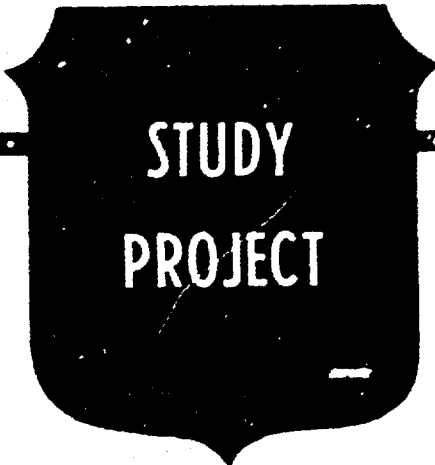


AD-A195 025

DTIC FILE COPY

2



The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

MESSAGE TO WARFIGHTERS  
HISTORICAL PERSPECTIVE ON COMBAT MEDICINE

BY

COLONEL JAMES B. PEAKE

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

17 MARCH 1988

DTIC  
SELECTED  
JUL 07 1988  
S D  
C&H



U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

88 7 06 111

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. <b>A195025</b>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) <b>MESSAGE TO WARFIGHTERS; Historical Perspective on Combat Medicine</b>		11. TYPE OF REPORT & PERIOD COVERED <b>Study Project</b>
		8. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) <b>COL James B. Peake</b>		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS <b>US Army War College Carlisle Barracks, PA 17013</b>		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS <b>Same</b>		12. REPORT DATE <b>17 March 1988</b>
		13. NUMBER OF PAGES <b>27</b>
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) <b>Unclassified</b>
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  <b>Approved for public release; distribution is unlimited.</b>		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  <b>Combat medical support ranks right up there with apple pie and motherhood as one of those inherently good things. But the commander, be it at the tactical, operational or strategic level, must pay for that care with spaces on an aircraft, in rear area protection or in dollars that could otherwise be spent on major weapons systems. The historical perspective</b>		

provides examples where, over and above the inherent goodness, medical support has made it possible to prosecute a specific campaign, sustain a prolonged war, claim operational success. History also provides the corollary, where inattention to medical support has led to operational failure. If it is true that we will fight as we train, then medical support is an asset that the line commander must think about up-front if he is to be successful in combat.

UNCLASSIFIED

USAWC MILITARY STUDIES PROGRAM PAPER

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

MESSAGE TO WARFIGHTERS  
HISTORICAL PERSPECTIVE ON COMBAT MEDICINE

An Individual Study Project  
Intended for Publication

by

Colonel James B. Peake

James Williams, PhD  
Project Advisor

**DISTRIBUTION STATEMENT A: Approved for public  
release; distribution is unlimited**

U.S. Army War College  
Carlisle Barracks, Pennsylvania 17013  
17 March 1988

UNCLASSIFIED

ABSTRACT

AUTHOR: James B. Peake, COL, MC

TITLE: Message to Warfighters  
Historical Perspective on Combat Medicine

FORMAT: Individual Study Intended for Publication

DATE: 17 March 1988 PAGES: 22 CLASSIFICATION: Unclassified

→ Combat medical support ranks right up there with apple pie and motherhood as one of those inherently good things. But the commander, be it at the tactical, operational or strategic level, must pay for that care with spaces on an aircraft, in rear area protection or in dollars that could otherwise be spent on major weapons systems. The historical perspective provides examples where, over and above the inherent goodness, medical support has made it possible to prosecute a specific campaign, sustain a prolonged war, claim operational success. History also provides the corollary, where inattention to medical support has led to operational failure. If it is true that we will fight as we train, then medical support is an asset that the line commander must think about up-front if he is to be successful in combat. ←



<b>Accession For</b>	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

This is a "think about it" article. The target audience is the line commander at all echelons: the company and battalion commander because the subject may be transparent, the Corps and Army commander because the subject may be the determinant of mission capability. It is about medical support - a historical review of the role that medical support has played in combat operations.

The thesis of the paper is that the medical support system is critical to the overall military mission. It is not something that can be taken for granted and must be an up-front part of planning for every contingency. The soldier deserves no less; the American people will tolerate no less; and you, the commander, can afford no less as you seek to accomplish your military mission.

References to the contribution of military medical support to the critical element of morale in combat are found back to antiquity. "It was sometimes dangerous for a Roman commander to neglect his wounded; his soldiers would not fight for him if he did."<sup>1</sup> The Roman history of Livy describes the evolution of two basic military concepts, "(1) care of the wounded as a military necessity and patriotic duty; (2) demoralization of the fighting line by the misery of the wounded when the primal duty of evacuation is neglected."<sup>2</sup> By 502 B.C. the Roman armies would leave a contingent to remain with their wounded after a battle until they were able to travel or at least provide a safe place to

stay.<sup>3</sup> Hospitals of a common design have been excavated from the ruins of ancient Roman military camps.<sup>4</sup> Possibly the Romans, because of their attention to military medical care, had less desertion than other armies of the times.<sup>5</sup> We do not have medical statistics and return to duty figures for this era. However, the attention given to the care of wounded soldiers suggests a recognized benefit. Just as morale is difficult to quantify as a combat multiplier, so the effect of medical care on morale is hard to measure objectively. Nevertheless, morale is a critical element in combat and, as our great modern commanders recognize, morale and health are intimately intertwined.<sup>6</sup> The Romans may have found this the greatest return on their medical care investment.

As medical care and capabilities evolved, history continues to show examples of interest in military medical support. But, there are implications that this was more than just a morale booster. Frederick the Great paid a great deal of attention to the medical support of his armies. As a commander at the strategic level "... he saw clearly that to waste men was to court defeat, since for an army fighting in four separate theaters of war defeat always meant ravaging of his thinly guarded zone of the interior by hostile forces."<sup>7</sup>

Napoleon's two most famous military surgeons, Baron Larrey and Percy, added to the technical aspects of surgery. But, from a military perspective, their contribution was in the area of battlefield evacuation. By the 1790's, Larrey had recognized that by waiting until after the battle to attend to the wounded, roads became clogged and care was delayed for 36 hours. He developed an ambulance system of light and heavy units fitted with removable litters. Hundreds of these ambulances saw action. Percy instituted the litter bearer to support this need for battlefield evacuation. Unfortunately Larrey and Percy's influence wasn't enough in the face of a prevailing indifference among Napoleonic commanders. "The vice of the Napoleonic system lay in the mistaken belief that a nation in arms is an inexhaustible reservoir of personnel."<sup>8</sup> Thus, though the system worked well where employed, it was not used in all units. As a result, Napoleon's campaigns literally bled France dry and ultimately led to strategic failure.

Napoleon's foes could attribute some of their final success, by contrast, to better command attention to medical support. Sir James McGrigor, the surgeon to Lord Wellington, in 1813 was presented with some 93,348 patients in hospitals. He was able to reduce this sick list to 5,000. This significant increase in the ranks of the active force brought state recognition to this military surgeon.<sup>9</sup>

This did not represent great technical advances in clinical medicine, rather, attention to medical administration. The medical supply system was streamlined, convalescents were speeded back to their units by use of forward depots (including a large number who were able but "reluctant"), and standards for length of stay and criteria for rearward evacuation were established. Furthermore, McGrigor kept accurate records and provided detailed briefings to Wellington.<sup>10</sup> Numbers will begin to help us see the impact of military medical support. Clausewitz, looking back on the Napoleonic Era and discussing medical support, notes that "In any individual case these things may indeed be of decisive importance."<sup>11</sup>

Our own nation's concern for the medical care of our soldiers goes back to the earliest days of the colonies. In May, 1775, the Colony of Massachusetts Bay ordered competency examinations of physician candidates to act as regimental surgeons.<sup>12</sup> The Civil War brought renewed interest in military medicine. The Memoir of Jonathan Letterman, an article written about Letterman twenty years after his contributions, shows us a before and after picture of the Army of the Potomac. Letterman, as surgeon to General McClellan, organized an evacuation/ambulance service, standardized field hospitals and medical supplies, established standards of care and developed a rudimentary credentialing process for military surgeons.

The depletion of the Army by the great numbers sent to the rear has been stopped; ample means provided and skilfully (sic) applied afford the sick all comfort necessary for their recovery within the lines. Sickness, by wise sanitary regulations, inculcated and rigidly enforced by constant vigilance, has been prevented from making its customary inroads upon the strength of the army. A system of ambulance has been devised, of the merits of which, and of its adaptation to all the vicissitudes of campaigns, we can advance no stronger proof than that it has been embodied in a bill providing an Ambulance system for the Armies of the United States...13

The situation before Letterman's collaboration with General McClellan left the physicians "...without resources to provide for the sick, inclined universally to the only resource left, that of getting rid of every man who succumbed, or feigned to succumb, to the hardships of military life."<sup>14</sup> Letterman's initiatives led to the preservation of fighting strength. A report on the action at the battle of Chancellorsville - charge of Marye's Heights - describes the humane efficiencies achieved:

The charge was made at 1 p.m., the heights were taken, and in less than half an hour we had over 800 wounded. Two hours after the engagement, such was the celerity and system with which the ambulances worked, the whole number of wounded were within the hospitals under care of nurses.<sup>15</sup>

Another quote, this from the surgeon who succeeded Letterman, Brevet Brigadier General McParlin, on the ambulance system, gives a rough estimate of savings: "...tens of thousands of wounded men have been carefully, speedily, and safely transferred from the field of battle to

the field hospitals, and from thence to the large depot hospitals, and this has been done without confusion, without hindering the movements of the Army, or conflicting with the operations of the other Staff Departments."<sup>16</sup> Rather than relying on "uncertain aid from surgeons and nurses from civil life," as was common before Letterman's system, the majority of care was given by or under the supervision of military surgeons.<sup>17</sup> "The men were among their comrades and treated by their own surgeons; their morale was maintained, and great many speedily returned to the ranks who otherwise would not have rejoined in time for the next impending campaign."<sup>18</sup>

An examination of Dr. Jonathan Letterman's experience suggests two things. First, improved delivery of military medical care with attention to all of its details can provide resources in manpower and morale to the battle; and, second, the surgeon cannot do these things alone. He requires, as Letterman had in General McClellan, an interested and involved line commander.

In World War I, sixty million men were mobilized by sixteen nations and one third were killed by wounding, disease or injury. The American portion included 4,775,367 mobilized, 112,855 dead, 224,089 wounded.<sup>19</sup> The Army Medical Service was there from the beginning of our

involvement. In fact, LT William Fitzsimmons, an Army Medical Corps officer, was the first American to "render the supreme sacrifice" when he died in a bombing attack.<sup>20</sup> The modern era brought with it effective massed artillery and weapons of greater destruction and lethality than theretofore seen.<sup>21</sup> The medical consequences followed; and, as our troops deployed and joined the battle, the original 73,000-bed estimate jumped to 600,000 required.<sup>22</sup> The medical effort was immense and successful. The rate of those dying of wounds - 8.1/100, was significantly less than the 14.1/100 who died of wounds in the Civil War.<sup>23</sup>

We do not have an inexhaustible supply of manpower and command attention to medical support can pay huge rewards to the U.S. Army as World War II showed. Even with the full mobilization that we had in World War II we did not have unlimited manpower. A British review of medical service in World War II stresses the point made to new military physicians; "...that the prime purpose that lay behind their professional activities was that of cutting down to the irreducible minimum manpower wastage due to injury or to sickness, to return to the line at the earliest possible moment the sick and the injured, cured and restored."<sup>24</sup>

Beebe and DeBaKey, in their exhaustive statistical review of the battle casualties in World War II, reinforce

the notion that "... the military value of surgery lies in the salvage of battle casualties. This is not merely a matter of saving life; it is primarily one of returning the wounded to duty, and the earlier the better."<sup>25</sup> Dunn, in his review of World War II "People's Policies in Combat", states "The major source of highly trained replacements for all nations was wounded men returning to action."<sup>26</sup> The magnitude of the medical problem was staggering. In the European Theater from January 1942 through August 1945, almost two million soldiers were admitted for disease, 360,000 for injury (non-battle) and 386,000 for wounds. By late 1944 the prime draft pool, not deferred for industrial or farm purposes, was all but exhausted.<sup>27</sup> At this point the War Department was considering the drastic and undesirable step of reducing physical and mental standards. The War Department had warned that the "manpower well" would be unable to meet the European theater's replacement needs.<sup>28</sup>

How well did we succeed in this purpose?

Of the first three months' casualties after D-Day, about 30 percent were killed, captured, or missing, 70 percent wounded. Of the 70 percent who were wounded, 45 percent could be expected to recover and return to a general duty assignment while 11 percent could be placed in limited assignment duty. Forty-six percent of the wounded could return to some kind of duty within 120 days and; thus could figure importantly in replenishing losses<sup>29</sup> (emphasis mine)

Taking just the figure for wounded and a conservative return to duty rate of 40% yields 154,400 soldiers or about ten divisions of troops with combat experience. Further, the return to duty rate for both disease and non-battle injury patients are consistently greater than for wounded.<sup>30</sup> These figures of replacements from within the ranks were from the European Theater - the worst case for American forces.

This savings was possible because of attention to and investment in medical support. In preparation for D-Day, the 802d Hospital Center controlled 12 general hospitals 4 station hospitals and an airport and seaport medical facility with a total of 20,000 operational beds. This was only one of seven hospital centers supporting the European theater.<sup>31</sup>

The campaign in Burma may be as good an example as there is of simply the influence of medical support controlling losses due to illness. There the Allies were able to defeat the Japanese because they were able to hold the malaria parasite in check and the Japanese did not.<sup>32</sup> The Burma case also shows how command attention can turn a bad situation around to pull victory from almost certain defeat. Two senior commanders who dictated a high priority for medical support made the difference. As Corps commander, British General W. J. Slim had managed to withdraw from Burma as the Japanese pressed their offensive.

As his troops fell back into India they found little support of any kind. "The fault was a lack of foresight, months before, when preparation should have begun."<sup>33</sup> Medical support was a major deficiency. "Many lost the will to fight longer against malaria, dysentery, and exhaustion that attacked them. I should estimate that 80 percent of the fighting men who came out of Burma fell sick, and many died." Slim's proposed counterattack could not be supported.<sup>34</sup> Slim then took command of the Fourteenth Army. After supply, his second greatest problem was health - especially the problems of malaria, dysentery, skin disease, and jungle typhus. He noted "...a simple calculation showed me that in a matter of months at this rate my army would have melted away."<sup>35</sup>

General Slim, with help from above, reversed the situation. His personal involvement in prioritizing medical support led to the application of the latest medical research, treatment of patients in forward areas, and use of air resources for evacuation. His emphasis on the line commander's responsibility for health produced compliance with preventive measures.<sup>36</sup> Admiral Lord Mountbatten, Supreme Commander of the South East Asia Command, likewise included medical support high in his priorities. Shortly after his assumption of command, he promised the best of medical support to address these ravages and "...that he

intended to fight in areas where the Japanese, with their lack of attention to medical services, would suffer most."<sup>37</sup> Not only did he recognize the importance of medical care for the sake of morale and troop strength, but he understood that superiority in medical care could be exploited in taking the battle to the enemy. By 1945 the sickness rate was one per thousand per day compared to the twelve per thousand per day when he assumed command.<sup>38</sup> With an established medical and air evacuation system, one hospital took in more than 11,000 British casualties with only 23 deaths.<sup>39</sup>

In Korea major advances in the development of vascular surgery, artificial kidney and air evacuation with the helicopter contributed to the decrease of patients dying of wounds - down to 2.5/100. This was lower still than the 4.5/100 dying of wounds in World War II in spite of the greater severity of injury reaching the hospital.<sup>40</sup> What again is impressive is the number of patients and the manpower savings realized from medical support. Considering just the divisional units and regimental combat teams from July 1950 to July 1953, 64,159 wounded and 173,985 non-battle casualties were returned to duty. The average mean strength of divisional units over the entire duration of the Korean conflict averaged 107,464 men. More than two years' worth of experienced troops replenished the Army

because of attention to the medical support system. Ninety percent of the wounded and more than 50 percent of the non-battle casualties required hospital level care to yield this savings of roughly 15 divisions worth of troops, all with combat experience. Of the wounded returned to duty, 80 percent were returned in theater. Of the non-battle patients, 96 percent were in theater dispositions.<sup>41</sup>

In this same era we can find an example where another army failed to attend to medical support and was unable to pursue their objective. In 1949 the ill equipped and discouraged Nationalist Chinese had Taiwan as their last bastion. The Communist push on the mainland had been successful and the Communist troops were staging in southern Chekiang and northern Fukien provinces for an assault on Taiwan. Water training was done in the local canals, streams and ponds and the troops developed symptoms of itching, fever, fatigue, abdominal pain, liver enlargement and exhausting, heavy dysentery. They had contracted schistosomiasis, a disease caused by a blood fluke in the area waters. They mobilized medical resources too late. Commanders, ignoring medical advice, persisted in the training in local waters and 30,000 to 50,000 casualties resulted.<sup>42</sup> This upset the whole pace of the Chinese Communist drive and lost a brief opportunity to seize Formosa.<sup>43</sup> The Chinese Communists should have heeded an

earlier Chinese, Sun Tzu who advised, "If you are careful of your men, and camp on hard ground, your Army will be free from disease of every kind, and this will spell victory."<sup>44</sup>

Medical support figured critically in the battle of Dien Bien Phu. On 13 March 1954, the Vietminh began a full scale attack on the fortified French position at Dien Bien Phu, about 10 miles from the Laotian border. The airfield which had been the primary supply route was closed leaving 5,000 French soldiers cut off from evacuation. Although outnumbered five to one, the French held out for fifty-five days before the position was overrun.<sup>45</sup> Hundreds of wounded men were resuscitated, operated upon and returned to duty - some without an arm or a leg or an eye.

The ability to hold on so long by reconstituting the line with acutely wounded at Dien Bien Phu resulted from attention to and investment in medical support ahead of time. The surgeon, before the battle, described the medical facilities in detail:

The resuscitation room was the largest of the bunkers, thirty feet by ten. There were 15 beds there, 10 of them in the form of bunks...I saw set out in good order all the necessities of an operating theatre such as are usually given to a surgical unit in active service. The X-ray room looked just as good. The apparatus was a modern American one of the improved sort...I had never seen such perfection so close to the front.<sup>46</sup>

The result was the physical capacity for unit loyalty to be effective. Shortly after surgery a trooper with an arm amputated was told he would stay at the hospital - "No, major, not right. Want to go back to comrades. Today still tired - tomorrow back to company."<sup>47</sup> A French description of the final assault showed the extent of loyalty combined with effective medical support. "Their dead were constantly being replaced by fresh companies which were waiting in the rear; while our dead were only replaced by wounded men, those who still had a couple of legs."<sup>48</sup> The scene at an outlying position: "He was alone with ten of his lads, all men who had been wounded before - amputated, in plaster, or with only one eye left."<sup>49</sup>

This desperate situation is one no commander would hope to face. Even though the French lost the battle, they could not have sustained combat for six weeks without the medical support provided. The "deep and rear battle" of the future may provide similar circumstances and make similar demands. Only by command attention to medical support can U.S. forces hope to fight as well.

Our own combat in Indochina provides examples of the contributions of medical support to the combat mission. LTG Julian Ewell, when he first took over the 9th Division, found that half of his infantry battalions were ineffective due to paddy foot.<sup>50</sup> He mounted an extensive medical effort

and gave command attention to the recommended prophylactic measures.

This was a real medical feat because it was the first time that a unit in difficult tropical conditions had been able to operate without having horrendous casualties from climate and the indigenous diseases ... of course there were lots of other things like malaria pills, hepatitis etc. But this made it possible to conduct prolonged operations in the Delta...I think you could say honestly that we really broke the V.C. in the Northern Delta, really broke them. I think this [the medical success with paddy foot] was the main contribution...51

LTG Ewell also noted the importance of the medical role when commanders push troops to their physical limits: "...the doctors had to really watch them and if they saw that the men were losing weight or getting jumpy or whatever, you'd have to ease it off."<sup>52</sup> This senior commander directly applied his medical support to both the physical and psychological aspects of his soldiers and, in so doing, decisively increased his warfighting capability.

In Vietnam, as in Korea and the World Wars, the raw numbers were impressive. From January 1965 to December 1970, of the 194,716 wounded, 133,447 went on to hospital admission. Of those with wounds serious enough to require hospitalization, 56,181 returned to duty in the Republic of Vietnam.<sup>53</sup> As always in a tropical environment, disease produced far greater casualty rates than battle injury. Greater attention was given to medical support with

introduction of American units. The number of beds increased and a convalescent center was established. The Army consciously applied the lessons learned in Korea and World War II.

"Early return to duty was also achieved at the convalescent center during the Vietnam war with a significant savings in combat manpower. The early physical activity concept brought the average theater length of stay to 7 days in forward hospitals and 18 days at the convalescent center, well within the limits of the 30 day evacuation policy... Thus almost all patients with falciparum malaria, hepatitis, and scrub typhus returned to duty in Vietnam."<sup>54</sup>

Dr. Edward Drea, in a historical review of unit reconstitution, illustrated the importance of returning wounded to combat capability through the example of how medical returns to duty enabled a command to replace a mortar platoon overrun with all men killed or wounded.<sup>55</sup>

The next day a new mortar platoon joined the company in the field. The Battalion S-1 at An Khe assembled soldiers with a mortar MOS (11C) from among division replacements, convalescents and returning wounded, and formed them into a platoon commanded by the former platoon sergeant (who had been hospitalized and not on the original mission) and sent the regenerated platoon back to combat.<sup>56</sup>

The significance of medical returnees may be lost as they come back one or two at a time, as interviews with company commanders in Vietnam reflected. "We had perhaps 30 purple hearts, most of which were not significant wounds, but serious enough to require evacuation for a short period

of time.... I can't say that casualties were a significant factor in our operations."<sup>57</sup> This combat company commander did not realize that in his six months of command he was reinforced a full platoon of trained troops because someone provided medical support.

This kind of reconstitution translates to trained and combat experienced manpower returned to you, the line commander at both tactical and operational levels. Such manpower was not competing for space or attention in a resupply system that stretched 8,000 miles.

Most recently, the Grenada operation in October of 1983 showed that luck and initiative can occasionally compensate for medical planning in a short, low casualty operation. The Brigade of the 82d Airborne Division initially deployed without a standard medical element. The "Corps Slice" and the division package of medical support was too large in people, weight and cubes to be taken.<sup>58</sup> The medical staff was never included in the planning and an orthopedic surgeon was taken largely because he was available. Upon arrival, the medical support, such as it was, was located immediately adjacent to the active runway exposed to the blowing, dirt, and noise of the C-141's. Fortunately every casualty that made it to the aid station survived.<sup>59</sup> Some patients were flown to the naval ship USS GUAM which had a limited operative facility. These assets were not initially known

to the 82d medical personnel and the evacuation was accomplished through the initiative of helicopter pilots. The 'Casualty Collection Point' on the ground had no radio communications, could not coordinate med-evac and could not monitor command nets to anticipate requirements.<sup>60</sup> The lack of command attention to the medical support package for the 82d was not decisive in Grenada. We were lucky. Speculate, if you will, on an additional 50 or even 20 seriously wounded soldiers above the 28 that they had. Neither expertise, manpower nor supplies were available to care for them. The success of this mission has recently been questioned on public television.<sup>61</sup> How would the American people have judged "success" if twenty more soldiers had died - especially if it were from lack of medical support?

This travelog through history of soldiers and medicine is to get you, the line commander, to think about your medical support and its implications for your success in combat. Throughout history morale has been boosted by the commander's attention to the medical care of the soldier. This was as true in Roman times as it was with Slim in World War II. We have seen that inattention to medical care can compromise major operations. Slim could not counterattack as he would have liked because medical support had not been marshalled. The Chinese Communists ignored the importance

of schistosomiasis and lost the initiative for the invasion of Formosa.

The effect of medical support may be, but for the intangible increment in morale, largely transparent to the tactical commander. Medical returnees feed into the replacement system intermittently and in small numbers at that level. The operational level commander, on the other hand, cannot fail to be impressed with the aggregate numbers in any prolonged conflict. The impact, we have seen, can be measured not in platoons but in divisions and armies. The savings is also in the logistical burden. Even assuming an unlimited number of replacements, evacuation of a casualty out of theater and the transport of a replacement from CONUS "...is a logistical burden far greater than that imposed by holding the casualty in the area in accord with the terms of a sound evacuation policy."<sup>62</sup>

In addition to morale and manpower, you, the line commander can use medical support to enhance your warfighting capabilities. We have seen LTG Ewell able to drive continuous combat operations in the Delta because of his involvement with medical support. Lord Mountbatten took his war to areas denied the enemy because of his medical superiority.

Medical support is also an important political factor. The American public's definition of winning has become very subjective. The cost of combat is weighed against the gain on every TV news program and in every paper. Those costs include losses of life, soldiers injured, and the need to draw from the populace to prosecute the war. In World War II the European Theater Commander was told that the "...Selective Service was a dwindling asset," which meant that either exemptions for maintaining the American economy would have to be drastically changed, or the Army would have to replenish its combat losses from its own ranks.<sup>63</sup> The situation in World War II and the grass roots interest in our more recent conflicts raise several questions. What would have been the effect on the American public if medical support had not returned ten divisions of troops to the European Theater? How much more quickly would our American "will" have disappeared in Vietnam without the manpower savings? How would the public judge any expedition such as the Grenada operation if soldiers die from inadequate medical care? As Major General Neel, former MACV Surgeon noted: "The medics can't win the war for the commander, but the medics can lose the war with our general attitudes in this country."<sup>64</sup>

There are other, closely related issues, where your attention to medical support pays off for you in peace as

well as in war. For example, I have not addressed the mission requirements in peacetime to care for our generally healthy soldiers, their families and our retired force. That mission not only maintains a healthy force for you, but enables the medical soldier to regularly use his or her skills on real patients and, thus, to have the skills that you need in wartime.

Even so, the issues and examples here have given you enough to begin thinking about what medical support means for you. Think about your mission and the impact that medical support can have if you understand it and use it. Think, too, about the impact that neglect can have. Please, think about it when you are designing realistic and meaningful training. Especially think about it when you are resourcing, manning the force or allocating precious aircraft space upon deployment. Teach your medical support people and learn from them too.

## ENDNOTES

1. Fielding H. Garrison, Notes On The History Of Military Medicine (Washington: Association of Military Surgeons, 1922), p. 54.
2. Ibid., p.52.
3. Ibid.
4. Ibid., p.69.
5. Ibid., p.52.
6. Sir William Slim, Defeat Into Victory, (London: David McKay Company Inc, 1961), p. 154.
7. Ibid., p.144.
8. Ibid., p. 164.
9. Ibid., p.167.
10. Richard L. Blanco, Wellington's Surgeon General: Sir James McGriqor, (Durham: Duke University Press, 1974), p. 120.
11. Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton, N. J.: Princeton Univ. Press, 1984), p. 131.
12. Garrison, p. 157.
13. Bennett Clements, "Memoir of Jonathan Letterman, M.D., Journal of the Military Service Institution" (Vol iv, No 15, September 1883), p. 21.
14. Ibid.
15. Ibid., p.11.
16. Ibid., p.12.
17. Ibid.
18. Ibid., p.14.
19. Garrison, p. 199.
20. Ibid., p. 196.

21. Charles Heller and William Stofft, America's First Battles 1776 - 1965 (Lawrence: University Press of Kansas, 1986), p. 181.
22. Garrison, p. 196.
23. Gilbert Beebe and Michael DeBaKey, Battle Casualties - Incidence, Mortality, and Logistic Considerations (Springfield: Charles C. Thomas, 1952), p. 77.
24. Arthur MacNalty and F. W. Mellor, Medical Services in War, The Principal Medical Lessons of the Second World War (London: Her Majesty's Stationary Office, 1968), p. 66.
25. Beebe, p. 216.
26. Walter S. Dunn Jr., " 'People' Policies in Combat", Parameters (Vol xiv (1), 1984)), p. 56.
27. Russell F. Weigley, Eisenhower's Lieutenants - The Campaign of France and Germany, 1944-1945 (Bloomington: Indiana University Press, 1981), p. 374.
28. Ibid.
29. Ibid., pp. 370-371.
30. Beebe, p. 226.
31. LTG Leonard Heaton, Transcription of an oral history interview conducted by Robert B. McClean, Oral History, Senior Leader Series (Carlisle Barracks: U.S. Army Military History Institute, 1978), p. 32.
32. MacNalty, p. 70.
33. Slim, p. 89.
34. Ibid., p. 90.
35. Ibid., p. 150.
36. Ibid., p. 154.
37. Geoffrey Evans, Slim as Military Commander, (London: B.T. Batsford Ltd, 1969), p. 105.
38. Slim, p. 154.
39. Ibid., p. 153.

40. Frank A. Reister, Battle Casualties and Medical Statistics - U.S. Army Experience in the Korean War (Washington DC: Government Printing Office, 1973), p. 16.
41. Ibid., p. 3.
42. Frank A. Kierman, Jr., The Fluke That Saved Formosa (Cambridge: Massachusetts Institute of Technology, 1954) , pp. 2-9.
43. Ibid., p. 1.
44. Sun Tzu, The Art of War, ed. James Clavell (New York: Delacorte Press, 1983), p. 43.
45. Peter A. Poole, Dien Bien Phu 1954 - The Battle That Ended the First Indochina War (New York: Franklin Watts, Inc, 1972), p. 85.
46. Major Paul Grauwin, Doctor at Dien-Bien-Phu (London: Hutchinson & Co. Ltd, 1955), pp. 225-227.
47. Ibid., p. 227.
48. Ibid., p. 243.
49. Ibid., p. 277.
50. LTG Julian J. Ewell, Transcription of an oral history interview conducted by Robert Crowley and Norman Bissell, Oral History, Senior Leader Series (Carlisle Barracks: Military History Institute, 1979), p. 65.
51. Ibid., p. 67.
52. Ibid.
53. Spurgeon Neel, Medical Support of the U.S. Army in Vietnam 1965 - 1970 (Washington DC: Dept of the Army, 1973), p. 52.
54. Andre Ognibene and O'Neill Barrett, Internal Medicine In Vietnam, Vol II, General Medicine and Infectious Disease (Washington DC: Office of the Surgeon General & Center for Military History, 1982), p.55.
55. Edward J. Drea, Unit Reconstitution, a Historical Perspective (Ft. Leavenworth: Combat Studies Institute, U.S. Command and General Staff College, 1983), p. 59.
56. Ibid.

57. LTC Joseph C. Conrad, Transcription of an oral history interview by Donald J. Fritsche, Sr., Oral History, Vietnam Company Commander Program, (Carlisle Barracks: U. S. Army Military History Institute, 1981), p. 40.
58. Interview with Brigadier General Steven Silvasy, 26 January 1988.
59. Ibid.
60. Interview with COL (R) Joseph Jackson, MC, 10 February 1988.
61. Public Television, Operation Urgent Fury, Frontline, 3 February 1988.
62. Beebe, p. 245.
63. Weigley, p. 374.
64. MG Spurgeon Neel, Transcription of an oral history interview by Anthony F. Guadiano, Oral History, Senior Leader Series (Carlisle Barracks: U.S. Army Military History Institute, 1985), p. 15.