

OPIOIDS IN THE MILITARY: A SOLDIER'S DISEASE

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Let's consider a hypothetical situation: Corporal Brian Rodriguez is a twenty-two year old Marine who was deployed to Afghanistan in 2008. During a routine convoy patrol, an improvised explosive device placed in an inconspicuous plastic bag detonates beside his vehicle, sending hot fragments of metal through his legs and chest. He is oblivious to his condition and, despite his injuries, repeatedly tries to escape the vehicle while his platoon attempts to pry him loose from the wreckage. He cannot hear what they are saying, but he knows they are yelling. He cannot focus on their faces, but he knows they are staring at him—not at his face, but at what is left of his body. The medic arrives with an auto-injector filled with a clear liquid. He reaches into the toppled vehicle and applies it to Brian's left thigh at a ninety-degree angle. Its contents enter his bloodstream within a fraction of a second. Brian barely feels it, but he has just met his new best friend, morphine.

Morphine is a drug classified as an opiate, which is used primarily for pain relief. The morphine entering Brian Rodriguez's blood stream began as *Papaver somniferum plant*—the species of poppy that is used primarily to create opioids—likely growing in a sunny field in India or Turkey. The raw opium was harvested and purified into morphine at a factory likely owned by a multinational pharmaceutical company, and then purchased by the United States Department of Defense as part of an exclusive contractual agreement to provide morphine for US troops. In the factory, they insert this morphine into modern syrettes (or auto-injectors) designed to intravenously deliver the morphine in unstable conditions as quickly as possible. Several of those auto-injectors made their way into that medic's bag, and one of them made its way to Brian's thigh. As they pull him out of the

smoldering wreckage to take him to a hospital, the morphine begins to do a strange and wonderful thing to Corporal Brian Rodriguez.

The human brain excretes neurotransmitters called endorphins, which are endogenously-produced opioid peptides that bind to his opioid receptors, resulting in a pleasurable sensation (Steward). The morphine, which is an exogenously-administered opiate compound, surges up to Rodriguez's brain, carried by his blood. It acts directly on his central nervous system by binding to these receptors, replicating the effects of the naturally produced endorphin, but to a greater extent (Waldhoer et al.). They make him feel good—good enough to forget the agony of his wounds. His breathing slows and his bowels, which also contain these receptors, tighten as he lies on the fragmented sidewalk (Waldhoer et al.). The medic speaks to Brian calmly while applying pressure to his legs to stem the flow of blood. The pain does not disappear altogether, but lingers as a disembodied sensation, tucked away at the back of his mind as he tries to figure out what is going on around him. They carry him to a vehicle when the medic clears him for extrication, and he is driven to a field wide enough to accommodate the helicopter that will take him to the hospital.

Morphine is prized by military forces for its ability to deliver comprehensive pain relief to wounded soldiers in emergency situations, where other drugs cannot be administered as efficiently. Its first widespread military use came during the US Civil War, where it was used as a post-surgical pain relief medication. It was found to dramatically improve the quality of life for those grievously wounded in battle that had to cope with poorly equipped makeshift field hospitals during their recoveries (Adams). Morphine also served to improve their chances of survival by mitigating

pain that could cause complications with the recovery process—or, at the very least, compassionately deliver them into death’s arms. During World War II, the syrette was developed by Squibb, a pharmaceutical company, to allow for the administration of controlled doses of morphine to wounded soldiers during battle (“Morphine”). This vastly improved chances of survival by preventing soldiers from hyperventilating or going into circulatory shock from their wounds. But our

earlier hypothetical situation has not concluded—Brian and morphine are not finished with each other.

Brian wakes up in the hospital and is in terrible pain. Beside him, his platoon commander firmly grips his hand and calls for the nurse as he begins to gasp for breath. The nurse rushes in and makes a beeline for the intravenous drip that winds its way down into Brian’s forearm. She administers morphine, and he begins to calm down.



Morphine is widely used in civil healthcare, particularly for palliative treatment, which is designed to ease suffering associated with terminal illnesses, and for patients experiencing extreme pain. Medical professionals do not administer opioids unless the patient's condition necessitates it due to the highly addictive nature of these substances. Off of the battlefield, morphine can be administered to patients in a variety of methods, including a pill, through an intravenous drip, and via a spinal pump ("Morphine Dosage"). Brian requires the morphine to help him through the healing process, which is often long, arduous, and painful. Both of his legs have been amputated above the knee—there was no hope of repairing the extensive damage caused by the explosion. His chest is riddled with scars from the multiple surgeries required to remove the sharp fragments of metal lodged in his organs. Extensive damage was inflicted on his intestinal tract, and three feet of it had to be removed. He requires a respirator to aid his ailing lungs, and several broken ribs have been reinforced with steel screwed into the bone. Brian is in a lot of pain.

A few months later, Brian is back in the US to start physiotherapy. He is reminded of his bleak future as he straps on his metal legs. His mother helps him get up. The physiotherapist reminds him to breathe, encouraging him with anecdotes of those who have learned to walk again. It is not easy, and every time he falls he is reminded of the explosion that did this to him. He begins to feel cold and starts shivering—he can't wait for his next dose of methadone. Brian is addicted to opioids and is undergoing opioid replacement therapy to increase his chances of kicking the habit. This therapy has proven to be far more successful than quitting "cold turkey" and comes as a component of his rehabilitation program to reintegrate him into

society (Mattick et al.). By administering less addictive opioids, the effects of withdrawal can be mitigated as the addict is weaned off the substances. Brian is on his sixth day of opioid replacement therapy, and his addiction does not seem to be going away. His mother holds his hand to help him up. He tries to be strong for her.

Several months later, Brian sits down with his psychiatrist. His progress has been phenomenal, and they will be using his recovery to demonstrate a successful rehabilitation program in the future. His physiotherapist tells other patients how quickly Brian learned to walk again to give them hope. He can walk on his prosthetic legs now—albeit with the aid of crutches—and enjoys walking with his mother in the garden at the hospital. It was a painful process, but he is free of opioids and is doing well in his group rehabilitation program, which offers support to other disabled veterans. He can tell something is different this time, because there is a Major in the room as well. He salutes his superior and is offered a seat to discuss an important issue. When Congress decides on the budget for the US Department of Veterans Affairs, it affects their ability to offer treatment for all veterans. Thus, they implement a rating scale to determine priority ("Opiate Withdrawal"). Cuts in the Department's budget coupled with the ever-increasing number of disabled veterans requiring treatment have necessitated a shift in priority for enrollment. The Major has deemed Brian to be "rehabilitated," and he will cease treatment in a week's time. They will give him a special monthly compensation to help him ease back into civilian life, and they also urge him to contact a post-traumatic stress disorder (PTSD) treatment center for veterans to help him cope with the condition. They tell him he will be okay, and he believes them—it's time to move on.

It has now been four months since he finished rehabilitation, and Brian is still unemployed. He dropped out of his PTSD treatment program to focus on getting a job, but the search has been unsuccessful. The PTSD program wasn't really helping him, anyway—the counselor had no military experience and could not empathize with him. He kept saying he was young and will move on, and told him he was tough enough to survive. A 2010 study published in the *Journal of Traumatic Stress* revealed that less than ten percent of veterans diagnosed with PTSD attended nine or more Veteran Affairs treatment programs in fifteen years or less in the first year of diagnosis (Seal et al.). Brian realizes he has no financial capital to pursue an education that would help his job search, and he needs to use his monthly compensation for medical expenditures. His mother is saving so he can go to college, but he knows she will never save enough. He tries looking for veteran vocational training programs, but becomes disheartened when he discovers that the feedback for these programs is overwhelmingly negative. He's abusing opioids again to cope with his PTSD and the burden of being unemployed. They numb him from the pain of life.

His mother finds his heroin paraphernalia one day, and it breaks her heart. She confronts him about it, and he resolves to quit. This time, though, he doesn't have methadone to help him. It first starts eight hours later—he begins to feel agitated, starts sweating, and craves the drug. But he cannot let his mother down like that again. Fifteen hours after his last dose, his nose begins to run as he cries uncontrollably. He thinks it will pass soon enough, and his mother makes soup for him. Nineteen hours after his last dose, he no longer

has an appetite. He experiences cold and hot flashes, his entire body aches, and his intestines begin to cramp. Thirty-six hours after his last dose, Brian is in hell. His legs cramp up and kick incessantly. He is gagging, but has nothing in his stomach to vomit up. He has lost four kilograms as his body struggles to fight through the withdrawal. He shivers constantly now—this was nothing like the treatment he received at the hospital. He keeps reliving the horror of losing his legs, and wishes that he died on the side of that street as a real man instead of wasting away as a cripple. Forty-six hours after his last dose, Brian eats for

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the first time in over a day and again begins to search for a job. Opioid withdrawal is extremely painful experience, and occurs twelve hours after the last heroin dose for addicts (“Opiate Withdrawal”). The effects that occur incapacitate addicts, and show why quitting is extremely difficult, since a dose of opioids would easily remedy the situation.

Though opioids are extremely valuable in helping the military pursue their goals and the interests of the state, the effects they can have on veterans are devastating. Opioids are but one facet in the myriad of problems facing veterans today. The effects of opioid addiction and withdrawal are further compounded by the damage that military service can do to veterans, including traumatic experiences that result in PTSD, as well as injuries that severely affect their quality of life. Though these burdens can be considered a natural circumstance in the theatre of war, the alleviation of the plight these individuals face is insufficient. A statistical analysis of federal budget appro-

priations in 2008 reflects that 1.4 percent of annual taxes were spent on the Department of Veterans Affairs while 16.6 percent was spent on the Department of Defense and an additional 5 percent was spent on the global War on Terror (Grace). Additionally, the War on Terror is largely funded through the growing federal debt, but veteran affairs are not. This disproportionate spending reflects an irresponsible stance on the issue of taking care of those who have given up their futures to advance the interests of this country. There are veterans like Brian who sought to serve their country with honor, but are discarded by the powers that be when they are “used up,” as if they were always simply tools. The US Department of Veterans Affairs is doing an outstanding job with their limited resources, but it is of paramount importance to them that their budget increases to meet the increased needs resulting from engaging in more military conflicts. There is more political will in the system to enact these changes today than there was in the days of World War II, Vietnam, and Korea, but it is not enough.

Rehabilitation is not a process that can be quantified with money or a set amount of time—it is a process that is unique to each individual soldier and the injuries, both mental and physical, that they receive during the course of their duty. To apply a set of numbers to each of them because of limited funding is unjust given that funding for the military seems to be infinite. If we have the political will to put people like Brian on the frontlines to suffer for us, then we must be able to consider the costs and be able to support them when they need our help. Perhaps you do not care for the hypothetical situation of Corporal Brian Rodriguez. That does not make the pain that real veterans experience any less genuine, no matter how much morphine we give them.

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