

# JSTO in the News

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A Pipeline to Success



Beyond a Bandage



Veriox wipes provide early wound decontamination right when it's needed.

# BEYOND A BANDAGE

Joint Force members injured by or contaminated with chemical/biological warfare agents (CBWs) should be treated as soon as possible after exposure, preferably within 2 minutes, for the most effective decontamination. This timeframe also refers to decon solutions using reactive chemistry to allow for neutralization. Quick application of Veriox DECON solution may provide a difference between survival and death from CBWs.

The Defense Threat Reduction Agency's (DTRA) Chemical and Biological Technologies Department in its role as the Joint Science and Technology Office (JSTO) for Chemical and Biological Defense, an integral component of the Chemical and Biological Defense Program, is investing in this alternative technology to support wound decontamination. This endeavor illustrates how DTRA JSTO is transforming CB S&T to prepare for current CBW threats and anticipate emerging threats the Joint Force may face in the future. The Veriox DECON solution created by Armis Biopharma is a liquid topical antimicrobial, anti-infective disinfectant that has been proven to destroy chemical warfare agents in two studies conducted by the U.S. Army Medical Research Institute of Chemical Defense. It is also an effective biocide and will destroy bacteria, fungi, and most viruses.

DTRA JSTO organized a user event at Camp Bramble, Joint Base San Antonio Lackland in San Antonio, Texas, with the hospital decon team of the 59th Medical Wing. The hospital decon team's mission is to save the lives of individuals possibly affected with CBWs while also preventing the spread of CBWs to others in the treatment facility. DTRA personnel worked with the 59th Medical Wing and other experts of military decontamination to create a realistic scenario based on current military decon procedures. Veriox can be applied directly to contaminated skin with a pretreated wipe or in a liquid form. The prototypes consist of 6-inch-square wipes and 10-inch-square wipes saturated with the Veriox liquid. The medics reviewed different wipe prototypes packaged in individual tear-open pouches and in a bottle that provided additional liquid.

For this user event, the hospital team set up a basic decon line and had three different versions of the Veriox wipes to use on manikins with mock wounds. The team wore protective garments and tested three different versions of the decon wipe packaging to see which version was more efficient to use when wearing mission-oriented protective posture (MOPP) gear. The decon personnel evaluated the ease of opening the wipe packets while using heavy, protective rubber gloves and having the poor vision that MOPP gear can present. When the team finished evaluating the decon wipes, they discussed the benefits of the wipes, how they could be improved, and provided the results to the technology developer.



A technology developer observes test participants using a sprayer, soap, water, sponges, and Veriox wipes. (DTRA JSTO photo)

**This technology could help save lives and extend the opportunity to move the severely wounded to an appropriate level of care.**

The most important and effective decontamination of a chemical exposure is done within the first minute or two after exposure, typically at the point of exposure, potentially by the wounded individuals themselves. The severely wounded cannot do this, however, and will be in greater danger from the CBW agent getting into an exposed wound. DTRA JSTO's investment in Veriox wipes could help the wounded individual, warfighters providing buddy aid, or medics treating wounded warfighters and civilians in mass casualty events with an efficient means of decontaminating and treating casualties to help neutralize CBW threats. This technology could help save lives and extend the opportunity to move the severely wounded to an appropriate level of care. ●



Within the Defense Threat Reduction Agency's Research and Development Directorate resides the Chemical and Biological Technologies Department performing the role of Joint Science and Technology Office for Chemical and Biological Defense, an integral component of the Chemical and Biological Defense Program. This publication highlights the department's advancements in protecting the Joint Force, our nation, and allies from chemical and biological threats through the innovative application of science and technology.

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