HOSPITAL MEDICINE IN RICHMOND, VIRGINIA DURING THE CIVIL WAR: A STUDY OF HOSPITAL NO. 21, HOWARD'S GROVE, AND WINDER HOSPITALS

by

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(ABSTRACT)

Neither the Union nor the Confederacy was prepared to care for the massive numbers of sick and wounded which occurred at the onset of the Civil War. While their surgeons benefited from the knowledge gained during the Crimean War regarding the cleanliness of military hospitals, the isolation of infection, and the use of the new general anesthetics, no facilities for their use existed in America.

The Confederate Chief Surgeon, Samuel Preston Moore, had no entrenched medical bureaucracy to battle. By early 1862 he had formed a well-organized medical department and had many hospitals operational.

His surgeons shared the problems of their northern colleagues: ignorance of the cause of infection, inadequate training, and untrained hospital personnel to care for the sick and wounded. What the South did not share with the North was a lack of resources which was intensified by a naval blockade.

This narrative thesis uses records from three Richmond hospitals of 1862-1865 to reveal the problems faced by all hospital personnel, and to address the question of responsibility for the high rates of hospital morbidity and mortality which occurred. It is technically oriented to give both physicians and laymen insight into the day to day triumphs and tragedies of these men and women who worked under nearly impossible conditions.

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Finally, just to thank my wife, Bari, for her role in the preparation of this thesis would be the greatest of understatements. Since my first year in medical school, she has been my typist and editor for every conceivable kind of document from autopsy reports to case histories. Her touch has always been there, and without her effort, this work would not have been successful.

CONTENTS

Introduction

A twenty-two-year-old corporal sustained a gunshot wound of his right lower abdomen late in the afternoon of the battle. After his wounding, he lay wrapped in his blanket, unattended, for approximately thirty-six hours. He was then transported thirty miles by horse-drawn ambulance to the nearest general hospital. Here he remained until his discharge eight months later. During this time, a fistulous tract between his perforated bowel and the open skin persisted for approximately three months before it healed. Two months after the fistula formed, blackberries rolled out of the opening several hours after they were consumed.

Early in the soldier's hospitalization, a progressive partial paralysis of both legs also occurred; a swelling which parallelled his lower spine grew progressively larger. During his third month of hospitalization, it spontaneously ruptured, extruding a cupful of pus and a large portion of the minie ball which had fragmented on impact. Within several weeks he sustained complete return of the use of his legs. The fistula gradually closed, After the war he farmed until he was seventy-five years of age and died in his sleep at eighty-

nine.[1]

The corporal was a Union soldier and one of the fortunate few of both armies to survive such a wound. During the Civil War years, the key to such recovery was a combination of luck, a strong constitution, and a superior immune system. Medical treatment, at the most, could only be supportive and hopeful.

Anesthesia for general surgery and the discovery of the germ theory of infection were the two major medical discoveries of the nineteenth century. They completely changed the practice of medicine and paved the way for the massive strides made in the century to follow. Unfortunately, anesthesia was the only one of the two that benefitted the Civil War soldier.

Ether was first used for dental and simple neck surgery by Dr. Crawford W. Long of Georgia in 1842 and by Dr. W. T. G. Morton for general surgery at the Massachusetts General Hospital in 1846.[2] In 1847, Dr. James Simpson used chloroform

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[1]The author, as a small boy of five, used to watch in awe as his great-grandfather, Cpl. Charles F. Ballou, laced himself into a large truss that extended from his groin to his lower chest. This had been a daily ritual for the old gentleman since 1863, as the minie ball had destroyed most of his lower abdominal musculature.

[2]W. H. Blanton. Medicine in Virginia in the Nineteenth Century (Richmond, VA., 1933), 146.

for the first time in obstetrical cases at Edinburgh.[3] Both agents prevented untold suffering through their extensive use by Union and Confederate surgeons in the field as well as in the army hospitals.

The cause of infectious diseases was discovered too late to help the Civil War surgeon. His patients suffered accordingly. The works of Louis Pasteur, Joseph Baron Lister, and Robert Koch[4] arrived too late. Of the more than 200,000 Confederate deaths, approximately three-fourths were

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[3]Fielding H. Garrison. An Introduction to the History of Medicine (Philadelphia, 1921), 542, 605, 657, 708, 713. Chloroform had been synthesized fifteen years earlier by Liebig in Germany, Guthrie in the United States, and Soubeiran in France. When a colleague suggested its possible use as an anesthetic, Simpson and two of his friends inhaled the substance together. Impressed by its effectiveness on themselves, Simpson immediately tried it as a general anesthetic on his patients. It quickly became the anesthetic most used in Europe.

[4]Ibid., 619-21. Louis Pasteur, a chemist and professor at Lille and the Sorbonne, revealed the role of microbes in that bacterial proliferation by Pasteurization and later immunization against anthrax and rabies. Joseph Baron Lister, Collected Papers (Oxford, 1899), I, 275-76. Lister gave Pasteur credit for his original work in antiseptic surgery. "The investigation of Pasteur long since made me a convert to the germ theory." Robert Koch, Berliner Klinische Wochenschrift, XXI (1882), 221-30, translated from the German by Dr. G. L. Fischer, Clifton Forge, VA. Koch's famous Postulates, which became the guidelines for all pathologic bacteriological research, evolved from that study.

due to some type of infectious process.[5]

In 1861, neither North nor South was prepared to provide adequate medical care to their military. The U. S. Army possessed a medical service that consisted of a surgeon-general and 113 surgeons and assistant surgeons. Of these, twenty-four were Southerners who promptly resigned and returned home. Thirteen surgeons from the South remained with the Union.[6] The Union medical service was also bound by an ancient bureaucracy that tied constructive action with mounds of red tape. This inefficiency eventually led to the formation of the United States Sanitary Commission, consisting of a group of influential citizens who promoted advanced medical care and facilities. [7]

William Preston Moore, who became Confederate Surgeon General in 1861, did not have to cope with the bureaucratic inertia that confronted the Union medical department. However, he did face the problems of organizing his department from the ground up and the persistent shortage of medicine and

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[5]Joseph Jones, "Letter to General Samuel Cooper, August 3, 1869," Southern Historical Society Papers. VII (1879), 287-90. Dr. Jones was a famous Confederate surgeon and medical historian.

[6]George W. Adams, Doctors in Blue (Dayton, O., 1985), 4, 9.

[7]Ibid., 5. An excellent reference on the U. S. Sanitary Commission is William Quentin Maxwell's Lincoln's Fifth Wheel (New York, 1956).

material caused by the Union blockade. The latter would plague him until the end of the war.

Transportation of the sick and wounded to the rear areas was haphazard until 1862, when a semblance of organized evacuation began to evolve. Railroads for the first time transported patients on a massive scale. In the South, volunteer groups of non-combatants organized themselves into casualty evacuation teams which served in the east throughout the war.[8]

Early in the war, hospitalization was as disorganized as casualty evacuation. Early military hospitals included barns, warehouses, and ordinary dwellings. In the field any nearby building was "requisitioned" and put to use immediately.[9]

Since most of the major battles in the eastern theater were fought in and around Virginia, the greatest number of

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[8]Louis C. Duncan, The Medical Department of the United States Army in the Civil War (Gaithersburg, MD., 1987), 397-98. Southern Medical Society, II (1893), 113-15. A group of Richmond citizens who were exempt from military service organized an ambulance company which served the Confederate forces at Seven Pines, Malvern Hill, Antietam, Gettysburg and Cold Harbor, and many lesser actions of the Army of Northern Virginia.

[9]U. S. War Department (comp.), War of the Rebellion: A Compilation of the Union and Confederate Armies (Washington, 1880-1902). Ser. I, XIX. Pt. 2, 615 (cited hereafter as Official Records). Special Order 196, Army of Northern Virginia, September 21, 1862 stipulated that "hospitals will be secured by securing barns and buildings sufficiently commodious and surgeons will be placed on duty in them."

sick and wounded were treated in that state. Richmond, the capital, home of the only functioning medical school in the South and a junction of rail lines, became the ideal location for many of the new general hospitals.[10]

Initially, a convenient building of any size was put to use. By mid 1862, the Confederate medical service had begun using the pavilion-type hospital. Of the three hospitals to be discussed, Howard's Grove and Winder Hospitals are the pavilion-type. Hospital No. 21 represents the type that occupied a requisitioned building.

In an examination of these institutions the emphasis will be on a history of the hospital and its personnel, including physicians, stewards, ward masters and matrons. The problems of supply, medical and non-medical, will be noted, especially the manner in which they were affected by shortages caused by the blockade. The records of the Medical Purveyor of the Richmond area provide valuable information in supply problems.

Another aspect of treatment is the care given captive Union patients. Was it comparable to that given the Confederate sick and wounded? Did it also reflect available supplies?

The horror of infection has already been mentioned. An unanswered question, especially with medical historians, is:

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[10]Southern Historical Society Papers, XX (1893), 109.

if the theories of Pasteur, Lister, and Koch had been known to Civil War physicians, would the tremendous toll of victims of infection have been avoided? An answer to this and the preceding questions is the goal of this thesis.

The majority of the primary sources are the records of Howard's Grove, Winder, and Hospital No. 21. These records were taken from Confederate repositories after the evacuation fire which destroyed a large area of Richmond in April, 1865. Those that could be salvaged were turned over to Union Surgeon General Joseph Barnes and his assistant surgeon, Joseph J. Woodward. These authors incorporated the records into what became the Medical and Surgical History of the War of the Rebellion, a comprehensive study of six volumes. Afterward, all Confederate medical records became Chapter VI, Record Group 109, of the National Archives. It is from this group that the records of the hospitals to be studied were obtained.[11]

Gaps exist in the records of each hospital. The study of the records from all three complement and fill these voids. Hospital No. 21, which became an institution for Union prisoners after 1862, is used to compare the medical care given Union and Confederate wounded. This approach reveals

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[11]Henry Putney Beers, The Confederacy, a Guide to the Archives of the Confederate States of America (Washington, 1968), 173-77.

a comprehensive view of life in a Richmond Civil War hospital

Chapter I

The Hospitals

The modern hospital is an institution of scientific wonder compared with its Civil War counterpart. Patients are located in rooms containing one to four beds. From the walls, at the head of each bed, emanate gleaming steel connections for oxygen, compressed air, and suction to help in the patient's medical and post-surgical care.

Spotless operating suites use ultraviolet light to eliminate airborne bacteria. Here the surgeon has batteries of electronic and computerized radiologic and surgical instruments to assist in the complicated surgical procedures to be performed.

Meticulously clean dietary departments evaluate scientifically planned menus for the patient's specific need. Well-lighted, clean hallways connect each of these facilities to the others and to conference rooms where, night and day, staff decisions are made to assure quality care for every patient.

Compare this with Joseph P. Cullen's study of Chimborazo, Richmond's state-of-the-art Confederate military hospital during the Civil War. Cullen vividly portrayed the horrifying

scene of sixty-seventy bed wards during the Seven Day's Campaign of 1862:

> The wards now gave a close concise picture of the real cost of war. Only those in them failed to notice or be gagged by the smell they gave off. In this brutal summer heat the crude pine buildings became permeated with the day's acrid odor of gangrene. Suppurating wounds gave off a sweet foul smell of torn flesh, trying to heal, that diffused itself throughout the wards, the division, the whole area. Thick swarms of black flies tormented patients and attendants alike crawling and buzzing everywhere. . . . Almost every ward had its operating table from which a steady stream of blood flowed into a tub on the floor that caught the arms and legs. The floor became littered with piles of dirty rags, blood and water, and with the system of cleaning up the floors with dry sand, then in vogue, they were impossible to keep clean.[1]

The above scene was the standard of the three hospitals whose records were examined. The sterile entries placed in these volumes by surgeons, clerks, or stewards little reflect what was actually seen, heard, or smelled during day to day ward activity.

The Confederate States Medical Department was organized under its first Surgeon General, David de Leon on May 16, 1861. He was followed in rapid succession by Charles H. Smith, on July 12, and later in the same month by Samuel Preston Moore. The latter remained as Surgeon General until

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[1]Joseph P. Cullen, "Chimborazo Hospital" Civil War Times Illustrated, XIX (Jan., 1981), 36-42.

the end of the war.[2]

Moore had been a surgeon in the U. S. Army since his 1843 graduation from the University of South Carolina Medical School, Confederate officials believed that he had the necessary experience to organize the new nation's medical department. Since there was no top-heavy medical bureaucracy as existed in the Union Army to impede Moore's policies, he had the freedom to make unilateral organizational decisions. These were well thought out and sustained his command throughout the war.

As Moore assumed command, the Confederacy faced its first medical crisis. This was the result of massive casualties from the First Battle of Manassas descending on Richmond. The first of these were placed in the city alms house. From here they spilled over into any available building, including hotels, empty warehouses and private homes.[3]

As more and more casualties poured into the city, it became apparent to the new Surgeon General and his staff that a more efficient system of hospitalization was required. Acute need resulted in the construction of the new pavilion

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[2]H. P. Beers, The Confederacy, A Guide to the Confederate States of America (Washington, 1967), 172. Early in the war the states of the Confederacy appointed their own surgeons and Surgeon General. Official Records, Ser. IV, I, 601.

[3]W. B. Blanton, Medicine in Virginia in the Nineteenth Century (Richmond, 1933), 300.

hospitals. They served the military so well that they became the prototype for future civilian hospitals such as the famed Boston City Hospital. The most famous of the Richmond pavilion hospitals was Chimborazo. Camp Winder and Howard's Grove hospitals were also this type. Hospital No, 21 was a requisitioned tobacco company warehouse that was expanded to house 700 patients.

Hospital No. 21

Located at 25th and Cary Streets in Richmond, No. 21 was also called the Confederate States Military Prison Hospital. It was typical of the buildings requisitioned during the months following First Manassas.

Early in the war, hospitals limited their admissions to soldiers of a single state, and No. 21 was designated the Maryland Hospital. Later, when this admission policy was discarded and patients of all states were admitted, it became the Gwathmey Hospital, and finally Hospital No. 21. In mid 1863 it was designated a hospital for Union prisoners.[4]

The first medical officer to command Hospital No. 21 was Surgeon G. W. Semple, who had occupied the same position at the Williamsburg Hospital prior to the Peninsula Campaign. After he assumed command, his first letters pertain to

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[4]Robert W. Waitt, Confederate Military Hospitals in Richmond. (Richmond, 1964), 16.

administrative problems of his previous assignment.[5]

Early in the war, the Surgeon General had established boards of officers to assess professional qualifications for physicians before commissioning them as surgeons. In mid-1862, the need for surgeons was still urgent, even for the services of those not yet examined by a board.

By September, 1862 this shortage had been alleviated somewhat and a letter from the Surgeon General to all hospital commanders soon arrived. "Sir, I have to direct that you will furnish this office without delay the names of all medical officers of your hospital who had not been examined by the Army Medical Board. Surgeon Semple replied promptly that he, Surgeons Charles Coleman and William Overton had not been examined."[6] The records reveal no directorate for them to

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[5]C. W. Semple to C. P. Hayes, May 29, 1862. National Archives, Record Group 109, Chap. VI, CCCXXXIII, 7. Cited hereafter as National Archives. All references will be to Record Group 109, Chapter VI. One of these was to Surgeon Charles P. Hayes. In it Semple forwarded the pay to Hayes for "the administrative months of March and April ($25.00)" and requested the latter's acknowledgment of its receipt. The arrival of McClellan's forces had expedited his move to Richmond.

[6]Ibid., 9. Although the Army Examining Boards generally accomplished their mission, some believed that they fell short of their mark. Surgeon Aristides Montiero was quite disillusioned with the board that examined him. None of the Board members were as scholarly as his mentors at the University of Virginia. Of his fellow candidates, he stated that one had failed to receive his diploma at the University of Virginia Medical School, one was present, openly, due to nepotism, and a third "was very drunk." Aristides Montiero,

report for examination.

The Surgeon General's management of the flood of smallpox victims during the fall of 1862 is well documented in the records of Hospital No. 21. They also offer excellent examples of administrative bungling on both sides. Essentially, the fault lay with the command structures that did not enforce the clearly stated regulations governing vaccination of troops on enlistment. The top medical staffs were equally at fault for not insisting that it be done.[7]

Vaccination for the prevention of smallpox had been practiced widely since 1798 when it was introduced in England by Edward Jenner.[8] In 1861, a directive from Surgeon General

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War Reminiscences by a Surgeon of Mosby's Command (Richmond, 1890), 22-26.

[7]National Archives, DCXXVII, 28. No smallpox was reported in the 49,594 men serving in the Confederate Army of the Potomac from July, 1861 to March, 1862. During this period, 380 cases appeared in the Federal ranks. Medical Director W. A. Carrington stated that the Confederates first acquired the disease at Antietam. The first cases appeared in Anderson's Georgia brigade at Winchester after the retrograde movement from Maryland. "Smallpox thus invaded Virginia from the north." Medical and Surgical Records of the War of the Rebellion, (1861-1865) (Washington, 1870), VI, 628-29. Cited hereafter as Medical and Surgical History.

[8] Garrison, History of Medicine (Philadelphia, 1921), 366-89. Vaccination spread rapidly to western Europe and America. By 1813 the National Vaccine Agency had been established in Baltimore by act of Congress. The epidemiology of smallpox was, for its time, well understood, and there is little excuse for the bungling of its prophylactic use in the early days of the war.

Moore's office clearly stated that "conscripts will be promptly vaccinated."[9]

The belated reaction to the sudden appearance of the disease is illustrated by the letter from the Surgeon General's office to all hospital commanding officers dated September 30, 1862: "Surgeons in charge are through you directed to have each patient, as he enters the hospital, critically examined, and if found without the protective mark of vaccination, to have the patient vaccinated at the most eligible moment of his residence in the hospital."

Then, giving us an insight into the prophylactic measures of the era, he added: "In order to procure a continuous supply of reliable vaccines . . . medical officers will, from time to time . . . vaccinate gratis healthy children in the vicinity of the hospitals . . . Surgeons in charge of general hospitals will require strict attention of their subordinates to the above instructions."

Surgeon Semple reported the disposition of the smallpox cases in his hospital promptly and regularly. On December 14, 1862, he informed Surgeon General Moore that six cases had been "transferred to the smallpox hospital along with five

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[9]Official Records, Ser. IV, II, 163.

nurses, these of a Georgia and (one each) of Louisiana and North Carolina regiments, and one discharged soldier who has been employed as a nurse for smallpox and is entitled to $30.00 a month from December 1st." Semple noted on December 21 that "an ambulance will be sent to take two cases of smallpox to Howard's Grove Hospital." Thus, the idea of the specialty hospital began to evolve as all smallpox cases were being sent to this institution.[10]

Despite the ignorance of the microbial principle of infection, it was known that cleanliness and isolation correlated with the prevention or attenuation of epidemics. On January 13, 1863, Semple again wrote his medical director: " When the Mayo Factory was rented as a part of the hospital, the owner, Mr. Robert Mayo, by an understanding with the Inspector of Hospitals, Surgeon D. Sorrell, continued in possession of a shed and in which . . . had been deposited smallpox patients." Semple then asked that Mr. Mayo be reimbursed $75 because "the lumber will be destroyed in this

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[10]National Archives, CCCXXXIII, 104. Inoculation of children became standard procedure for obtaining "pure" vaccine in the South. Surgeon Belton (of whom we shall hear more later) used 1,300 vaccinations from this source without an adverse result. Medical and Surgical History, Vol. V Pt. III, 645. Ibid., 5, 17 "Nurses" were usually convalescent or discharged soldiers. The practice at this time was to refer to female ward personnel as matrons.

disinfection and the funds recompense Mr. Mayo for his loss."[11]

The epidemic, which reached its height from November, 1862, through January, 1863, offered the commander another problem. What disposition should be made of the currency left by the many fatal cases that occurred? These funds were designated "smallpox money" and in one division totalled $417.

The fear of this money becoming a smallpox vector disturbed Surgeon Semple. He ignored regular channels and suggested directly to Confederate Secretary of the Treasury, Memminger that those notes in his possession be destroyed because "as to recirculate them would be attended with the dissemination of this great scourge. I therefore ask you to take steps to have them cancelled and those of a like amount be placed in my hands and to be turned over to the Adjutant General for the benefit of those to whom they belong."[12]

Events seemed to languish during the early months of 1863. A steady exodus of both personnel and patients occurred. The patients were initially those with smallpox who were sent to Howard's Grove. An order emanating from Surgeon Semple's office directed the transfer of thirty hospital personnel including "stewards, nurses, clerks and cooks will be transferred to Chimborazo Hospital and will report to

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[11] Ibid., 18.

[12] Ibid., 16.

Surgeon J. B. McCoy."[13]

On February 12, 1863, Semple noted that he and assistant Surgeon Charles Hamden were the only medical officers on duty since his last report.

A month later Semple reported that "there are no able bodied men on duty at this hospital."[14] By August, 1863, in the absence of Surgeon Semple, the temporary commander, Surgeon W. A. Carswell, informed the Surgeon General's office that the last of the smallpox and all other patients had been transferred elsewhere. In the same communication he also stated that Hospital No. 21 was now ready to be "refurbished and occupied as a general hospital. The hospital and remaining furniture have been disinfected . . . [by] fumigation, with . . . washing, scrubbing and nitric acid." Surgeon Carswell added that the Health Officer of Richmond had concurred that his hospital was safe; he would send requisitions for new furnishings whenever he received orders to begin operations.[15]

When Carswell assumed temporary command on July 12, 1863,

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[13]Ibid., 22. It is most likely that J. B. McCoy was actually Surgeon J. B. McCaw, the Chief Surgeon of Chimborazo Hospital. There were no female personnel in this group and none appear at any time in the records of Hospital No. 21.

[14]Ibid., 27.

[15]Ibid., 21

the professional staff began to increase. Soon afterward he reported that "medical officers, contract physicians, and hospital stewards on duty were: Assistant Surgeon, W. A. Carswell, Assistant Surgeon, B. A. Curtis, Acting Assistant Physician, E. W. James, Hospital Steward, Joseph Hopkins and Hospital Steward, John M. Pierce."[16] It was evident that No. 21 was part of the Surgeon General's future plans for the Richmond hospitals.[17]

Patient registers from late 1863 until the end of the war do reveal the entries of Federal sick and battle casualties. Over a period of time, many Union prisoners became ward masters and stewards. Resuming command of the hospital in October, 1863, Surgeon Semple listed the medical officers on duty plus Hospital Stewards Joseph Hopkins and John W. Pierce. Semple made no mention of ward masters or the use of prisoners.[18]

The February, 1864 records clearly establish the use of Federal prisoners as hospital personnel. Two reports that month bore the signatures of "L. Francis, Corp. Co. G, 191st

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[16] Ibid., 21.

[17] No indication in any of the records exists that Surg. Carswell had any advance information as to the future role of his hospital. Waiting for orders is one of the oldest military past times.

[18] National Archives CDLXXXIV, 49.

Pa. Volunteers, Ward Master," and "Paul Graham, Corp., 11th Pa. Volunteers." An entry in June, 1864 shows that "James Blake, Sailor, USS Ladoner; Jacob Onst, Pvt., Co. D, 33rd Ohio; Alt Sorotsel, Pvt. Co. E, 9th Michigan; Louis Briggs, Pvt. Co. B, 15th Pa., and John Weeks, Pvt. Co. D, 141st N. Y. are non-surgical cases and are admitted as nurses."[19]

The Union personnel who took over general ward and clerical duties kept good records. Each prisoner's name was carefully entered including his rank, organization, wound or illness, and place of capture. Places such as Middletown, Cedar Creek, Weldon Railroad, Sycamore Creek, Staunton, and Petersburg reflect the stage of the war during which the entries were made. However, by March and April, 1865, with the war winding down to its conclusion, the entries gradually deteriorated, and sometimes became almost illegible.[20] This reflects an attitude shared by all prisoners of war in a like situation--that nothing is any longer important except to end the war and go home.

The failing of both sides in proper treatment of sick and wounded prisoners has received much discussion, not always impartially. However, Hospital No. 21's records indicate that little or no difference occurred in the quality of care for

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[19]National Archives CLXVI, 81; CLXIII, 36.

[20]National Archives CXXVI, 2-19; CLXVI, 1-20.

patients whether Union or Confederate. Registers of both medical and surgical cases demonstrate that, for the standards of the day, the care and treatment of patients of both sides was good. The surgical records especially, although less detailed and scholarly than those of Camp Winder, reveal that the surgeons of No. 21 practiced the best state-of-the-art medicine and surgery of which they were technically able.[21]

The wards were usually filled, but never overcrowded. One morning report of Ward A, First Division, recorded the following, "Patients, 72; Attendants, 13; Total 85. Deaths, George Guest, Pvt. 97th Pa., diarrhea." Ward personnel, whatever their degree of technical skills, seemed sufficient in numbers for the basic care of the patients.[22]

Union rations were identical to those given Confederate patients. Dietary records disclose a complete list of patients and the food served daily to them. As late as February, 1865, are entries for tea, milk, butter, eggs, cider, sauerkraut, steak, pickles and rice. One daily ration for each of thirty-six patients in a ward consisted of one to

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[21]National Archives CDXVIII, 3-4. Entries from a list of surgical cases, some with extensive tissue damage, demonstrated concern and close attention for the wounded by the surgeons in charge. An excellent 5.9% mortality rate occurred for the 84 surgical patients admitted to one ward during the period. The casualties varied from "flesh wounds" to ten patients requiring amputation of an extremity.

[22]Ibid., 53.

four eggs, milk, butter, pickles and rice. As many as twenty-seven of them received steak. Later that same month, rations decreased to tea, butter, eggs and sauerkraut. Steak rations were few. Meat distribution disappeared completely early in March, 1865, but surprisingly returned near the end of the month.[23]

The issue of spirits in a military hospital has always been a bone of contention for the modern soldier. Officials at No. 21 gave their patients little cause for complaint in this matter. On February 27, 1865 the forty patients on both Wards A and B, First Division, each received two ounces of whiskey. Although dispensed without hesitation, the amount varied as it was required. On March 8, with a similar census, only eleven patients on Ward A and nine on Ward B were served.[24]

Clearly, Hospital No. 21 followed the official policy of the Confederate government in its care of hospitalized prisoners. This policy had been concisely stated in General Orders No. 159, December 4, 1863, "1. Hospitals for prisoners of war are placed on the same footing as other Confederate States Hospitals in all respects and will be managed accordingly. 2. The hospital ration is fixed . . . at the

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[23]Ibid., 85, 114.

[24]Ibid., 275.

same rate of issue now made to soldiers in the field."[25]

Camp Winder Hospital

Camp Winder Hospital was the second largest hospital in the Confederacy. Located at the western extremity of Cary Street, it occupied twenty-five acres in an area presently bounded by Winder, Amelia and Hampton streets, Allen Avenue, and the eastern portion of Byrd Park. Begun in 1862, Winder was one of Surgeon General Moore's pavilion hospitals. The Confederate medical planners did not wish to relive the inability to manage mass casualties which had occurred the previous year. Five pavilion hospitals were constructed. All wards were 30 feet wide and 100 feet long. Each provided space for a maximum of seventy beds and were connected by a ramp. This arrangement eased the congestion of so many patients under one roof and facilitated the organization and administration of the hospital.[26]

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[25]National Archives DXLVII, 155.

[26]Blanton, 301-303. Arguments exist that Winder was a larger hospital than Chimborazo. Blanton states that Winder's bed capacity was 4,800 in six divisions with an extra isolation tent division, while Chimborazo's capacity was five divisions of thirty wards of 70 beds each plus 100 Sibley tents with a capacity of 800-1,000. Waitt, Confederate Military Hospitals in Richmond, 21, 31. A comparison of the crowding in the Crimean Hospitals to those in the newer Civil War installations can be seen in Lady Volunteer (nom de plume), Eastern Hospitals and English Nurses (London, 1859), 70-76. "All corridors were thickly lined with beds laid on low trestles raised a few inches from the ground. In the wards a divan runs around the room and on these were laid straw beds and the sufferers in them . . . The building which

Military physicians had long been aware that the crowding of sick and wounded men in a relatively small space enhanced the spread of communicable diseases and wound infections. When the Crimean War ended in 1856, American surgeons had the opportunity to study the problems of crowding and sanitation, plus the medical and surgical treatment that confronted the British and French armies.[27] The new hospitals partially solved some of these problems.

The pavilion hospital's basic unit was the ward. It was only one story high with many windows and roof openings for ventilation. The connecting ramps made it easier to transport patients on litters or wheelchairs. The addition of tents to house patients in their later stages of convalescence, or for purposes of isolation, enhanced hospital organization and administration.

War installations can be seen in Lady Volunteer (nom de plume), Eastern Hospitals and English Nurses (London, 1859), 70-76. "All corridors were thickly lined with beds laid on low trestles raised a few inches from the ground. In the wards a divan runs around the room and on these were laid straw beds and the sufferers in them . . . The building which was . . . to hold with comfort seventeen hundred men, then held between three and four thousand."

[27]Available to surgeons of both sides were H. B. MacCleod, War in the Crimea (Philadelphia, 1862), and Report upon the State of the British Army Hospitals in the Crimea and Scutari (London, 1855).

The primary administrative unit was the division, which consisted of three or more wards. A surgeon headed each division; an assistant surgeon was charge of each ward. A chief surgeon presided over two or more divisions, which officially formed a General Hospital.[28]

The Chief Surgeon of Winder Hospital (often referred to as Camp Winder) was Alexander Lane of Louisiana. Although only twenty-seven years of age and with much less post-graduate medical training than many of his peers, he was a superior administrator. Significantly, he remained in command of Winder from April 1862 until the end of the war.[29]

The story of Camp Winder is best told by Surgeon Lane, himself:

> The Winder Hospital and grounds were organized in April of 1862 and conducted by me until ten days before Lee's surrender. It consisted of six divisions . . . with its appropriate dispensary, laundry, kitchens and corps of matrons, nurses and attendants, the whole surrounded by a guard of one hundred twenty-five men under a commissioned captain. Attached to the hospital was a

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[28]H. H. Cunningham, Doctors in Gray (Glouster, MA, 1970), 51-52. Surgeons received the pay and allowances of a major; an assistant surgeon, those of a captain; and Contract Surgeons rated as second lieutenants. Blanton, Medicine in Virginia, 274.

[29]Alexander Lane, "Address to the Association of Army and Navy Surgeons of the Confederacy", Southern Practitioner XXVI, No. 1 (1904), 34-41. Surgeon Lane received a B. A. and M. A. from Centenary University and an M. D. after twelve months at New Orleans Charity Hospital. He was a cotton planter when, in 1861, he became a line officer in the Confederate Army. Lane was commissioned a surgeon during the Battle of Ball's Bluff.

> steam plunge and shower baths, a bakery with a capacity to bake for ten thousand men daily, sixteen acres of hospital garden (worked by convalescents), a dairy with sixty-nine milk cows with appropriate grounds and stables, the dairy yielding three hundred gallons of milk daily, an ice house eighty feet square and twenty feet deep filled with ice, a commissioned captain of the commissary with commissariat, and a medical examining board of three surgeons giving me, at twenty-seven years of age, with eight hundred hospital attendants a command ranging from two to five thousand men.
>
> I cut a six foot ditch from a hollow in the central grounds of the hospital leading to the James River over which was constructed two ten thousand gallon water tanks which were pumped full of water and the ditch flooded every other day carrying off all debris and filth from the hospital grounds . . . Two canal boats . . . furnished the hospital, from the mountains with fresh weekly supplies of fresh butter, eggs, chickens, turkeys, geese and honey . . . and every other necessity . . . [purchased] from the vast hospital fund amounting to twelve hundred and twenty dollars, created by the commutation of army rations.[30]

Surgeon Lane also commented on the treatment of Federal patients sent to Winder: "On sundry occasions the Federal sick and wounded were sent to this hospital, where they received the same rations, medical attention, and privileges as other patients. Frequently, for weeks, the bread for the prisoners on Belle Isle and Libby Prison was the same in kind as that used in the hospital."[31]

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[30]Ibid. Fore use of the hospital fund, see Cunningham, Doctors in Gray, 80-81. Organizational shortcomings are easily forgotten with the passage of time. The stench from the Winder drainage ditch was overwhelming during the warm months of the year. See James I. Robertson, Jr., Civil War in Virginia (Charlottesville, 1991), 92.

[31]Lane, "Address," 37.

Lane was quite enterprising in soliciting outside aid for hospital supplies. He once stated that the best whiskey supplies "were obtained through the personal friendship of Mrs. Snowden (blessed be her memory), President of the Ladies Hospital Association of Charleston, South Carolina, via blockade runners from Nassau and were dispensed through the hospital matrons. No medical officer was allowed to touch it under penalty of immediate orders to the field."[32]

There is no doubt that Surgeon Lane administered Camp Winder with a tight rein. He insisted on the best from his personnel, and apparently received it. He taught his assistants that to be successful a surgeon must: "first become interested in his work, second to control himself before he controlled others, and third, to give inspiration by personal example."[33]

Despite the benevolent that Lane often exhibited, there were times when the mailed fist appeared beneath the velvet glove. He also made it clear why he used matrons to dispense whiskey, "I know well that it is a custom with many medical officers in the field when they draw their monthly supplies

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[32]Ibid., 37.

[33]Ibid., 38. Surgeon Lane noted that all of his division surgeons had passed their examining boards "with flying colors and thirty-three assistant surgeons were eventually promoted to full surgeons."

of liquor, to call their regimental officers to drink it up."[34] This was not going to happen at Camp Winder.

Lane's administrative ability definitely produced superior results. He pointed out that during the course of the war, 76,123 sick and wounded soldiers entered Winder Hospital. Of these, 11,580 were transferred to other hospitals. From the remaining 64,683 for which Lane was responsible, 3,259 men died; a mortality rate of only 5.29%. This, Lane felt, was "unprecedented in the annals of military medicine in the North or in Europe."[35]

This figure approaches the one quoted by Confederate Congressman Thomas J. Semmes. During a discussion of the Hospital Bill of September, 1862, Semmes pointed to the Surgeon General's records indicating that to date the mortality rate of Camp Winder was only 6% of the 22,784 patients received. He would, he said, like to meet its chief surgeon personally.[36]

Lane's influence showed in the professionalism of his division commanders. The day-to-day correspondence in Camp Winder's letterbooks reflect their administrative skill and

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[34]Ibid.

[35]Ibid., 39. Surgeon Lane also contrasted his mortality figures with those of No. 2: 10%; No. 13: 14%; No. 9: 12%, No. 5: 13%; and No. 23: 12%.

[36]National Archives, CDLVII, 39.

dedication to the facility and patient care for which they were responsible.

Of special interest is an extensive log of Winder's surgical cases. Its carefully entered surgical notes and case histories demonstrate the superior technical skill of the surgical staff. Interspersed with these entries are scholarly discussions by the division surgeons concerning the treatment of various diseases. These notes explain in great part the low mortality rate that caught Congressman Semmes' attention.[37]

Although records are scant regarding the history of Camp Winder during the later years of the war, one indicates an attempt (which failed), to close both Howard's Grove and Winder. What the higher echelons of command failed to do was almost accomplished at Winder by a fire in January, 1864 which destroyed Surgeon Chambliss' Second Division. The rest of the hospital was saved by the swift action of the hospital's well-trained fire brigade.

During the last months of the war, Surg. Chambliss led a battalion of hospital personnel in several minor skirmishes. With the end of the war, Federal medical personnel took charge of Camp Winder and combined it with nearby Jackson Hospital.

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[37]Winder Hospital Surgical Log (1863-64), Museum of the Confederacy.

The new installation became Camp Grant.[38]

Howard's Grove Hospital

Howard's Grove, a pavilion hospital which opened in June, 1862, was located several miles to the northeast of Richmond on the Mechanicsville Turnpike (now U. S. 360). The location, originally used as an area picnic ground, had become an assembly area for incoming troops earlier in the war.

The hospital's initial bed capacity of 659 increased rapidly to 1,800. Like Camp Winder and other new hospitals, Howard's Grove had its own bakery, ice house, and water supply. Eventually it comprised sixty-two buildings which were needed to care for the rapid increase in casualties and the large number of smallpox patients.[39]

It is interesting to compare the administration of Winder, under the direction of Surg. Lane, with Howard's Grove, which unfortunately had three commanding officers during the 1862-1864 period. Surgeon James Bolton, a superbly trained physician for the time, commanded the hospital at its activation and through the Seven Days Campaign. Later in

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[38]Waitt, Confederate Military Hospitals in Richmond, 22-23, 31.

[39]Ibid.; National Archives, CCXLV, 109.

1862, he was replaced by Surg. C. D. Rice, who was in turn relieved by Surg. F. W. Palmer in early 1863. [40] Such frequent changes of command do not improve the efficiency or discipline in any organization, especially the military. Thus, Howard's Grove makes an interesting contrast to Winder where the command was continuous and efficient.

Laxity in command at Howard's Grove is evident in the hospital prescription books which show erratic, incomplete entries, and, in some cases, do not even include the name for whom the medication was intended.[41] Records of intra-hospital correspondence reveal that some division surgeons of Howard's Grove did not attend to the policing and sanitation of the areas for which they were responsible. In an October 25, 1863 circular, Chief Surgeon Rice pointed out to two of his division commanders "the filthy conditions of the privies . . . situated near the stables. In the future the Surgeon First Division will have the privies scoured on Monday and the

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[40]L. Laslo Swartz, D. D. S., "James Bolton, Early Proponent of Excellence," American Journal of Surgery, LXVII, No. 3,(1944), 509-13. Bolton was a graduate of Columbia University and spent several postgraduate years studying general surgery and ophthalmology. He was years ahead of his time in having perfected the technique of internal fixation of compound fractures. James Bolton, "New Method of Treating Ununited Fractures of Long Bones," Confederate States Medical and Surgical Journal, I (1864), 55, Virginia Commonwealth University.

[41]National Archives, CCV, 20.

Surgeon Second Division every Friday. Division Surgeon Temple, one of the officers in question, promptly replied that the matter had been "referred to Hospital Steward Pettit who will see that the order is strictly obeyed."[42]

Surg. Temple was soon in trouble again. On November 20, 1862, the Chief Surgeon informed him: " During an inspection of the Division under your charge this day, I found the following evils existing . . . the day room in filthy condition . . . and your ward masters do not keep records (Form 9) required by medical regulations. The diagnosis is not rendered at all on the bed tickets. Ward masters and patients throughout the division report that you do not visit the wards daily. You will take immediate steps to prevent these evils."[43]

It is difficult to visualize such an officer being tolerated for any length of time at Camp Winder. Thus, the commanding officer at each hospital set the standards that reflected the institution's efficiency and quality of patient care.

Early in 1864, both Howard's Grove and Camp Winder were threatened with closure. At that time the health of the Army of Northern Virginia was considered good. General Robert E.

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[42]Ibid, CDXXX, 40-41.

[43]Ibid., CDXXIX, 55.

Lee, however, still faced the chronic personnel shortage which had plagued him throughout the war. The convalescent wounded and sick had acted as non-technical hospital personnel when they became ambulatory but not yet fit for field duty. This resulted in a constant tug-of-war between field commanders and the Medical Department as to the true duty status of a large pool of potential field soldiers.

Command channels immediately became active. On January 25, 1864, Surgeon General Moore informed Richmond area Medical Director Carrington that Winder Hospital patients would be transferred to the Jackson Hospital and those at Howard's Grove would be sent to Chimborazo. Orders for hospital personnel specified that "matrons will be retained and . . . negroes will be put in the fortifications." Equipment would be repaired, packed away in buildings for future use and the place put under guard. At Camp Winder, every other building was "to be torn down to give better ventilation and less damage from fire and to be reerected in the grove of trees next to Surgeon Dudley's Division." [44]

Surgeon General Moore's reaction to General Lee's order was a restrained but classic response from a military subordinate. It implied that the higher command echelons were completely unaware of the problems existing in his department.

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[44]Official Records, Ser. IV, XXX, 1197-98.

In a letter to Secretary of War Seddon, Moore explained that in the hospitals which had been temporarily closed, the attendants were not able-bodied, all were disabled, and most were detailed to the hospitals on that account. None were fit for field duty. Moore reminded the Secretary that the law establishing medical boards to furlough soldiers not fit for duty was the cause of the small number of patients. Furthermore, he stated, "The General [Lee] must be aware that General Longstreet's army, for instance, now has asked for 10,000 beds, where are they to be had if the larger hospitals enumerated by the General are closed? It appears that hospitals can be put in operation in a day, this is not the case . . . If there should be a deficiency of hospital accommodations . . . on whom would the odium fall, not, surely, on General Lee, but on the Chief of the Medical Department. The want of hospitals was terribly felt in 1861, and I dare not assume the responsibility of seeing such scenes acted over again."[45]

Whether or not Moore's remonstrance to Secretary Seddon was responsible, the two hospitals remained open until the

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[45]Ibid., II, 570-71. Moore referred here to General Order No. 28, 1863, which authorized boards composed of medical officers to decide the duty status or disposition of the sick and wounded. Thirty-day furloughs were generally given while final decisions were pending. Commissioned officers were not covered by this regulation.

Confederacy evacuated Richmond. Like Camp Winder, Howard's Grove continued after the Federal occupation under the Chief Surgeon of the Department of Virginia.

Howard's Grove fell under the administrative authority of the Freedmans Bureau, and it eventually evolved into a teaching hospital for the Medical College of Virginia. The final infamy of this installation can be seen in a letter from Dr. David Brown to Surgeon in Chief, Department of Virginia, T. J. Lametta, U. S. Vols. Brown reported on the recent dismissal of several of the students for "violations of the rules of the hospital and rules of decency and morality in that they did maintain prostitutes in their quarters . . . in the insane ward of the hospital."[46]

Early in 1861 Samuel Preston Moore organized the Confederate Medical Service from the Southern states' various medical services. This superb organizer and administrator initiated new methods of hospital construction and administration in answer to the serious shortcomings that existed after First Manassas. Moore's thirty-year's experience as a U.S. Army surgeon and his own ideas, many of which were gleaned from the British experience in Crimea, equipped him for the task. The resulting pavilion hospital

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[46]David Brown to T. J. Lumetta, Aug. 13, 1865, Virginia Commonwealth University.

was a step in the right direction, although infection continued to be the primary cause of death despite the increased space per patient and improved isolation.

In addition to Moore's innovations, the skill and leadership abilities of hospital commanders and their division surgeons made the greatest impact on patient care.

The next chapter, "Doctors and Their Patients," reveals the trials and triumphs of these, the most important people in Richmond's Civil War hospitals.

Chapter II

The Surgeons and Their Patients

Simon Baruch, who became a surgeon of Stonewall Jackson's command, related: "My first surgery might interest you, I had never lanced a boil. At Second Manassas, a busy surgeon ... offered me a knife saying, `Doctor, perhaps you would like to operate?' I accepted this challenge. This was my first surgical operation of any kind. The surgeon was kind enough to commend my work. I never learned his name or that of the patient. The next day we forded the Potomac and entered upon the first Maryland invasion."[1]

This precipitous start was typical of the way in which surgical careers were launched during the Civil War. Few physicians had seen, much less treated, gunshot wounds except for a handful of regular army surgeons who were veterans of pre-war frontier Indian fighting.

There were two primary causes for the high rate of morbidity and mortality in the Civil War ranks. First, the lack of knowledge about secondary infection and its treatment, by even well-trained surgeons in large cities, restricted the elective surgery performed. The peritoneal and thoracic

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[1]Simon Baruch, Reminiscences of a Confederate Surgeon (New York, 1915), 60-61.

cavities were inviolate to them. A penetrating wound of the abdominal wall and adjacent bowel was literally a death sentence. This was emphasized in a statement by British Surgeon H. B. MacCleod based on his Crimean experience: "Few cases occur in military practice which demand the suture to the intestine, such cases are generally fatal."[2]

The second cause was the lack of standardization and depth of physician training. There were wide divergences in their technical backgrounds as evidenced by Surgeon Bolton's many years of postgraduate surgical training compared with Surgeon Lane's single year. Lane's experience administering a plantation served him well in commanding a hospital. The complex technical problems fell to his better trained subordinates.

Most medical schools suggested one year's preceptorship with a practicing physician before enrollment. The number of years thereafter varied from one to three. The University of Virginia's catalog for the academic year 1847-1848 listed the subjects taught over a two year period as chemistry, materia medica, medicine, medical jurisprudence, obstetrics, anatomy, physiology, and surgery. Anatomy instruction was

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[2]MacCleod, War in the Crimea, 236. MacCleod declared, "If a false anus results from a penetrating wound by gunshot the cure, in most cases, will take place spontaneously." Perhaps this caused the corporal's fortunate recovery noted in the Introduction.

completed in four and a half months. It preceded the course of surgery which required the same amount of time. The lecture was the method of instruction, aided by the use of manikins and colored illustrations. There was little or no bedside teaching, and the student seldom, if ever, witnessed a surgical or obstetrical procedure. Students were awarded degrees when they were able to prove by examination that they had "made satisfactory attainments in anatomy, surgery, physiology (human and comparative), principles and practice of medicine, obstetrics, materia medica, chemistry, and jurisprudence."[3]

The testing of surgeons' qualifications by special examining boards often fell short of the goal. Yet some were quite rigorous. George Waller of North Carolina explained to a presumed physician-acquaintance the importance of minutiae in passing the board's scrutiny:

> You can get some easy position in the medical staff by a little reading up on minutiae, but you must read it closely for, if they give you a close examination like

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[3]University of Virginia Catalog for 1847-49 Session (Richmond, 1847), 15-27. In promoting the school's program, this catalog emphasized that "city schools have four month courses with too many lectures for the student to absorb, while the University of Virginia gives only two lectures per day and a nine month course." It concluded that a small town was, "free in a large degree from the objections that apply to a city . . . of the temptations to extravagance and dissipation in the worse forms." University of Virginia Catalog 1858-1859 Session (Richmond, 1858), 39-41. These courses of study show no change from those in the 1847-1848 catalog.

> they did me it will require close reading on minutiae. I will give you some idea of the examination I got . . . first (Dr.) Peticolas examined me on the anatomical structure of the eye, its various coats and the inflammation of them with their various diagnosis, also the methods of treating their different inflammations, with the various results of said inflammations. When he was through with the eye he then took me on the brain, its anatomical arrangement and microscopical appearance, with the various distribution of the nerves. When done with this next came the arteries and their distributions and ramifications . . . then dislocations of the hip . . . next came the professor of practice. He took me on dropsy of the various regions, what causes produced it in what organ and what in another. Next, pneumonia and its various stages, the symptoms in the different stages, with the physical signs, and a thousand questions I do not recollect. A third man came whose examination was just as hard, and after this they gave me a sheet of foolscap just as full of questions as it could be. One question I recall was to bound all of the triangles in the neck. The sheet was filled with similar questions, so you may get some idea of the nature of this examination.[4]

Despite the mandatory examining boards, there were always those who attempted to influence the medical authorities. In August, 1863, Richmond Area Medical Director Carrington received the following: "It gives me great pleasure to recommend the appointment of Dr. Nacto Henderson as an assistant surgeon. Dr. H. is a gentleman of good habits, has been well educated--is a diligent student of his profession and will, I have every reason to believe, make an industrious and useful member of the medical corp. Dr. Henderson is from Northampton County, Virginia, and has recently made his escape

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[4]George I. Waller to unknown acquaintance, date unknown, George F. Waller Letters, University of North Carolina.

from the enemy's lines."[5]

Surgeon General Moore made every effort to encourage continuing medical education among his surgeons. Early in the war he assembled some of the best medical minds in the Confederacy. These physicians, singly and collectively, produced pamphlets and manuals which were circulated to medical personnel throughout the Southern armies.[6]

It is not surprising that Camp Winder had an organized program of continuing education for its surgeons. Chief Surgeon Lane described the program: "I organized a quiz class consisting of six division surgeons and myself, a faculty each in charge of a chair in surgery, chemistry, therapeutics, anatomy, etc. They met weekly, having assigned the previous week's study, then the professor for each evening would question the class; then, at the end of the session, close his book and have us come back at him, every member with a question on the lesson. The result of this work was we were

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[5]H. Lawrence to W. A. Carrington, Aug. 5, 1863, W. A. Carrington Letters, Duke University.

[6]Examples of these were two publications using the title, Manual of Military Surgery, one by John Julian Chisholm (Richmond, 1862), the second by an unknown committee of surgeons (Richmond, 1863). Another manual was Edward Warren's An Epitome of Practical Surgery for Field and Hospital (Richmond, 1863). There were many others including a medical and surgical journal.

all refreshed in both theory and practice."[7]

Any discussion of the Richmond hospital surgeon necessitates a review of the command structure under which he operated. Surgeon General Samuel Preston Moore was omnipresent to all hospital commanders and their surgeons. He had delivered the Confederacy from medical chaos and was never content with the status quo. His personal inspections and numerous memoranda, sent through his able medical directors, Edwin S. Gaillard and W. A. Carrington, allowed him a firm grasp of all medical problems.

Surgeon Pyre Porcher, Moore's close associate, wrote of the Surgeon General: "A native of Charleston and a man trained in the army, with all its formality, he may have contracted certain habitudes which deprived his manners . . . of that softness and suavity which are used in the representative democracies and in all non military communities.

"Within his domain, which was an extensive one, he had absolute power and the fiat of an autocrat; the Emperor of Russia was not more autocratic. He commanded and it was done. He stood in terrorem over the surgeon, whatever his rank, or wherever he might be--from Richmond to the trans-Mississippi. Although appearing to be cold and forbidding, we do not feel

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[7]Lane, "Address," 38.

that Surgeon Moore was cruel, arbitrary, or insensitive to conviction. We have ourselves experienced some of his firm rulings, which afterward were fully compensated for."[8]

The next echelon in the chain of command was that of hospital commander. This office was often secured through political prominence rather than by technical ability.[9] However secured, superior administrative ability was the prime requisite to the command of a general hospital. Each division had to function technically and administratively in a superior manner for the hospital to be effective. This was the responsibility of the division surgeon, since his position afforded more personal contact with a greater number of hospital personnel than any other.

Three or more wards with all of their patients and personnel were under the division surgeon. Additionally, his division included mess halls, laundries, living quarters, slave rooms, bath houses, and at times a guardhouse. Winder's

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[8]Pyre Porcher, "Samuel Preston Moore," Southern Historical Society Papers, XXXIII, (1893) 114-15.

[9] Surgeon Lane of Camp Winder had one year's formal medical training and no experience in practice. Surgeon Semple's background is unknown. Surgeon Palmer of Howard's Grove was a politically prominent citizen of Florida. Mrs. C. D. Taylor, Martha Mary Reid, A Sketch of Her Life (Jacksonville, 1919). James Bolton, first surgeon of Howard's Grove, is the only hospital commander with superior post-graduate training and a bibliography of scientific papers, etc. Blanton, Medicine in Virginia in the Nineteenth Century, 146-47.

Second Division Morning Reports of November 5 and 7, 1863, listed the various personnel with whom he had to interact: "Nov. 5. Patients remaining in the hospital: N. C., 137; S. C., 2; Miss., 1; Va., 1. Remaining today, 137; No. wounded, 49; No. sick, 64; No. convalescent, 28; No. beds occupied, 309. Surgeons, 1; Asst. Surgeons, 2; Acting Asst. Surgeons, 2; Stewards, 2; Detailed, 17; Hired, 20; Cooks, 17; Laundresses, 16; Chief Matrons, 1; Ward Matrons, 5; Ward Masters, 2; guards, 6." The variation in patient load was often accompanied by a rapid turnover in division personnel as seen in the Morning Report of Nov. 7: Surgeons, 1; Asst. Surgeons, 1; Contract Surgeons, 4; Stewards, 2; Acting Stewards, 2; Detailed, 26; Hired, 16; Cooks, 17; Chief Matron,1; Asst. Matrons, 1; Ward Matrons, 1; Guards, 10, Carpenters, 1; Gardeners, 2; Bath Hands, 1."[10]

While contending with the ebb and flow of patients and personnel, the division surgeon was also responsible for the division's correspondence. This included letters of reply to directives from the Surgeon General, District Medical Director, and Hospital Commander, as well as officers in the field. He was constantly hounded by field commanders to account for their personnel under his care. On one occasion, a Winder division surgeon was required to respond to

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[10]National Archives, DCCX, 327.

Confederate President Jefferson Davis who had received a letter from a soldier complaining of the poor treatment he was receiving.

Finally, the division surgeon was responsible for the professional performance and conduct of his assistant surgeons in the care of their patients. This was his primary duty, and it required that he spend most of his time participating in the hellish cauldron of Civil War medicine. The person who filled this position needed to be an excellent administrator, a stern disciplinarian, and a skilled clinician who combined compassion for his patients with a keen eye for clinical details.

Winder's Second Division Letterbook, 1862-1864, and a complete surgical log paralleling this period described the manner in which its division surgeon, John Chambliss, managed his administrative problems. They gave insight into the endless clinical problems faced by Chambliss and his colleagues which would have challenged the modern surgeon. Their frustrations were obvious as they faced clinical problems about which they knew so little; however, they always rose to the occasion with their best professional effort.

The disposition of patients and personnel was a significant problem to field commanders who always argued that

too many men were convalescent in the hospital for too long a period. Inside the hospital, the division surgeon was constantly contending with the problems of supply, discipline, and even patient location. Soon after the new general hospitals admitted sick and wounded from all states, Chief Surgeon Lane continued the old admission policies on an intra-hospital basis, A July 1, 1863, memorandum to Surgeon Chambliss stated: "You will inform this office why the order transferring men to their respective state divisions has not been expedited."[11]

Countless variations in routine reports plagued the division surgeons. Surgeon Lane's December 13, 1862 request to all divisions read: "The Medical Director deserves a copy of each division's morning report. In the future therefore you will make your morning report in duplicate and forward it to this office." Even more representative of army bureaucracy was this directive from Lane's office on October 6, 1863: "To prevent confusion in reference to the Surgeon General's office you are directed hereafter to sign all receipts for medical supplies on the inside of the sheet, and the end of the receipt, and endorse if on the back."[12]

Disciplinary problems from wayward surgeons to

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[11]National Archives, DXLVII, 55.

[12]National Archives, CDLVII, 120, and DXLVII, 114.

recalcitrant patients were ongoing for the division surgeon. The misdeeds of some were more than Surgeon Chambliss could bear. These included everything from granting illegal patient furloughs to simple neglect of basic medical duties.

Assistant Surgeon James Long's case began with a letter (Dec. 5, 1862) in which he was peremptorily relieved of his duties by Chambliss: "Your services no longer being needed in this division, you are to report to the Surgeon in charge of this hospital." Long was eventually sent by Surgeon Lane to the office of Medical Director Gaillard for reassignment. Surgeons were in short supply. Gaillard, on investigating the matter, soon ascertained the reason for Chambliss' sudden action. In a June 9, 1862 letter he wrote: "Assistant Surgeon Long will return to duty at Winder Hospital. If Surgeon Chambliss has any charges to prefer against Dr. Long he will state them specifically in writing to this office."[13]

Chambliss prepared charges accordingly and sent them to the Medical Director in December. He charged Long with, disobedience of orders, neglect of duty, and violation of hospital regulations. Chambliss stated that he had ordered Asst. Surgeon Long to discharge from the hospital Pvt. W. C. Hundley of the 2nd Louisiana, and he had not done so. Private Hundley, treated for syphilis, was considered cured. He had

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[13]Ibid., 33.

been in the hospital three months. Obviously, from Surgeon Chambliss further description, he was one of the "hospital rats" described in the memoirs of so many hospital matrons. "For the past three months he has been a great deal of trouble to this hospital, stealthily passing the camp guard nightly and obtaining whiskey, getting drunk and disorderly, and distributing it amongst the patients on his ward. This was known to Dr. Long. I afterwards . . . caused Hundley to return to duty myself. Previously to his going off Dr. Long furnished him with a certificate of disability from duty in violation of the rules of this hospital."[14]

No record exists as to the action of the Medical Director, but Asst. Surgeon Long never appears again in Winder's records.

Other assistant surgeons tried Chambliss' patience in different ways. "Turfing", as practiced in today's large hospitals, was such a problem. On learning of an instance of this, Chief Surgeon Lane immediately sent a directive to all divisions: "Assistant Surgeons on duty will hereafter make no

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[14] Ibid., 33-35, 39. By regulation, assistant surgeons could only recommend furloughs. "Hospital rats" were malingerers of whom Pvt. Hundley's story is prototypical. For more on these individuals, see Phoebe Pember, A Southern Woman's Story, (Jackson, Tenn., 1959), 12, 28, 39-40.

transfers to other divisions of this hospital."[15]

To remedy personnel problems, Surg. Chambliss often applied the well-known military principles that busy troops stay out of trouble. Typical of the directives with which he bombarded his assistants was one dated December 16, 1862: "Assistant Surgeons will visit their wards regularly each day at mealtime and note the manner in which they are fed. They will report promptly any neglect on the part of nurses, wardmasters, cooks, etc." On another occasion, when Chambliss felt the heavy hand of the Surgeon General himself because his assistants were skipping proper channels in applying for furloughs, he issued this September 26, 1863, directive: "The Surgeons in charge of hospital divisions have been subject to reprimands by the Surgeon General for allowing such papers to come to him informally, and he reports that the private requests to him for furloughs is a growing nuisance which must be abated."[16]

In the fall of 1862, Smallpox touched all Richmond hospitals. Winder's first cases were sent to smallpox tents for isolation. By January, 1863, Surg. Chambliss had reported

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[15]Ibid., 30. The term, "turfing" is modern medical slang for transferring undesirable patients, by any means, to another ward. The term is modern, but the practice was certainly ongoing in Confederate hospitals of 1862.

[16]Ibid., 28, 49.

four cases to the hospital commander's office. On January 7, he received the following directive from Chief Surgeon Lane: "By order of the Chief Surgeon you will hereafter send your notice of cases of Variola, to Surgeon C. P. Rice, Howard's Grove Hospital, for removal."[17]

The division surgeon was plagued by continuous correspondence with the Surgeon General and field commanders regarding convalescent patients. They represented a potential source of personnel on the line. Communications varied from requests to recheck patients' duty-status to preemptory commands such as that of Surgeon Lane to Chambliss on December 16, 1862: "You are ordered to send all soldiers who are fit for duty to their regiment tomorrow morning."[18]

Chambliss was honest regarding convalescents in his division. In one instance, on January 30, 1863, he took the initiative and wrote to Capt. William Whitehead of the 3rd Virginia Regiment: "I noticed in the Richmond Dispatch of yesterday an advertisement notifying the following men of your company viz. Private George W. Gleason, Private Thomas Costin, Private H. B. Gay--and others, that unless they

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[17]Ibid., 72.

[18]Ibid., 79. Such sudden demands for personnel corresponded with the major battles in the area. In this case, the date was only three days after the battle of Fredericksburg.

reported to their company or sent Surgeon's Certificates, properly endorsed, in five days, they would be treated as deserters and a reward of $30 offered for their apprehension.

"I certify that Private Thomas Costin is suffering from secondary syphilis and is in my opinion unfit for field service, and that Private H. B. Gay is suffering from Scrofula and is also in my opinion unfit for field service. Both of these men have been detailed by the Medical Examining Board of this hospital to act as nurses--being unfit for field service.

"Private Geo. W. Gleason has been discharged from the service on a Surgeons Certificate of Disability. He is suffering from valvular disease of the heart.

"I hope you will take no further steps in regard to Gay or Costin, who are very useful in the capacity of Hospital Nurses here."[19]

Enlightened selfishness may have motivated Chambliss' helpful act. Division surgeons often rose to heights of

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[19]Ibid., 98. This letter reveals the lack of etiological knowledge about infectious disease during the Civil War. Scrofula refers to draining lymph glands in the neck caused by tuberculosis of the lymphatics. Secondary syphilis, demonstrated by open draining skin lesions filled with the syphilis spirochete, represents the most infectious stage of the disease. Contact by such infected personnel with seriously ill patients or those with open wounds, was obviously dangerous, but it was not to Surgeon Chambliss and his colleagues on the Examining Board.

literary salesmanship when requesting assignment of convalescents to hospital duty. This was difficult to accomplish due to the Confederacy's acute need for field personnel. Chambliss' request of January 24, 1863, attempted to convince the higher echelons that one soldier's status qualified him only for clerical duties. "I certify that Sergeant C. F. White, Co. C, 16th Miss. Regiment, is suffering from herniae of more that twelve years standing and is, in my opinion, unfit to discharge the duties of a soldier. He was detailed on a Certificate of Disability by Maj. Gen. G. W. Smith, 18th Nov. last for hospital duty. He has been performing his duties as quartermaster's clerk here ... in which capacity he has been very useful, his services are indispensable."[20]

Guard duty was not generally assigned to convalescents unless they were close to discharge status. Occasionally high ranking field commanders sent sick or wounded men to a specific hospital under direct orders specifying sedentary work. Surgeon Lane was most alarmed when he discovered that a soldier, detailed to the hospital by General Lee himself, had been placed on guard duty by Chambliss. In a strongly worded memorandum, he demanded to know what kind of "a mess" had precipitated this action. Chambliss vigorously defended

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[20]Ibid., 84.

his action as a punishment; "This 'mess' you allude to is temporary assignment to the guard as a punishment for insubordination, having aided in the preparation of a petition to members of congress replete with false statements and calculated to produce a most unfavorable condition of the hospital." He concluded that this action was most detrimental to patient morale and would cause "an influence most detrimental to the hospital."[21]

The never-ending worry Chambliss' personnel caused is illustrated in his frantic letter requesting that his ward personnel abstain from dismantling the woodwork in the wards. "The ward masters are positively forbidden to remove or allowed to be removed from their wards, the crossbeams binding them together. It is believed that a number of them have been removed for firewood. This most flagrant destruction, during the recent snow, seriously endangers the roof of the building and the lives of the patients therein, a ward of a neighboring division having been crushed in by the accumulation of snow on its roof. Any ward master allowing any such beam or other portion of his ward to be removed or destroyed so as to impair its strength or utility will be dealt with promptly with severe punishment." Chambliss' next letter was to the Chief Surgeon's office requesting planking and 200 nails for

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[21]National Archives, DXLVII, 149.

repairs.[22]

The primary responsibility of the division surgeon was the care of the sick and wounded. The technical disadvantages under which he worked were overwhelming. His basic surgical instruments, unchanged for many years, were not sophisticated enough to aid him with the problems he faced. The medications, "materia medica," were occasionally helpful, often useless, and many times harmful.[23] By trial and error, some astute surgeons were able to ascertain the effectiveness of a few drugs. In this instance, Winder's surgical record books reflect favorable results from the continuing medical education demanded by Surgeon Lane.

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[22]Ibid., Mar. 28, 1863, 203.

[23]Adams, Doctors in Blue, 39-41. An extreme example of the period's medical ignorance resulted in the court martial of Union Surgeon General Hammond. He was tried on flimsy evidence and removed as Surgeon General because his 1863 Circular No. 6 eliminated the use of calomel which had been widely used as a laxative. His circular was based on advanced medical thinking that calomel's mercury content acted as a poison which could cause gangrene. Adams stated: "The regulars who did not want to be reformed, the elders who did not want young men promoted over them, the politicians who did not want to wrestle with idealists, had won a victory." Oliver Wendell Holmes, Medical Essays (Cambridge, 1883), 184. The quackery and indiscriminate dispensing of useless drugs is analyzed when Holmes states: " . . . the community is still overdosed. The best proof of it is that no families take so little medicine as those of apothecaries, and that old practitioners are more sparing of active medications than the younger ones. Part of the blame, I fear, must rest with the profession, for yielding to the tendency of self-delusion, which seems inseparable from the art of healing."

The poor physiologic state of the arriving sick and wounded, followed by low morale after admission, were two of the surgeon's most serious problems. Dr. Peyre Porcher wrote about patient morale and how promised furloughs played an important part in its maintenance: "After basic treatment, this promise of a furlough was found to be superior to the whole pharmacopoeia and would literally rescue the sick or wounded soldiers from the jaws of death . . . when it is averred that one in ten died on the road [en route home], the question was asked, how many were saved? If this was denied the soldier he became phlegmatic and often [from] the sum of his harrowing experiences literally gave up from a constitutional standpoint."

Porcher contrasted the phlegmatic reception given General Lee, when he visited the hospital tents in Petersburg, to his reception on other occasions: "There was not the excitement or enthusiasm manifested, no exclamation or approval recognition of their beloved leader by a single individual."[24]

A ward surgeon at Hospital No. 21 wrote about the newly arrived sick and wounded: "Of the thirty (30) deaths occurring during the month of June [1863] . . . nine were moribund. The remaining twenty one (21) were in a decidedly cachectic condition, scorbutic and with pneumonia or typhoid fever

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[24]Southern Historical Society Papers XVII (1889), 17-18.

superimposed in most cases accounting for the large morbidity in the past month."

Many patient entries were cryptic, such as this one at Hospital No. 21, Feb. 14, 1862: "Edw. Hamilton, Pvt., Co. A, 1st Md., Dx. Brought in dead." Surgeon Porcher also observed: "The dominant fact which must impress and modify the whole course of treatment [of the newly hospitalized patient] to which any judicious surgeon would subject him unquestionably was prostration. Exhaustion was the great characteristic as well as the essential element to be considered . . . What was applicable to the well-nourished civilians would not apply to the soldier with his gastric irritability, his colligative disease, his gastralgia and especially his nostalgia."[25]

Delays between a soldier's wounding and his hospitalization were almost interminable. In June, 1864, Phoebe Pember wrote to a friend of her surprise that with the war moving so close, the wounded were brought in "only 5 or 6 hours afterward." Poorly organized evacuations from the battlefield and a gradual breakdown of the South's transportation system increased the time necessary for

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[25]Ibid., National Archives, CCCXXXIII, 77.

patients to reach the hospital.[26]

Private J. B. Roden of the 7th Louisiana Regiment described his long trip to the Camp Winder. "I was wounded on the skirmish line May 18, 1864. I passed to the [field] hospital where the doctor examined my wounds and told me he would have to perform an operation. When I asked if amputation wold be necessary, he said, 'Not just now.' This was not very comforting as it left the impression that it might be later.

"The operating table was a barn door set on two trestles. When chloroform was administered, it was reported the patient sang "The Bonnie Blue Flag" and other war songs.

"Immediately after the operation it was reported that Grant's Army had turned our right flank and captured Guinea Station, consequently all wounded were ordered to the rear. All who could walk were ordered to do so, the nearest station being Milford, some thirty miles distant. I started alone about 2 p.m. the sun being near full and made 12 miles, stopping at a farmhouse overnight where I was treated very kindly. Having yet eighteen miles before me I started early

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[26]Phoebe Pember to Mrs. H. C. Gilmer, June 22, 1864, Phoebe Pember Letters, University of North Carolina. A discussion of the deterioration of Confederate rail lines during the war is available in Lt. Col. Tom Dixon's Chessie's Line (Richmond, 1956) which contains pertinent information on the Virginia Central and other railways in the state and the Richmond area. Archives, CCLIII, 2.

and made fourteen miles when I fell exhausted by the roadside. I was put in a wagon and hauled to the station four miles over a country road. There I was put on a hospital train remaining all night at the station and arrived in Richmond the next evening where I was taken to Winsor [Winder] hospital, this being Friday afternoon. On Sunday morning the surgeon in charge, Dr. Tyler, examined and dressed my wound, nothing having been done to it since Wednesday except the use of cold water to keep down the inflammation."[27] Thus, Roden's ordeal lasted 5 days.

Delay was not the only problem to plague both surgeon and patient. Poor nutrition in the field was responsible for denying patients the nutrients required to combat camp diseases or bullet wounds. Scurvy was the worst of the nutritional diseases known to the nineteenth century physician. It affected the body's connective tissues, especially those of the blood vessels. It was, along with general inanition, a major secondary cause of death from battle wounds and severe illness. With their natural defenses so compromised, the sick and wounded had little chance for survival. Despite knowledge of the prevention of scurvy, an entry in Winder's surgical log shows that for one division

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[27]James B. Roden, 1894 talk to the United Daughters of the Confederacy chapter in Waynesboro, VA. Museum of the Confederacy.

"cases of Scorbuticus [Scurvy] amount to twenty-five in number and for the most part yielded to a vegetable diet and citric acid: a concoction of pine tops have been used very effectively in these cases."[28]

Curing some wounds was nearly hopeless from their inception. Penetrating wounds of the abdomen were a case in point: "Davis, Private, Co.K, 22nd N. C., GSW wounded May 3rd, committed the 10th (seven days after wounding). The ball entered the base of Scarpa's Triangle coursing upwards and backwards and could not be found after the most careful search. Wound suppurated freely, general health good. May thirteenth, seized with tetanus. Treatment with morphine sulph. and chloroform by inhalation. Died May 16 without any improvement."[29]

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[28]Garrison, 375. James Lind (1716-1794), a British navy surgeon, was the first to use controlled studies to demonstrate the dietary deficiency which caused scurvy. He used lemon and lime juices to cure this malady rampant in ship's crews during long voyages. Literature by British surgeons in the Crimea warned of the risk of this disease and outlined its prevention and control. MacLeod, 35. "The want of fresh bread and vegetables has a great and serious privation particularly felt by the sick and those whose gums were tender from scurvy. Preserved vegetables even when procurable, as they were not until late in the war, were at best poor substitutes for fresh ones and lime juice and did not form part of the distributions until the scurvy poison had fairly impregnated the system of the men." Official Record, Ser. IV, II, 467. Winder Surgical Log, 133. Confederate Army regulations stated that unit commanders would make all efforts to secure fresh vegetables whenever possible.

[29]Winder Surgical Log, 137.

Surgeons experienced great frustration when confronted with tetanus. This was graphically described by Surgeon H. M. Pinkard. On May 10, 1864, A patient had suffered a gunshot wound of the ankle and the ball had lodged deeply in the bone. Pinkard stated: "Erysipelas had occurred slightly but the day after surgery tetanus made its appearance. The patient complained of pain and stiffness about the jaw and the neck the morning of the 28th May. Ordered 2 grains of opium, he was relieved for awhile. Two hours afterward grew worse, jaws locked, gave two more grains of opium which had no effect. Ordered twenty drops of chloroform and forty drops tincture of opium every three hours and brandy, 1/2 ounce every two hours. Jaws slightly relaxed, in a profuse perspiration. Had tetanus spasms every fifteen to twenty minutes, doubled the quantity of chloroform. May 29, trismus still , respirations quiet during the paroxysms. Passed the night ... increased the laudanum to sixty drops. Tetanus spasms every four to five minutes, sleeps between spasms. Jaws relaxed enough to induce the little finger, 6 p.m. Pulse 118. Passed over a pint of urine (chocolate colored) during the day. Ordered an enema, bowel constipated, at 10 a.m. Worse, scarcely any interval between spasms, respiration disturbed and nearly arrested. Died at 6 p.m., conscious to the last, no impairment of intellect. Most of the time

complained of pain from the wounded limbs and darting through the whole body. Occasionally the nervous twitchings started in the trunk. Had nothing like opisthotonos, only trismus."[30]

The location of wounds in any ward at Winder were about the same as the average military hospital and occurred as follows: "Wounds of the head and neck 2, of the body 37, of the upper extremity 166, and the lower extremity 240."[31] Gangrene and erysipelas, secondary to wound infection, caused the most fatalities, while intractable diarrhea was the most common fatal medical disease. Typhoid was a leading cause of fatality in 1862, but became less so as the war progressed.

Seldom mentioned in other hospital records, Winder's log noted that extensive bed sores added to the downhill course of seriously ill patients.[32]

Another interesting observation of Winder's surgeons was their opinion of the flap amputation, especially when

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[30]Ibid., 139, 270. Trismus is the fixed spasm of the facial muscles causing the face to form a ghoulish leer which the intern or resident physician never forgets. In thirty-five years of clinical experience, the writer has seen only one case. Opisthotonos is the ultimate spasm of the back muscles wherein the patient's back forms a concave arch with only the heels and back of the head touching the bed. Surgeon Pinkard's relief in preventing it is understandable.

[31]Ibid., 276.

[32]Ibid., 278. Bedsores are also an ongoing problem of the bedridden patient in modern hospitals. Lesions that are large, or multiple and draining, cause a severe loss of protein, which is necessary for healing and recovery.

performed in the field. Contrary to the teachings of many prominent surgeons of the day, they felt that this operation became gangrenous more often than the circular amputation.[33]

Although a minor case by modern standards, there was an occasional cure directly due to the efforts of the surgeons: "Haycock, C. W., Pvt., Co. K, 28th N.C,, Farmer. Hemorrhoids--of long standing. An operation in this case consisted of two or three applications of nitric acid, and in about 10 days from the time of the first application, he returned to his regiment cured."[34]

It is almost impossible to discuss surgeons and patients separately, because their lives within the confines of the hospital were so intertwined. However, the patient's viewpoint is aptly revealed in Pvt. Roden's story regarding his hospitalization at Winder Hospital.

> For the first few days things went well, but I grew weaker and the rations became distasteful. I would get a little bread and rye coffee for breakfast, and for dinner a small piece of half-baked corn bread, a little fat bacon, with a few stewed beets and potato vine leaves for salad. One morning I requested the nurse not to bring any dinner unless he could find something a little more palatable. He replied that he would continue to bring the same diet, which he proceeded to do, and upon my taking him to task he became insolent and when he turned to leave I threw my chunk of corn bread at him. the nurse reported me to the ward master, who threatened to put me in the guard house and see that I misbehaved no more. A comrade, wounded about the same time I was,

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[33] Ibid., 125, 273.

[34] Ibid., 125.

> and who lay on the cot to my right, handed me one of his crutches, and we planned, though neither of us could raise our heads, to attack the ward master if he attempted to put his threat into execution. The doctor came just before supper and found me in a fever. On learning the cause he sent for the ward master and reprimanded him."

Private Roden's troubles continued. Erysipelas developed in his wound and he spent two weeks quarantined in the erysipelas camp. In the interim his knapsack was stolen leaving him without clothing. A black laundress appearing with a basket of unclaimed laundry came to his rescue. Roden gladly relieved her of this burden.

Later he invested twenty-two dollars of back pay in two dozen eggs that were kept for him by the wardmaster. Soon afterward his division surgeon asked how he was feeling, to which he replied: "I told him I was living high on my investment." The surgeon took the remainder of the eggs and sent them to the commissary department. Roden's money was refunded and he was presented two eggs each morning and evening thereafter. He soon regained his strength and was discharged after a stay of six weeks.[35]

Private Roden highlighted the effects of poor diet on bedridden patients to malfeasance of ward and kitchen personnel at Winder. He also pointed out the division

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[35]Roden, "Experiences."

surgeon's ability to correct problem situations once called to his attention.

Private James B. Gordon, 21st Mississippi, wrote directly to President Jefferson Davis about his unsatisfactory care at Winder. "I take the pleasure of dropping you a few lines in regard to the treatment of sick soldiers in this hospital, and we are treated worse than a sort of heathens. I suppose the sick are allowed $1. for their rations, but wouldn't get a third of it. I have been in this hospital 2 months and I am but little better than I was when I came here. I don't expect to get the best of food, I don't get anything to eat but fat meat and corn bread. It has been the case ever since I got here and it looks like there is little prospects of it changing. Sometimes we get fruit and rice half cooked. There is chicken and ham comes here for the sick but we don't get any of it but I will say that I don't expect to live on ham and eggs and custard, but when the doctor prescribes these things I think we ought to get them."

Gordon added that he felt the surgeons and the cooks in the kitchen made short work of any good food when it was there. When the surgeon to whom he complained questioned the matron in charge, she stated that those allegations were all lies. Gordon added a postscript: "I expect you have enough to attend to besides such pleas as this, but I write for a

piece of advice the soldiers left to your mercy. You will please answer this as soon as you get it. Direct from James Gordon, 21st Mississippi Volunteers, Ward 2, the 2nd Division, Winder Hospital, Richmond, Va."[36]

The words of these two soldiers add another dimension to the privations of the Confederate hospital patient. Ward and mess personnel often engaged in practices detrimental to patient care. This is illuminated in Chief Surgeon Lane's directive (January 4, 1863) to all division surgeons: "You are respectfully instructed to stop the peddling of articles thru your divisions by various parties and on repetition of same to seize the goods and appropriate (if edible) to the soldiers tables or, if not, as you see fit." Nine days later Lane issued another memorandum: "You are requested to see that nurses and ward masters are stopped from possessing articles of any kind for sale in the wards of your hospital. It has been reported that such sales are made daily. All will be arrested or otherwise punished." Surgeon Chambliss reported an incident in which patients complained that the dining room superintendent and his personnel were selling food

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[36]National Archives, DCLXII, 191. Mrs. D. C. Dana of Mississippi was incensed by Pvt. Gordon's accusations. Her letter to Surgeon Chambliss, and his letter to President Davis in her defense, are included in the chapter on Personnel.

to them.[37]

The sick or wounded soldier's hospital stay could take several routes. He could expire; he could, after a varying period of convalescence, come before the hospital board for evaluation; he could be returned to his unit; or he could desert.[38]

By regulation, hospital boards were required to grant a furlough to each convalescent ambulatory patient if it was clear that he could not return to duty within twenty to thirty days. Patients who were Virginia residents were under orders from the Surgeon General to report to hospital commanders near their homes in order to keep in touch once they had left the

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[37]Ibid., 68, 72; National Archives, DXLVII, 179. Surgeon Chambliss made an interesting clinical observation in this report concerning one of the perpetrators, a patient in the hospital for eight months. His description of the patient's behavioral pattern would today be considered paranoid. "This patient should be subjected to proper treatment for such a malady He has by my orders been treated with consideration and forbearance which [should be] extended to an unfortunate being in his condition." Psychiatry was not yet a medical specialty, but Chambliss was aware that he faced a clinical problem which neither he nor anyone else was trained to treat.

[38]National Archives, CXCIX, 24. Howard's Grove Hospital reported an increasing number of desertions in the last several months of the war.

Richmond area.[39]

Examining boards generally met at 3:00 p.m. daily except on Sunday. Following is an entry made by the Examining Board of Howard's Grove Hospital: "Norris, J. B., Pvt., Co. F, 26th Miss., G. S. middle third left thigh ball passing transversely, Furlough 50 days. To go to Balding, Jasper Co., Miss." Most patient furloughs were due to the ravages of disease, and most frequently chronic diarrhea was the cause.

Howard's Groves' board met on twelve days between September 10 and September 27, 1862. They reviewed cases of 194 patients with the following diagnoses: "diarrhea and marasmus, 97; gunshot wounds, 67; anemia, fever and marasmus, 12; typhoid, 8; pneumonia with hemoptysis, 4; rheumatism, 3; fever and icterus, 3; bronchitis and debility, 1; hepatitis and chronic anasarca, 1; aphonia due to measles,1."[40]

Diarrheal diseases were known to the surgeons of the Civil War as the alvine fluxes. They caused great numbers of fatalities as well as countless discharges and furloughs

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[39]Ibid., 28. 72. All hospitals had a board consisting of three officers. It decided the duty status of convalescent soldiers. Those considered unfit for duty of any kind could be discharged. Those thought to be fit for activities other than field duty generally became detailed members of the hospital staff.

[40]National Archives, CDXXXII, 2-58.

during the war. Many who were furloughed home had their disease continue unabated. Death statistics on this disease are skewed due to the unknown number of post-discharge deaths.[41]

The Confederacy made an effort to see to the traveling comfort of patients discharged from hospitals. The Hospital Bill (Sept. 25, 1862) called for rapid transportation of convalescents by rail. It insured their comfort through reserved seating in the coaches and by providing them with guard escorts to their seats.[42]

War Department Directive (Oct. 3, 1862), Special Order No. 80, paragraph 2, provided regulations in the event of patient death: "That a certificate of death will be made out immediately containing the soldier's name, rank, unit, circumstance of death and a list of effects and money and in whose hands they will remain until legally called for." Lists

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[41]An in-depth study of these diseases is beyond the scope of this paper. Joseph J. Woodward's Outline of the Chief Camp Diseases of the United States Armies (Philadelphia, 1863) and the Medical and Surgical History, Vol. I, Part II, in its entirety, contain the most complete information on the subject. After reviewing this material, Dr. George L. Fischer, a gastroenterologist, felt that bacillary dysentery was the most common etiology. Helminthic and amoebic infections were at times concurrent or separate infections causing diarrhea. He also maintained that lack of knowledge of intravenous fluid replacement and advanced patient wasting accounted for the high mortality in the chronic forms of this illness.

[42]National Archives, CDXLVII, 36.

in the death records are scant and pathetic. One of these read: "S. T. Akers, Pvt., 33 Ala., 1 pr pants, $5.; 1 pr. socks, $1.; one flannel shirt, $3.; no cash. T. Murphy, Pvt. Co. E, 48th Ga., pants, $1.; blanket, $2.; canteen, 41.; no cash."[43]

Mrs. Burton Harrison, a Winder matron, observed the depressing hospital atmosphere: "I can say that our experience was continually shocking and distressing, as were the burials of our dead in the fields by Hollywood, six or seven coffins dropped into one yawning pit, and hurriedly covered in, all that a grateful country could render, in return for precious lives."[44]

Civil War hospital surgeons and their patients were caught up in a morass of poor transportation, untrained personnel, poorly educated physicians, and ignorance regarding the cause of infection. The debilitated state of patients on arrival at the hospitals, coupled with their neglect by many ward personnel, added more impediments to the endless daily treadmill on which the division surgeon functioned.[45]

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[43]Ibid., CCXVIII, 11. All items of clothing were itemized if they were government-issue.

[44]Mrs. Burton Harrison, Recollections Grave and Gay (New York, 1911), 188.

[45]National Archives, CDXLVII, 214. An illustration of the "treadmill" is Surgeon Chambliss' frantic request for help (May 19, 1864) during the Spotsylvania campaign: "I have to report that I have in the hospital (division) 400 severely

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wounded patients. The greater proportion of them require constant attention. I have only two medical officers on duty--untiring exertions are unequal to the requirements of the patients. My ward masters and nurses are mostly unskilled in the performance of their duties. I think that three additional medical officers are indispensable for the care and treatment of my patients. I earnestly request that you will assign this number to duty here as speedily as practicable." Of the three assistant surgeons he requested, Chambliss received only two. Other surgeons with the same problems were not so lucky.

Chapter III

Personnel

"During a hard forced march from Drewry's Bluff to protect the city from Dahlgren's raiders, I broke down completely. After going into convalescent camps, I was detailed as a clerk at the headquarters of Winder Hospital, where I was taken prisoner at the evacuation of the city."[1] This 1909 entry by H. Clay Rees on the frontispiece of a Winder log book clearly demonstrated the manner in which non-technical personnel were selected for duty in Civil War hospitals.

The modern profession of nursing was non-existent in 1861. The rush to establish hospitals early in the Civil War resulted in soldiers being detailed to this work for which they were untrained. As the war continued the use of convalescent soldiers gradually replaced able-bodied personnel. This method had been used in the Crimea with none too satisfactory results. MacLeod stated of his experience: "The system of nursing was highly defective . . . and led to the sacrifice of many lives. The attendants of the sick

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[1]Winder Surgical Log (1863-64) Frontispiece. Museum of the Confederacy.

consisted exclusively of soldiers, very often convalescents, whose strength was not sufficiently restored to return them to duty . . . of the worst get-up and the most useless of privates, whose presence in the ranks could be easily dispensed with."[2]

Convalescent soldiers also served as guards, commissary clerks, cooks, dining room orderlies, ward masters, and occasionally as stewards. The balance of the hospital workers were civilians, slaves, or free blacks who filled jobs as laundresses, cooks and carpenters, and other kinds of manual labor.

The poor physical condition of the detailed ward personnel often detracted from their effectiveness. On

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[2]In 1861 the only trained personnel working as nurses in the modern sense were the various orders of Catholic nuns, especially the Sisters of Charity. Sister Mary Dennis Maher discussed the work of these dedicated ladies in To Bind Up the Wounds (New York, 1988). Because they were so few they were in great demand. As the war progressed, commanders and surgeons on both sides had nothing but the highest praise for their work. MacCleod, War in the Crimea, 55. This British surgeon praised the work of Florence Nightingale and her staff for their work in the Crimea: "I have seen much of the experiment and watched its working with attention, and I believe Miss Nightingale has settled the question." Adams, Doctors in Blue, 176-77. Female hospital personnel in the North had the advantage of better organization than their southern counterparts. Dorthea Dix of the U. S. Sanitary Commission recruited and trained many women for which a pay scale was authorized by Congress in August, 1861. Significantly, Miss Dix had previously visited Florence Nightingale in the Crimea, where she observed methods of patient care.

September 10, 1862, the Surgeon General received a list of newly detailed soldiers. It noted their unit and their disability. "Pvt. C. A. Ball, Co. C, 32nd Va. Regt. Suffering from syphilitic amaurosis (blindness) in one eye and subject from exposure to frequent attacks of syphilitic rheumatism; Pvt. O. R. Howard, 28th Va. Regt., due to frequent attacks of acid gravel; Pvt. G. L. Silverthorn, Co. A., 4th Va. Regt., a wound in the leg suffered at Seven Pines; Pvt. C. T. Allen, Co. B, 15th Va. Regt., three attacks of rheumatism since his entrance into service, and is now convalescing, but much debilitated from chronic diarrhea."[3]

In May, 1862, ninety-six soldiers were assigned to Winder. Most were detailed as nurses, but there were many other duty assignments: "C. S. Tebs, Pvt., Co. A, 4th Texas Regt. detailed as baggage master; R. A. Ragen, Pvt., Co. D, 10th Ga. Regt detailed as baker; John Barr, Pvt., Co. K, 28th Ga. Regt. detailed as a carpenter." Occasionally a division surgeon made a lucky discovery amongst his new detailees. Such was Surgeon Chambliss' find of "R. E. Moore, Pvt., Co. D, 18th Va. Regt. detailed as a druggist." [4]

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[3]National Archives CDXLVIII, 346-47

[4]National Archives CCCXXXIII, 10. Surgeon Chambliss may not have realized the extent of his good fortune in securing a pharmacist for his division. Soon after, the Confederate government introduced conscription, a shortage of these professionals occurred in Virginia. A letter to the Virginia General Assembly from Dr. David F. Wright, signed by fifteen

Occasionally a high ranking field commander detailed a soldier directly to a hospital. An extract from Special Order 96, Headquarters of the Army of Northern Virginia, August 16, 1863 read: "Private William H. Evans, Co. D, 8th Ala. Regt. is, during his unfitness for field service, detailed for duty as a courier and will report to Surgeon General S. P. Moore, Richmond, Virginia. A surgical certificate of his condition will be forwarded monthly to his company commander. By command of General Lee." The Surgeon General sent Pvt. Evans to Winder Hospital by endorsement on General Lee's order.[5]

By regulation, stewards were either health professionals from civilian life, or non commissioned officers recommended by a senior surgeon to the Adjutant General. Ward masters and nurses made up the balance of the ward personnel.[6]

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physicians and one hundred laymen requested that the Assembly "exempt from military duty such apothecaries as are now exempted from the same by the Congress and Government of the Confederate States--for the necessity of this we would call to mind that the apothecaries thus exempted number only forty five (45) in the entire state." Bruce B. Boulden Papers, Museum of the Confederacy.

[5]National Archives CCCXXXIII, 89. This practice was actually against Confederate Army Regulations, General Order No. 28, Jan. 12, 1863. This order put military hospitals under the control of the regional medical director. Official Records, Ser. IV, II, 25. Obviously, no one was going to question an order from General Lee.

[6]Because of Surg. Gen. Moore's lengthy service as a U. S. Army surgeon, it is not surprising that Confederate Medical Department regulations closely resembled those of the Federal Army. Joseph Janvier Woodward, The Hospital Stewards Manual, (Philadelphia, 1862). Chisholm, A Manual of Military History,

Three classifications of stewards existed: mess, druggist, and clerical. The mess steward was responsible for the operation and cleanliness of the kitchen and for procuring provisions from the hospital commissary. He was "to visit daily and report the condition of the sinks of his division to the sergeant of the police guard, and to ascertain who are present at sunrise, sunset, and for all meals. He was "forbidden to sell any hospital supplies."

The druggist mixed prescriptions, closely audited the contents of the medicine chest on hand, and made a monthly report to the Chief Clerk as to their status. He was strictly forbidden to compound prescriptions for anyone except surgeons or contract physicians. The clerk steward was responsible for all division records and also acted as an administrative assistant to the division surgeon.[7]

Stewards were considered semi-professional personnel. The Surgeon General's Sept. 3, 1863 circular required that they be periodically examined by a special board of medical officers. This board was organized in Virginia by Medical

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Appendix No. 1, 387-441.

[7]National Archives CDLVII, 38. The stewards of the Union army were by regulation given more initiative in specific care of their patients than their Confederate counterparts. This included cupping, leeching, extraction of teeth, enemas, and urethral irrigations for gonorrhea. Hospital Stewards Manual, 19, 317, 222-23.

Director Carrington. It is also noted that rations and quarters were arranged for them during their stay in the city at the Wayside Hospital at the corner of 19th and Franklin Streets.[8]

The ward master was a detailed enlisted man in charge of the nurses and any ancillary ward personnel, all of whom were responsible for ward discipline. In addition to his policing and cleaning duties, he was in charge of all ward equipment including its bedding and furnishings. When a patient was admitted, the ward master assigned him a bed. When a patient was discharged, the ward master conducted him to the headquarters clerk and military guard. These, in turn, arranged for the discharged soldiers' transport home or back to his regiment.[9]

Regulations directed that there were to be three nurses on each ward, with one designated as head nurse. Besides routine ward maintenance and patient care, the head nurse was acountable for the work of his assistants and, "was responsible to the ward master for the order, discipline, and cleanliness of his ward." He also saw that the bed tags, indicating the patient's name, unit, and diagnosis, were attached to all beds. He reported to the division clerk all

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[8]National Archives CDLXXXIV, 28.

[9]National Archives CDLVII, 38.

patient departures which included furloughs, deaths, absences without leave and desertions. The bed tickets were returned by him personally to the hospital headquarters. No patients could touch these at any time--a rule that was strictly enforced.

The head nurse enforced the following patient regulations: no arms, accoutrements or ammunition allowed on the wards; no smoking or spitting on the floors or walls; all medications must be taken as ordered; no foods or diet unless prescribed by the surgeon; and no loafing around the clerk's office or the drug store. Failure to comply was reported immediately.[10]

A July 6, 1863 medical department circular specified that a medical officer's patient load could not exceed seventy. It also indicated the work for which he was responsible. Since this was performed by his ward personnel, it indicated the nature of their routine: walls were whitewashed two or three times yearly; the content of bed sacks were changed each month and bedding aired frequently; each bed had three sheets with one airing at all times; beds were arranged so that none were closer than six inches to the wall; each patient was allowed 800 cubic feet at all times to prevent crowding; receptacles for dispensing medicines were

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[10]Ibid. 38-41.

maintained with the dosages and patient's name for whom it was intended; floors were cleaned by scrubbing with sand (no water was used for cleaning unless directed by the surgeon in charge); and a suitable time for retiring was set by the surgeon and talking was not allowed afterward.[11]

The detailed ward soldier's day varied from boring routine to the care of an endless succession of sick and wounded. It was often very depressing. Private J. W. Griffin, detailed to Winder Hospital as a ward master, described this in his letters to his wife.

As a new ward master in July, 1862, he wrote about the end of the Peninsula Campaign: "The Yankee army was completely routed and we drove them back 30 miles and our army is still pursuing them. The fight commenced four or five miles from this place . . . and we have taken a large number of prisoners and wounded soldiers. My occupation is waiting on the sick and wounded at Camp Winder Hospital and it is a hard place but i feel . . . that the last battle is now being fought and i hope time is not far distant when we will all have the privilege of coming home."

His enthusiasm over the prospects of a victorious ending of the war was soon suppressed. Nine days later he wrote: "The great fight is over and for the present decided in our

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[11]National Archives CDLXXXIV, 49.

favor but with a heavy loss. i suppose we lost in that fight 15 or 20,000--and they are making active preparations for another attack on Richmond but they probably lack as much to taking it the next time as they did this time. i see no more prospect for peace at this time than there was when i left home." In the same letter he noted the onset of the snowballing inflation that enveloped the Confederacy; "Everything is high here. Butter is $1 a pound, Irish potatoes $16 per bushel, milk $1 per gallon, shoes $12 per pare, and everything else high in proportion."

Griffin described his work only when casualties were heavy. At the end of the Peninsular Campaign he wrote: "we have had a hard time today with wounded soldiers. It is getting better now--those who was mortally wounded have died and who was not is getting better--you may guess when 4 men has to wait on 50 patients how much time they get to rest. i have to give all the medicine myself and see to the drawing of provisions and oversee the whole ward and held responsible for everything about it--while writing this letter i have had to lay it down no less than 20 times."

In one letter he related his problems with the Confederate Army payment system: "You look for me to send you some money--i have not been paid a dollar yet, nor dont know when i will. i am greatly in need of money myself at

this time. i have wrote to my captain for pay but everything has been so unsettled that ther haint been no attention paid to it. As soon as i get the money you will know it." He also instructed his wife to: "Tell his father to be sure and get wheat seed and sow wheat this fall and have the children clear all the land they can--if i dont git to home to do the best they can till i do."

When military personnel are not kept occupied their letters soon reflect concern with their health and their absence from their loved ones. In the busy days of the Peninsula battles Griffin wrote: "i feel thankful to God that i have been so abundantly blessed with health and to think that i have been in the midst of from 4 to 5,000 sick soldiers all the time . . . i feel i should thank our precious God for His goodness."

In contrast, his letter written sometime later when things were quiet in the hospital, complained that his additional duties as a lay preacher were too much: "I woke this morning. i was in tolerable health though not as well as i have been. I have been suffering with some affliction in my lungs from the measles and some derangement of the kidneys and fear that i shall have to quit trying to preach for it is making me wors all the time when i preach and through i preach only once in a week it hurts me all the rest

of the week."

In the fall of 1863, Griffin was transferred to Howard's Grove Hospital where the patient load was lighter. In one instance he reflected on the change of assistant surgeons on his ward: "The surgeon in charge here now will leave in the morning and a new one will come in and i dont know what sort of man he will be." The hospital continued to be quiet through December and Griffin's depression deepened. "It seems it will kill me if i have to wait another year before I see you, and it will give me more pleasure than anything in the world to see you."

On December 25 he demonstrated that he and his colleagues were resourceful in raising their morale. "i have been sick a few days back but it is better now. i can be up and it is about all. i have not been to the table to eat for 8 or 10 days but think tomorrow i will be some better . . . it is not Christmas to me, but we had a good dinner today and some of the boys in my ward threw in last night and made some $60 and we had an eggnog this morning. If i could have just been at home without the eggnog but my family it would have been a thousand times more satisfactory to me."

Letters from home were the life line for Civil War soldiers, many of whom had never before been away from home.

Griffin wrote: "my life is becoming a burden to me and is getting more so every day. i have not had a letter from you in 8 or 10 days and the last that i got was rote so bad that i could not tell the date of it. i want when you write to write plain so i can read it. My eyes do not see as good as they was when i left home--this letter is badly wrote." He reflected more depression later in the same correspondence. " ... This ware will last just as long as there is anybody to fight. There is no more prospect of the end being near than it was 3 years ago."[12]

The possibility of detailed personnel being declared physically fit and sent to the field was always present. This emergency directive was sent to the Chief Surgeon of Hospital No. 21 on June 23, 1862: "With the exception of one detached man to each ward and the regularly appointed hospital steward, all soldiers now in service in the several hospitals of this city, in whatever capacity employed whether as nurses, cooks, wardmasters, clerks or apothecaries, will return to their Regt. This order is . . . in conformity to those instructions given by the Gen'l commanding the army."[13]

The campaign around Richmond continued to drain hospital personnel. On July 21 Surgeon Semple of No. 21 issued this

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[12]The J. W. Griffin Letters, Duke University.

[13]National Archives CCCXXXIII, 87.

directive: "Notice to all surgeons in charge of hospitals that negro women will be used as ward personnel, cooks, etc. and . . . to facilitate their distribution you are to state what number (if any) you desire to be attached to the hospital under your charge."[14]

A lull in campaigning brought fourth the opposite. General Order 96 from the Adjutant General, July 8, 1863 stated that soldiers "not fit to bear arms and fit for service in the staff departments of the army to be detailed in the medical department as nurses, guards, etc., and . . . so far as practicable to relieve able bodied soldiers for duty in the field."[15]

Line officers were always looking for a few more men for the field. A directive to the boards for evaluation of stewards stated that their final report should contain "the names of such not qualified for the position or whose services were not absolutely necessary."[16]

An abrupt order transferring men to the field without notice was not the only method of alerting detailed personnel that a transfer to field duty was imminent. Director Carrington's September 21, 1863, circular to all hospital

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[14]Ibid., 88

[15]National Archives, CDLXXXIV, 28

[16]Ibid., 28.

commanders and their surgeons was a typical call to patriotism. "Appeals to the patriotism, courage and gallantry of soldiers have frequently proved more powerful than medicine. Hospitals have been emptied on the announcement of the approach of an engagement and . . . has given spirit to the debilitated frame . . . Let each soldier be informed that another great battle is imminent. The Army of Northern Virginia stands facing an invading enemy that it has so often foiled and repulsed, and is to a man fierce for a fight and confident of victory. Those who have shared the dangers and glory of previous victories of the army of Northern Virginia should share the glory of this and make it more decisive . . . Let every man who is able harken to take part in the impending struggle."[17]

If the medical officers had problems with the detailed personnel, the reverse was also true. Howard's Groves' chief surgeon made an inspection of Dr. Temple's division and again found many discrepancies including bibles missing from the division day room which he, himself had issued. Temple immediately passed this complaint on to his steward, Pvt. Petit, who wrote a strong rejoinder by endorsement through Temple to the chief surgeon. He protested that the bibles were not issued but given by the Presbyterian Bible Secretary;

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[17]Ibid., 23.

they were taken by discharged soldiers; and if all stewards were "responsible for such property throughout the hospital system it would swallow up our pittance." Of note is Temple's meek endorsement: "I do not see that any action is necessary."[18]

Surgeon Temple's endorsement reflects his comprehension of Steward Petit's importance to the division. Temple's poor attention to detail, previously noted, left most of the division administrative responsibilities to his steward. Petit admonished the linen department for its lack of policing and brooms; a wardmaster for allowing rations to be wasted on the wards; wardmasters to accompany the Officer of the Day on his daily rounds, to visit patient wards every two hours and to inspect the negro quarters of the division nightly. He was a stickler for details and almost made up for Temple's deficiencies.[19]

Chaplains were assigned to hospitals, but little is known of their activities. Only one reference to these men was noted in Surgeon Lane's January, 1863, communication to his division surgeons that: "Rev. R. J. Stewart is assigned to

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[18]National Archives CDXXIX, 15.

[19]Ibid., 18 In order to see that rations were not wasted, Petit vowed he would "check the scraps of bread in the slop barrels."

hospital. All other chaplains and all chaplains at this post will report to him for disposition and assignment of their duties."[20]

Detailed barbers were a late luxury in the hospitals. Howard's Grove's record book contains a single entry, June 3, 1863, which stated that a barber would be detailed to the hospital at the pay of a nurse "due to the patient's complaints of lack of such personnel being available."[21]

Of all detailed duties, assignment to the hospital guard was the most disliked. Working inside, away from inclement weather, was by far the duty preferred by the convalescing soldier. Transfer to the guard was an unpleasant change.

Assignment to the guard was often arbitrary and abrupt. An August 14, 1863, order to a Winder division surgeon stated that "you are directed to send ten (10) detailed men of your division acting as nurses to report for guard duty to Captain Tabb due to the continuance of your division not being filled with patients. Should a battle occur and your unit become filled, these will be returned to you on requisition."[22]

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[20]National Archives, CDLVII, 68

[21]Ibid., CCCLXXVI, 13.

[22]Ibid.., DXLVII, 91.

Apparently detailed soldiers were not always effective in carrying out the duty of the guard, which was to prevent unauthorized absences as well as depredations by hospital personnel and outsiders. On August 13, 1863,Provost Marshal John H. Winder directed that "the officers of the hospital will be held responsible for all depredations committed by its patients in the vicinity. No passes will be granted hereafter to any patient, except by the Chief Surgeon, between the hours of nine and ten a.m. and these in case of absolute necessity. The hearty cooperation of all officers of the hospital is called to the execution of this order."[23]

Occasionally transfers to the guard were quite prestigious. On September 9, 1863, Division Surgeon Meredith of Winder entered in his letter book: "William Maynard, Co. F., 45th Georgia, detached. Transferred to the President's guard by order of the Medical Director."[24]

Near the end of the war, Mrs. Burton Harrison reflected the general demise of the Confederacy hospital guard in her memoirs as a Winder hospital matron. Once, on returning with a colleague from a walk to the nearby James River she wrote: "We generally timed ourselves to reach the camp at sunset, just as the one armed and one legged soldier on duty at the

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[23]Ibid.

[24]National Archives, DCCX, 58.

headquarters flag staff lowered the Stars and Bars to her evening rest, after performing on his asthmatic bugle a melancholy strain."[25]

Confederate matrons were not organized like those in the North. Yet their dedication more than compensated for this. Most had occupied high social and economic positions and had no previous experience in caring for the sick. Mrs. Martha Reid of Howard's Grove was the widow of a distinguished Florida judge and a close personal friend of the hospital's chief surgeon. Mrs. Burton Harrison was a member of the prominent Cary family of Richmond. They all shared a sixth sense that they played an important role in the care of sick and wounded soldiers.

Mrs. Harrison's decision to embark on this career began when "our mother . . . declared she could rest no longer. She had been out to visit the hospital at Camp Winder in a barren suburb of the town, where the need of nurses was crying. My aunt, Mrs. Hyde, deciding to accompany her, they were soon installed there, my mother as Division Matron . . . my aunt controlling a dispensary of food for the sufferers. It had been proposed that I remain in town with friends, but my first glance at my mother's accommodations in the Camp made

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[25]Harrison, Recollections, Grave and Gay. 185.

me resolve to share them and try to do my part."[26]

Their new careers were on dark and uncharted seas. Compounding the situation was the criticism their actions evoked from their parent society. The thought prevailed among their peers that proper ladies had no business performing such work. Not until 1873 would formal nursing training be initiated, with a sudden proliferation of schools thereafter.[27]

Until mid-nineteenth century, the public was accustomed to caring for its sick at home. Civil War casualties necessitated the care of sick and injured in large numbers far from familiar surroundings. Hospital care had become a

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[26] Ibid., 182.

[27] Lytton Strachey, Eminent Victorians: Florence Nightingale (New York, 1918). Kate Cumming, Kate: The Journal of a Confederate Nurse (Baton Rouge, LA, 1959), 178. Miss Cumming, one of the more famous Confederate nurses, was, herself, the target of criticism. "There is scarcely a day passes that I do not hear some derogatory remark about the ladies who are in the hospitals, until I think, if there is any credit due them at all, it is the moral courage they have in braving public opinion." These mid-nineteenth century attitudes died grudgingly. The writer's mother announced to her family in 1912 that her career choice was nursing. She was immediately rebuffed. Her father, a highly educated Methodist clergyman, felt this was not suitable work for a proper young woman. Being a dutiful daughter, but iron-willed in her conviction, she became a teacher and saved her money. Three years later she told her father that she had been accepted at Johns Hopkins School of Nursing and that she would attend. She paid her own tuition.

reality, an idea that projected into the postwar years.[28]

In the first year of the war, Southern women worked in the hospitals as volunteers, learning as they went. Their dedication gradually caught the attention of the Confederate medical hierarchy, and, in September, 1862, the Hospital Bill made their status official. In the minutes of the discussion of this legislation, a congressman noted that of the five divisions in Winder Hospital, only one was managed and superintended by women. This division furnished additional argument for the use of female personnel as the mortality in this division was relatively small.[29]

Under this new law, matrons received lodging and rations. The pay for the two matrons-in-chief authorized to each hospital was forty dollars a month. Their job description designated that they were "to exercise a superintendence over the entire domestic economy of the hospital, to take charge of such delicacies as may be provided for the sick, to apportion them out as required, to see that food and diet is properly prepared, and all other such duties as may be necessary."

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[28]Charles E. Rosenberg, The Care of Strangers: The Rise of the Hospital System (New York, 1987). This volume offers an excellent discussion of the gradual transition from home to hospital care in the nineteenth century and the impetus given it by the Civil War.

[29]National Archives, CDLVII, 36.

Two assistant matrons, at thirty-five dollars a month, were in charge of the laundry and responsible for the cleanliness of clothing and bedding. A third group of ward matrons, at thirty dollars a month, were to "see to the cleanliness of beds, the serving of food, dispensing of medicines, and attending to all patients needing careful nursing." Women performed ward duties whenever possible.[30]

Compared to the comfort of their civilian life-style, the matron's quarters in military hospitals dictated a spartan existence. Mrs. Harrison described her accommodations at Winder: "To the nurses and matrons was allotted one end of a huge Noah's Arc, built of unpainted pine and divided by a partition, the surgeons occupying the other end ... . To my mother and myself, as a volunteer aid, there was assigned a large bedroom with rough boarded walls and one window, a cot in each corner, two chairs, a table and washing apparatus." Mrs. Harrison's resourcefulness in making her quarters habitable is reflected in her procurement of additional furniture, curtains, and a window flower box made from a discarded container of artificial limbs.[31]

Although assisting the surgeons in their bloody procedures was not specified in the matrons' regulations, it

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[30]Official Records, Ser. IV, II, 425.

[31]Harrison, Recollections 183.

soon became a routine duty. One day, on entering a ward, Mrs. Harrison: "Found my way blocked by an arm lying on the floor, and the surgeons who had amputated it still at work on Cavanaugh, a big gentle Irishman, always courteous and considerate. The blood was gushing profusely from the flaps that they were sewing together and for a moment I paused uncertain. `Can you stand it,' asked one of the surgeons kindly? `If so there is a little help needed as we're short handed this morning.' Mrs. Harrison helped them complete the procedure and she was left to tend the patient until he recovered from the anesthesia.[32]

What followed revealed the love, respect and concern shared by the patients and those dedicated women. "He came out of the chloroform looking me full in the eyes as I sponged his forehead. 'So it's gone at last, the poor arm we worked so hard to save,' I said, trying to speak lightly. 'Yes, Miss, but it's not meself you should be thinking about,' he answered. 'And you standin' by dirtying your dress with the blood of me.' Cavanaugh, I am glad to say, got well and left the hospital swearing eternal fealty to his nurse."[33]

There were rare instances of dissatisfaction with the matrons' performances as related in the previous chapter

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[32]Ibid., 185.

[33]Ibid.

through Pvt. Gordon's letter to President Davis. On such occasions the hospital staff came quickly to the defense of the maligned lady. When Surgeon Chambliss responded to the President's letter of inquiry concerning Gordon's complaint, he rose to heights of literary oratory. Knowing the Mississippi backgrounds of the President and Mrs. Dana, his letter engaged in name-dropping that would have done credit to the most erudite politician.[34]

After explaining the method of feeding ambulatory patients in a mess hall, and bringing the meals of the severely ill and wounded to their bedside he continued: "Chief matron, Mrs. A. B. Dana, is a native of Mississippi, and a near relation of Rev. R. M. Palmer, D. D., a most estimable and patriotic lady who left her home more than a year since to minister to the wants of our sick and suffering soldiers at the suggestion of the Hon. C. K. Marshall of Mississippi. She proffered her services to me in August last, first as a nurse and afterwards as a chief matron, she has been incalculably useful--ever solicitous for the welfare and comfort of the sick, she has been untiring in her duties." He pointed out that during the month of February, 1863, over 420 patients were treated in his division. Since one died, that should be proof that proper care was given by all

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[34]National Archives, CDLVII, 193.

personnel under his command.[35]

The ghastly and depressing conditions accompanying the endless work were not the only burdens carried by female personnel. Many also had husbands, sons and brothers on the battle line. Mrs. Martha Mary Reid, a chief matron at Howard's Grove Hospital, was one of such nurse. She came to Richmond when her son joined the Confederate army and was sent to Virginia. She was a close friend of Medical Director Carrington and of Surgeon Thomas Palmer, whom she joined at Howard's Grove. She soon became Chief Matron. A friend of the President and his family, Mrs. Reid was a frequent visitor at the Confederate White House. [36]

Mrs. Reid's biographer wrote that "in addition to the cares and responsibility of the hospital her mind was heavily freighted with concern and apprehension for her son . . . no tongue could tell what she suffered from suspense when she knew there was an engagement and the Florida troops were in the line of battle, and when they brought in the wounded and dying, her heart would almost stand still as she gazed into the face of each. One sad dark day the blow fell, she 'passed under the rod' when they brought the lifeless boy to his

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[35]Ibid.

[36]C. D. Taylor, Mary Martha Reid, A Sketch of Her Life (Jacksonville, FL, 1919), 1-2.

mother, shot and mortally wounded in the Battle of the Wilderness." Owing to the pressure of the work, there was no time for mourning, and Mrs. Reid continued in her duties until the end of the war.[37]

With few exceptions, non professional hospital personnel in the Confederate Medical Department faced a job for which they were untrained. Additionally, convalescent soldiers never knew if or when they would be recalled to the line. At the war's onset, Confederate women found it necessary to use social position or political connections to participate in hospital work. In time they became one of the most respected groups in hospital service, and they helped pave the way for the nursing profession as it is known today.

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[37] Ibid. Mrs. Reid, on learning of her son's serious wounding, immediately attempted to go to his side at the field hospital. She was refused transportation by Medical Director William A. Carrington. Several days later, he wrote to the commanding officer of Howard's Grove explaining his action. It reflected the shared empathy of all Confederate families, since so few survived without the loss of a relative in battle.

Chapter IV

Hospital Supply

Logistics is the work of assuring that troops and supplies arrive in the right place, at the right time, and in proper condition for combat.[1] Achieving this was almost impossible for the Confederate medical supply system. Surgeon General Moore's medical purveyors operated in a country without resources for drug manufacture, with a steadily disintegrating transportation system, stifled by a Union blockade.

Moore realized from the first that medical supplies such as opiates and proper surgical instruments would have to come from Europe and that staple medications would always be in short supply. Thus he continually encouraged medical purveyors to seek native flora from which substitute medications could be made. The situation was the picture of a medical service with its back to the wall.

On July 27, 1862, Surg. Gen. Moore wrote the medical director and inspector of Danville: "The attention of medical directors is again called to the pamphlet of March 21 and circular of April 2 from this office urging upon medical

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[1]This dictum was drilled into the writer at Officer Candidate School in 1943.

officers the necessity for collecting indigenous botanical remedies of the South and employing them liberally in the treatment of the sick. [Senior] Medical officers are now specifically instructed to bring the subject promptly to the notice of medical officers of their respective districts and they will be required to report to them what articles have been collected. . . . Attention should be particularly invited to a further investigation of the medical virtues of the pichreya pubens or calico bush . . . frequenting South Carolina, Georgia and . . . middle Florida, "because it resembled the character of the cinchona which had been used successfully in treating intermittent fever.[2]

The purveyor was the cornerstone of the Confederate medical supply system. These medical officers operated from large warehouses throughout the southern states. They were initially located in Richmond, Charlotte, Charleston, Savannah, Atlanta, Montgomery, Jackson, New Orleans, and San Antonio. Eventually there were eleven pharmaceutical laboratories scattered among them, to which the purveyor

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[2]Official Records, Ser. IV, Vol. II, 13. Francis Peyre Porcher, Resources of the Southern Fields and Forests (Charleston , SC, 1863) This volume is a scholarly discussion on the potential value of southern flora for the treatment of the sick and wounded. It was widely distributed throughout the Confederacy as an adjunct to the many directives of the Surgeon General.

transported the suitable flora collected in his area.[3]

At the same time he was responsible for the collection of imported medicines and instruments which, via blockade runners, were exchanged for cotton. There were also sub-purveyors in the rural areas as well as field purveyors who were responsible for the armies to which they were attached.[4]

One outstanding purveyor, John J. Chisholm, who supplied Surgeon Johns in Richmond, was based in Columbia, S.C. Chisholm, a brilliant medical author and surgeon, was a skilled and aggressive administrator as well. In assuring that imported medical supplies from blockade runners reached the lines of action, he had no peer. One of his teams of special agents hand-carried chloroform and other drugs in valises on passenger trains. Because of his tireless efforts, the Richmond hospitals never seemed short of needed supplies.[5]

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[3]Beers, The Confederacy, A Guide to the Confederate States of America (Washington, DC, 1986), 178-79.

[4]Ibid.

[5]F. Terry Hambrecht, "The Missing Letters,New Insights into the Confederate Medical Department," The Maryland Line (Baltimore, 1991), II, 2. Surgeon Chisholm's many skills were equaled by his resourcefulness. Richmond was the largest hospital center in the South, thus the most important target of his supply system. To accomplish his mission, Chisholm did business with generals, blockade runners, bootleggers and druggists. If bargaining did not accomplish procurement of needed items, he used his connections with the Secretary of War to impress those with whom he dealt. He also invented medical instruments; his chloroform inhaler, used to conserve this precious item, may be seen at the National Museum of Health and Medicine in Washington, DC. Stephen R. Wise,

Medical supplies became a prime source for speculation. For every dedicated supplier, there were many more whose greed surpassed their patriotism. Speculators were prepared to go to any lengths to procure scarce commodities to sell at exorbitant prices. General Lee became aware of this in September, 1862 and he wrote to Secretary of War George W. Randolph: "I desire to call your attention to a fact reported to me by M. Schriver which cannot be but injurious to the service. He states that as soon as any place is open by retreat of the enemy, before the agents of the government can purchase such medical stores as it requires, numbers of speculators from Richmond and other places buy up everything at much higher prices. Mr. Schriver states that at Fredericksburg he had the knowledge of at least 60 of this class of persons as soon as the enemy left. . . . I have directed that medical stores found in the possession of such persons . . . shall be seized and paid for at their cost price [and] that measures be taken to put a stop to it and to prevent persons from coming into places vacated from the enemy with such intentions."[6]

Lifeline of the Confederacy (Columbia, SC, 1988). This is a comprehensive study of blockade running during the Civil War.

[6]Official Records, Ser. I, XIX, II, 614.

By regulation, the district purveyor and the quartermaster's subsistence department were the supply sources for the Richmond military hospitals. Poor transportation, shortages, or the fact than an influential hospital commander possessed outside means, caused frequent variations in the supply system. Surgeon Lane's fleet of riverboats from western Virginia was such an example.

Supply in the field was often a case of feast or famine. One field surgeon sent a large quantity of a particular medication to a colleague in his home town, after his unit captured a cache of Union supplies. An accompanying note explained: "I have more of it than I can use in two years."[7]

At the opposite pole was an urgent May, 1864, letter from Surgeon James Belton, commanding the Third Corps Receiving Hospital, to Medical Director Carrington. Belton reported eighty-three persons including "surgeons, sick and wounded officers and men and attendants . . . for whom I have scant rations for two days. . . . My small stock of stimulants is gone and I have but few articles of medicine and those I am compelled to use sparingly." He pleaded that he was unable to communicate with any of his medical department superiors in the field and appealed for transport to move his charges

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[7]Spencer G. Welch, A Confederate Surgeon's Letters to His Wife (New York, 1911), 131.

appealed for transport to move his charges to a place where they could receive better care.[8]

Meanwhile, it was a different story in the Richmond hospitals. Immediately after hostilities ceased, Frederich W. Knapp, Superintendent of Special Relief for the United States Sanitary Commission, inspected the Jackson Hospital adjacent to Winder. He described it as "excellent, in fact few of our hospitals surpass it in its general plan of organization, in its location and its arrangement of buildings, in its thorough policing, in the exceeding cleanliness of its bedding and by the very liberal provision made by the Rebel government for the hospital fund. . . . The dispensaries were well filled up and persons in charge said, in answer to my inquiry, excepting a deficiency at times in some few articles, their supply had been good."[9]

The purveyor not only provided medicines and instruments, but bedding, hospital jackets and dressing materials as well. The Quartermaster Department generally furnished foodstuffs that were requisitioned and issued by the hospital commissariat, a detachment of its own department. The

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[8]L. Laslo Schwartz, "James Bolton, Early Proponent of Early Skeletal Fixation," American Journal of Surgery LXVI, III, 409-13.

[9]U. S. Sanitary Commission, Extracts from the Quarterly Special Relief: Report of the United States Sanitary Commission (Washington, 1865), No. 89, 4-6.

commutation value of these rations per patient was $1 per day. The subsistence department credited this sum to the hospital commander and it was added to the hospital fund. This amount increased to $1.25 per patient in 1863 and to $2.25 in 1864. Regulations called for close accounting of the fund by the hospital surgeons. If at any time it rose above $5,000, the excess was to be returned to the Confederate Treasury. Regulations specified that the fund was to be used to obtain supplies not issued by the quartermaster, as Surgeon Lane's often was.[10]

Division surgeons had running dialogues with the Richmond medical purveyor through frequent requisitions and letters. Examples were a June, 1862 invoice and a May, 1864 requisition:

June 2, 1862 Invoice
3 lbs. Chloroform
8 doz. Bandages
2 lbs. Lint
11 yds. Cotton Batting

May 4, 1864 Requisition

Bed pans #15	Pitchers #26
Wash rags #20	Dishes #200
Towels #30	Pots, chamber #200
Candlesticks #2	Snuffers #15
Cups #300	Spoons #280

[10]Cunningham, Doctors in Gray, 80. National Archives, XDLVII, 120. The Surgeon General wrote frequent letters to hospital commanders regarding proper use of the fund. His January 27, 1863 message urged them to monitor closely the fund's expenditures by their subordinates and to "enjoin upon them in their expenditures a due regard for the interests of both the soldiers and of the government which they serve."

Knives and forks #100	Tumblers #24
Pans, frying #6	Matches #24 boxes
Pans, sauce #6	Candles #20[11]

Bureaucracy is the same in all institutions. Purveyor Edward Johns wrote a Howard's Grove surgeon: "I herewith enclose an invoice of hospital supplies turned over to a surgeon in person May 9, 1862.

"You are requested to furnish the Surgeon General's office duplicate receipts for these supplies as directed in Par. 14, Medical Regulations.

"The quantity of each article will be specific in your receipts. You will also report to this office when the supplies arrived at your post, the number of packages received, and whether they correspond with the enclosed invoice."[12]

Shortages, especially if caused locally, were quickly noted and brought to the attention of the institution thought responsible. A letter from the Medical Director to Winder Hospital complained about the loss of "203 sheets, 60 pillow cases, 41 shirts, 14 cotton drawers, 5 blankets, 14 comforts and 18 towels."[13]

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[11]National Archives, DCXXXVI, 174.

[12]National Archives, DLXXVII, 81. The format of this kind of letter has not changed from 1861-65 to the time of the writer's military service in World War II.

[13]National Archives, CDLXXXIV, 11.

The origins of foodstuffs waxed and waned, although the Quartermaster Department was the official source. Various shortages necessitated improvisation of procurement. In 1863, the usual sources of meat failed and hospital commanders were left to their own devices in obtaining it. Fresh supplies arrived at the Subsistence Department sometime later. This was promptly communicated to medical Director Carrington by Commissary Department Captain, C. F. Meyer: "Arrangements have been made by the Subsistence Department that will enable me to supply all the fresh meat needed by the hospitals in the city and in order that the present system of petty contracts may be discontinued, the Commissary General requests that the surgeons in charge of the hospitals be ordered to draw all their fresh meat by provision returns." The following day, Carrington sent a directive verifying this and quoting the regulation forbidding purchases . . . "on credit unless under certain circumstances."[14]

Late in 1864, the subsistence sources slowed again. An August 14 directive to all hospital commanders in Virginia instructed that they "should make contracts with gardeners and farmers for supply and delivery of such amount of vegetables . . . as may be necessary for their patients beyond what can

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[14]C. F. Meyer to William W. Carrington, Carrington Letters, Duke University; National Archives, CDXXXIV, 14.

be furnished by the hospital gardens.

"When the condition of the hospital fund will permit, surgeons in charge of the hospital are allowed, if necessary, to purchase transportation to enable them to obtain supplies of chickens, vegetables, etc., from beyond the cities." They were reminded to be careful in the prices they paid and that they were forbidden to buy beef, mutton, bacon, cornmeal, dried peas, beans, rice, salt, sugar or molasses, since these were the Subsistence Department's responsibility.[15]

Hospital records revealed complaints about the lack of personnel but not of supplies. Instruments were at a premium since most were imported. Medical Purveyor Johns alluded to this in his July 11, 1862, notice to all hospitals. It ordered surgeons to leave the instruments behind when they were transferred from the hospital. "These are to be considered the property of the hospital and will be regularly handed to his successor.[16]

The Confederacy explored all means of conserving materials. The most famous was the great effort to

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[15]National Archives, DXLVII, 1-2.

[16]National Archives, CCCXXXIII, 90. Ibid., 81. Chief Surgeon Semple of Hospital No. 21 informed the Inspector of Hospitals that he had two pocket sets, two amputation sets and a scarificator (an instrument used in bleeding with several blades which could be opened by springs). He noted that they were of poor quality but in good condition.

manufacture medicines from native flora (vide supra). After the war, a prominent Southern pharmacist described the efforts to obtain drugs from local plants. They used tulip tree heart, dogwood, cottonseed tea, spanish oak bark and willow bark for quinine; hemlock for opium; blood root, wild cherry, bugle seed and jasmine for digitalis; cotton root for ergot; and hops for laudanum.[17]

Many directives concerning the care and conservation of everything from medicines to food went to all hospitals. One circular, dated October 1, 1863, concerned the preservation of sweet potatoes. It suggested the use of a five-foot-deep hole, lined with small pine logs, where the potatoes would not be bruised or come into contact with water. The hole was to be covered with "top fodder and corn stalks."[18]

Shortage notices appeared more frequently in early 1864. A March memorandum from the Surgeon General announced to the medical directors that the following articles were stricken from the supply table: medical texts on anatomy and medicine, chemistry formularies, sponge holders, spring lancets, obstetrical forceps, stethoscopes, vaginal syringes, and 39 medicines. Significantly, opiates or chloroform were not on

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[17]Joseph Jacobs, "Some Drug Conditions During the War Between the States." Southern Historical Society Papers, XXXIII, 175-77.

[18]National Archives, CDLXXXIV, 17.

the list.[19]

The progressive breakdown of the Confederate transportation system was a serious problem. Generally, the road system was poor. This increased the importance of the railroads, which were soon faring poorly. Improved Federal cavalry had the ability to raid and destroy rail lines more frequently and effectively. By the end of the war, the Virginia Central Railroad had less than twenty miles of viable trackage. Maintenance was so bad that in 1863 Col. Edmund Fountain wrote President Davis that the rails sagged on decayed ties to such an extent that "the ash pans of our engines . . . press down the mud like the plasterer does with his trowel."[20]

The Confederacy's vigorous efforts to halt speculation were unsuccessful. The medical department discovered that the private distillers who provided them with alcohol and whiskey for $1.50-$3.50 a gallon at the beginning of the war decreased their quality while raising their prices. The government finally had no choice but to establish its own distilleries, at great expense, throughout the South.[21]

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[19]National Archives, DXLVII, 182

[20]Angus J. Johnston II, Virginia Railroads in the Civil War (Chapel Hill, NC, 1961), 128, 253.

[21]Hambrecht, "The Missing Letters", 2.

As the war progressed, the failing transportation system, the lack of an industrial base, and the tightening sea blockade created ever-increasing problems for Confederate Surgeon General Moore and his purveyors. Although distribution was often poor in the field, the dedication of the innovative purveyors prevented the Richmond hospitals from ever being in acute need.

Conclusions

In his classic article, Confederate Medicine, George Washington Adams wrote: "The Civil War was fought in the very last years of the medical middle ages." Immediately, he countered with the statement: "That they came nearer to success than any previous `doctors in uniform' is a fact that was lost sight of in the blaze of medical progress that came in the seventies and eighties." [1]

The dawn of the new era in medicine had, in fact, already broken. During both the Crimean and Civil wars, general anesthesia liberated the wounded from the horrors of surgical procedures, while the principles of sanitation, although unevenly applied, steadily improved. In the Crimea the principle of more hospital space per patient resulted in decreased hospital infections. The new pavilion hospital that evolved at the beginning of the Civil War was immediately accepted by the Confederate Surgeon General; it resulted in a decrease in infection and more efficient hospital administration. Further, the principle of specialized hospitals for communicable diseases gained impetus.

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[1]George Washington Adams, "Confederate Medicine," Journal of Southern History, VI (1940), 151.

In any old or modern military hospital the record of morbidity and mortality is a reflection of the ability of the chief surgeon and his staff. Howard's Grove and Winder were both "modern hospitals". The superior professionalism of Winder's staff resulted in lower rates of mortality in comparison to Howard's Grove and the other Richmond hospitals.

Surgical techniques advanced as the war continued. Records of the discussions on current surgical procedures were entered in the Winder surgical log book including several on life-saving operations of the head and neck. Although the thoracic and abdominal cavities remained relatively inviolate, treatment for wounds of the extremities progressively improved.[2]

Despite the improvements in military medicine, the specter of infection was still present as it had been throughout military history. Three-fourths of deaths were due to wound infection or infectious diseases. The treatments used were unsuccessful simply because a proven etiology was unknown; thus medicine's new dawn was merely a glimmer. Treatments were of necessity governed by empiricism which varied from slightly palliative to useless.[3]

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[2]Winder Surgical Log, 125-278.

[3]It is easy to see how post hoc reasoning perpetuated empiricism. Some physicians used polk weed as a cure for syphilis, which they most often diagnosed in its second stages when moist skin lesions were present. Since these lesions

The Zymotic theory of infectious disease etiology predominated, and it was forcefully advanced by U. S. Army Surgeon Joseph J. Woodward. He obtained his ideas from Surgeon Thomas J. Farr of London and the British Army. Both physicians defined Zymotic diseases as "diseases which are either epidemic, endemic, or communicable induced by some specific body or by the bad quality of food." In 1870 this definition was officially entered in the publication of the U. S. Army Surgeon General's, The Medical and Surgical History of the War of the Rebellion; Surgeon Woodward was the editor.[4]

The question asked in the Introduction regarding the bacterial theory of infection can now be answered. Had it been introduced in 1861-1865, would death from disease or wound infection have been attenuated? The answer is no.

The mid-nineteenth century physician was not trained to think scientifically, as is his modern counterpart. Empiricism was the alternative in approaching clinical

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soon disappeared spontaneously, any substance administered before this disappearance resulted in the false impression that a "cure" had occurred. These physicians did not correlate the tertiary stage of syphilis, which might occur years later, with what they had seen earlier.

[4]Joseph J. Woodward, Outline of the Chief Camp Diseases of the United States Armies (Philadelphia, 1863), 11-13. Medical and Surgical Records, I. Woodward further subdivided this class of malady into miasmatic disease from vegetable decomposition and "human effluvia"; enthetic via inoculation, including syphilis, gonorrhea and snake bite; and dietic, due to "defective food and drink".

problems, and it was reflected in the medical textbooks of that era.

Robley Dunglison's General Therapeutics and Materia Medica (circa 1853) gave little if any scientific explanation concerning the actions of drugs described. In some instances he speculated as to their physiologic effect in the body but admitted little was known about the chemical reactions of the drugs once in the patient's system. In another text, Dunglison discussed the indications for bleeding, a procedure which was slowly falling from favor. He assumed a weak position by stating that it should only be used in a setting where the general opinion was that something must be done.[5]

American medical philosophy of the Civil War period could not have embraced the new bacterial theory rapidly enough for it to have become effective. In fact, American surgeons did not totally accept it until almost 1895.

The work of Sir Joseph Lister, well-established by the mid 1870s in Europe, met nothing but resistance in America. When Dr. J. Collins Warren returned to Massachusetts General Hospital in 1870, carrying Lister's data, he was rebuffed on the basis of one trial which failed. Dr. Samuel Gross of

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[5]Robley Dunglison, General Therapeutics and Materia Medica (Philadelphia, 1858), I, 94, 114. "The modus operandi of medicine is not always clear . . . . We have much to learn in regard to the mode in which medicinal agents are affected whilst in the organism." Ibid, II, 186.

Philadelphia, one of America's prominent surgeons, refused to use the new aseptic technique, and Dr. Hunter McGuire, Virginia's foremost surgeon, was taken to task by a younger colleague, Dr. M. A. Rust, at an 1884 meeting of the Virginia Medical Society. He criticized Maguire for his statement earlier in the year, that Lister's theories were incorrect because the microbes of his articles were not found in the clean Virginia air. It would not be until 1890, when Dr. William Halstead of Johns Hopkins Hospital donned rubber gloves and a face mask during surgery, that modern asepsis was used in America as it is today.[6]

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[6]Sherwin B. Nuland, Doctors (New York, 1988), 370-72; Frederick Esmarch, The Surgeons Handbook, third German edition translated by B. Farquhar Curtis (Kiel and Leipsig, 1885), 1-5. By 1885 the German Army was using complete asepsis including a standard surgical scrub pre-operatively and steam sterilization of all instruments used. No instrument was to be reused if contaminated during the surgery. Reluctance of American surgeons to accept Lister's bacterial theory was visually depicted in Thomas Eakin's two famous paintings, The Gross Clinic (1875) and The Agnew Clinic (1898). The first, painted nine years after Lister's original publications, showed Dr. Gross and his colleagues operating in street clothes with bare hands. The second illustrated a similar scene; and while the doctors were wearing white operating gowns, their hands were still bare and there was no sign of aseptic technique. Phyllis Allen Richmond, "American Attitudes Toward the Germ Theory (1860-1880)," Journal of the History of Medicine IX (1954), 428-54; Dale C. Smith, "The Rise and Fall of Typhomalarial Fever," Journal of the History of Medicine and Allied Sciences XXXVII (1982) III, 182-321; M. A. Rust, "Evaluation of Antisepticism (Unconuscious Ascepticism--Listerism--Iodoformization)," Virginia Medical Monthly XI (1884-85), 502-20 Todd L. Savitt, "James E. Copeland: A Country Doctor in the Age of Medical Change," Virginia Cavalcade XXIII (1973) I, 10-17. Resistance to the bacterial theory, as late as 1900, is described in this

Standardized physician training did not exist in the nineteenth century. Although the Civil war suddenly produced a pool of trained surgeons, their limited academic background inhibited comprehension of new scientific developments. It was the 1910 Flexner Report which enabled American medicine to move into the modern era. Henceforth, medicine was taught as a science as well as a clinical skill.[7]

The quality of treatment for hospitalized Federal prisoners often depended upon the hospital's location. Confederate regulations specified that each hospitalized prisoner would receive the same field ration as the Confederate soldier. While the patients in Hospital No. 21 fared better than required, those in the Belle Isle Prison Hospital did not. At the end of the war, a U. S. Sanitary Commission inspection of this facility and the one in Wilmington, N. C., gave scathing reports of the conditions in

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article.

[7]Paul Starr, Social Transformation of American Medicine (New York, 1982) 119-20. Nuland, Doctors, 425. The Council on Medical Education of the newly established Association of American Medical Colleges gave Abraham Flexner, a well-known educator, the task of inspecting and commenting on the quality of medical education in the United Sates and Canada. As a result of his highly critical report, only 95 of the 155 schools inspected were still functioning in 1910-1915. Significantly, he recommended that Johns Hopkins Medical School and the medical schools of Germany be used as the prototypes for their improvement.

both.[8] Their very location made inspection by government officials, the surgical hierarchy, and the Richmond ladies less likely, presumably making the difference. Hospital No. 21 was devoid of socially prominent matrons. Yet it was under close scrutiny from the Surgeon General's office, as was demonstrated in its official correspondence.

Richmond hospitals endured few shortages of critical medical supplies as noted in Frederick Knapp's U. S. Sanitary Commission Inspection Report of the Jackson Hospital. He said that the sanitation, cleanliness, supplies, and food services were complete. Because Richmond was the major hospital center, it had high priority for medical supplies. Until August, 1864, when the Weldon Railroad from North Carolina was no longer intact, it did not suffer critical shortages.[9]

Negative attitudes about Confederate hospital surgeons and their practices were precipitated by the fact that almost three-fourths of Confederate deaths were due to wound infection or infectious diseases. This cannot be laid entirely at their doorstep. The problems they faced and their meager resources would tax the skills of modern physicians.

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[8]Frederick Knapp, U. S. Sanitary Commission Relief Report (Washington , DC, 1865), 4-6.

[9]Ibid; Robert S. Henry, The Story of the Confederacy (New York, 1931), 490. The Richmond-Danville line remained functional until the end of the war, but it was not an efficient route for medical supplies.

Here a modern medical principle accepted by most physicians must be stated. Physicians themselves do not cure; it is the forces of nature which are responsible for whatever clinical success is achieved. Physician training in the basic sciences and medicine or surgery allow them to make intelligent diagnostic guesses and to perform the necessary therapy which "stacks the deck"; thus the forces of nature may more easily perform their miraculous work. Obviously the Civil War surgeon had less means to accomplish this than his modern counterpart in Viet Nam. However, they had one thing in common: their patients on enlistment, were, in most cases, robust healthy young males.

George Washington Adams made a profound observation in which he took the onus away from the Confederate surgeon for his poor therapeutic results with this young patient population: "The pitiful aspect of Confederate medicine is that with all their limitation of knowledge, limitations common to the whole medical profession at the time, the army doctors could have saved so many more men if only circumstances had not combined against them."[10] Adams' observation, confirmed by the material in this thesis, provokes further examination.

There was no excuse for top command and medical staff not

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[10]Adams, Confederate Medicine, 166.

to enforce, per regulation, the vaccination against small pox for all soldiers on enlistment. Here was a known, deadly, but preventable disease which spread rapidly under crowded conditions. Serious epidemics resulted because this was almost completely ignored at the war's onset.

The failure to enforce known principles of camp sanitation contributed to chronic respiratory infections from bronchitis to pneumonia, measles and other exanthemata, and chronic recurring diarrheal disease, thus further undermining the constitution of the young soldier. Exposure, an accepted hardship of military campaigning, was heightened by poor clothing and blankets.

To their credit, the Confederate medical hierarchy made every effort to impress upon field commanders the necessity of incorporating green vegetables or local palatable herbs into the soldier's diets; but this was usually ignored. The resulting scurvy from sub-clinical to overt cases added immeasurably to the woes of both the patient and the physician.

The skills and facilities of the Confederate hospital surgeon were limited; but without the disadvantage of the preceding conditions, his therapeutic results would have been greatly improved. The highly professional group of surgeons at Winder had a mortality rate of less than seven per cent.

How much better this might have been had their patients come to them in better condition.

The Confederate surgeon was, with few exceptions, a dedicated and patriotic professional. He did the best he could in such primitive medical conditions. Such an example was Surgeon Chambliss of Winder Hospital's First Division. He was "a man for all seasons" with whom modern physicians would have been proud to work during any war. There were many like him. Perhaps future historians will accord them the recognition they so richly deserve.

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VITA

Charles F. Ballou, III was born in Springfield, Ohio, January 10, 1924. He was educated in the public schools of east Tennessee and southern West Virginia.

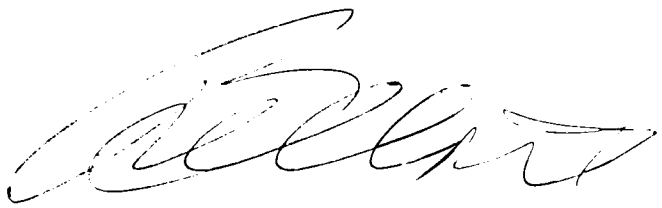
In 1942 he enrolled in Virginia Polytechnic Institute and completed one year prior to being drafted into the armed forces. After his discharge in 1946, he completed his pre-professional education at Duke University and then entered Tufts University Medical School, where he received his M.D. degree in 1953.

The following five years were spent completing an internship, residency program and fellowship in internal medicine and pulmonary disease in Washington, DC. From 1959 until 1989 he was engaged in a hospital based practice in western Virginia. During this period he activated the first rural chest clinic in the state, and for this he was awarded the Virginia Lung Association's annual Nora Spencer Hamner Award in 1973.

Dr. Ballou is a recertified diplomate of the American Board of Internal Medicine and has served as president of the Alleghany-Bath County Medical Society, vice president of the Virginia Lung Association, president of the Virginia Thoracic Society, and for two years as the Virginia representative to

the American Thoracic Society. From 1987 until his retirement, he was a clinical associate professor of medicine at the University of Virginia Medical School. He also served as team physician for the local high school athletic teams for twenty-one years.

Shortly after retiring he enrolled as a master's degree candidate in history at Virginia Tech, and in 1990 was awarded the Homer E. Davis Fellowship. He will complete his degree requirements in May, 1992.



Charles F. Ballou, III