Health Care Delivery Subcommittee

Sustainment and Advancement of Amputee Care

Defense Health Board
February 11, 2015

PREDECISIONAL

Overview

- Membership
- Tasking
- Timeline
- Areas of Interest
- Way Forward

Membership

Health Care Delivery Subcommittee

- Nine members

Tasking

"Review the full spectrum of amputee care, and define a strategy for preserving and continuing these advancements, identifying the best possible care to our beneficiaries."

- Acting Under Secretary of Defense for Personnel and Readiness memorandum dated January 20, 2013

Timeline

July 2013: DHB subcommittee members begin review.

September 2013 – September 2014: Members receive briefings from DoD and civilian subject matter experts.

May 2014 – January 2015: Members develop draft report and refine findings and recommendations for the DHB consideration.

February 2015: Present pre-decisional draft to DHB.

Process

- 17 Teleconferences
- 6 Face-to-face meetings
- 57 Briefings
- Site visits to the 3 Amputee Rehabilitation Centers (ARCs):
  - Military Advanced Training Center (MATC)
  - Center For the Intrepid (CFI)
  - Comprehensive Combat and Complex Casualty Care (C5)

Briefings

- Department of Defense: Service representatives, ARCs, Defense Advanced Research Projects Agency, United States Army Institute of Surgical Research
- Department of Veterans Affairs
- Bridging Advanced Developments for Exceptional Rehabilitation (BADER) Consortium
- National Institutes of Health
- Academic Centers: University of Pittsburgh, Johns Hopkins University, Northwestern University, Massachusetts Institute of Technology
- Amputee Coalition

Structure of the Written Report

- Executive Summary
- Background and Introduction
- Current Landscape of Department of Defense Amputee Research and Care
- Department of Defense's Approach to, and System of Amputee Care
- Care of the Amputee
- Data, Surveillance, and Research Translation

Finding #1
Overarching Finding

The extraordinary character, fierce resiliency, and never-quit attitude of combat wounded amputees, along with the sacrifice and selflessness of family members and combined with expert total care has led to extraordinary results, enabling amputees to return to active duty, even combat, and a high quality of life.

Recommendation #1
Overarching Recommendation

DoD must never forget the primary importance of the individual combat casualty, family member, and the care team.

Finding #2

Although DoD is providing excellent amputee care, failure to sustain and advance medical readiness in peacetime has limited DoD's capability to deliver high quality traumatic amputee care in the past and may threaten that capability in the future.

Recommendation #2

DoD must ensure the sustainment of the highest quality delivery of health care and health research in spite of post-conflict resource limitations. Core competencies in optimal amputee care must be defined, periodically updated, tracked, and regularly reported to the leadership of the Military Health System (MHS).

Finding #3

The long-term health, health care needs, health care utilization, and health outcomes of DoD amputees from OIF/OEF/OND present knowledge gaps that require investigation.

Recommendation #3.1-3.3

3.1 DoD should maintain a centralized registry of amputees to gain an understanding of the health, health care needs, and health care utilization of this population.

3.2 DoD should conduct retrospective and prospective cohort studies of current military amputees to advance the ability to enhance outcomes. The Extremity Trauma and Amputation Center of Excellence may be well-suited to conduct these studies.

3.3 DoD should continue to prioritize research and drive improvements across the spectrum of disciplines that affect the care and quality of life for amputees, their caregivers, and support systems.

Finding #4

Establishment of the ARCs has created a multidisciplinary system of care that is holistic and patient- and family-centered. This has resulted in unprecedented opportunities to attain higher levels of functioning for the amputee.

Recommendation #4

DoD must ensure that adequate resources are provided in order to maintain the current model of multidisciplinary, holistic, and patient- and family-centered care.

Finding #5

Over the course of the current conflicts, DoD has created a new paradigm featuring the interprofessional team approach to amputee care that shifts the focus to ability rather than to disability. This approach improves the quality of life for those who have experienced amputations and sustains progress in the field of amputee care, supporting improved DoD operational readiness.

Recommendation #5.1-5.2

5.1 DoD must provide the resources and facilitate the partnerships needed to enhance supportive rehabilitation opportunities for amputees that focus on their abilities and allow them to return to active duty when capable.

5.2 DoD should prioritize efforts for reintegration of amputees into their communities and daily living.

Finding #6

Collaborations with institutions, practitioners, and researchers across a variety of disciplines and organizations are critical to DoD's sustainment and advancement in the field of amputee care.

Recommendation #6

DoD should implement formal funding mechanisms and relationships that institutionalize collaboration between DoD and a broad reach of academic medical centers, health care systems, engineering schools, and other institutions important to advancing amputee care.

Finding #7

DoD has established national and international partnerships that have the potential both to benefit amputee care in the military and civilian communities and to ensure ongoing access to amputees to maintain critical military readiness and amputee care skills.

Recommendation #7.1-7.3

7.1 DoD should continue, sustain, and grow amputee care partnerships on both the national and international levels.

7.2 DoD should establish a national and international telehealth center of excellence capability that promotes consultative partnerships and access to excellent care for amputee patients.

7.3 DoD should maximize the provision of care for civilian traumatic extremity injury and amputation patients and explore the feasibility of, where appropriate, providing care to international amputee patients in the ARCs to bolster case flow.

Finding #8

The ARCs have demonstrated synergy between clinical care and research that provides for the rapid translation of new research advances into amputee care. However, the approach would be better sustained if it were deliberate, documented, and coordinated.

Recommendation #8

DoD should systematize the methodology and codify the current synergy between clinical care and research through targeted funding and strategic use of personnel, particularly with respect to the rapid translation of research into practice. Based on its charter, the Extremity Trauma and Amputation Center for Excellence is well situated to do this within the MHS, VA, and civilian practice.

Finding #9

The Subcommittee found that while the ARCs do interface with medical entities and medical training programs, they do not provide residencies, fellowships, or other post-graduate programs.

Recommendation #9

DoD should collaborate with educational institutions and accredited programs to provide graduate and post-graduate training experiences in ARC settings in order to build and maintain provider expertise and ensure health professionals are up-to-date on the most recent advancements in amputee care.

Finding #10

It is currently impossible to comprehensively determine the cost of DoD's amputee care programs. One cannot determine value without accurate data on cost. Although limited data related to the cost of amputee care exist, these data are not collected systematically or organized for easy access and analysis.

Recommendation #10

DoD should refine its data management systems and processes to allow comparative and comprehensive analysis of the total cost of amputee care.

Finding #11

A critical mass of clinicians, technical specialists, and new trauma patients are needed to sustain amputee care skills. Expert opinion has universally concluded that DoD does not have adequate patient load during peacetime to sustain the clinical competency of its amputee care team.

Recommendation #11

DoD should build and strengthen national and international partnerships that allow for U.S. civilian or international amputees to receive care services in the ARCs, increasing the caseload of new traumatic amputees.

Finding #12

There has been a significant decrease in the number of new traumatic amputees requiring care and available resources to sustain the care capability. To maintain the provider competencies and system capabilities in the inter-war years, adequate caseload is necessary.

Recommendation #12

DoD should seek every conceivable opportunity by looking both within current models and outside existing ones to build the caseload necessary to sustain and advance state-of-the-art total amputee care, clinical competency, and expertise. If DoD exhausts every effort to build a caseload sufficient to sustain these current centers, then, and only then, should consideration be given to consolidation into a single center of excellence in order to sustain medical readiness in this critical component of casualty care.

Finding #13

The ARCs lack robust clinical and research programs designed to enhance the long-term health of the amputee population, reduce the risk of premature mortality, and manage comorbidities associated with amputations.

Recommendation #13

The ARCs should develop, pilot, and evaluate prevention and wellness programs to better manage comorbidities and reduce the risk of long-term chronic disease for amputees.

Finding #14

DoD has established a process and infrastructure specifically aimed at supporting amputees to return to active duty which is vital to DoD's future operational readiness in addition to improving the quality of life for those who have sustained traumatic limb injuries.

Recommendation #14

DoD should continue to advance the progress which allows amputees to return to active duty.

Finding #15

The EACE is not accomplishing the full mandate of its congressional charter as included in the National Defense Authorization Act (NDAA) of 2009.

2009 National Defense Authorization Act (EACE)

The center [EACE] shall have the responsibilities as follows:

1 To implement a comprehensive plan and strategy for the Department of Defense and the Department of Veterans Affairs for the mitigation, treatment, and rehabilitation of traumatic extremity injuries and amputations.

2 To conduct research to develop scientific information aimed at saving injured extremities, avoiding amputations, and preserving and restoring the function of injured extremities. Such research shall address military medical needs and include the full range of scientific inquiry encompassing basic, translational, and clinical research.

3 To carry out such other activities to improve and enhance the efforts of the Department of Defense and the Department of Veterans Affairs for the mitigation, treatment, and rehabilitation of traumatic extremity injuries and amputations.

Public Law 110-417, NDAA 2009, Section 723

Recommendation #15

15.1 The VA Under Secretary for Health and DoD Under Secretary for Personnel and Readiness should conduct an in-depth assessment of the organization and funding of EACE with the intent of optimizing EACE's performance.

15.2 Based on the Board's review, San Antonio would be the optimal geographic location for an enhanced EACE. The combined resources of the San Antonio Military Medical Center, the Center for the Intrepid, the Institute for Surgical Research, the Audie L. Murphy Medical Center, the VA affiliate University of Texas Medical School, and the University of Texas San Antonio offer an impressively rich setting for this center of excellence.

Finding #16

The research and care processes, rapid prototyping, and applied research that have been achieved in recent years were lacking at the beginning of the conflicts. However, the close proximity of research and clinical personnel has led to breakthroughs in research, general medical care, and prosthetic care.

Recommendation #16

DoD should maintain and disseminate lessons learned from tactical combat casualty care and the rapid cycle research in amputee care, including the colocation of research and clinical care to ensure the effective and timely application of innovations in the delivery of care and to optimize resources.

Questions?