UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

DEC 27 2011

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The enclosed report responds to House Report 111–491, page 316, which accompanied H.R. 5136, the National Defense Authorization Act for Fiscal Year 2011, that requests the Secretary of Defense to review the current state of medical training and research for genitourinary (GU) trauma within the Department of Defense (DoD) to determine if there are any deficits with regard to the care that can be provided in combat zones. This issue falls under my purview and I have been asked to respond.

The review of the current state of medical training and research on GU trauma within DoD was undertaken as part of a larger study directed by the U.S. Army Surgeon General to address complex blast injury in dismounted operations. We found there is a need to train surgeons and nurses in GU trauma prior to deployment. There is also a need for research in the study of causation of GU injuries in Afghanistan, protection from these causes, and treatment of Service members with GU trauma. We have identified recommendations and actions to address this important problem.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

Jo Ann Rooney
Acting

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Vice Chairman

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DEC 27 2011

The Honorable Carl Levin
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

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cc:
The Honorable John McCain
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
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PERSONNEL AND
READINESS

DEC 27 2011

The Honorable Howard P. "Buck" McKeon
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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cc:
The Honorable Adam Smith
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

DEC 27 2011

The Honorable Harold Rogers
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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cc:
The Honorable Norman D. Dicks
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

DEC 27 2011

The Honorable Jim Webb
Chairman, Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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The Honorable Lindsey Graham
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
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PERSONNEL AND
READINESS

DEC 27 2011

The Honorable Joe Wilson
Chairman, Subcommittee on Military Personnel
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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As stated

cc:
The Honorable Susan A. Davis
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

DEC 27 2011

The Honorable C.W. Bill Young
Chairman, Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

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Ranking Member

Report to Congress in Response to House Report 111-491, page 316, which accompanied H.R. 5136, the National Defense Authorization Act for Fiscal Year 2011

Genitourinary Trauma in the Military

Preparation of this report/study cost the Department of Defense a total of approximately $1.550 In Fiscal Year.

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Genitourinary Trauma in the Military
Report to Congress

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PURPOSE OF REPORT

House Report 111-491, page 316, which accompanied H.R. 5136, the National Defense Authorization Act for Fiscal Year 2011, "Genitourinary Trauma in the Military," requested the Secretary of Defense to review the current state of medical training and research for genitourinary trauma within the Department of Defense to determine if there are any deficits with regard to the care that can be provided in combat zones. In addition, the committee requested the Secretary to submit a report on this review to the congressional defense committees not later than one year after the date of the enactment of this Act.

REVIEW OF GENITOURINARY TRAUMA IN THE MILITARY

The method used to review the current state of medical training and research for genitourinary trauma within the Department of Defense (DoD) is based on the Services' analysis of battlefield healthcare, that documents evidence-based best practices and identifies any deficits in medical care in combat zones. The data for this report on the current state of medical training and research for genitourinary trauma within DoD were extracted from a larger study directed by the U.S. Army Surgeon General titled "Dismounted Complex Blast Injury (DCBI)." For current battlefield casualties, genitourinary (GU) trauma injuries most notably occur during dismounted operations, and are a result of dismounted complex blast effects. The U.S. Army Surgeon General appointed a task force to study the causation, prevention, protection, treatment, and long-term care options of explosion-induced battle injury. DCBI typically involves traumatic amputation of at least one leg, a minimum of severe injury to another extremity, and pelvic, abdominal, or urogenital including urinary and reproductive organs wounding. GU injury that occurs as a result of dismounted operations involves a number of factors beyond direct wounds to genitourinary tract such as the GU complications as a consequence of the traumatic amputation and other bony injuries, lesions to nerves, infections, shock, and even prolonged catheterization. The task force identified if any of these factors could be mitigated by improved training, management principles, and techniques. The final report of the DCBI Task Force was completed on June 18, 2011, and may be obtained at http://www.armymedicine.army.mil/reports/reports.html.

The report recorded that, in Afghanistan, genitourinary trauma is a common battle injury, with GU injuries representing 12.7% of all battlefield injury admissions. Review of the literature showed that historically in previous conflicts, the percentage of GU trauma injuries has been 0.5 to 4.2 % (references 1-9). While penetrating GU trauma can be repaired in an expeditious manner in the trauma setting, urologists are not deployed to every combat hospital in Afghanistan. Currently, GU trauma injury is not a part of the standards of pre-deployment training for U.S. military surgeons and nurses. Additionally, the Services have established different requirements for the medical personnel who accompany injured Service members during initial rotary wing medevac.

The report identified that the Joint Theater Trauma Registry is not sufficient to assess the long-term prognosis of GU trauma injuries. The U.S. Army is involved in designing longitudinal research to follow casualties with GU injuries to track their urological disabilities (e.g., voiding or bladder dysfunction, erectile dysfunction, and infertility). The U.S. military plans to actively participate in the American Urological Association special task force study for GU injuries. The report recognizes the need for partnerships to include those with expertise in behavioral health for long-term studies of the psychological effects of GU injuries to Service members.

The DCBI report's recurring themes will inform leadership of current best practices and additional opportunities to care for severely injured Service members, including GU trauma injuries. The injuries described have severe, global effects on the wounded Service member, their fellow Service members, their families, and their healthcare providers. The recommendations of the Task Force were based on the Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Contracting (DOTMLPFC) framework.

RECOMMENDATIONS FOR TRAINING AND RESEARCH

Below are recommendations from the DCBI study specifically applicable in the areas of training and research for GU injury.

1. Increase Air Ambulance medic/nurse training to Paramedic level for complex blast injuries;
2. Mandate pre-deployment combat casualty clinical trauma refresher, evidence-based clinical practice guideline review, tactical combat casualty care (TCCC) familiarization, and electronic medical record familiarization for all providers and nurses;
3. Provide better complex blast injury training in TCCC concepts to all combat leaders and all deploying warfighters and require unit status reporting to measure commanders' use of guidelines;
4. Ensure a more robust pre-deployment trauma experience for point-of-injury to Role II/III evacuation providers assigned to air evacuation units;
5. Ensure adequate number of urologists and plastic surgeons are trained and skilled in genitalia reconstruction and deploy more urologists closer to Role II and III units;
6. Conduct studies to assess the safety and efficacy of Food Drug Administration-approved truncal tourniquet systems to control non-compressible pelvic-area bleeding;
7. Conduct expedited studies on the value of plasma as the sole resuscitation fluid for pre-hospital resuscitation of shock;
8. Assess the risk-benefit ratio for the early use of tranexamic acid, a hemostatic agent, for casualties with non-compressible bleeding;
9. Conduct studies to compare the safety and efficacy of current and future hemostatic agents, which assist in stopping blood flow;
10. Conduct studies to compare the safety and efficacy of current and future commercially available tourniquets;
11. Emphasize high-priority research for clinical validation studies and comparative effectiveness of surgical methods, related to DCBI;
12. Acquire Department of Defense (DoD) funding and oversight for prosthesis and mobility device development for individuals with DCBI, particularly those with mangled limbs undergoing limb salvage, multiple limb loss, and very proximal upper and lower limb loss;
13. Assess current and future patient movement items for en-route rotary wing care;
14. Develop optimized electronic physiological monitors to better manage pre-hospital fluid resuscitation;
15. Compare current and future personal protective equipment to protect against genitourinary and perineal injuries.

The DCBI Task Force Report provides an Action Plan in the context of their DOTMLPFC recommendations and relative to genitourinary trauma training and research in the military, as well as other critical areas necessary to more fully care for the severely injured Service members discussed in the report. In addition to the items mentioned above, the report recommended the military collaborate to develop programs of instruction based on specific theaters of operation, echelons of care, and anticipated skill requirements. This must include specialty specific, individual, and team skills. In addition, prior to first deployment each surgeon should spend an extra week of training at Landstuhl Regional Medical Center, Germany, to encounter the types of casualties likely seen during deployment. All pre-deployment medical officers, non-commissioned officers, and spouses serving as communication and support links between Service members and units should visit one of the medical specialty centers of excellence to better understand the types of injuries occurring in theater. These specialty injury care centers include: the Amputee Care Center and Gait Laboratory and the Traumatic Stress and Brain Injury Program at Walter Reed National Military Medical Center in Bethesda, MD; the Center for the Intrepid, a state-of-the-art rehabilitation facility, Brooke Army Medical Center Burn Center at Fort Sam Houston, TX; the Comprehensive Combat Casualty Care Center at the Naval Medical Center in San Diego, CA; and the multi-site DoD/Veterans Affairs (VA) Defense and Veterans Brain Injury Center for patient care, education, and clinical research. The recommended action plan for research is that the military form inter-Service and inter-agency relationships to facilitate aggressive, innovative, and relevant translational and outcomes-based clinical research.

Action Plan Description:

In response to the recommendations, DoD began developing an action plan to leverage research sponsored by the Defense Health Program to support to dismounted complex blast injury gaps that include GU injuries. The purpose of this plan is to converge current healthcare practice gaps and implement a suite of diagnostics and treatments for DBCI that will improve GU injury training, speed recovery from GU injuries, research outcome-based solutions for GU injuries, and achieve higher satisfaction of care from patients in the DoD/VA healthcare community at large.

Anticipated Outcomes:

1. Assure DoD is doing the right research (increasing comprehensive, integrated, interoperable, intuitive, and accurate research)
2. Assure the research reaches the right communities (health care team, patients, commanders, VA, nation)
3. Develop the right plan (increasing global presence, theater ops, contingency ops, mobile ops, dismounted operations, etc.)
4. Direct care at the right time (increasing point of injury to definitive care, dependability, availability, time to market, and innovation)

Key Actions - Objective Alignment:

1. Establish a robust, coordinated and integrated response to DCBI casualties which includes in its definition GU injury casualties (Applies to Recommendations 1-15)
2. Provide comprehensive, longitudinal healthcare for all beneficiaries with GU injury in DoD/VA care settings (Applies to Recommendations 1-15)
3. Improve speed, both in terms of response time and time it takes to recover from GU injuries (Applies to Recommendations 1-15)
4. Provide intuitive and easy-to-learn training for healthcare providers treating GU patients (Applies to Recommendations 1-5)
5. Provide dependable, reliable and available research applicable to GU injury clinical care (Applies to Recommendations 5-15)
6. Enhance customer service and GU injury support structures through research
    a. Discovery: Pre-Program Risk Reduction (Applies to Recommendations 1-15)
    b. 6.1-6.3: Basic-Applied Research (Applies to Recommendations 6-15)
    c. 6.4-6.7: Clinical Trials, Translational research, theater-wide clinical outcomes research; Modernization of Clinical Research Practice guidelines (Applies to Recommendations 6-15)
    d. Improve Alignment of Military Health System Clinical Workflow (Applies to Recommendations 1-15)
    e. Implement DoD/VA guidelines to Enable Seamless Care Sharing of Wounded, Ill and Injured (Apples to Recommendations 1-15)
    f. Improved Clinical Decision Support using common electronic health records integrated across DoD and VA (Applies to Recommendations 1-15)

SUMMARY

In the context of these recommendations and the action plan, the Office of the Assistant Secretary of Defense for Health Affairs will work with VA to review and identify DoD/VA and joint multi-Service needs and training/research solutions for current operations and future joint medical missions.

REFERENCES

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