Trauma and Injury Subcommittee of the Defense Health Board

Low-Volume High-Risk Surgical Procedures

23 April 2018

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Membership

Trauma and Injury Subcommittee

- Col (Ret.) Donald Jenkins, MD
- John H. Armstrong, MD
- Col (Ret.) James P. Bagian, MD
- L.D. Britt, MD, MPH
- Julie Ann Freischlag, MD
- Odette A. Harris, MD, MPH
- Lenworth M. Jacobs, Jr., MD
- COL (Ret.) Anthony J. LaPorta, MD
- CAPT (Ret.) Edward J. Otten, MD
- C. William Schwab, MD

Tasking

THE ASSISTANT SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-1200

HEALTH AFFAIRS MAR 28 2018

MEMORANDUM FOR PRESIDENT, DEFENSE HEALTH BOARD

SUBJECT: Request for Defense Health Board Review of "Low-Volume High-Risk Surgical Procedures"

Pursuant to the attached Terms of Reference (TOR) on "Low-Volume High-Risk Surgical Procedures," I request that the Defense Health Board (DHB) provide recommendations to the Department of Defense in order to improve policies for managing facility surgical capabilities and surgeon proficiency. Specifically, I request the DHB address and develop findings and recommendations on the policies and practices in place to:

Tasking
(2 of 2)

- Determine where high-risk surgical procedures should be performed,
- Optimize the safety and quality of surgical care provided,
- Enhance patient transparency related to surgical volumes and outcomes, and
- Evaluate the contribution of high-risk surgical procedures to medical readiness.

Mission Statement

- The mission of the Board is to provide independent advice and recommendations to maximize the safety and quality of, as well as access to, health care for members of the Armed Forces and other Department of Defense (DoD) beneficiaries.

Issue Statement
(1 of 4)

- Research such as that presented in the 2015 U.S. News and World Report story "Risks Are High at Low-Volume Hospitals" suggests that patient outcomes are poorer when complex high-risk surgeries such as joint replacements are performed by surgeons who rarely perform such surgeries, in comparison to the same surgery performed by physicians/teams at hospitals where the surgeries are frequently performed using established protocols.

https://www.usnews.com/news/articles/2015/05/19/hospitals-move-to-limit-low-volume-surgeries

Issue Statement

- Several large medical systems, including:
  - The Johns Hopkins Health System
  - The University of Michigan Health System
  - Dartmouth-Hitchcock Medical Center
- … have recently pledged that their hospitals and surgical staff will meet a minimum annual volume of complex high-risk surgeries as a way of ensuring patient safety.

A Look at Procedures

Surgical Procedure	Hospital (minimum per year)	Surgeon (minimum per year)
Bariatric staple surgery	40	20
Esophagus cancer	20	5
Lung cancer	40	20
Pancreas resection	20	5
Rectum cancer	15	6
Carotid artery stenting	10	5
Complex abdominal aortic aneurysm repair	20	8
Mitral valve repair	20	10
Hip replacement	50	25
Knee replacement	50	25

*https://www.usnews.com/news/articles/2015/05/19/hospitals-move-to-limit-low-volume-surgeries

Issue Statement
(3 of 4)

- The MHS provides a broad array of medical services to Service members and their beneficiaries through both direct care Military Treatment Facilities (MTFs) and purchased care through TRICARE networks.
- To meet patient needs, some MTFs currently perform low-volume high- risk surgeries.
- Many MHS facilities perform complex surgeries in low volumes, despite evidence that lower quality outcomes are associated with low-volume high-complexity surgery.

Issue Statement
(4 of 4)

- This presents a potential risk to patient safety and the MHS's reputation for providing safe, high-quality care.
- There may also be a perception that military medical readiness requirements are driving the MHS to perform low-volume, high-risk procedures to build that readiness in ways that expose patients to elevated risk.
- It is also unclear to what extent shifting of high-complexity procedures to the purchased-care system, where civilian facilities may likewise perform complex surgeries in low volumes, may place patients at risk.

Issue Statement
The real reason for the task

- For patient safety, it is important for the MHS to understand whether there are increased risks associated with low-volume surgery, and to develop policies and methods to prevent and mitigate such risks.
- A high-level, independent review of MHS practices in this area is likely to help improve both the safety and quality of MHS care and the confidence of patients in that care.
- By addressing these issues proactively, the MHS can maintain and enhance the trust of its patients.

Objectives and Scope (1 of 3)

- Review the array of low-volume high-risk surgical procedures performed by military surgeons in the Direct Care system (i.e. MTFs).
- Evaluate policies, protocols, and systems for managing facility surgical capabilities and surgeon/staff proficiency across each of the service branches.
- Develop recommendations to advance standardized policies on managing facility infrastructure capabilities and individual surgeon / supporting staff proficiency across all service branches.

Objectives and Scope

- Evaluate potential MHS applicability of Veterans Health Administration (VHA) Operative Complexity Directives:
  - “Facility Infrastructure Requirements to Perform Standard, Intermediate, or Complex Surgical Procedures” (VHA 2010-018)*
  - Facility Infrastructure Requirements to Perform Invasive Procedures in an Ambulatory Surgery Center” (VHA 2011-037)**

*http://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=2227

**http://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=2452

Objectives and Scope

- Examine the contribution (Knowledge, Skills, and Abilities) of low-volume high-risk procedures to military medical readiness (e.g., surgeons, operating room staff).
- Evaluate MHS policies related to surgical volume transparency and public release of volume, errors and outcomes data.
- Provide recommendations on using the volume, errors and outcome data to inform and enhance policies for managing surgical capabilities and surgeon currency.

Methodology

- The Trauma and Injury Subcommittee’s assessment should focus on improving the policies and practices currently in place to (1) determine where high-risk surgical procedures should be performed and (2) optimize the safety and quality of surgical care provided.
- The Trauma and Injury Subcommittee may conduct interviews and site visits as appropriate.
- As appropriate, the Trauma and Injury Subcommittee may seek input from other sources with pertinent knowledge or experience.

Meetings

- 18 April 2018
  - Kick-off Subcommittee teleconference
  - Introduction to the tasker
  - Discussion on the issue and plan for task completion

Timeline

- 6 months (October 30, 2018 DHB Meeting): Report on primary effort related to Direct Care in MTFs
- 12 months: Report on secondary effort related to Purchased Care (TRICARE) and evaluate potential for MHS to sign onto the "Surgical Volume Pledge" agreed to by Dartmouth-Hitchcock Medical Center, Johns Hopkins Medicine and the University of Michigan

http://www.nejm.org/doi/full/10.1056/NEJMp1508472

Way Ahead

- At least two in-person meetings in National Capitol Region
- Frequent teleconferences
- Subcommittee provides progress update to the Board at the August 27 DHB meeting
- Subcommittee briefs-out the primary effort for Board deliberation at the October 30 DHB meeting

Questions?