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Whodunit? Death by Disease in the American Civil War and the Surgeons who might have been Responsible

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Whodunit? Death by Disease in the American Civil War and the Surgeons who might have been Responsible.

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For Dr. Wilma McClarty
Southern Scholars Senior Project
Whodunit?
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Whodunit? Death by Disease in the American Civil War and the Doctors Who Might have been Responsible.

Imaginations go on auto-pilot when Americans think about medicine in the Civil War. The most common scenario is of a soldier lying on the operating table begging, “Doc, please save my leg!” The surgeon gravely shakes his head and pulls out a saw. He then gives the soldier a swig of whiskey to help numb the pain. The curtains close as the man shrieks in agony.

Although amputations were used in the Civil War, the role of medicine was much more complex as Calvin Woods attested: “Surgeon of a [Regiment] is not the nice job I thought it would be. I thought I would only have to cut off a few legs and arms instead of which I have to mix constantly with fevers of the worst kind. I long since got tired doctoring in common sickness.”

Woods’ experience was not an exception. The biggest medical challenge in the Civil War came from disease, not bullet wounds. The death rate confirms this: two soldiers died from disease for every one killed in battle. In raw figures, that is an astonishing 388,580 deaths just from sickness during the course of the War.

The soldiers were not oblivious to the medical situation. “The saddest of all things connected with soldier life are the deaths and burials in camp,” noted a correspondent from Camp Bartow. “Disease is by long odds too common and too fatal.” Soldiers who joined the army were more or less prepared to die heroically in battle, but anonymous death in camp was another matter. What initially had been unthinkable soon became a reality. “There’s little enough comfort in dying in camp except it be that one gets accustomed to it (as an Irishman might say) and has

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1 Alan Gaff, On Many a Bloody Field (Bloomington, IN, Indiana University Press, 1996), 67.
2 This is a very conservative number. In Tenting Tonight The Soldier’s Life, James Robertson gives the figure as high as six to one.
3 This figure includes deaths from both the North and the South. See table 1.
4 Horace Cunningham, Field Medical Services at the Battles of Manassas (Athens, GA, University of Georgia Press, 1968), 69.
plenty of company," wrote a young Oliver Wendell Holmes Jr. while serving on the Union side.\(^5\) Not surprisingly, the large number of meaningless deaths left many soldiers questioning the benefits of their medical services. Robert Patricks bluntly summed up their feelings when he wrote, "I know these fellows and I am suffering now from the treatment of ignorant, sap-headed physicians."\(^6\)

As a sick soldier who just wanted to get well, Patricks jumped to the natural conclusion. But was he correct? Could the camp surgeons be blamed for the lingering illnesses and sweeping epidemics? In short, was the high rate of death from disease a direct result of medical incompetence or inexperience? The answer is complicated. Medical knowledge in the nineteenth century did not include bacteriology or the antibiotics which we take for granted today. The surgeons can not be held accountable for what was then unknown. There are, however, factors that the surgeons were aware of--and disregarded.

This paper will explore medical responsibility from many angles. It will examine what eyewitnesses such as Patricks had to say about camp surgeons. Next, it will investigate the main diseases from which soldiers died as well as their treatments. Then, it will analyze how surgeons were incompetent or inexperienced, and what important factors they neglected. Finally, this paper will look at contributions to diseases which surgeons had no control over. But first, I will explain why the surgeons from the North and South will be investigated together.

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North and South

Although surgeons in the Civil War served on different sides, they had much in common. They had received a similar medical education and were mostly civilian physicians before the War. The soldiers they treated during the War were not only culturally similar, but also were exposed to the same climate and environment. The surgeons encountered the same diseases and made the identical mistakes. There are, however, two distinctions: northern surgeons were better supplied with medicine, and their soldiers were better fed and sheltered. Although this disparity affected statistics, (In the first year and a half, the Union Army lost 2.01 percent of its men by death from disease while the Confederated Army lost 3.81 percent.)\(^7\) it does not affect the question posed in this paper. The fact remains that both sides lost an astronomical number of soldiers due to disease.

Not only does it make absolute sense to evaluate the medical situation of the North and South together, it is also convenient. The complete Confederate medical records were destroyed in a fire in Richmond. The only remaining primary sources for Confederate medical history are the fourteen monthly issues of the *Confederate States Medical and Surgical Journal*, as well as surgeons’ personal records—which are the most complete for only the first two years of the War. Most of the information available on surgeons comes from Union records. There are enough medical parallels between the North and the South from the first two years (when Confederate records are more intact) to justify professional assumptions about the South for the last two years. In this paper, I will only use the assumptions established by several Civil War authorities.

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\(^7\) George Worthington Adams, Doctors in Blue The Medical History of the Union Army in the Civil War, (New York, Henry Schuman, 1952), 14.
Soldiers' Opinions of Doctors

With more soldiers dying in camp than in battle, it is not surprising that surgeons were often despised and regularly made the butt of jokes. *The Life of Billy Yank* quotes a Union soldier poking fun at the unscientific methods he believed his camp surgeon used to prescribe medicine:

> The Regular prescriptions were numbered six, nine and eleven, which were blue pill, quinine, and vinum. We soon learned that “vinum” meant either wine or brandy. I have seen men count from right to left, “six, nine, eleven—six, nine, eleven—six, nine, eleven,” and step into the line just where “eleven” would strike. It was a sure thing, since the surgeon gave in regular order, as the men filed past him, something as follows: “Well what’s the matter with you?” “I don’t know, Doctor, I’ve got an awful pain in my bowels; guess I’ve got the chronic diarrhoea.” Let’s see your tongue? Give him number six! Next, what’s the matter with you?” “I was took an awful griping pain in my bowels—guess I’ve got the chronic diarrhoea.” “Give him number nine! Next, what ails you?” “I’ve g-g-got an almighty b-b-bellyache, g-g—guess I’ve got the chronic d-d-diarrhoea.” Run out your tongue? Give him number eleven!“

Robert Patrick, the Confederate Soldier who called his physicians “sap headed”, also complained about the careless prescriptions surgeons made. But for Patrick, who always seemed to be sick, it was not a laughing matter. He bitterly wrote in his journal:

> I have been quite unwell lately, and I am now scarcely able to sit up. I have been to two or three surgeons but they do not seem to know [what is wrong]. The most of them will administer a large dose of calomel to the patient it doesn’t matter what his disease may be. Then come dose after dose of quinine and other strong medicines until they either kill the individual or ruin his constitution for life."

Patrick’s complaint was valid. Medication was not a science. Most medicines had started out as home remedies. Although surgeons could only prescribe medicines on the approved list,

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9 Taylor, 88
specific diseases had no standard prescription. This left each surgeon to rely on his own favorites. Not that it mattered much what he chose to administer. According to today’s medical profession, the only effective medicine used against disease in the Civil War was quinine.\(^\text{10}\)

Since doctors mostly passed out ineffective medication, it is not surprising that many soldiers avoided them. Albert T. Goodloe was one of them and wrote, “had much fever while on the march, but I determined to keep on foot as long as I could, and did so until I was well.”\(^\text{11}\) Goodloe was lucky to get well. Most soldiers who initially avoided surgeons were ultimately forced to go. By this time they would be so sick that their chances of recovery were slim. Although medication was typically ineffective, rest was not. And this could be obtained through a surgeon.

Part of the morning routine involved a sick call. The ill would line up at the surgeon’s tent for treatment. The surgeon not only diagnosed soldiers and administered medicine, but also determined which soldiers were sick enough to be temporarily relieved from duty or even be admitted into the hospital. This was a tricky job because of the frauds who, trying to avoid duty, faked illness. John Billings humorously writes about the “beats on the government emerging from their tents at sick-call. . . [with] a pace slow and measured, appearing to bear as many of the woes and ills of mankind as Landseer has depicted in his Scapegoat.”\(^\text{12}\)

Naturally, the camp colonel wanted the surgeon to detect the “beats” and send them back to their duties. The surgeon’s authoritarian role complicated his relationship with the soldiers.

\(^{10}\) Susan Provost Beller, Medical Practices in the Civil War, (Cincinatti, Ohio, Betterway Books, 1992), 75. Quinine was only effective against malaria, however it was widely used for every other disease.

\(^{11}\) Albert Goodloe, Confederate Echoes, (Washington DC, Zenger Publishing Co., Inc. 1983 (original copyright 1893), 186. Although Goodloe served as a private in the army, he had been a physician as a civilian. For this reason he lends an interesting perspective on surgeons in the Confederacy.

The situation was not helped by the inevitable mistakes surgeons made. John Haley of the 17th Maine gave a drastic example of one such error in his diary:

At night [we] had a dress parade during which a man from Company K dropped dead in the ranks. This was nothing short of cool audacity and defiance. He had been complaining of not feeling well for a day or two, but the medicine man pronounced him well and refused to excuse him from duty. Tonight he showed his contempt for the medical faculty by dropping dead without consulting them further. Most surgeons were not cold and heartless, but it often appeared that way to soldiers coloring their view of medical personnel.

It would not be fair to finish this segment of the paper without mentioning the soldiers who liked their surgeons. One of them, Henry Urguhart had many success stories and frequently wrote in his journal that “dock gave me some large doses of medicine that straightened me right out.” Unfortunately, Urguhart is an exception. In most diaries and journals, references made to the medical profession were negative.

**Disease**

Soldiers died from a wide range of diseases: typhus, syphilis, pneumonia, bronchitis, and scurvy; to name just a few. It is impractical to investigate the causes of each disease recorded. But one can identify four disease which caused the most deaths in both the Confederate and Union armies: measles, diarrhea-dysentery, typhoid and malaria. A brief description of each disease follows below.

**Measles:** When the war began, boys from both sides rushed to enlist. These raw recruits would have their first taste of army life, as measles swept through the camps. Because measles is an airborne disease, the crowded camp conditions lent themselves to epidemics. In the 19th

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century there was no vaccine for measles, and thus no way for doctors to stop the disease. Rural soldiers, who were more likely to lack prior exposure and, therefore, immunization, were hit the hardest. This caused one city soldier to sarcastically comment, "It was amazing to see the large number of country boys who had never had the measles. Indeed, it seemed to be that they ran through the whole catalogue of complaints to which boyhood and even babyhood are subjected. They had everything almost except teething, nettle-rash and whooping cough." 14

Measles was not a joke though. In July, August, and September of 1861, one out of every seven soldiers in the Army of Potomac had them. And on the Confederate side in a North Carolina camp, 4000 cases of measles developed among 10,000 soldiers. 15 Most military officials were resigned to the spread of measles and would often give new troops an adjustment time to allow the epidemic to sweep through camp.

Measles alone was usually not deadly. But thousands of deaths resulted from complications. "Fever, pneumonia and diarrhea...follow in the wake of measles," reported a committee appointed to examine the operations of the Quartermaster, Commissioner, and Medical Departments. 16 The committee blamed the large number of sick at the beginning of the war on these complications. Soldiers also recognized measles as a major contributor to death. Charles Johnson, a Union soldier, saw so many of his comrades die from complications of measles that he later wrote in his memoirs, "if I were enlisting Civil War soldiers I would reject all that had not had this affection in childhood." 17

Diarrhea-Dysentery: Having diarrhea was a hallmark of being a Civil War soldier.

Letters home were filled with bowel complaints. “I had army quick step. I suppose you know what that is,” Charles Dunham, a hospitalized Union soldier, told his family.18 Another Union soldier, Oliver Wendell Holmes Jr., wrote, “I’m pretty well--very except for occasional spasmodic pain in bowells & constant diarrhea which everybody has.”19 Confederate soldiers also experienced “army trot”. According to one doctor, “no matter what else a patient had, he had diarrhea.”20

Diarrhea-dysentery, known as “the flux”, was second only to typhoid as a killer. As the war progressed, the threat of typhoid diminished while diarrhea-dysentery “increased and not only destroyed more soldiers than gunshot wounds, but more soldiers were permanently disabled,” wrote Dr. Joseph Jones one of the most important authorities on Confederate medicine.21 Although more Confederates died from diarrhea-dysentery than Federalists, the disparity is not by much and Jones’ statement can also be applied to the Union army.22

Diarrhea-dysentery is not one disease, but two separate things. Diarrhea is a symptom that can accompany many diseases. Dysentery is an illness whose main symptom is diarrhea.23 The two are frequently combined in Civil War records, because camp diagnosis was often inaccurate. For instance, a soldier with diarrhea would be incorrectly diagnosed with dysentery and vice-versa.

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18 Arthur H. DeRosier (ed.) Through the South With a Union Soldier, (Johnson City, TN, East Tennessee State University, 1969), 130
19 Taylor, 62
20 Cunningham, 185.
23 Dysentery is not only characterized by diarrhea, but also by vomiting, cramps and bloody stool. The illness usually lasts only 4-7 days, but a poor pre-existing diet (as was evident in the army) can lead to complications.
During the Civil War, diarrhea-dysentery was almost impossible to cure. But doctors tried anyway, using a medley of remedies. The Medical and Surgical Guide to the War of the Rebellion has devoted 170 pages solely to the treatment of diarrhea-dysentery. The list included arsenic, iodine, and bloodletting. The more common treatments, purgatives and astringents, were not much better. Calomel, a purgative whose active ingredient is mercury, was one of the surgeons’ favorite remedy.

Although many surgeons claimed to have found a cure for dysentery, no miracle medicine emerged. The best treatment would have been prevention. Both dysentery and the most common form of diarrhea, E. coli, are spread fecal-orally. Other transmittance are contaminated water supplies, and flies which carry bacteria to food. Good sanitation would have diminished the prevalence of both these ailments.

**Typhoid:** Typhoid responsible for one fourth of the noncombat deaths, was the biggest killer in the War. Union soldier George Waite gave a typical report of an epidemic when he wrote:

we were nearly all taken sick in a short time. . . . the men began dying off, and they went rapidly too. I have seen as many as six men from our regiment buried in one day, and from the first of May to the

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24 The Life of Johnny Reb, 258. The Random House College Dictionary defines an astringent as “a substance that contracts the tissues or canals of the body, thereby diminishing discharges, as of mucus or blood,” and a purgative as “purging or cleansing, esp. by causing evacuation of the bowels.” Jess Stein (ed.), The Random House College Dictionary (New York, Random House, Inc., 1983).

25 Surgeon General of the United States Army. Medical and Surgical History of the War of the Rebellion (Washington, DC, 1870-1888), Medical History, II, 717. Hereinafter the abbreviation War of the Rebellion will be used. Calomel produced such “drastic gastrointestinal symptoms” that it lost popularity in Europe during the nineteenth century, but it was still respected by most American physicians during the Civil War. Cecilia Mettler, History of Medicine (Philadelphia, The Blakiston Company, 1947), 653.


27 Typhoid, also called “camp fever” or “continued fever” is characterized by fever, headaches, loss of appetite and a cough. Patients who survive are carriers anywhere from one week to three months.
twentieth of June, I believe there was not a single day passed without witnessing the burial of one or more of our comrades. 28

Typhoid is caused by bacteria, which is only present in the feces and urine of patients and carriers. The disease is spread through infected food and water. Poor sanitation and flies are the primary agents of contamination. 29 Charles Johnson, a Union soldier, explained in his memoirs how typhoid spread in his camp: “The bowell discharges, which we now know contain trillions of typhoid germs...were carelessly handled and disposed of in a haphazard fashion.” 30 Although Johnson’s company lost “as many from typhoid as battle,” he writes, “I can but wonder at the good fortune of many of us in escaping unharmed.” 31

Because typhoid was an epidemic disease and not a continuous problem, the variety in treatment was not as varied as with diarrhea-dysentery. Medication, however, was no more helpful. Surviving typhoid was due more to a strong constitution or good nursing than medicine. A prime example is J. Cannon a Confederate soldier who got typhoid while caring for the ill. Cannon was fortunate enough to be taken in by a local family and nursed back to health. When he returned to the hospital he found “but few who were there when I left--a large proportion of them dead and buried.” 32 This is not surprising when you consider that doctors viewed “turpentine as little short of a sheet-anchor in the treatment of typhoid.” 33 Surgeons also prescribed quinine and calomel, neither of which was beneficial.

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28 George Sumner Waite, Autobiography and Some Letters, 1863 to 1865 (transcript in the McKee Library at Southern Adventist University), 15.

29 Benenson, 502-514.

30 Johnson, 157.

31 Johnson, 157.


33 Johnson 159.
Malaria: Malaria is one of the medical success stories of the Civil War. Although it accounted for one-fourth of the sickness, the death rate remained low due to quinine. This is the one incidence were the appropriate medicine was given. Surgeons might have known how to treat malaria, but they did not know what caused it. Observation indicated that swamps contributed to malaria, while bonfires offered protection. It was also noted that those who slept indoors, protected from the “night air,” were less likely to get malaria, than those who slept outside. These theories could have protected soldiers from malaria if army commanders had utilized them in picking a campground. This was not the case, however, and it caused W.S. King, USA Medical director of the army under General McDowell, to write that “the evil [of poor camp selections] must be suffered” for weeks.

Malaria was also unique because it was the one disease in which the North and South were not on equal medical footing. Due to the blockade, the amount of quinine available in the South diminished as the war progressed. This left doctors scrambling to come up with substitutes. The Surgeon General of the Confederate Army issued a recipe for a substitute which contained: dried dogwood bark, dried willow bark, and whiskey. Another substitute, the external application of turpentine, became a favorite with doctors. How effective the substitutes were is difficult to analyze since most of the Confederate medical records were destroyed. Records dating to 1862 show that malaria accounted for four percent of deaths in the Confederate

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34 Malaria is caused by the bite of a female *Anopheles* mosquito. Once a person has had malaria, he/she can be subject to bouts of the illness for up to 5 years without being bitten again.
36 Medical Practices, 75.
38 War of the Rebellion Vol. I, 2
Army. In the Union Army, malaria caused seven percent of deaths.\textsuperscript{40} In 1862, however, the full effect of the blockade would not have been felt. One must also take into account that the Confederates experienced a higher death rate from diarrhea-dysentery, and this would skew the percentages.

Other diseases: There are several diseases that are significantly missing from the list of big killers. Scurvy is one of them. The incidences of scurvy in the army was actually higher before the war than during.\textsuperscript{41} A partial explanation for this phenomenon is that surgeons had an idea of what caused scurvy and were diligent in preventing it \textit{during} the War.\textsuperscript{42} One Confederate surgeon, John S. Fenner, went as far as ordering his men to eat grass and other green things in the woods until army vegetables arrived.\textsuperscript{43} Another potential threat was smallpox. Although there were several smallpox scares, the available vaccine helped contain the disease. It is interesting that both successes relied on prevention rather than treatment.

\textbf{Incompetent Surgeons}

It is easy to see that many soldiers died because of the inadequacy of medicines used during the Civil War. It is more difficult to determine how many deaths occurred because of inadequate surgeons. What constitutes an inadequate surgeon must first be established. Because medical training was minimal, even the best surgeons in the nineteenth century would be considered incompetent today. A prospective surgeon would study medicine for two, five-month

\begin{itemize}
\item \textsuperscript{40} The War of the Rebellion, Vol. III, 30.
\item \textsuperscript{41} The War of the Rebellion Vol. III, 15.
\item \textsuperscript{42} Although it was not know at the time that scurvy is caused by a deficiency of vitamin C, it was believed that fresh fruits, vegetables, and meats were preventatives.
\item \textsuperscript{43} Larry J. Daniel, Soldiering in the Army of Tennessee (Chapel Hill North Carolina, The University of North Carolina Press, 1991), 74.
\end{itemize}
terms "the second covering the same material as the first." The final graduation requirement, a three-year internship under a reputable practitioner, was generally shortened and often waived entirely.

Although a medical degree indicated little, it would be safe to say that surgeons who lacked one were even more inadequate. Such surgeons did exist. "Many ignorant physicians, or those who had been long out of practice, if indeed they had any, obtained contracts," wrote John Brinton, a surgeon in the Union Army. "Not infrequently it happened that charlatans and impostors succeeded in forcing themselves into these appointments, and the soldiers, as would naturally be supposed, suffered in consequence." Impostors were able to become camp surgeons because of both governments' desperate need for medical personnel. When the War began, the Union Army had 98 surgeons, while the Confederacy had only 24. By the end of the War, 13,000 surgeons had served in the Union Army, and 3,500 had served in the Confederate Army. The screening process suffered in an attempt to obtain so many surgeons in such a limited amount of time. During the course of the War, the Medical departments attempted to correct this deficiency. "Whenever a medical officer was complained of for incompetency, a board was ordered," wrote Charles Tripler USA, Medical Director. Tripler's success was limited because of the constant need for surgeons throughout the War.

Another group of inadequate surgeons were those who lacked military experience. The majority of surgeons were in this category, since only 122 surgeons served in the military's

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45 Joseph Jones, 23.
47 Tenting Tonight, 79.
49 War of the Rebellion, Vol. 1, 44.
medical department before the War. The gravity of the situation can not be overstated. In
evaluating the effectiveness of his department, Tripier wrote:

The most serious impediment in the way of [medical department’s] success was, undoubtedly, the want of
military habits and training in the medical officers. The general impression among the people seems to be
that a good civilian physician is fully competent to discharge the duties of a regimental surgeon; and I
have no idea that anything I can say will be effective in disabusing the public mind of a notion that I
believe to be as mischievous as it is erroneous. In my opinion, it is impossible to improvise an efficient
medical staff.50

Tripier was right. The improvised staff would result in the loss of thousands of lives.

Medical Negligence

The surgeons cannot be blamed, for the general lack of medical knowledge in treating
diseases during the nineteenth century. The incompetent and inexperienced surgeons, however,
did not do enough to prevent diseases. And it is here we lay a great many deaths at the feet of the
surgeons. The first precaution intended to ensure healthy troops, was the medical inspection.
Procedure called for recruits to be “minutely examined by the surgeon and the assistant
surgeon.”51 The examinations were careless in the Union Army, and non-existent in the
Confederacy. The lack of exams in the South was more a matter of government policy than a
medical decision. The Union surgeons have no such excuse.

As a result of careless inspections, the camps were filled with soldiers who suffered from
epilepsy, ulcers, hernias, and syphilis—even sixty and seventy year old men were enlisted. More
shocking, perhaps, were the deaf and the lame who passed the physical examinations.52 It is not
surprising that the careless inspections caused large sick ratios. The New York Garibaldi Guards

50 War of the Rebellion, Vol. 1, 58.
51 War of the Rebellion vol. 1 p. 47
52 War of the Rebellion Vol. 1, 47
were an extreme case where more than a third of the soldiers were unfit for service, before taking the field. Eventually, soldiers with impairing disabilities were discharged. In the Army of the Potomac, of the 3,939 men discharged, 2,881 were disabled at the time they enlisted. Not only had the 2,881 men wasted the Army's money, but they had also contributed to the spread of disease. The already weak men were more likely to catch a disease. The sick soldiers would then contaminate the entire regiment. Of course, the patriotic yet disabled soldiers were not at fault. The surgeons who permitted them to enlist were to blame.

The most serious charge that can be leveled against Civil War surgeons, both North and South, was their neglect of camp sanitation. The biggest killers, typhoid and diarrhea-dysentery, were spread through poor hygiene. Quite simply, a clean camp would have been a healthy camp—which was recognized by the medical profession at the time. “When we learn that diseases destroy more soldiers than do powder and the sword, it cannot be too often repeated that these disastrous results may be easily prevented by simple hygienic precautions,” wrote Surgeon W.S. King, USA, Medical Director of the Army under General McDowell, after the First Bull Run Campaign.

To ensure good health, the regular army had issued a set of regulations for campgrounds before the Civil War ever began. A camp was expected to be clean. Tents and bedding were to be well ventilated. Latrines and garbage pits were to be carefully located and covered daily with earth and chloride of lime. Every effort was to be made to protect the purity of the water supply.

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53 Cunningham, 2
54 War of the Rebellion Vol. 1, 47
55 War of the Rebellion Vol. 1, 1.
And finally, each soldier was expected to maintain personal hygiene through regular bathing.\textsuperscript{56}

The reality did not even come close.

At their worst, camps were filthy. Latrines were carelessly located and irregularly used. Tents, if available, were crowded. Bodily wastes contaminated the water supply, and personal hygiene was a luxury, few bothered to achieve. Add to the picture, six inches of mud, if it had been raining; or half a dozen unburied, decomposing bodies, if there had been a recent battle. At one time or another, most regiments had a camp which resembled the slothful one above. The normal campsite, however, settled somewhere in between the desired and the horrible (typically closer to the horrible side). The sanitary situation was so bad that Charles S. Tripler, U.S.A. Medical Director, wondered why more soldiers were not sick. "The health of some of the regiments under adverse hygienic circumstances seemed to set all reasoning at defiance."\textsuperscript{57}

The Brigade surgeon was the one to blame for the disparity between regulations and the actual campsites. A list of posted guidelines for the Union army stated:

\begin{quote}
The brigade surgeons will frequently inspect the police, cooking, clothing, and cleanliness of the camps and men in their respective brigades; the position and condition of the sinks; the drainage of the camp grounds; the ventilation of the tents, etc.; making written reports to the brigade commanders whenever, in their opinion, any errors in these respects required correction, and sending duplicates of these reports to the medical director of the army.\textsuperscript{58}
\end{quote}

**Surgeons’ Reasons for Neglecting Sanitation**

There were many reasons doctors neglected policing the camps. One issue which should first be considered was the lack of military cooperation., Surgeon W.S. King, USA, Medical

\begin{flushright}
\textsuperscript{57} War of the Rebellion, Vol. I, 59.
\textsuperscript{58} War of the Rebellion, Vol. I, 59.
\end{flushright}
Director of the Army under General McDowell, was trying to instigate change, but encountered resistance. In frustration he wrote:

It is while engaged in the labor of introducing sanitary reforms that the want of substantial rank is most sensibly felt by the medical officer, and more or less paralyzes all his efforts. . . should he naturally desire to instantly change this conditions of things, he will learn by bitter experience, the extreme difficulty of inducing those in authority to listen.  

It is important to note that King was a medical director, not a camp surgeon. In fact, it was the camp surgeons whom King was trying to reform.

The camp surgeons were not interested in reforming because they were already over worked. Each regiment, consisting of between 500 to 1,000 men, was supposed to have one surgeon and one assistant surgeon. There was a scarcity of medical officers though, and in 1862, the Union Army averaged only three medical officers for every two regiments. The medical officers had to diagnose the soldiers, give out medication, and take care of the seriously sick and wounded, as well as fill out paperwork. Policing the camps was a duty they just did not feel they had time for.

Another reason surgeons neglected sanitation was that it appeared to be a losing battle. Away from home and primarily in the company of men, many soldiers seriously neglected personal hygiene, let alone camp hygiene. “Some of the men were about as particular about changing their underclothing at least once a week as they would be at home; while others would do so only under the severest pressure. It is disgusting to remember, even at this late day, how little care hundreds of men bestowed on bodily cleanliness.”

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59 War of the Rebellion Vol. I, 1
60 War of the Rebellion Vol., I, 23.
61 John Billings Hardtack & Coffee: The Unwritten Story of Army Life, (Lincoln, NE, University of Nebraska Press, 1993), 83.
The last and most important reason surgeons neglected camp sanitation was their inexperience. They knew they were supposed to inspect the cleanliness of the camp and men, but they did not know how important it was. Charles S. Tripler, U.S.A. Medical Director, complained about this when he wrote:

The regimental medical officers were, for the most part, physicians taken suddenly from civil life. . . To superintend the sanitary conditions of the regiment, to call upon the commanding officers to abate nuisances, to take measures for the prevention of disease, was, in many instances, considered impertinent and obtrusive.  

What seemed “impertinent and obtrusive” would have saved thousands of lives.

Contributions to Diseases Which Doctors had no Control Over

Even a perfect doctor who energetically pursued sanitation issues could not have prevented all the diseases and deaths in the Civil War. There were simply some contribution which doctors had no jurisdiction over, such as: camp location, quality of food, long marches, and exposure. In the following section, I will give a brief description of each non-medical element.

Camp Locations: Camp locations were picked based on military significance, rather than medical importance. It was common for commanders to choose campgrounds which had already been used and reused by Confederate and Union troops. A Union soldier describing one such site wrote, “this place is extraordinarily filthy and it smells ‘mighty loud.’ It was almost with surprise that I awoke the next day. . . . I had neither died of the cholera or been tooted off by vermin.” When the soldiers began to clean the campsite they found “old bones, decayed meat and vegetables, mouldy bread, lice, and other foreign matter.”

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63 Silliker, 223
Food Quality: The consistently fed Union Army had an advantage over the South where rations were less regulated. In 1862, soldiers in the Army of Tennessee were so hungry that "rebels were frequently seen filtering through the dirt where a horse had earlier eaten in an attempt to salvage leftover grains of corn."64 This was not an exception, during the Vicksburg siege "emaciated troops scoured the works for food of any description."65 When food was available it was no healthier than the North, where the main field rations were pork, beans, hardtack, and coffee; vegetable supplies were inconsistent.66

Long Marches and Exposure: In addition to poor food, soldiering involved long marches. Joshua Callaway asserted that he almost died after having "marched nearly seven hundred miles...suffered [a great amount] of cold hunger and famine, have been on forced marches nearly all the time, day and night."67 Part of Callaway's unsound health can be attributed to exposure. "We had to throw away our knapsacks and all our clothes...consequently we are now naked, [and] barefooted," Callaway wrote.68

On the Confederate side especially, exposure presented a problem. Two-thirds of General Daniel Harvey Hill's men lacked tents although he repeatedly asked the government to send 2000. In the spring of 1862, he wrote, "It is true that but few are killed daily, but our men are kept in the wet trenches and are harassed day and night. Disease will destroy a hundred fold more [than]

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65 Doctors in Gray, 177.
66 Doctors in Blue, 209. Hard tack is described as "a piece of petrified bread honey combed with bugs and maggots." Hardtack & Coffee 110.
68 Letters of Joshua Callaway, 62.
the Yankee artillery.” Although better equipped, Unionists also experienced long marches and nights out in the rain.

With bad campsites, poor quality food, (or in the South’s case often none) long marches, and exposure, it is obvious that soldiering was not conducive to good health. These elements must be taken into account when the high death rates from disease are examined. If the life of a soldier was easier, there would no doubt have been less death from disease regardless of who the surgeons were.

**Conclusion**

The story of the 19th Indian regiment was a typical one.\(^{69}\) Like many regiments, the soldiers experienced long marches in the hot sun, as well as exposure in camp. Once, the soldiers were “compelled to spend the night in an open field, during a severe storm of rain,” as Robert Owens attested.\(^{70}\) The 19th Indian regiment was also typical in regard to camp cleanliness. “A medical inspector reported that policing of the Hoosier camp was only fair and their sinks were bad.”\(^{71}\)

Due to all the factors above, the 19th Indiana experienced excessive sickness (malaria, measles and typhoid) during their first year and a half of service. During a typhoid epidemic, Colonel Meredith blamed the surgeon, calling him “not only ineffective, but careless.”\(^{72}\) The soldiers also had a poor opinion of their camp surgeon, Calvin Woods. “Wee have a Doctor here in this regiment that is not worth a dam or I think the boys would git along better,” wrote sergeant Joel Newman. “If I only would Dare I would give him a cursing for neglecting the boys.”\(^{73}\)

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\(^{69}\) The story of the 19th Indiana regiment is found in Allan Gaff’s book, *On Many a Bloody Field.*

\(^{70}\) *On Many a Bloody Field,* 47.

\(^{71}\) Ibid., 294.

\(^{72}\) Ibid., 47.

\(^{73}\) Ibid., 47.
Woods had neglected the boys by his unwillingness to nurse the sick in the middle of the night. But Woods was understaffed--his assistant surgeon and hospital stewards were incapacitated with typhoid. Moreover, Colonel Meredith was unwilling to approve Woods' request for more medical help. By the end of September Woods wrote, "I must have someboddy or die." Woods finally got the assistance he needed, and eventually the sickness abated, but not before twenty soldiers had died. Woods was left with the responsibility:

Col. Meredith thinks or pretends to think it is all my fault. Public opinion naturally seeks for the cause of all our Sickness and [Meredith] is So fearful that he will be blamed that he insidiously tried in all the influential quarters to have it charged up to me. Although Woods did not realize it, he was responsible. Perhaps not for his actions while he was understaffed, or even for his treatment of the ill, (he gave them calomel and quinine, two medications which were useless against typhoid) but rather for his neglect of sanitation prior to and during the epidemic. He had been so busy treating wounds, diagnosing illnesses, and filling out medical discharges, that he disregarded what seemed a dispensable luxury--sanitation.

The issue of responsibility brings us back to Patricks' statement, "I know these fellows [surgeons] and I am suffering now from the treatment of ignorant, sap-headed physicians." Was Patricks correct? Yes! Could the surgeons be blamed for the lingering illnesses and sweeping epidemics? Yes! Was the high rate of death from disease a direct result of medical incompetence or inexperience? Yes!

The camp surgeons were to blame because they did not enforce camp sanitation. The soldiers, however, were also to blame for being slovenly. The government was to blame for

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74 Ibid., 68.
75 Ibid., 68.
76 Reluctant Rebel, 88.
enlisting inexperienced and incompetent surgeons. And the War was to blame for necessitating the mass enlistment of surgeons. In short, deaths by disease in the Civil War were inevitable. The statistics reiterate this claim. The death rate (of two soldiers from disease for every one killed in battle) which appears so grim today, was the lowest ever recorded for a war up to that time. In the Mexican War, the American Army had suffered seven deaths from disease for every soldier killed in battle. During the Napoleonic War, the British Army had a ratio of eight to one; in the Crimean War the ratio for the British Army was four to one.⁷⁷ Although deaths by disease in the Civil War were inevitable--and actually lower than prior wars--the surgeons can not be absolved of responsibility. But their responsibility must be placed in perspective.

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## Table 1

Enlistments and Deaths\(^{78}\)

### Enlistments

<table>
<thead>
<tr>
<th></th>
<th>Union</th>
<th>Confederacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,778,304</td>
<td>750,000</td>
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### Deaths

<table>
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<tr>
<th></th>
<th>Union</th>
<th>Confederacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Battle</td>
<td>67,088</td>
</tr>
<tr>
<td></td>
<td>Mortally wounded</td>
<td>43,012</td>
</tr>
<tr>
<td></td>
<td>Disease</td>
<td>224,580</td>
</tr>
<tr>
<td></td>
<td>Accidents, suicides, etc.</td>
<td>12,121</td>
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<tr>
<td></td>
<td>Total</td>
<td><strong>360,222</strong></td>
</tr>
<tr>
<td></td>
<td>In Battle</td>
<td>94,000</td>
</tr>
<tr>
<td></td>
<td>Disease and Accidents</td>
<td>164,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td><strong>258,000</strong></td>
</tr>
</tbody>
</table>

### Union and Confederacy

|        | In Battle and Mortal Wounds    | 204,100     |
|        | Disease                        | 88,580      |
|        | Total                           | **623,02**  |

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\(^{78}\) E.B. Long, The Civil War Day by Day; An Almanac 1861-1865, (Da Capo Press, New York, 1971) 710-711. The statistics provided are only approximate. Record taking during the Civil War was an inexact science. Moreover, the destruction of Confederate records in Richmond, make exact tabulations impossible. The records provided, however, are the "best available" according to Long (p. 711).
Bibliographic Essay

Writing a well rounded research paper on Civil War medicine would be impossible without using the *Medical and Surgical History of the War of the Rebellion*. The Surgeon General of the United States Government compiled this series shortly after the Civil War (1870-1888). Of the five mammoth volumes, three deal directly with diseases. The first volume contains letters, documents, and reports on camp surgeons during the War. The second volume delivers an extensive report on diarrhea dysentery as well as other diseases, and the third volume contains detailed records and statistics of diseases in the Union Army during the Civil War.

Regrettably, there are no corresponding records for the Confederate Army. This of course is due to the fire in Richmond. One of the only remaining primary sources for Confederate medical history is the fourteen monthly issues of *Confederate States Medical and Surgical Journal* (CSMJ). For the researcher interested in common diseases, they will be a disappointment because CSMJ deals primarily with unusual conditions and barely touches on the soldiers’ common ailments. Statistical data in CSMJ is also minimal.

Letters, journals, and memoirs of men who fought in the War were the second type of primary sources I used. Some of the most helpful were: *Touched by Fire Civil War Letters and Diary of Oliver Wendell Holmes, Jr.*, *Reluctant Rebel, the secret Diary of Robert Pactivks*, *Confederate Echoes, The Rebel Yell & Yankee Hurrah: The Civil War Journal of a Maine volunteer*, *Muskets and Medicine*, and *Hardtack & Coffee the Unwritten Story of Army Life*.

I also utilized secondary material in my paper. The most valuable were *Doctors in Blue the Medical History of the Union Army*, and *Doctors in Gray The Confederate Medical Service*. 

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