

Special Medical Emergency Evacuation Device (SMEED)

Department of Defense
U.S. Army Institute
of Surgical Research

SFC Eric Smeed of the U.S. Army Institute of Surgical Research (USAISR) has developed a patent-protected metal framework that attaches to evacuation litters and holds individual pieces of medical equipment needed for optimal patient transport. The Special Medical Emergency Evacuation Device (SMEED) stabilizes a variety of medical devices, such as ventilators and oxygen cylinders, replacing the traditional method of attaching such equipment directly to the transported patient. Lightweight and adjustable, the 14-inch by 22-inch SMEED adapts for use in any Department of Defense medical vehicle.

SFC Smeed invented the critical care platform specifically to lessen the discomfort of burn victims during medical transport. Enthusiastic responses from those testing his prototype convinced Smeed that the creation had greater lifesaving potential through technology transfer. The Army physical therapist refined his design through several prototypes, while searching for devel-

opment funding that ultimately came from the U.S. Army Medical Materiel Development Activity. The Army subsequently patented the device and in 2002 awarded a Small Business Innovation Research contract and exclusive license agreement to Impact Instrumentation, Inc. of New Jersey. The company further developed the technology, manufacturing a commercial product now on the market. The U.S. military has purchased hundreds of the company's SMEED platforms, currently used by medical units deployed in Iraq, Afghanistan, and elsewhere.

The commercialization exemplifies the military goal of technology transition, moving a military-designed technology to private industry for development and eventual government purchase for general military use. The SMEED solves critical problems of limited time and space typical in combat and other disaster situations. It eliminates the need to fasten uncomfortable equipment directly to



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patients and gives health care providers a clear view of any readout monitors on attached medical devices. As patients are transferred from point of injury to various care centers, delicate equipment can be quickly exchanged or added as needed. The SMEED technology expedites the evacuation of wounded soldiers, preserving lives and safeguarding military resources.

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