



June 2020

Army Combat Trauma Care in 2035

The National Academies' Board on Army Research and Development (BOARD) hosted a workshop on November 18-20, 2019 in San Antonio, TX, to discuss the future of Army Combat Trauma Care. BOARD members Dr. Jim Bagian and Dr. Joan Bienvenue were the co-chairs of the workshop committee and invited leading military, research, medical, and intelligence professionals to examine how to extend the "Golden Hour," the time after a critical combat injury during which medical interventions are most effective. Workshop objectives were to explore:

- How to increase soldier survivability and return to the fight as quickly as possible
- How biomedical research can be used to address persistent gaps in treatment success
- How to manage associated risks and increase preparedness

Several recurring themes were raised during the workshop:

1. Medical and operational leadership is not receiving consistent direction and prioritization from the Secretary of Defense or the Chairman of the Joint Chiefs of Staff, preventing optimal medical care that supports the warfighter and mission objectives. This lack of coordination:
 - a. Reduces combat casualty care preparedness for dealing with the operational environment and results in inconsistent quality of medical treatment for the warfighter;
 - b. Results in immature and inadequate preparation for peer and near-peer adversary conflict; and
 - c. Causes medical research and development to be insufficiently linked to capability gaps.
2. Existing assets, training materials, and techniques are being underutilized. This includes the collection and application of real-world operational data and state-of-the-art medical knowledge to inform medically related operational decisions.
3. A greater emphasis on application of existing knowledge, cutting edge research, and medical advancements could substantially enhance the capabilities of the warfighter. Areas of interest include human performance, bioengineering, shelf-stable solutions, tissue regeneration, trial testing at scale, and advanced bio-sensors.

Read or download the 12-page proceedings of the workshop at nap.edu/25724.



WORKSHOP PLANNING COMMITTEE*: Dr. James Bagian, *Co-chair*, University of Michigan; Dr. Joan Bienvenue, *Co-chair*, University of Virginia; Dr. Frank Butler, U.S. Navy (retired); Dr. Howard Champion, SimQuest; Dr. George Christ, University of Virginia; Dr. Russ Kotwal, Joint Trauma System; Dr. Margaret Moore, Louisiana State University; Dr. Carolina Cruz-Neira, Univ of Arkansas, Little Rock

STAFF: William Millonig, Acting Director; Sarah Juckett, Program Officer; Steven Darbes, Program Officer; Aanika Senn; Program Coordinator, Cameron Malcom; Senior Program Assistant

This Workshop Highlights was prepared by the Board on Army Research and Development based on the Proceedings of a Workshop—*In Brief Army Combat Trauma Care in 2035* (2020), which is available for download at nap.edu/25724. The committee's role was limited to planning the event. The statements made are those of the individual workshop participants and do not necessarily represent the views of all participants, the planning committee, or the National Academies. This workshop was supported by the Department of the Army.

*To view the committee member bios and a full list of speakers as well as their presentations, please visit our website at nationalacademies.org/board.

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