major reform in reporting medical errors and releasing data on physicians' previous records. In fact military health system has had a mandatory reporting system for serious medical errors for many years.<sup>7</sup> The Department of Veterans Affairs has developed a mandatory reporting system for death and serious injuries, and by Spring 2000, all DOD hospitals and clinics had also adopted that newer system.<sup>8</sup>

### **CURRENT AREAS OF FOCUS FOR THE MHS**

The DOD defines as its primary medical mission maintaining the health of its 1.6 million active duty personnel and providing health care during military operations. As the nation's largest unified health care system, the MHS operates nearly 600 military treatment facilities, encompassing 115 hospitals and 470 clinics.<sup>9</sup> According to recent data, the MHS treats nearly 8.3 million active duty service members, family members and eligible retirees.<sup>10</sup> That figure is expected to rise as a result of the Defense Authorization Bill which enables retirees age 65 and over and their Medicare-eligible spouses and dependents to enroll in TRICARE.<sup>11</sup>

TRICARE, the nationwide DOD managed care program, was implemented to improve both access to care and quality of care for patients. TRICARE has been called the world's largest health maintenance organization (HMO). TRICARE came as a response to the military downsizing and changes in the civilian health care system, notably the shift toward prepayment and outpatient care.<sup>12</sup> The joint Army-Navy-Air Force system (with the Marines under the Navy's sector) offers a choice between a fee-for service plan, TRICARE Standard; TRICARE Extra, a preferred provider organization in which patients are directed to physicians within a network; and the key HMO component, TRICARE prime. TRICARE Senior Prime for Medicare-eligible retirees was started as a demonstration project with 30,000 enrollees.<sup>13</sup>

A unique feature of TRICARE is collaboration between military and civilian health care providers. The nature of this partnership may provide the impetus for overturning the Feres doctrine, which prohibits malpractice lawsuits by active duty service members. Under TRICARE, one service member may be allowed to sue a civilian physician while another treated by a military provider is denied the same privilege.<sup>14</sup> From this perspective, TRICARE may blur the lines separating the MHS from the civilian medical community and undermine the foundation of the Feres doctrine, which has been harshly

criticized in the media and by members of Congress and the judiciary.<sup>15</sup> TRICARE, like civilian HMOs, is a product of the rapidly changing U.S. health care system which places increasing emphasis on accountability and consumer satisfaction. The drive for formal legislation to guarantee patients' rights is gaining momentum.

Even critics of the MHS agree that much of the care provided equals if not surpasses civilian health care. The Feres doctrine prevents only active duty personnel from bringing malpractice lawsuits against military physicians; it does not prevent family members and retirees from doing so. In addition, military practitioners are held accountable by the MHS command structure and their peers by other mechanisms, such as the Quality Assurance System, peer review programs, and the National Practitioner Data Bank. The MHS is also subject to an array of internal and external reviewers, including the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), which sets standards and accredits health care throughout the U.S. DOD hospitals consistently score higher than other hospitals on the JCAHO survey.<sup>16</sup>

The key to improving patient safety in all sectors lies in exploring the multiple causes of medical errors, not in creating a punitive climate that demonizes "wrongdoers."<sup>17</sup> In all sectors of health care, there is a move for improvement in reporting and disclosure of physician information and for stricter adherence to prescribed medical guidelines. Media attention to problems, however sensational, can have a positive impact: it can serve as a force for constructive change rather than a vehicle for casting blame.

With the advent of managed care, the delicate balance between cost-containment and quality has been a major issue throughout the U.S. health care system. For several years, as costs remained steady, quality was the primary factor in health care purchasing decisions. Recent escalations in cost have reversed the trend. For private sector employers, cost is now the key factor in purchasing decisions, with access and quality playing less influential roles.<sup>18</sup> However, data from the Washington-based National Committee for Quality Assurance (NCQA) indicates that across all indicators of quality and in all regions of the U.S., health plans showed significant improvements in quality in 1999. The NCQA cautions that their data is limited to health plans willing to release their results.<sup>19</sup>

Since the inception of TRICARE in 1995, the DOD has annually surveyed quality and satisfaction among beneficiaries. The first comprehensive patient satisfaction survey of TRICARE Prime was conducted from October through December 1996 in

regions of the U.S. where TRICARE had been operating for at least one year.<sup>20</sup>

Measures of overall satisfaction addressed six program areas: administration, medical care, access and convenience, coverage, and information about coverage and costs. Overall satisfaction was high: two-thirds of respondents were satisfied with the program, and an overwhelming majority (87%) rated satisfaction with medical care good to excellent. More than one-third of respondents perceived improvement in access, quality, and the overall benefits package under TRICARE, while only 12% felt conditions had been better before TRICARE.

In continuing quality improvement efforts, TRICARE is expanding the scope of its patient surveys to gather the opinions of MHS beneficiaries regarding their health care.<sup>21</sup> The newest surveys are the Dental Care Satisfaction Survey, the Inpatient Customer Satisfaction Survey and the Purchased Care Outpatient Visit Satisfaction Survey. The inpatient survey targets high volume clinical areas to assess the extent to which hospital care addresses the needs and concerns of patients. Data from all MHS surveys are used to identify best practices to make informed decisions regarding policy changes and guidelines. Congress and federal agencies also employ this data in their supervisory and policy roles regarding military health care. The results of all surveys are available on the Internet.

Subsequent surveys have reported similarly high levels of satisfaction with TRICARE. More than 90% of beneficiaries express the desire to re-enroll. The 1999 TRICARE stakeholders' report found that 92% of enrollees would re-enroll if given the option.<sup>22</sup> The report identified three critical areas: access, quality, and cost. In the 1996 survey, access to specialists emerged as an area of concern. TRICARE has since targeted wider use of medical specialists as primary care managers. TRICARE has also increased emphasis on ensuring that providers disclose all relevant health care information to patients. Perhaps that is because satisfaction with providers' explanation of care declined slightly from 1996 to 1997.

Although the TRICARE standard for access to medical care is one day or less for urgent care and one week for minor illness care, patients complain that the standards are not being met. This led Dr. Sue Bailey, Assistant Secretary of Defense for Health Affairs, to direct military treatment facilities to adhere to established access standards and have a more standardized appointment system.<sup>23</sup>

TRICARE has also been plagued by complaints about slow claims processing. Between July 1, 1997 and June 30, 1998, there were nearly three million TRICARE

claims which took longer than 21 days to pay. DOD's standard is that 75% of claims be processed within 21 days. Although TRICARE surpassed this standard overall, with 86% of claims processed within 21 days, only 66% of claims from institutional providers were processed in that time, and only 30% of claims exceeding \$10,000. DOD intends to adopt the Medicare standard requiring contractors to pay 95% of all claims within 30 days and all claims within 60 days. DOD contractors will also be required to pay interest on claims not paid within the 30 days.<sup>24</sup>

With respect to high ratings of overall access and quality juxtaposed with the desire for greater access to specialist care, TRICARE is similar to private sector HMOs. However, there are several major distinctions. As Dr. Bailey has stated, "Blue Cross, Blue Shield and Kaiser will not send docs into a war zone."<sup>25</sup>

Intense criticism about the failure of the DOD and other government agencies to deal adequately with potential health hazards in the Gulf War generated significant improvements during later deployments to Haiti, Somalia, Rwanda, and Bosnia. However, the need to prepare for potential disease threats and biological hazards, conduct medical surveillance, employ appropriate counter-measures, and evaluate the effectiveness of the measures taken requires ongoing collaboration among agencies. To achieve this, the President called upon DOD, Veterans Affairs, and Health and Human Services to engage in a joint effort.<sup>26</sup> The three departments are in the process of forming a Military and Veterans Health Coordinating Board to establish open communication channels among these and other government agencies responsible for the health of active duty service members and their families. The duties of the board would entail consulting with civilian and veterans organizations and improving record keeping, notably through the establishment of an automated database.

Integrated pharmaceutical data is a significant issue in the MHS as in civilian health care. The Institute of Medicine report called for computerized pharmacy databases in hospitals to reduce medication errors. Military hospitals have had such systems for years; they are now expanding to link the military systems with the pharmacies in the TRICARE network. The MHS' new Pharmacy Data Transaction Service (PDTs) will improve the quality of prescription services and enhance patient safety by allowing pharmacists to conduct online prospective drug utilization review, whether the military patient receives the medication from a military or civilian source.<sup>27</sup> The integration of pharmaceutical, as well as other important patient data, is deemed especially vital for the safety of the highly transient military population.

In response to allegations that information on military physicians accused of negligence or malpractice has systematically been cloaked in secrecy, Dr. Edward Martin testified before the House Appropriations Subcommittee on National Security in February 1998. Martin stated that he was instituting a system whereby civilian physicians would review the conduct of military physicians in cases of alleged malpractice, and declared, "We are going to open up the system. A lot of things that used to be kept secret are no longer going to be secret." A DOD report stated that definitive steps were being taken to correct the situation, including external review of all military decisions determining standards of care, and additional service contracts to reduce the backlog of cases.<sup>28</sup> While these changes may be seen as improving the quality of medical care in the MHS, it is important to note that data from professional peer review of physician performance is specifically protected under the 1986 Health Care Quality Improvement Act.<sup>29</sup> That law, enacted to improve care by facilitating objective, nonpunitive quality improvement, is now viewed by some as an impediment to reporting and data access, affecting all sectors of health care.

#### **EFFECTIVENESS OF DOD PUBLIC AFFAIRS TO COMMUNICATE THE QUALITY OF HEALTH CARE**

Historically, commanders, recruiters, and even official pamphlets printed as late as 1993 told career military members they would have lifetime medical care.<sup>30</sup> For some careerists, the promise of lifelong care was an incentive to stay in uniform. For others, the promise was not well kept even during their military careers. Dissatisfaction with military medicine was frequently cited as a prime reason for leaving the military. In response, the DOD labeled health care a key "quality of life" issue. From this perspective, TRICARE may be viewed as an intensive initiative to promote satisfaction with military life.

Information related to TRICARE and other aspects of military health care is readily available via the Internet and in the service media. Excerpts from the testimony before the House Appropriations Subcommittee on National Security were compiled into DOD's 13 Points on Quality and Access, which immediately appeared on the Internet. TRICARE is held to the same standards of accountability as civilian HMOs, which includes ongoing data collection and reporting. Results of the annual TRICARE surveys from 1996-1999 are available at government websites, as are surveys of different aspects of care (e.g., dental, inpatient, outpatient) and reports by region.

TRICARE is publicized extensively by the DOD. Government reports on TRICARE are remarkably similar to those on civilian HMOs. Articles and reports highlight improvements in access, coverage, quality and while acknowledging flaws, usually related to appointments and claims processing. Despite TRICARE'S accomplishments, health care remains one of the military's top quality-of-life issues.<sup>31</sup> The fourth annual TRICARE survey was based on a nationally recognized template to allow for more accurate comparison with the civilian health care. Information related to TRICARE and other aspects of military health care is readily available to MHS via the Internet and in the service media.

## **QUALIFICATION AND LICENSURE OF HEALTH CARE PROVIDERS**

Since 1988, the military has mandated that all its physicians maintain state licenses, with the goal of holding military doctors to the same standards as their civilian counterparts. State boards set standards for licensure and can discipline physicians for infractions involving medical practice or ethics. Although DOD requires that each military physician have a valid license from a U.S. state or territory, it does not need to be from the state where the physician is currently stationed: the state does not have jurisdiction over military medical facilities on federal installations, and the transitory nature of military assignment make that impractical. The DOD waiver of in-state licensing was broad enough to include the "special licenses" granted by Oklahoma, which allowed physicians to practice without taking a licensure exam. Holders of those special licenses were allowed to practice medicine only in prisons, on Indian reservations, and in the military, or to work in laboratories that handle human organs for transplant purposes.<sup>32</sup>

Of more than 15,000 Army, Navy, and Air Force physicians, only 77 (0.5%) held special licenses. Many of those 77 had failed state exams multiple times. After publication of the Carollo and Nesmith series, DOD ended acceptance of the special license. Providers holding the special licenses were removed from unsupervised clinical practice until they obtained full and unrestricted licenses.<sup>33</sup>

Carollo and Nesmith focused on differences in licensure affecting a tiny fraction of military physicians to indict the quality of the entire MHS, but neglected to cite other key differences that have a positive impact. For example, all military medical practitioners are required to undergo a stringent credentialing process. In the civilian sector, only hospital practitioners are usually subject to such scrutiny.<sup>34</sup> The MHS most

closely resembles a closed-panel HMO, an organization recognized for increasing quality control.<sup>35</sup> Unlike most civilian providers, every military physician practices in a monitored setting, with policies and procedures set up to prevent and react to deviations from appropriate care, and under a command structure empowered to take corrective action when needed.

The Army Nurse Corps (ANC) has traditionally been held in high regard. Military nurses are required to be licensed through state exams the same as civilian nurses; again the license does not have to be in the state where the nurse is stationed.

The military has been accused of allowing nurses and physicians' assistants to take on more responsibility unsupervised than is common in the private sector. However, the civilian sector is moving toward expanding the practice of nurses and physicians' assistants. The Health Care Financing Administration has recently rescinded the rule that nurse anesthetists must be supervised by physicians for Medicare reimbursement. Certified nurse anesthetists provide 65% of the anesthesia administered in the U.S. annually.<sup>36</sup> In the ANC, advanced practices nurses are engaged as nurse practitioners, clinical nurse specialists, nurse midwives, and community health nurses, as well as nurse anesthetists.<sup>37</sup>

## **EDUCATION STANDARDS FOR HEALTH CARE PROVIDERS**

Reports consistently show that military physicians rival or surpass civilian physicians in class rank upon graduation from medical school. More than three-quarters of military internal medicine residents and new internists surveyed considered the quality of their military residency experience to equal or surpass civilian residency programs. In the American College of Physicians' Resident Abstract Competition designed to reward high quality research efforts, military residents authored more than 11% of the abstracts chosen for presentation from 1995 to 1997, despite the fact that they accounted for less than 2% of all North American residents.<sup>38</sup>

A collaborative family practice program sponsored by St. Louis University and Scott Air Force Base, Illinois, and composed of military and civilian residents, ranks in the top one-third in the country, and has been proposed as a template for other DOD programs. The Air Force family practice residents outscored most of their peers on state boards.<sup>39</sup>

The military has been in the forefront of telemedicine and distance learning initiatives. A collaboration established in 1992 between Madigan Army Medical Center

and the University of Washington to leverage advanced technology and distant learning has produced an exemplary training program in emergency medicine, among other disciplines.

Fully 88% of Army physicians who have completed residency training are board certified. In civilian HMOs, on average, only 79% of primary care physicians and 82% of specialists are board certified.<sup>40</sup>

Educational standards for Army nurses are higher than in the civilian sector. The majority of civilian registered nurses (RNs) have a two-year associate degree from an accredited nursing college. In contrast, a Bachelor of Science in Nursing (BSN) is the minimum requirement for entry into the ANC. A master's degree is encouraged for promotion to the rank of captain or higher. More than 34% of Army nurses hold a master's degree and 1% holds doctorate degrees.<sup>41</sup>

## **MALPRACTICE INCIDENCE AND REPORTING**

In the 1949 decision now called the *Feres* doctrine, the Supreme Court ruled that a member of the uniformed services could not sue the federal government, another service member, or a civilian government employee for injuries incident to service. The *Feres* doctrine did not prevent civilians, dependents of service members, or service members whose claim was not incident to service from suing under the Federal Tort Claims Act. Critics of the *Feres* doctrine believe it creates a double standard whereby family members of military members can pursue legal redress while their active duty relatives cannot. There is threefold rationale for the *Feres* decision: 1) the uniquely federal relationship between the government and members of the military, "which argues against subjecting the government to liability based on the fortuity of an injury," 2) the availability of alternate systems of compensation; and 3) risk of damaging the military disciplinary structure.<sup>42</sup>

There have been several challenges to the *Feres* doctrine in the courts. None has prevailed at the Supreme Court. However, the Supreme Court has been divided on these decisions, as were the Circuit Courts who had heard the cases earlier. Certain areas seem particularly ambiguous. One point of contention involves medical malpractice claims made by service members on the Temporary Disabled Retired List (TDRL), which the Fifth Circuit Court has described as a "limbo status."<sup>43</sup> In fact, three Circuit Courts have held widely disparate views on the applicability of *Feres*. The Fifth Circuit has ruled that a lawsuit for medical malpractice while a service member is on the

TDRL is not barred by the Feres doctrine because TDRL status is tantamount to discharge from active duty. The Fourth and Eleventh Circuit Courts have held the opposite view albeit for different reasons. The Eleventh Circuit took a viewpoint virtually opposite to that of the Fifth, ruling that TDRL is comparable to active duty, thus medical care is still "incident to service." The Fourth Circuit showed some departure by ruling that legal action is barred by Feres if the negligence alleged by the plaintiff occurred while the plaintiff was on active duty. In cases which have ascended from the Circuit Courts to the Supreme Court, the High Court has upheld the Feres doctrine: however on the most recent cases, the Justices have been divided, ruling by decisions of 5-4.

An unfortunate consequence of the assertion of "incident to service" in some rulings has been a shift in focus to the cause of the condition for which the individual sought treatment, thereby clouding the issue of quality of care. A notable example of this is the case of Katta v. U.S., (1991), in which a lawsuit was presented over the suicide of a Vietnam veteran with posttraumatic stress disorder (PTSD) in a VA hospital. The court held that the action was barred under the Feres doctrine because the veteran's PTSD resulted from combat experience occurred while on active duty.<sup>44</sup> The suicide of a hospitalized patient should generate inquiry into the quality of medical, psychiatric, and/or nursing care received, regardless of the cause of his or her condition. Evoking the Feres doctrine in a case of this type may allow a medical facility to elude the important issue of accountability.

A second area of ambiguity involves the question of whether practitioners providing treatment are classified as employees of the U.S. government or independent contractors. Under TRICARE, where military and civilian practitioners may work side by side, the lines are increasingly blurred.<sup>45</sup> An active duty service member is currently barred by Feres from bringing legal action against a civilian practitioner employed as a DA Civilian or equivalent, whereas a fellow service member treated at the same facility by a civilian contractor has no such impediment to legal redress. Although there are civilian HMOs whose members may be required to relinquish the right to sue providers employed by the HMO as a condition of membership, all HMO members are treated equally in this respect, as are all medical providers.

A bill to overturn the Feres doctrine has passed the House of Representatives three times, only to be defeated in the Senate.<sup>46</sup> The Supreme Court has historically been reluctant to intervene in matters involving the military, but the split decisions in

recent Feres cases reflect growing criticism in the judicial sector. Challenges to the Feres doctrine are still pending in the courts.

Data from the Office of the Assistant Secretary of Defense for Health Affairs documents a relatively low incidence of malpractice claims against the MHS. Adjusting for the impact of the Feres doctrine raises claims of malpractice from 7.8 per 100 physicians to 12 per 100 physicians per year. However, even the adjusted rates compare favorably to the civilian sector. Data from several major civilian malpractice insurance companies disclosed 13 to 15 claims per year per 100 physicians. Over a seven-year period, civilian external peer review panels investigated more than 100,000 military cases and concluded that military medical care met or surpassed civilian standards of care.<sup>47</sup>

On the other hand, Carollo and Nesmith detailed hundreds of paid malpractice claims that had not been forwarded to the data bank, more than 1,000 unreported malpractice suits, and a backlog of more than 800 cases that had not met committee review.<sup>48</sup> They found incidents where the government had paid millions of dollars in malpractice claims, yet the cases had never been reported to the national database. In some, plaintiffs had won awards in more than one case against a single physician, yet the doctor continued to practice. In representing these troubling facts, Carollo and Nesmith omitted a key component in the equation: "compared to what?" They presented no data addressing those trends within the civilian sector.

Carollo and Nesmith also asserted that military physicians' lack of personal financial liability for malpractice translates into lack of accountability and a subsequent lack of safeguard for the military patient. They appear to assume that civilian physicians have total liability in malpractice settlements; that military physicians have no such accountability; and that absence of such accountability leads to indifferent, unmotivated medical practice. In fact, no study has documented that the malpractice tort system has a beneficial effect on health care quality; although its impact on health care costs is staggering.<sup>49</sup> Those costs are ultimately passed on to the public.

While not personally responsible for the payment of malpractice settlements related to military health care, military physicians are highly accountable in other ways. The military physician is named in the suit and the care rendered is examined, scrutinized, and called into question. Medical practice privileges, assignments, promotions, and retention in the service may all be adversely affected by substandard care. Any adverse actions or resultant limitations of medical practice follow the

physician after leaving the military: they are reported to all states or hospitals where the physician requests licensure or practice privileges. Unlike the civilian sector, where allegations of malpractice become torts and remain in civil court, the military physician may occasionally face criminal charges related to "dereliction of duty" or "negligent performance of duty" under the Uniform Code of Military Justice.

Notwithstanding the assumptions made by Carollo and Nesmith, DOD has acknowledged the validity of many of the facts they presented. DOD has clearly stated measures were being undertaken to correct the situation, including external review of all military decisions determining standards of care, and additional service contracts to reduce the backlog of cases.<sup>50</sup>

Reports from the civilian sector, however, show similar occurrences. Kaiser Permanente, the nation's largest private HMO, was recently the subject of a highly publicized malpractice lawsuit when an orthopedic surgeon severed an artery in the leg of a patient undergoing elective surgery, resulting in loss of the patient's leg. The \$460,000 awarded the patient was the only malpractice judgment against the surgeon on public file with the California State Medical Board. However, a previous case against the same surgeon had been settled by arbitration and under state legislation was not publicly posted. According to executives at medical malpractice insurance companies, the payment of two awards over 20 years for an orthopedic surgeon was not unusual. In fact, one spokesman called it a "very good record," stating that on an annual basis, 4 out of 10 orthopedists in California are named as defendants in legal claims.<sup>51</sup>

Kaiser's 5.9 million members are required to waive the right to sue the HMO as a condition of membership. Claims of malpractice are subject to arbitration. Kaiser was forced to change its system of arbitration in 1997 after the California Supreme Court ruled that its prior self-administered system was unfair to its members. Since the change in procedure, the HMO giant has placed its arbitration under an independent attorney who now operates with a pool of 300 neutral arbitrators (i.e., none who have ever previously represented or opposed Kaiser). From this pool, arbitrators are selected, first by a process similar to jury selection in which each side can strike names from a proposed list of 12, and ultimately, by a ratings system that eliminates candidates until one is left as the "neutral." Cases in which claims equal or exceed \$200,000 are heard before three arbitrators.<sup>52</sup> The malpractice case against the orthopedic surgeon employed by Kaiser generated an exploration by the Los Angeles Times into malpractice litigation. However, the tone was quite dissimilar to the sensationalistic style used by

Carollo and Nesmith in the Dayton Daily News. It emphasized that without the legal process, the patient who had wrongfully had his leg amputated would have received no compensation for his loss, and that a malpractice suit is "often the only vehicle for uncovering what went wrong in a devastating medical calamity and for holding the doctor or hospital accountable."<sup>53</sup>

The issue of redress is a focal point for the argument against the Feres doctrine; which precludes military personnel from legal avenues of redress for medical malpractice. However, active duty patients can be compensated through the military's physical disability system. Additionally, litigation itself can be "agonizing" for the injured party, a stressful process that may even undermine physical recovery. More important, malpractice claims do not improve the quality of health care for other patients unless they lead to investigation and correction of conditions that led to the harmful incident.

An anesthesiologist at Walter Reed was recently charged with involuntary manslaughter in the death of a teenage girl after allegedly administering antibiotics improperly, failing to call for immediate assistance, and lying about the dosage administered.<sup>54</sup> In addition to the civil lawsuit filed by the girl's mother, pressure from the parents led to criminal investigation, and ultimately to recommendation that the physician be court-martialed. The most devastating point was not the administration of the incorrect drug, but the physician's actions following his realization that a grievous error had been made. In the civilian sector as well, attempting to cover up a medical error is regarded as an egregious violation of medical ethics, and given more weight than the error itself. However, the same act by a civilian physician would still fall under a malpractice civil tort; the physician would not be prosecuted for a criminal act.

A similar case involving a physician's negligence in the death of a Medicare patient has led to a major policy change in reporting. A lawsuit against the government was brought by the son of a woman in Florida who was hospitalized following an asthma attack. The patient also had high blood pressure, and an exceedingly high dosage of asthma medication resulted in a fatal stroke.<sup>55</sup> Upon requesting information about the conditions surrounding his mother's death, the patient's son was told that under federal laws and regulations, medical records could be released but specific findings from the peer-review group could not be released. Under this policy, which has been in place for more than two decades, physicians were able to prevent the release of data related to their performance. Medicare patients file tens of thousands of complaints about care provided by doctors and hospitals each year, but typically have not been able to obtain

information due to the right of physicians to prevent disclosure. With new policy changes, physicians will not be able to prevent the release of medical information, and patients will have access to requested data.

The U.S. has set a national goal of reducing medical errors by 50% in the next five years.<sup>56</sup> The VA has been in the forefront of this initiative, enacting a partnership with NASA for non-punitive reporting practices based on the Aviation Safety Reporting System, which was established as a partnership between the Federal Aviation Administration (FAA) and NASA in 1975. This is now being tried in a three year, \$8.2 million experiment.<sup>57</sup>

### **OBJECTIVE INDICATORS OF QUALITY WITHIN THE MHS**

According to annual reports, DOD hospitals consistently outscore civilian and other federal facilities on JCAHO criteria.<sup>58</sup>

Surveys of MHS beneficiaries find that patient perceptions of quality care are not based on objective outcomes but on interpersonal factors of empathy, reliability, communication, and caring.<sup>59</sup> Many sources agree that "the quality of the relationship between the provider and the patient is crucial because it is the foundation on which mutual trust is either established or dissolved."<sup>60</sup> In a survey designed to assess perceptions of care quality among Navy personnel, nearly 28% rated quality as low; 43% felt Navy health care was not as good as civilian care. At the same time, 86% rated the quality of their health care as good. Central to negative perceptions of care was poor communication. These findings correspond to two annual DOD surveys, which disclosed that while technical quality was acceptable, beneficiaries were dissatisfied with interpersonal interactions with providers. Private medical care consistently received higher satisfaction ratings than military care.

In a survey of managed care plans in California, 16% of respondents reported experiencing problems in their health care plans that led to health conditions they had not had previously. The types of health care plan problems associated with adverse outcomes were denial of care, delays in securing needed care, difficulty in being referred to a specialist, and being forced to change medications.<sup>61</sup> Of these important issues, only problems with specialist referrals were cited by TRICARE members, and TRICARE has taken steps to address this concern.

A comparison of demographic characteristics and discharge diagnoses between military and civilian health care systems found more similarities than differences

between groups.<sup>62</sup> There was a strong correlation between the reason for hospitalization as well as in the distribution of comorbid conditions among inpatients in military and civilian health systems. The only significant differences were higher rates of hospitalization for some aspects of maternity and strenuous physical exertion in the MHS, reflecting the age of MHS beneficiaries and the rigorous demands of active duty service. Because the characteristics of military patients are so similar to those in the civilian system, the authors suggest that military health planners can use the successes and failures of the civilian systems as a guide to planning and providing quality care for the MHS.

### **ANALYSIS OF POPULAR MEDIA REPORTING OF THE MHS**

Dr. William Bank, a former Navy flight surgeon and now a renowned neuro-radiologist, was called in for the impossible task of repairing a patient whose carotid artery had been occluded by a disastrous incident of military medical malpractice. Dr. Bank declined to comment on the case but remarked, "There are two kinds of doctors in the military. They're either fabulous, wonderful doctors, or they're spectacularly incompetent."<sup>63</sup> Indeed, this is the portrayal of military medicine by the popular media. Since primary reliance in the popular media is on anecdotal reports, the occurrences reported are typically those that arouse public interest. There are reports of landmark operations by surgeons using cutting-edge technologies and miraculous rescues made possible by advanced equipment and remarkable teamwork. New technologies such as robotic surgery attract public interest, and telemedicine efforts are an integral part of news reports of humanitarian missions.

The Dayton Daily News series spotlighted the negative side of military medicine. Each article in the series focused on a specific problem, relating case after case ranging from merely inadequate to virtually criminal. The key factor repeated by Carollo and Nesmith was that "the doctors worked for the U.S. military. That meant the patients were treated in an environment not governed by some of the most significant safeguards that help protect civilians from bad medicine." The authors described the military as a "magnet" for bad doctors, who could not get jobs elsewhere, or even obtain licenses. Furthermore, the authors repeatedly claimed that military physicians are immune from malpractice. Managed care is also often criticized in the popular media for cost cutting at the expense of quality. One article in the series related horror stories of patients unfortunate enough to see a physician who had been subject to numerous complaints

but continued to practice. The series quoted John Caldwell, former special assistant U.S. attorney and chief of the Western U.S. torts branch for the Army Claims Service. Said Caldwell, "The United States government has always been known to contract not for quality but for price. With the lowest bidder, you limit yourself to those doctors who cannot practice elsewhere." Proponents of the Military Health System would counter that it contracts for acceptable quality at the best price.

Each article in the series contained horror stories of patients who had botched surgeries or who died from misdiagnosis or deplorable care. Alternately, the articles pointed out that even well-qualified, highly skilled physicians often had problems providing optimal care because of poor documentation and lack of continuity of care. However, the authors' focus was not the problems of good physicians in a bad system, but a subjective depiction of a system lax enough to allow unqualified doctors to treat patients.

The Dayton Daily News series was reprinted in the Army Times where it generated a plethora of reader letters. Although most acknowledged that there are fine doctors in the MHS, the letters contained numerous instances of inadequate care by military providers. While this may represent a reporting bias, there are undoubtedly lapses in quality of care offered by military providers.

Both the Dayton Daily News series and popular media's exaggerated responses to the IOM report illustrate the role of the media to draw attention. In both cases, allegations of dangerous medical practice generated inquiry into existing conditions and proposals for future improvement. Although Carollo and Nesmith repeatedly condemned the DOD for improper reporting and restricting access to data, they did not take a comparable look at civilian health care. In fact, as stated above, VA and DOD health care facilities are pioneering a new reporting system, which may eventually guide reporting practices in all sectors of health care.

Numerous sources in both professional and popular media emphasize that the U.S. health care system is in a dynamic state of change. Managed care has both its proponents and detractors. In fact, satisfaction with TRICARE typically exceeds satisfaction with civilian HMOs.<sup>64</sup> If sensationalistic journalism serves any purpose it is to stimulate inquiry into areas of concern with the goal of correcting errors and addressing problems that may place the public at risk. The DOD did not seek to avoid the accusations but confronted them directly. Officials such as Dr. Martin publicly acknowledged areas of weakness and outlined measures to correct them. It would

appear that imbalanced reporting of medical errors is not uncommon; indeed, some journalists take the perspective that the more shocking the errors appear, the more attractive they are for the public to read about! Nonetheless, it appears that most military health care beneficiaries receive adequate care, although there is little dispute that health care in all sectors can be improved.

## CONCLUSION

While the popular media portrays the MHS as a system that spans a vast spectrum from state-of-the-art to deadly, this depiction does not appear to differ remarkably from its coverage of civilian health care where allegedly, "Malpractice Kills 100,000," a gross distortion of a professional report. Surveys of MHS recipients report results that largely parallel those of civilian HMOs. Most beneficiaries are satisfied with the quality of care they receive; on average, perhaps more so than their counterparts in civilian HMOs. Areas for improvement range from non-objective aspects of health care, notably communication and empathy, to basic problems with appointments and claims. In these respects, military health care is far more similar to the civilian sector than different. A primary cause of adverse outcomes in the private sector, restricted access to specialist care, is already being addressed by TRICARE.

The expansion of TRICARE, with its conjoint military-civilian partnership and extensive surveys designed with the goal of quality improvement, is working to provide MHS beneficiaries with optimal medical care. Some sources also believe the conjoint partnership will one day lead to overturning the Feres doctrine, which critics label an impediment to quality care, or an anachronism sustaining a double standard. Growing support for patients' rights at the state and federal levels should provide additional momentum for removing the restrictions of the Feres doctrine. Recognition that potential hazards for troops on deployment had not been properly addressed led to a cooperative effort among federal agencies to open communication channels and consult military and civilian experts. A conjoint VA, DOD, and NASA initiative is underway, modeled after the aviation system and designed to encourage reporting of errors in a non-punitive environment. A combination of forces is revolutionizing health care delivery systems and creating partnerships that transcend traditional agency boundaries. Ultimately, MHS beneficiaries, as well as those in the civilian sector, stand to gain from legislative reforms and ongoing research into the causes of medical practice errors.

WORD COUNT = 7,310



## ENDNOTES

<sup>1</sup> P. Arvanitis and S.B. Plichta, "Perceptions of Positive Ratings in a Military Health Care System," Military Medicine (March 2000): 77-88.

<sup>2</sup> Russell Carollo and Jeff Nesmith, "Military Quacks," Washington Monthly (September 1998): 22.

<sup>3</sup> Mark Crane, "Medical Mistakes: Must Doctors Take the Rap?" Medical Economics (20 November 2000): 108.

<sup>4</sup> Ibid., 109.

<sup>5</sup> Ibid., 110.

<sup>6</sup> Robert L. Helmreich, "On Error Management: Lessons from Aviation," British Medical Journal (18 March 2000): 84.

<sup>7</sup> Department of the Army, Quality Assurance Administration, Army Regulation 40-68. (Washington, D.C.: U.S. Department of the Army, 20 December 1989): 18-19.

<sup>8</sup> William J. Clinton, "Remarks on Efforts to Improve Patient Safety," Weekly Compilation of Presidential Documents (28 February 2000): 352-353.

<sup>9</sup> "TRICARE Resource Sharing Program Failing to Achieve Expected Savings," Defense Health Care (22 August 1997): 3.

<sup>10</sup> Sydney J. Freedberg, Jr., "Patching Up Sick Call," National Journal (19 February 2000): 536-540.

<sup>11</sup> Martha Carr, "Veterans May Get New Drug Benefits; Vitter Trumpets Improvements in Health Plan," New Orleans Times-Picayune (17 October 2000): 8.

<sup>12</sup> C. L. Toner, "Military Medical Care System Responds to Nation Change," Air Force News, 11 March 1998; available from <http://www.af.mil/news/Mar1998/hj19980311-980332.html>; Internet; accessed 7 May 2000.

<sup>13</sup> Freedberg, 539.

<sup>14</sup> Johnette Joy Shelley, "Can the Feres Doctrine Survive TRICARE, and Should It?" Military Medicine (October 1998): 685.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

<sup>17</sup> Crane, 123.

<sup>18</sup> Stephen A. Huth, "Cost Triumphs Over Quality, Access in Battles for Employer-Provided Health Care," Employee Benefit Plan Review (September 2000): 20-21.

<sup>19</sup> Mark A. Hofmann, "Managed Care Report Good," Business Insurance (11 September 2000): 2.

<sup>20</sup> "Survey Data Shows Patient Satisfaction With TRICARE Prime," DefenseLINK, 21 February 1997; available from [http://www.defenselink.mil/news/Feb1997/b086\\_97.html](http://www.defenselink.mil/news/Feb1997/b086_97.html); Internet; accessed 2 June 1998.

<sup>21</sup> "New Surveys Will Expand Health Care Satisfaction Data," 12 September 2000; available from [http://www.tricare.osd.mil/NewsReleases/news2000\\_20.html](http://www.tricare.osd.mil/NewsReleases/news2000_20.html); Internet; accessed 25 October 2000.

<sup>22</sup> TRICARE Stakeholders' Report, 1999; available from <http://www.tricare.osd.mil>; Internet; accessed 20 October 2000.

<sup>23</sup> L. D. Kozaryn, "DOD to Remedy TRICARE ills," Airman (March 2000): 16.

<sup>24</sup> "GAO Considers TRICARE Claims Processing Too Slow," Healthcare Financial Management (November 1999): 11.

<sup>25</sup> Freedberg, 536.

<sup>26</sup> Nick Adde, "Report: Soldiers Don't Always Get the Best Health Care," Army Times (7 December 1998): 10.

<sup>27</sup> "TriWest and Express Scripts First to Implement New Pharmaceutical Screening Service for Military Personnel and Family Members," PR Newswire (9 August 2000): 1.

<sup>28</sup> Edward Martin, "DOD's 13 Points on Quality and Access," US Medicine (3 June 1999): 1-3.

<sup>29</sup> Richard L. Granville et al., "Medical Malpractice and the National Practitioner Data Bank," Legal Medicine 97, available from <http://www.afip.org/Departments/legalmed/openfile97>; Internet; accessed 21 October 2000.

<sup>30</sup> Freedberg, 537.

<sup>31</sup> Kathleen T. Rehm, "JCS Chairman promises health care help," The (U.S. Army Medical Command) Mercury, March 2000, p. 12.

<sup>32</sup> Carollo and Nesmith, 22-27.

<sup>33</sup> Martin, 1-3.

<sup>34</sup> Ronald R. Blanck, "Army Medicine Facts," Soldiers (March 1998): 3.

<sup>35</sup> Eric R. Wagner, "Types of Managed Care Organizations," in The Managed Care Health Care Handbook, 4<sup>th</sup> ed., ed. Peter R. Kongstvedt (Gaithersburg, MD: Aspen Publishers, Inc: 2001): 30.

<sup>36</sup> No More Supervision," Nursing Management (May 2000): 10.

<sup>37</sup> Terris E. Kennedy et al, "A conceptual model of Army nursing practice." Nursing Management (October 1996): 33.

<sup>38</sup> I.M. Shorr et al, "The American College of Physicians' Resident Abstract Competition: Success of U.S. Military Trainees," Military Medicine (March 1999): 218-220.

<sup>39</sup> Pat McKenna, "The Family Doctor," Airman (September 1998): 42-45

<sup>40</sup> Blanck, 3.

<sup>41</sup> Kennedy et al, 33.

<sup>42</sup> Ibid., 682.

<sup>43</sup> Hildegarde Conte Perlstein, "TDRL and the Feres Doctrine," Air Force Law Review (1997): 259-266.

<sup>44</sup> Ibid., 260.

<sup>45</sup> Shelley, 684.

<sup>46</sup> Carollo and Nesmith, 26.

<sup>47</sup> Blanck, 3.

<sup>48</sup> Carollo and Nesmith, 22-27.

<sup>49</sup> Granville, 1.

<sup>50</sup> Martin, 1-3.

<sup>51</sup> Maura Dolan, "A Bitter Remedy in Medical Malpractice; Courts: Painful Litigation Rarely Satisfies Either the Patient or the Doctor," Los Angeles Times, 28 May 2000, A1.

<sup>52</sup> Ken Reich, "Arguments Never End Over Kaiser Arbitration," Los Angeles Times, 6 January 2000, B5.

<sup>53</sup> Dolan, A1.

<sup>54</sup> Steve Vogel, "Army Doctor Charged in Girl's Death," Washington Post, 22 March 2000, B1.

<sup>55</sup> Robert Pear, "Medicare Shifts to End Doctors' Control of Disclosing Errors," New York Times, 2 January 2001, sec. 1A, p.1.

<sup>56</sup> Clinton, 351.

<sup>57</sup> Crane, 113.

<sup>58</sup> Shelly, 685.

<sup>59</sup> Jessie L. Tucker and Vivian A. Kelley, "The Influence of Patient Sociodemographic Characteristics on Patient Satisfaction," Military Medicine (January 2000): 72-76

<sup>60</sup> Paul Arvanitis and Stacey B. Plichta, "Perceptions of Quality: Predictors of Positive Ratings in a Military Health Care System," Military Medicine (January 2000): 77.

<sup>61</sup> H. H. Schaffler and S. McMennamin, "Reported Health Consequences of Problems Consumers Experience With Their Managed Care Plans [abstract]," Abstract Book of the Association Health Services Research (1999): 243.

<sup>62</sup> Jeffrey L. Jackson et al, "Comparison of Discharge Diagnoses and Inpatient Procedures between Military and Civilian Health Care Systems," Military Medicine (October 1999): 701-704.

<sup>63</sup> Carollo and Nesmith, 27.

<sup>64</sup> Blanck, 3.

## BIBLIOGRAPHY

- Adde, Nick. "Report: Soldiers Don't Always Get the Best Health Care." Army Times (7 December 1998): 14.
- Arvanitis, Paul and Stacey B. Plichta. "Perceptions of Positive Ratings in a Military Health Care System." Military Medicine (January 2000): 77-80.
- Barela, Tim. "Military Operations." Airman (August 1999): 18-23.
- Blanck, Ronald R. "Army Medicine Facts," Soldiers (March 1998): 3.
- Carollo, Russell and Jeff Nesmith. "Military Quacks." Washington Monthly (September 1998): 22-27.
- Carr, Martha. "Veterans May Get New Drug Benefits; Vitter Trumpets Improvements in Health Plan." New Orleans Times-Picayune (17 October 2000): 8.
- Clinton, William J. "Remarks on Efforts to Improve Patient Safety." Weekly Compilation of Presidential Documents (28 February 2000): 351-353.
- Crane, Mark. "Medical Mistakes: Must Doctors Take the Rap?" Medical Economics (20 November 2000): 108-124.
- "TRICARE Resource Sharing Program Failing to Achieve Expected Savings." Defense Health Care (22 August 1997): 1-26.
- Dolan, Maura. "A Bitter Remedy in Medical Malpractice; Courts: Painful Litigation Rarely Satisfies Either the Patient or the Doctor." Los Angeles Times 28 May 2000, A1.
- Freedberg, Sydney J., Jr. "Patching Up Sick Call." National Journal (19 February 2000): 536-540.
- "GAO Considers TRICARE Claims Processing Too Slow." Healthcare Financial Management (November 1999): 11.
- Granville, Richard L., Claire A. Milner, and Robert E. Oshell, "Medical Malpractice and the National Practitioner Data Bank." Legal Medicine 97. Available from <http://www.afip.org/Departments/legalmed/openfile97>. Internet. Accessed 21 October 2000.
- Helmreich, Robert L. "On Error Management: Lessons from Aviation." British Medical Journal (18 March 2000): 781-785.
- Hofmann, Mark A. "Managed Care Report Good." Business Insurance (11 September 2000): 2.
- Huth, S. A. "Cost Triumphs Over Quality, Access in Battles for Employer-Provided Health Care." Employee Benefit Plan Review (September 2000): 20-21.
- Jowers, Karen. "Fit for Duty?" Army Times (15 February 1999): 22.

- Kozaryn, L. D. "DOD to Remedy TRICARE ills." Airman (March 2000): 16.
- Kennedy, Terris, Elizabeth Hill; Nancy R. Adams; and Bonnie Jennings. "A Conceptual Model of Army Nursing Practice." Nursing Management (October 1996): 33-35.
- Lagnado, Lucette. "Hospitals Overwork Young Doctors in New York." Wall Street Journal, 19 May 1998, B5.
- Martin, Edward, M.D. "DOD's 13 Points on Quality and Access." US Medicine (3 June 1999): 1-3.
- McKenna, Pat. "The Family Doctor." Airman (September 1998): 42-45.
- "New Surveys Will Expand Health Care Satisfaction Data." 12 September 2000. Available from [http://www.tricare.osd.mil/NewsReleases/news2000\\_20.htm](http://www.tricare.osd.mil/NewsReleases/news2000_20.htm) Internet. Accessed 25 October 2000.
- "No More Supervision." Nursing Management (May 2000): 10.
- Pear, Robert. "Medicare Shifts to End Doctors' Control of Disclosing Errors." New York Times, 2 January 2001, sec. 1A, p.1.
- Perlstein, Hildegarde Conte. "TDRL and the Feres Doctrine." Air Force Law Review (1997): 259-266.
- Rehm, Kathleen T. "JCS Chairman promises health care help," The (U.S. Army Medical Command) Mercury, March 2000, p. 12.
- Reich, Ken. "Arguments Never End Over Kaiser Arbitration." Los Angeles Times, 6 January 2000, B5.
- Risser, Daniel T. et al., "The Potential for Improved Teamwork to Reduce Medical Errors in the Emergency Department." Annals of Emergency Medicine 34 (September 1999): 373-383.
- Salerno, Stephen; Brooks Cash; Mark Cranston; and Eric Schoomaker. "Perceptions of Current and Recent Military Internal Medicine Residents on Operational Medicine, Managed Care, Graduate Medical Education, and Continued Military Service." Military Medicine (June 1998): 392-397.
- Schauffler, H. H. and S. McMenemy. "Reported Health Consequences of Problems Consumers Experience with Their Managed Care Plans [abstract]." Abstract Book of the Association of Health Services Research (1999): 243.
- Shelley, Johnette Joy. "Can the Feres Doctrine Survive TRICARE, and Should It?" Military Medicine (October 1998): 682-686.
- Shorr, I.M., A.S. Niven, R.S. Howard, and Y.Y. Phillips. "The American College of Physicians' Resident Abstract Competition: Success of U.S. Military Trainees." Military Medicine (March 1999): 218-220.

- "Survey Data Shows Patient Satisfaction With TRICARE Prime," DefenseLINK, 21 February 1997. Available from <http://www.defenselink.mil/news/Feb1997/b08697.html>. Internet. Accessed 2 June 1998.
- Toner, C. L. "Military Medical Care System Responds to Nation Change." Air Force News, 11 March 1998. Available from <http://www.af.mil/news/Mar1998/hj19980311-980332.html>. Internet. Accessed 7 May 2000.
- TRICARE Stakeholders' Report. 1999. Available from <http://www.tricare.osd.mil>. Internet. Accessed 20 October 2000.
- "TriWest and Express Scripts First to Implement New Pharmaceutical Screening Service for Military Personnel and Family Members." PR Newswire (9 August 2000): 1.
- Tucker, Jessie L. and Vivian A. Kelley. "The Influence of Patient Sociodemographic Characteristics on Patient Satisfaction." Military Medicine (January 2000): 72-76.
- U. S. Department of the Army. Quality Assurance Administration. Army Regulation 40-68. Washington, D.C.: U.S. Department of the Army, 20 December 1989.
- Wagner, Eric R. "Types of Managed Care Organizations." In The Managed Health Care Handbook, 4th ed., ed. Peter R. Kongstvedt, 28-41. Gaithersburg, MD: Aspen Publishers, 2001.