Anthrax Vaccination Program Essay, Research Paper

On May 18, 1998, Secretary of Defense William Cohen approved a plan to vaccinate all U.S. service members for anthrax. This plan has caused a fierce ethical debate over the legitimacy of this vaccination. The Department of Defense claims the vaccination is completely safe and has been in use for decades. Some doctors dispute this claim, and contend the vaccination may not be effective against weapon versions of anthrax. Many service members have refused the vaccination and have either separated or faced formal punishment for their decision.

The Bioport Corporation of Lansing Michigan is the only company that produces the anthrax vaccine. According to a Phoenix Times article, the original Bioport plant had to be demolished due to quality control problems. A new plant was built, but it also failed FDA inspections in December of 1999. Subsequently, the process of administering the vaccination to all service members has been suspended. The vaccination is currently administered only to personnel deploying to ?high threat? areas of the world. The Joint Staff has designated Korea, Bahrain, Jordan, Kuwait, Oman, Saudi Arabia, Qatar, the United Arab Emirates (UAE), Yemen, and Israel as high-threat areas. The immunization is administered in a series of six shots over an eighteen-month period, with annual boosters. The following analysis will contain a brief discussion about both sides of this issue.

To understand why the Department of Defense feels it is essential to take such precautions, it is first necessary to have some understanding of what anthrax is. Microsoft Encarta Encyclopedia defines anthrax as ?a contagious disease of warm-blooded animals, including humans, caused by the bacterium Bacillus anthracis.? There are three types of anthrax diseases. The first is cutaneous anthrax, which is caused by contact with infected animals or contaminated animal products. The second type is gastrointestinal anthrax, which is caused by ingestion of contaminated meat. The last type is inhalation anthrax, which is the type used in biological weapons. It is caused by the inhalation of anthrax spores and it is the most deadly type of the disease. One of the most effective defenses against inhaling the deadly spores is a properly worn gas mask. The DOD fears that by the time an attack is detected, it will be too late to don protective clothing. Theory suggests that immunization may be the only chance of surviving an attack.

With so many biological weapons in production, one may wonder why bother with a vaccination that is only going to protect personnel against one type of weapon. The DOD feels that anthrax spores are ? the top choice in biological weapons for germ warfare.? They say it is one of the most effective biological weapons because it is almost always deadly if not treated early. In addition, it is relatively simple to manufacture in large quantities with only a basic knowledge of biology. The spores can be stored for long periods with no deterioration, and it can be delivered easily using missiles, rockets, artillery, bombs or sprayers. Once the weapon has been dispersed, there are virtually no indications of exposure. The vapor is odorless, colorless, taste-free and leaves no cloud. DOD claims there is no effective treatment once exposure has occurred. They suggest antibiotics will suppress infection, but only if they are administered within 48 hours of exposure. They also claim unprotected individuals have a 99% chance of death after exposure.

The Secretary of Defense has stated that it would be derelict l to send troops into one of the ?high threat? areas without this vaccination. Other senior officers have frequently used the analogy ?It would be like sending troops into harm?s way without a helmet or flack vest.? This theory brings up a question about whether the vaccination is safe and effective. DOD?s point of view suggests the vaccine is safe and will work. Their anthrax web site uses the reasoning that we already receive vaccines to protect against typhoid, yellow fever and many other diseases, so it makes sense to protect ourselves against this ?killing disease which can be used as a weapon.? The vaccine was developed for human use in the 1960?s and approved by the FDA in 1970. DOD states that it has been ?routinely administered? to at risk wool mill workers, veterinarians, live stock handlers, and laboratory workers since that time. They acknowledge that receiving the shots will cause mild reactions but claim there have been no patterns of long term side effects or delayed side effects. They also admit it has not been tested for use against the inhalation type of anthrax in humans because it would be unethical to conduct such research. They site a study conducted using 25 monkeys in which, after exposure, all but 1 survived to prove effectiveness of the vaccine. The bottom line for the DOD is they feel it is unethical to allow personnel to be exposed to the anthrax threat without every protection currently available.

People who oppose the present anthrax policy have a completely different perspective about the vaccine and the company that produces it. As mentioned earlier, the Bioport plant has encountered several problems with the FDA. The facility which produced the vaccine was state owned until 1997. When the FDA threatened to revoke its license, Michigan sold it to the Bioport Corporation. One of Bioport?s most visible corporate directors is former chairman of the Joint Chiefs, Adm. William J. Crowe Jr. Less than a month after Bioport took over they signed a $25.7 million contract with the DOD to produce the vaccine. Shortly after that the CEO went to congress and told them that Bioport was incurring losses that could not be sustained in the future. Subsequently, DOD increased the contract to $49.8 million but would receive 25% less vaccine. Opponents of the mandatory anthrax vaccination program consider it more of a moneymaking scheme than an essential protection for our military.

An additional concern is whether the vaccine will actually work. While the DOD sites studies with monkeys to prove it will work, other doctors site studies using mice and guinea pigs to dispute that claim. Dr. Meryl Nass, an expert on biological warfare has testified before congress twice about the anthrax program. She says the program will not work. ?Vaccinating everyone against one particular strain of anthrax, or one particular biological weapon, for that matter, would only protect them against that one thing. The enemy forces could then merely develop a new strain of the disease or another type of biological weapon making the whole effort moot.?

She also disputes the DOD?s claim of only minor adverse reactions being reported. Her research has shown that the vaccine can cause chronic symptoms that often worsen after the fourth shot is administered. Initially, she says, many experience abdominal cramping, diarrhea, fever, chills and a headache. Later symptoms can include chronic fatigue, dizziness, joint and muscle pain, headaches, memory loss, sleep disorders, chest pains and recurring rashes. She contends the Vaccine Adverse Event reporting System is not effective because it is voluntary. She fears some people do not report problems because they are afraid of loosing jobs or being forced into medical retirement. The bottom line for the opposing side of this issue is the vaccine has not been sufficiently tested and there is no proof it will actually work. They contend the threat has been around for over 100 years, so why is it imperative to vaccinate now. Therefore, to them, the mandatory program is unethical.

The debate and confusion over this issue is not going away in the near future. People opposing the vaccine want the program terminated. The DOD is not backing down from the mandatory inoculations. In an Air Force News article released Feb 18 2000, DOD officials say they have no intention of ending their program despite a House of Representatives panel?s recommendation that it be suspended. Dr. Sue Baily, assistant secretary of defense for health affairs, holds the position that the vaccine is very safe and effective against a biological agent produced by many of our adversaries. She says, ?Were service members not vaccinated and exposed to this agent, they would die a horrible death. It is our mission to protect those forces.?

It seems service members will continue to face the decision of whether to take the vaccination or not. It will ultimately be up to the individual to determine if it is worth receiving punishment or ending a career if they refuse the lawful order.