Encircled at Bastogne:

A Case of Prolonged Care

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At 2200 on 19 December 1944, the clearing and surgical station of the 326th Airborne Medical Company near the small crossroads town of Herbaimont, eight miles west of Bastogne, was surprised by an enemy reconnaissance force. German tanks and infantry machine-gunned the American tents before seeing red crosses and realizing they faced a hospital. LTC David Gold had thought the location was safe in the rear when he and the division supply officer had chosen it that morning, but the division surgeon now had to surrender. Some medical personnel had escaped capture by running into the nearby woods. A few more now evaded being rounded up in the chaos after a convoy of jeeps transporting wounded arrived and was shot up as well. The Germans then withdrew taking Gold, four of his staff, 130 men of the 326th, all but one of an eight-man attached surgical team, dozens of patients, and whatever equipment and supplies that they did not destroy.[1]

Paratroopers reoccupied the vacated meadow around midnight, but it was not until the morning that they realized the scope of the catastrophe as abandoned medical tents emerged from the mist. "It was even worse when we got into the operating tents. We saw two paratroopers on gurneys ready for surgery. Apparently they were too severely wounded for the Germans to take them prisoner so they'd cut their throats," recalled one private.[2] Casualties were redirected to a medical company at Molinfaing, a town 15 miles to the southwest, but that route was cut by evening. The 101st Airborne Division; Combat Command B, 10th Armored Division; 705th Tank Destroyer Battalion; 755th and 969th Field Artillery Battalions; and remnants of other units were encircled in Bastogne for six days, requiring the remaining medical personnel to administer "prolonged care" to wounded, injured, and sick.

Prolonged care is a new term for an old reality. It is officially defined as the need to provide patient care for extended periods of time when evacuation or mission requirements surpass available capabilities and/or capacity

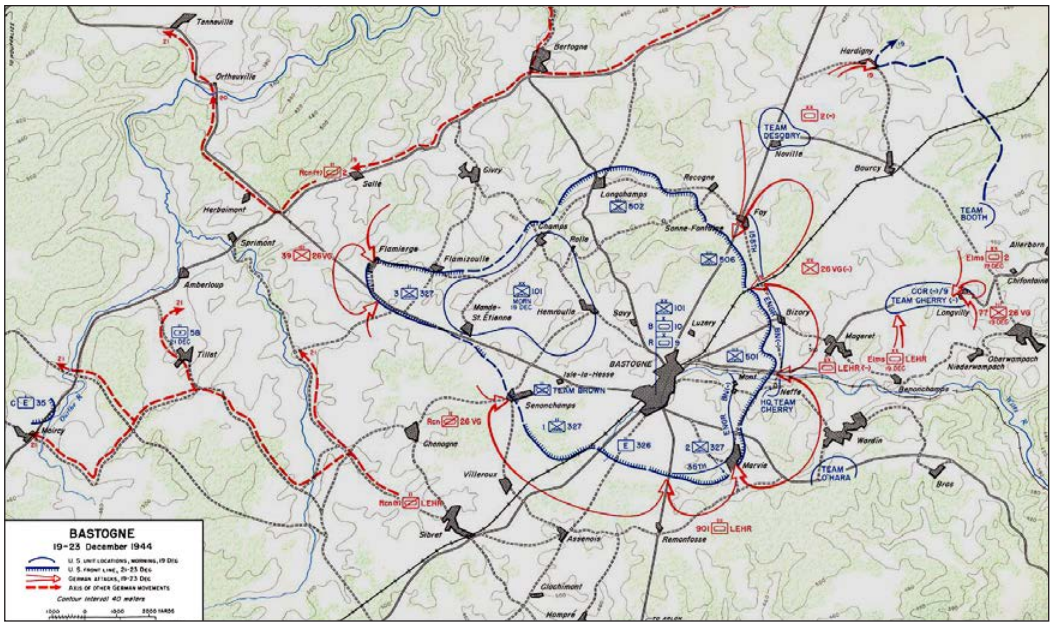
An ambulance sits on a street in Bastogne after the relief of the town and evacuation had resumed. (National Archives)

to provide that care.[3] Or, more colloquially, it is "holding onto a sicker patient than you can care for, for longer than you want, with fewer resources than needed, in a place you don't want to be."[4] Starting in 2013, Special Forces studied prolonged care because they operated in remote areas where distance, weather, or other factors often delayed evacuation. However, even regular forces in Afghanistan or Iraq could not always rely on evacuation within the ideal 60-minute window known as the "golden hour." The Army's shift of focus from counterinsurgency to large-scale combat operations (LSCO) highlighted the vulnerability of the evacuation system. As then Chief of Staff GEN Mark Milley testified to Congress in April 2019, "Currently, in the combat we're involved in now, we have dominance over the air, and we pretty much can guarantee ourselves ground evacuation and/or air evacuation within this so-called golden hour... In future combat, that may or may not be true."[5] In an LSCO scenario with a near-peer adversary, the scale and scope of casualties will be much greater than in recent counterinsurgency campaigns, and evacuation will likely be delayed — or even totally interrupted — due to enemy antiaircraft defenses and heavy artillery. Prolonged care is difficult to prepare for because whatever the Army Medical Department (AMEDD) sets as the standard for field care, prolonged care is beyond that, resulting in a sub-optimal level of treatment when Soldiers cannot be evacuated to receive definitive care. Prolonged care is a worst-case scenario that no one can certify for; however, being aware of the possibility can help mitigate losses in the event.

The encirclement of Bastogne is a perfect case study of prolonged care. The Ardennes Counteroffensive, more popularly known as the Battle of the Bulge, was a final futile attempt by Adolf Hitler to inflict a defeat on the Western Allies by seizing Antwerp, which he hoped would split the alliance with the Soviets. Three German armies penetrated the First Army's thin line in Belgium and Luxembourg in a pre-dawn attack on 16 December.[6] Once the size and scope of the breakthrough became clear to Allied leaders, they identified Bastogne — with its seven major roads leading in and out of the town — as a key point to defend to slow the enemy.[7] The 10th Armored Division was the first to receive marching orders, detaching Combat Command B (an armored brigade-sized element) from the Third Army, then the 705th Tank Destroyer Battalion from the Ninth Army, and lastly the 101st Airborne Division from the theater reserve. Tankers and paratroopers began arriving, meeting up with retreating Infantrymen and artillerymen with the enemy hot on their heels. On 19 December, German attacks started probing toward Bastogne, and by evening American defenses were forced back into a tightening circle around the town. The capture of the 326th Airborne Medical Company was part of the encirclement of Bastogne completed the next day. It took until 21 December for BG Anthony C. McAuliffe, the acting commander of the 101st Airborne Division, to recognize this fact and take command of all forces in the pocket.

The roughly 18,000 men isolated in the pocket had only limited — and rapidly dwindling — medical support. The 501st Parachute Infantry Regiment had established an aid station on the east side of Bastogne in the chapel of the Petit Seminaire, tearing out pews to make room for litters and emptying the sacristy to create an operating room. It now became the collecting station for the entire 101st Airborne Division. "The casualties continued to come in while none could be taken out. The wounded were laid in rows along the floor of the church with barely enough room left between them for aid men [medics] to walk. To one side, in front of an altar in an alcove, two battalion surgeons worked steadily, hour after hour, under the silent gaze of the Blessed Virgin," related CPT Charles Phalen, a Medical Administrative Corps officer.[8] After evacuating south under fire from Noville, an aid station with Combat Command B set up on the southwest side of Bastogne in a three-story building with a grocery store named Sarma that was located on the town's main thoroughfare. This location acted as the primary collecting station for tankers. The aid station had lost much of its equipment and supplies, so it lacked even basic necessities such as scalpels, antiseptic, and morphine. The medical personnel scrounged up some medical supplies, meeting two Belgian nurses who volunteered to help along the way. Yet the surgeons could only treat walking wounded and less serious cases since none had the training to perform major surgery. "The patients who had head, chest, and abdominal wounds could only face certain slow death," remembered battalion surgeon 1LT John "Jack" Prior.[9]

In the small towns near the fighting on the perimeter, airborne battalion medical detachments created aid stations in the usual manner with a main section located in a farmhouse or another convenient building and a forward section in a timber and dirt-covered foxhole near battalion headquarters. Each airborne division only had one medical company, but each airborne regiment had five to seven jeeps and one or two ambulances to assist with collecting and evacuating casualties. The absence of litter bearers in airborne units added to the burden of medics who struggled to evacuate casualties through dense forests where even jeeps could not go.[10] The 101st Airborne Division's medics had not arrived with the usual allotment of medical supplies due to "the acuteness of the situa-



Map — Bastogne, 19-23 December 1944 (*The Ardennes: Battle of the Bulge* by Hugh M. Cole)

tion and the rapidity with which the division was committed," although they had brought as many extra blankets and litters as possible.[11] Fortunately, a detachment from a medical depot company had reached Bastogne with a few tons of medical supplies, and an abandoned First Army supply dump discovered in the town yielded even more.[12] Yet without resupply, surgeons and medics rapidly depleted these meager stores because they had to care for more wounded for far longer than normal because evacuation was impossible.

Already on the first day of the encirclement, the number of wounded, injured, and sick threatened to overwhelm the treatment capacity in Bastogne. The collecting station in the chapel held 157 casualties.[13] Consequently, surgeons and medics from the 101st Airborne Division's antiaircraft, engineer, and artillery units and the 705th Tank Destroyer Battalion formed an ad hoc medical team, establishing another collecting station on the northern side of town at Heintz Barracks, a disused Belgian Army installation. The chapel was almost full and under intermittent artillery fire because it was located near a key intersection; a pair of jeeps and ambulances had already fallen prey to enemy shells while unloading casualties in the chapel courtyard, prompting the decision.[14] The medical personnel at the barracks occupied a maintenance garage that fit their needs as more casualties streamed in from the fierce fighting around Bastogne.

Prolonged care in the Bastogne pocket presented a gruesome challenge for even veteran surgeons and medics. In the chapel aid station, surgeons had no anesthesia and cut into patients on litters suspended between medical chests. The air became heavy with the smell of blood and sweat and loud with screams as morphine ran low. Conditions worsened as another hundred or so casualties crowded inside. The medics stacked the dead in frozen piles under canvases in the courtyard. In search of more space, paratroopers took over the adjoining girls school, the Institut Notre-Dame, where nuns helped care for Soldiers — and civilians who sought help.[15] The garage aid station presented a similar sight. Surgeons tried to triage arriving casualties by putting them into specific rows on the sawdust floor depending on how serious they were wounded; those who were beyond medical capabilities, labeled "expectant," were placed along the back wall. Trying to help them would cost other lives. An ad hoc graves registration office operated nearby.

Once the garage filled up, surgeons directed all walking wounded to an indoor rifle range.[16] Casualties laid on the dirty ground, and blankets could not keep away the freezing cold (the horizontal garage door had to be kept partially open for access, and the rifle range had holes in the ceiling). Lifesaving plasma ran low, and ripped cloths replaced bandages. "I returned to my aid station very depressed," recalled 1LT Prior after visiting the barracks aid station in search of medical supplies. "In regard to the care of the wounded in Bastogne, I have always believed, and still do, that this did not constitute a bright page in the history of the Army Medical Department... This decay-

ing medical situation was worsening — with no hope for the surgical candidates, and even the superficial wounds were beginning to develop gas gangrene."[17]

The overcrowded and dirty conditions meant that infection and gangrene were rampant at every aid station. Many wounded Soldiers never made it to one of the main collecting stations, but they were treated in ones or twos in whatever shelter was nearest with surgeons or medics periodically making rounds to check up on these casualties but unable to do much.[18] Medical personnel could do little without more medical supplies and additional surgeons with training to perform major surgeries.

The First Army made great efforts to resupply Bastogne. Bad weather had frustrated any plans to resupply the pocket by air until 23 December when a group of Pathfinders dropped in with special radios that they used to direct three resupply air drops that day, plus two more the following day, delivering hundreds of tons of ammunition, food, and medical supplies. These air drops alleviated most of the shortages that surgeons and medics faced, providing whole blood (although most was lost when glass bottles broke on landing or an enemy shell that hit the room they were stored in), Vaseline gauze, litters, blankets, atropine, tetanus toxoid, pentothal sodium, distilled water, syringes, and sterilizers.[19] By now surgeons and medics, assisted by nuns and nurses, cared for 250 Soldiers at the chapel, 600 Soldiers and civilians at the girls school, 580 Soldiers (almost half were non-battle injuries like trench foot or frostbite) at the barracks, and 100 more Soldiers at the grocery store. Every case was serious enough, only those who could not fight were evacuated from the front line where every Soldier was desperately needed, but a third were judged as more severe cases — and every passing hour all patients, whether a frostbite or a chest case, deteriorated.[20] The friendly air drops during the day were marred by an enemy air raid during the night on Christmas Eve. One random German bomb scored a direct hit on the grocery store collecting station, collapsing the upper stories, setting fire to the ruins, and killing 30 patients and a Belgian nurse.[21] The surviving medical personnel and patients, many now burned, moved to the barracks collecting station. Renewed bad weather grounded transport aircraft on Christmas Day, but the Third Army sent another form of aid by air.

LTG George S. Patton's personal pilot had volunteered to fly a skilled surgeon into the pocket. MAJ Howard Serrell had also volunteered to take the dangerous trip in the small, two-seat reconnaissance aircraft that dropped him off in the afternoon. The number and condition of the patients shocked him when he arrived at the barracks collecting station. "It was a frightful and terrible sight…Triage at first impossible."[22] Serrell reluctantly decided the best use of his time was to treat gangrene and other minor cases first because repairing belly and chest wounds took far too long. So many wounded were dying who could live if just given proper care that the Americans began parleying with the Germans to evacuate casualties under a flag of truce. On 26 December, relief arrived before any agreement between foes occurred.[23] Two surgical teams — six medical officers and four enlisted technicians, all volunteers from the 12th Evacuation Hospital and 4th Auxiliary Surgical Group — arrived mid-afternoon by glider with operating equipment and medical supplies. By nightfall, the new arrivals, aided by 1LT Prior and three local nurses, set up a four-table operating theater in a tool room inside the garage at the barracks collecting station and began working on patients — some of whom had lain untreated for a week. Over the next two days, they completed 50 major operations with just three postoperative deaths.[24] At 1845, just 15 minutes after the surgical teams started operating, forward elements of the 4th Armored Division broke through to Bastogne.

Now began the final stage of prolonged care. Immediately behind the armored spearhead came 22 ambulances and 12 trucks. "There was no time to celebrate. The task of selecting the first to go out had to be accomplished," reported CPT Phalen.[25] Most of the drivers were African Americans. 1LT Robert O'Connell recalled, "Many of our 101st men were in poor shape from their wounds; I remember how these black soldiers picked us up and carried us with words of encouragement. 'You're going to be all right now — I'll take care of you men.'"[26] The convoy transported 260 of the most critically wounded on back roads with battles to either side because all the highways remained blocked to Villers-de-vand-Orval, 40 miles south, where a medical company had set up to receive casualties. It took two days to evacuate all 964 patients in Bastogne while at the same time establishing a provisional medical battalion in town to provide medical support for paratroopers still locked in combat.[27] The two surgical teams at the barracks that had arrived by glider now departed by truck after being relieved by a 100-bed section from the 60th Field Hospital, which treated another 96 casualties in two days before being relieved in turn.[28] The Third Army restored regular supply and evacuation of Bastogne, which allowed the medical situation in the town to improve greatly even though fighting remained intense through New Year's Day.

Paratroopers recover medical and other supplies air dropped into the pocket.
(U.S. Army Center of Military History)

The cost in life during prolonged care in Bastogne is unclear. After the capture of the 326th Airborne Medical Company, there was no central management of collecting and only a few fragmentary records were kept. One report counted 33 deaths during treatment from 19-31 December. A Third Army medical investigation later concluded that the mortality of casualties in Bastogne was actually surprisingly low.[29] So long as no vital organ was damaged, Soldiers with even serious wounds to the stomach or chest often survived to be evacuated and treated, although they were in excruciating pain. Yet less serious wounds often became so infected or frostbitten that amputation was the only treatment, so many survivors were maimed for life. By the time the 101st Airborne Division was pulled off the frontline in early January 1945, it had lost 482 killed, 2,449 wounded, and 527 missing or captured. The armored, tank destroyer, and field artillery units in the Bastogne pocket reported 117 killed, 422 wounded, and 134 missing or captured.[30] The totals certainly would have been higher without the ceaseless efforts of the surgeons and medics in Bastogne.

The Battle of the Bulge offers important insights into prolonged care. First, surgeons and medics must take quick action to establish facilities to collect and treat patients indefinitely when it becomes apparent that evacuation has been delayed or interrupted. Second, medical personnel should give extra attention to trying to prevent infection in conditions that are likely to become overcrowded and unsanitary very quickly. Third, triage priorities will have to change as limited time and resources must be focused on those who have the best chance of surviving. Fourth, the crisis does not end once regular evacuation resumes because it will take time to transfer existing casualties while ongoing fighting causes more casualties, so prolonged care triage and treatment must continue even when relief arrives.

AMEDD continues to identify skills and capabilities needed for prolonged care even as it recognizes that prolonged care is a mitigation strategy rather than a solution to the challenges of the tactical situation, terrain, number of casualties, and other variables during a disruption to evacuation. Surgeons and medics are trained to a much higher standard today than in World War II because of new developments in medicine as well as the expectation that the “golden hour” is not likely to be the standard in LSCO. Instead, there will be “golden windows” for resupply and evacuation of casualties. There are ongoing experiments in using drones to deliver medical supplies by air.[31] During LSCO, one may expect more casualty evacuation (without a medical attendant to provide en route care) and less medical evacuation. The AMEDD is restructuring forward surgical teams and developing patient care augmentation detachments that can work in the brigade or division support areas to provide prolonged care.[32] The AMEDD is doing its utmost to be ready to provide the Infantry Branch, and the rest of the Army, prolonged care on the future battlefield.

Notes

[1] Graham A. Cosmas and Albert E. Cowdrey, *The Medical Department: Medical Service in the European Theater of Operations* (Washington, D.C.: U.S. Army Center of Military History, 1992), 415-417.
[2] Thomas S. Helling, *The Agony of Heroes: Medical Care for America's Besieged Legions from Bataan to Khe Sanh* (Yardely, PA: Westholme Publishing, 2019), 216.
[3] "Medical Detachment (Patient Care Augmentation) (PCAD)," Operational and Organizational Concept Paper, Medical CDID, June 2019.
[4] "Introduction to Prolonged Field Care (PFC)," Jointed Trauma System Battlefield Trauma Education Program, https://jts.amedd.army.mil/assets/docs/education/ewsc/Prolonged_Field_Care_EWSC_1.0.pdf.
[5] Sydney J. Freedberg Jr., "The Army's Plan to Save the Wounded in Future War," *Breaking Defense*, 12 April 2019, accessed 22 January 2020 from https://breakingdefense.com/2019/04/the-armys-plan-to-save-the-wounded-in-future-war/.
[6] Cosmas and Cowdrey, *The Medical Department*, 393.
[7] Helling, *The Agony of Heroes*, 203.
[8] Charles S. Phalen, "Medical Service at Bastogne," *Military Surgeon* 100, no 1 (January 1947): 39.
[9] Quoted in Helling, *The Agony of Heroes*, 213.
[10] Phalen, "Medical Service at Bastogne," 38, 40.
[11] "Annual Report, Medical Department, 101st Airborne Division," U.S. Army Medical Department Office of Medical History, https://history.amedd.army.mil/booksdocs/wwii/bulge/101stAbnDiv1944/101stABNDivSurg1944.htm.
[12] Cosmas and Cowdrey, The Medical Department, 419.
[13] "326th Airborne Medical Company, 101st Airborne Division, In the Battle of the Bulge," U.S. Army Medical Department Office of Medical History, https://history.amedd.army.mil/booksdocs/wwii/326thAirborneMedCo101stABDiv/326thAirborneMedCo101stABDivBastogne1944.html.
[14] Phalen, "Medical Service at Bastogne," 39.
[15] Helling, *The Agony of Heroes*, 216-217.
[16] Phalen, "Medical Service at Bastogne," 39-40.
[17] Quoted in Helling, *The Agony of Heroes*, 216-217.
[18] Helling, *The Agony of Heroes*, 220.
[19] Cosmas and Cowdrey, *The Medical Department*, 419-420.
[20] Quoted in Helling, *The Agony of Heroes*, 217, 226.
[21] Phalen, "Medical Service at Bastogne," 41.
[22] Quoted in Helling, *The Agony of Heroes*, 238.
[23] Phalen, "Medical Service at Bastogne," 41-42.
[24] Cosmas and Cowdrey, *The Medical Department*, 421-422.
[25] Phalen, "Medical Service at Bastogne," 42.
[26] Quoted in Helling, *The Agony of Heroes*, 246.
[27] Cosmas and Cowdrey, *The Medical Department*, 422-423.
[28] Helling, *The Agony of Heroes*, 243, 248.
[29] Cosmas and Cowdrey, *The Medical Department*, 424.
[30] Helling, *The Agony of Heroes*, 256.
[31] Tomaz Mesar, Aaron Lessig, and David R. King, "Use of Drone Technology for Delivery of Medical Supplies During Prolonged Field Care," *Journal of Special Operations Medicine* 18, no 4 (Winter 2018): 34-35.
[32] "Medical Detachment (PCAD)," Medical CDID.

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