

## NATIONAL TRAUMA CLINICAL RESEARCH PROGRAM

The Coalition for National Trauma Research (CNTR) requests an increase of \$20 million in the FY2017 Defense Health Program RDT&E account for the Trauma Clinical Research Program. DoD plans to establish this program with internal FY2015 funds and then augment the program with the FY2016 appropriation of \$10 million. Substantial progress has taken place toward initiating this program, including a DoD-directed effort to establish research priorities. FY2017 funding will enable continuous operation until the Department of Defense can fully fund it internally.

The Trauma Clinical Research Program provides for critically needed research to improve treatment for the most deadly and commonly seen battlefield injuries. Many of these same injuries impact civilian Americans to an alarming degree. Research will be carried out through multi-institution clinical studies at a network of civilian and military trauma centers that has been established through this initiative.

### The Issue

Trauma is a major cause of death and disability in the United States and one of the three most expensive health care problems in the U.S., along with heart disease and cancer:

- Trauma is the leading cause of death of all Americans from birth through age 46, causing more deaths in this age group than all other causes combined.
- Deaths of American service members in the Iraq and Afghanistan conflicts, virtually all from traumatic injury, total nearly **7,000** to date.
- Nearly **200,000** American civilians died from trauma in 2014, representing an 18% increase in deaths due to trauma over the last five-year period.
- One person is killed by injury every three minutes in the U.S.
- Trauma is now the most costly medical condition affecting Americans under the age of 55, according to the HHS Agency for Healthcare Research and Quality; the economic burden of civilian trauma amounts to **\$671 BILLION** a year, including direct health care costs and lost productivity.

Department of Defense research has led to many of the advances in trauma care, and DoD continues to lead the federal trauma research effort. But when military conflicts end, historically trauma research has dramatically declined, and advances slow or stop all together. The result is little progress in treating either civilian or future military trauma casualties.

Despite its societal burden, improvement in trauma care has lagged well behind advances in the treatment of diseases such as cardiovascular disease, cancer and HIV/AIDS. By one important measure, NIH funding, trauma ranks last in a comparison of its funding to the disease burden. Multiple federal reports published over the last 50 years have documented the inadequacy of federal trauma research funding and called for significant increases.

As a result, management of trauma patients has been primarily guided by physician experiences and preferences and not by robust research or evidence-based guidelines. For instance, it is unknown what the best option is among a variety of potential replacements for massive blood loss, which is the leading cause of death for victims of trauma in both civilian and military settings. In emergency situations, surgeons do not have the luxury to test out products, and they need empirically validated answers NOW. A multitude of questions around hemorrhage remain—related to clotting, intravenous solutions, internal bleeding and more—all of which have life or death consequences for the trauma victim. And hemorrhage is just one of many conditions in desperate need of additional study.

## **Our Request**

CNTR requests Congress to add \$20 million in the FY17 Defense Health Program, RDT&E account for the Trauma Clinical Research Program. Following CNTR's request last year for \$30 million, \$10 million was appropriated for the program. As a result, the Department of Defense, working with the national community of civilian trauma surgery, has made substantial progress in creating a coordinated, multi-institutional, clinical research network to advance experience with and study of military relevant topics in trauma care and trauma systems. As a result, the infrastructure to execute successful clinical research is now in place. To date, more than 140 civilian trauma centers from 36 states and the District of Columbia have joined the network, ensuring that for any given research issue, the optimal subset of this network can be identified quickly and coordinated to answer the question the most effectively.

In addition, working together, DoD and CNTR have developed a national trauma research agenda that prioritizes and describes the work needed to develop improved treatments for traumatic injuries. Top priority areas for study are acute resuscitation and definitive pre-hospital care. The agenda details the urgent areas of studies within each of these priority areas. For example, in the area of acute resuscitation, key needs are to control hemorrhage and develop novel fluids to improve on what is currently available; in the area of pre-hospital care, ways to control bleeding are critical, along with advanced monitoring and wireless transmission of data to the hospital.

The benefits of a coordinated agenda and network include: coordination of priorities, higher return on research investment, validation of proven findings and decreased health care costs.

## **The Coalition for National Trauma Research**

CNTR comprises the country's five leading trauma organizations -- the American Association for the Surgery of Trauma, National Trauma Institute, American College of Surgeons' Committee on Trauma, Eastern Association for the Surgery of Trauma, and Western Trauma Association. The coalition speaks for more than 8,000 professionals in surgical fields and settings who see first-hand the toll that traumatic injury takes on our society and know that we can do better.

Even a 5% reduction in trauma deaths and economic burden would mean nearly 10,000 lives and \$33 billion saved every year.

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