

Preventable Casualties

Rommel's Flaw, Slim's Edge

Col. Ronald F. Bellamy, MD, U.S. Army

Col. Craig H. Llewellyn, MD, U.S. Army, Retired



From ARMY Magazine, May 1990. Copyright by the Association of the U.S. Army. Reproduced by permission.

For tactical brilliance, energy of execution and inspiring leadership, Field Marshal Erwin Rommel's exploits in the Western African Desert in 1941–42 find few equals in this century. Today, many view Rommel as the quintessential armor commander and a role model in tactical and operational skills. Beyond these acknowledged areas of excellence, however, Rommel's performance as a commander showed deficiencies bordering on negligence.

The impact of virtually nonexistent field sanitation and associated preventable diseases on the *Afrika Korps* in 1942 demonstrates the likely outcome when a commander and his staff either ignore or are ignorant of the fundamentals of military medicine. Rommel's inattention to the health of his command led to massive attrition of irreplaceable seasoned veteran troops and contributed significantly to his ultimate defeat.

Conversely, in Burma during 1943–44, an enlightened contemporary of Rommel, British Lt. Gen. Sir William J. Slim, successfully attacked the disease and sanitation problems that were destroying the British 14th Army. He ultimately succeeded in defeating the Japanese in Burma.

The analysis of these two contrasting cases points up some lessons for the professional education of Army officers today.

After a succession of spectacular successes, Rommel was ultimately defeated in the Western Desert of North Africa. This defeat is usually attributed solely to the overwhelming personnel and material superiority of his opponents. What is not generally known, however, is the extent to which his own actions contributed to the numerical inferiority of his army.

The period between October 1941 and December 1942 includes Rommel's most famous battles: the British Crusader offensive; Rommel's retreat and subsequent counteroffensive in January 1942; the German offensive of late May, culminating a month later in the capture of Tobruk; the first battle of Alamein;

Rommel's failure at Alam Halfa in August; and his decisive defeat during the second battle of Alamein in late October and November.

During this period, for every German absent from duty because of battle injury, three were lost because of disease. Through sickness, Rommel lost temporarily or permanently a force equal to twice his average strength. Even during the climatic battle of Alamein, sickness was second only to being taken prisoner as a source of German personnel attrition. Many who became ill returned to their units after a short time; however, because of the nature of the diseases causing this attrition (dysentery, hepatitis, malaria, skin disease), it is likely that many additional cases were not hospitalized and therefore not counted. Both the cases returning to duty and the nonhospitalized performed with reduced combat effectiveness, and many suffered relapses leading to long-term hospital care.

Supporting evidence shows that of the 40,867 German troops medically evacuated from North Africa in 1942, disease was the cause in 28,488 cases.

Could Field Marshal Rommel have reduced the German military attrition caused by sickness? Certainly the concurrent British

Col. Ronald F. Bellamy, MD, U.S. Army, is assigned to the Walter Reed Army Medical Center where he performs cardiothoracic surgery. He is coeditor of the recently published second U.S. revision of the *NATO Emergency War Surgery Handbook*. He also served with the 45th Mobile Army Surgical Hospital in Vietnam. *Editor's note: This biography reflects the author's status at the date of this article's publication, May 1990.*

Col. Craig H. Llewellyn, MD, U.S. Army, retired, is a professor and chairman of the Department of Military Medicine of the Uniformed Services University of the Health Sciences. He is a graduate of the Armed Forces Staff College and the Industrial College of the Armed Forces. Col Llewellyn served 18 months in Vietnam as chief surgeon, 5th Special Forces Group (Airborne), and as commander, U.S. Army Medical Research Institute for Chemical Defense, and consultant to the surgeon general for Medical Support of Special Operations. *Editor's note: This biography reflects the author's status at the date of this article's publication, May 1990.*

Field Marshal Erwin Rommel (second from left) visits a U-boat base 12 February 1944 in La Rochelle, France. (Photo courtesy of Bundesarchiv via Wikimedia Commons)



experience in the Western Desert suggests that Rommel could have done much better. In comparing the sickness rates of the British 8th Army and Rommel's *Panzerarmee Afrika* from October 1941 to December 1942, a German soldier was 2.6 times as likely to become medically noneffective as his British opponent. In the two months preceding the second battle of Alamein, the German attrition rate exceeded 200. More than one in every five Germans had become ill. No wonder that elite units such as the 15th *Panzer* division were terribly under-strength (3,840 men versus a TOE [table of organization and equipment] strength of more than 10,000).

Matthew Cooper in his book, *The German Army 1933–1945*, quotes Sir Sheldon F. Dudley: “Montgomery says the Eighth Army won, but Rommel claimed the victory for dysentery ... But, as the Germans learned at El Alamein, dysentery can still win battles when hygiene discipline on one side is slack.”

Since the two sides were fighting in the same hostile desert environment, one may ask why the Germans were more profoundly affected by disease. In reality, many of the medical conditions that so weakened Field Marshal Rommel's army were preventable by well-understood and usually simple measures.

The official British history says that “the British Army and its medical services ... fully understood that problems of military hygiene would assume very considerable



Top: The 21st Panzer Division of the Afrika Korps on the move 1942 in northern Africa. (Photo by George Weber via Wikimedia Commons)

Middle: Doctors treat a wounded soldier of the 81st West African Division in an improvised operating room 1944 in the Kaladan Valley, Burma. (Photo courtesy of the Imperial War Museum, London)

Bottom: Troops line up to receive their water rations from a one hundred-gallon mobile tanker in Burma. Drinking local water that had not been tested was strictly forbidden. (Photo courtesy of Sgt. A Stubbs, courtesy of the Imperial War Museum, London)

Decades of routine peacetime medical practice have eroded the ultimate responsibility of commanders for the health of their troops, a principle well illustrated in the battlefield careers of two famous World War II field generals.

dimensions when large numbers of troops, imperfectly trained in matters of private and public sanitation, became congregated [in the desert].”

Rommel's command clearly did not have a similar degree of awareness. F. A. E. Crew writes in *The Army Medical Services*, Vol. I and Vol. II that “the complete lack of sanitation among both the Germans and Italians did much to undermine their morale in the Alamein position ... ”

The field sanitary discipline of German troops in various portions of this theater was lax, and they suffered from excessively high rates of intestinal diseases. Paradoxically, the otherwise exceptionally well-disciplined *Afrika Korps* neglected basic disease prevention procedures.

This is illustrated in the following report by Col. H. S. Gear, the British assistant director of hygiene in the Middle East—“Hygiene Aspects of the El Alamein Victory”—which appeared in the *British Medical Journal*, March 1944:

Enemy defensive localities are obvious from the amount of faeces lying on the surface of the ground ... This contempt for hygiene became such a menace to the enemy as to affect from 40 to 50 percent of his front-line troops, as interrogation of captured medical officers revealed ... The enemy appears to have no conception of the most elementary sanitary measures, and has a dysentery rate so very much higher than ours that [it] is believed that the poor physical condition of these troops played a great part in the recent victory at El Alamein.

Rommel's behavior is difficult to comprehend. While the field marshal was dashing about the battlefield performing the exploits for which he is now acclaimed, his army was literally “rotting away.” Either his senior medical officers or personnel officers should have alerted him to the problem. The data were available.

In general, a military commander whose force is experiencing enormous attrition from causes other than

battle injury must identify the problem and institute corrective actions. Field Marshal Rommel demonstrated only a vague awareness of the disease and sanitation disaster plaguing his forces.

According to Sir B. H. Liddell Hart in his book, *The Rommel Papers*, Rommel's diary contains only two references to the problem. On 2 August, 1941, Rommel wrote, “... a lot of sickness ... ” In September, he wrote, “On my visits to the front I was continually hearing of growing sick parades caused by bad rations.”

It should have been obvious to him that there was a medical problem, for Rommel himself was twice evacuated to Germany because of hepatitis. His diary also contains multiple references to members of his staff who had been rendered noneffective for medical reasons.

Rommel had either never learned to effectively employ his medical staff or was uninterested in the medical aspects of manpower maintenance and conservation. There is no evidence to show his recognition of the commander's ultimate responsibility for the health and welfare of his troops, and the ability of military medicine to maintain the health of the command. At a minimum, a commander of Rommel's experience and expertise should have recognized the tactical military significance of his temporary and permanent troop losses resulting from disease.

In his book, *Burma, The Longest War, 1941–45*, the British military historian Louis Allen, when describing the April 1942 arrival in Burma of a senior British commander, said, “Who, more than any other soldier in the theatre was to imprint his will on the course of the war: ... William Slim ... ”

How did Gen. Slim imprint his will on the course of the war? Primarily, he reversed the longest and most humiliating retreat in the history of the British Army, and ultimately inflicted upon the Japanese army its greatest defeat. Gen. Slim's memoirs are appropriately entitled *Defeat into Victory*. His achievements forcefully underline the importance of a knowledge of military medicine for the combat



A section of British soldiers of Field Marshal William Slim's 14th Army are briefed by their company commander before a patrol 12 April 1945 in Burma. A wide variety of weapons can be seen, including the Sten submachine gun, the Bren light machine gun, and the Enfield rifle. The disheveled appearance of the troops reflects the harshness of the Burmese terrain. (Photo by Sgt. Frederick Wackett, courtesy of the Imperial War Museum, London)

commander. This is best demonstrated by quoting directly from his book:

My second great problem was health [the first was supply, and the third, morale]. In 1943, for every man evacuated with wounds we had one hundred and twenty evacuated sick. The annual malaria rate alone was 84 percent per annum of the *total* strength of the army and was still

higher among the forward troops ... A simple calculation showed me that in a matter of months at this rate my army would have melted away. Indeed it was doing so under my eyes. Good doctors are no use without good discipline. More than half the battle against disease is fought not by doctors, but by regimental officers. It is they who see that the daily dose

of mepacrine (an antimalarial drug) is taken ... if mepacrine was not taken, I sacked the commander. I only had to sack three; by then the rest had got my meaning. Slowly, but with increasing rapidity, as all of us, commanders, doctors, regimental officers, staff officers and NCOs united in the drive against sickness, results began to appear. On the chart that hung on my wall the curves of admissions to hospitals and malaria in forward treatment units sank lower and lower, until in 1945 the sickness rate for the whole Fourteenth Army was one per thousand per day. But at the end of 1943 that was a long way off.

The central truth about military medicine, a truth appreciated by Gen. Slim but not Field Marshal Rommel, is that the commander is responsible for the health of his men. In the broadest sense, the medical officer is primarily an adviser. What he advises can be implemented only when the commander sets policy and either enforces it through command channels or delegates the necessary authority while providing unambiguous command emphasis.

The involvement of Gen. Slim in the health and medical problems of his command may seem strange or inappropriate in today's Army, where medical matters are almost solely retained within the province of medical commands and the medical officers in these commands.

To a great extent, this results from the fact that peacetime military medical practice resembles a civilian model, wherein typical civilian health care problems are generally managed in a medical setting approximating that in the civilian sector. This is best described as *medicine in the military* and is only very distantly related to *military medicine* and the problems faced by Rommel, Slim and subsequent commanders in the Korean War, the Falklands expedition and the Iran-Iraq war.

After U.S. military forces experienced significant difficulties with disease in the Spanish-American War, Secretary of War Elihu Root directed that a professor of military hygiene be assigned to the U.S. Military Academy and that courses in military hygiene be taught.

Leading practitioners of military medicine were also assigned to the faculty of the Command and General Staff College at Ft. Leavenworth, Kan., and the curriculum included lectures and exercises in planning the medical support of military operations.

Attrition Rates Due to Sickness (per 1,000 men per month)

Months	Year	German	British
October–December	1941	154	52
January–March	1942	95	51
April–June	1942	105	42
July–September	1942	158	67
October–December	1942	153	48
Average		133	52

(Table courtesy of original article; Source: Fischer—*Der deutsche Sanitätsdienst 1921–1945* and Vols. I and II of *The Army Medical Services—Campaign by F. A. E. Crew, Her Majesty's Stationery Office, 1956–57*)

Medical topics were added, and faculty members were assigned to the combat arms basic and advanced courses. Much of this disappeared after World War II or was reduced to inadequate levels.

Similarly, in the past, medical officers assigned as battalion and brigade or regimental surgeons were integrated into the staff planning process, thus providing company and field grade officers with direct exposure to practitioners of military medicine outside their clinical treatment roles. Since the Vietnam conflict, this integration and exposure have been inadequate at best.

Currently, no courses in military hygiene are offered at the military academies, staff colleges or war colleges. While a very small number of medical service corps officers are assigned to the combat arms advanced course faculties, medical content in the curriculum—a few lectures—is totally inadequate.

Rarely are military physicians assigned to the faculties of the command and general staff and war colleges. Physician's assistants currently serve as battalion surgeons, and inexperienced general medical officers just out of internship are assigned as brigade surgeons. Consequently, nonmedical officers have no basis for understanding the distinction between *medicine in the military* and *military medicine*.



German prisoners captured in a raid by British forces stand in line 28 August 1942 in Tel El Eisa, Egypt. (Photo by Associated Press)

It is thus no surprise that they are unprepared to integrate medical planning and military hygiene into joint task force contingency operations such as that in Grenada. Unfortunately, medical officers with substantial field and operational assignments and experience constitute a minute percentage of the peacetime medical corps.

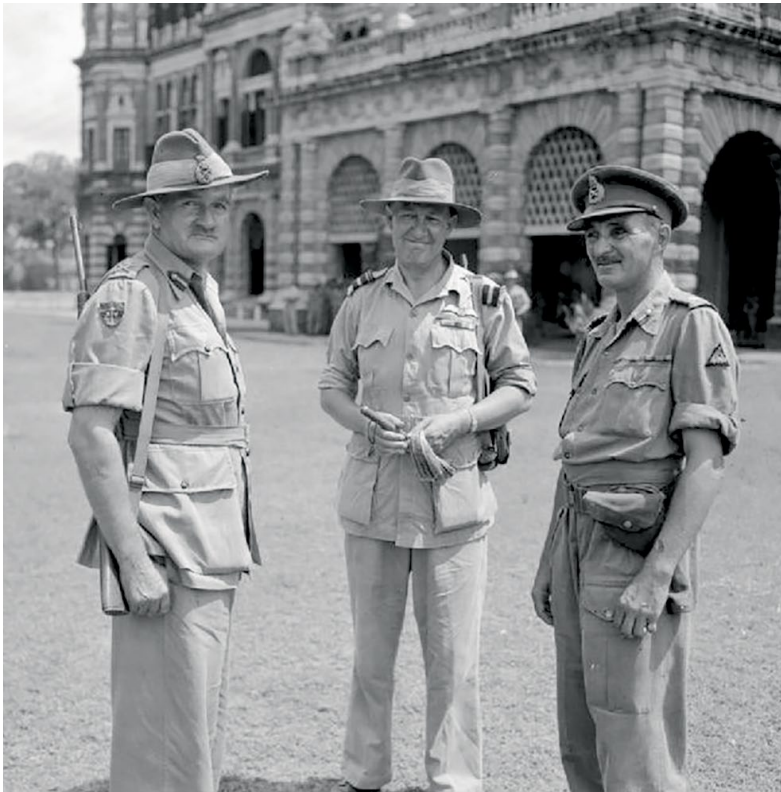
Division and corps surgeons often have no previous unit and staff experience and are frequently double-hatted as dispensary or hospital commanders. For these reasons, it seems probable that contemporary commanders facing a major problem in military medicine would be more likely to respond in the fashion of Field Marshal Rommel than Gen. Slim—not the preferred outcome. How then will a combat arms officer recognize the problems and utilize the capability of military medicine?

Military medicine is “that body of knowledge peculiar to the diseases and injuries incurred as a consequence of military occupations.”

It is taught and understood as a discrete body of knowledge with an extensive historical, academic and

technical literature with several major components, including the following:

- ◆ Deployment medicine—military hygiene.
 - ◆ Ensuring the health and fitness of troops before and during deployment.
 - ◆ Identifying health hazards associated with deployment and subsequent military operations and mission impact.
 - ◆ Providing command policies for countering these hazards—environmental stresses, disease and injuries—and managing resulting casualties if prevention fails.
- ◆ Combat casualty care.
 - ◆ The prevention and treatment of injuries resulting from hostile enemy actions.



British Lt. Gen. Sir William Slim, 14th Army commander (*left*); British Air Vice Marshal Stanley F. Vincent, South East Asia Air Forces; and Maj. Gen. Henry M. Chambers, British Indian Army officer (*right*) 8 May 1945 at the Government House in Rangoon, Burma. (Photo by Sgt. Frederick Wackett, courtesy of the Imperial War Museum, London)

- The organization, capabilities and tactics of deployable medical units from battalion aid station to fourth echelon hospital.
 - Integrating medical estimates and requirements into the logistics estimate and the overall operational plan for support of military operations.

Deployment medicine and the organization and capabilities of deployable medical units are the areas that Gen. Slim mastered and Field Marshal Rommel failed to understand. If the experience of the U.S. Army from Lebanon in 1958, through Vietnam, to Grenada in 1983 is considered, these are the areas of most likely failure in the future. Enlightened commanders and staffs at all levels who understand the importance of military medicine are the best guarantee that we will not repeat Rommel's experience.

There is certainly no need to know the arcane aspects of surgical management of war wounds, or therapeutic interventions used in the treatment of

infectious diseases. Broad concepts and selected principles must be stressed, including the following:

- The commander's responsibility for the health of his command. How to gain "command of health."
- What the commander needs to know to assess the health of his command and the adequacy of his medical support.
- What the commander should expect from his medical staff and medical units.
- The sources of attrition in war and the spectrum of the medical threat.
- A basic knowledge of field sanitation.
- The commander's role in countering the principal medical threats to military operations and personnel.
- A realistic understanding of the limitations of combat casualty care (it can do less than many think).
- Combat stress reactions—prevention, management and impact on troops and commanders.

As far as we are aware, no Army school includes these topics in its curriculum. Among the other services, only the Marine Corps Command and Staff College has incorporated much of this material into the professional education of its students.

Military medicine should be taught with the goal of making nonmedical officers more intelligent consumers of medical services. Instruction should begin in the pre-commissioning phase and continue through basic and advanced courses, staff college and war college.

Instruction in military medicine for nonmedical officers would not require a significant proportion of curriculum time. The effort would be worthwhile if today's officers come to understand why Gen. Slim and not Field Marshal Rommel is the desirable role model. Similarly, they should understand that procedures do exist for the commander to be as involved in the health of his command as he is in its signal or maintenance support. An additional benefit might be the growth of an officer corps that knows what it requires and expects from the medical department when the latter is focusing on its primary mission—military medicine. ■