

NAEMTNEWS

A quarterly publication of the National Association of Emergency Medical Technicians

Zero Preventable Trauma Deaths

National Report Urges Changes to Trauma Care Systems to Improve Survival Rates

An estimated 30,000 Americans die each year from traumatic injuries that they might have survived with better emergency care, according to a

recent report from the National Academies of Sciences, Engineering, and Medicine.

To improve those statistics, the report urges integrating military and civilian trauma care systems to share the latest knowledge and best practices from both sectors. Calling on the White House to lead the effort, the report

also advises the U.S. Department of Defense (DoD), the U.S. Department of Health and Human Services (HHS) and all government and civilian stakeholders to collaborate on developing a national trauma care system to reduce geographic disparities in the quality of care.

"Our goal is to have a national trauma healthcare system, including both military and civilian trauma care systems, that is trained, equipped and resourced to provide a high quality of care everywhere, instead of there being variations depending on where you are," said Dr. Doug Kupas, a member of the committee that wrote the report. "The

focus is on attaining zero preventable deaths from injury."

The report, "A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero

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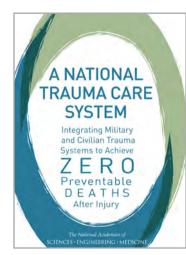
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Preventable Deaths After Injury," was released in June and developed by a committee of leading trauma experts at the request of sponsors from both the military and civilian sectors, including NAEMT. Kupas, who represented the National Association of EMS Physicians (NAEMSP) on the committee, is an associate professor of emergency medicine at Geisinger Health System in Danville, Pa.

While the recommendations cover all components of trauma care – from bystanders to surgeons to rehab – EMS figures prominently. Several of the recommendations could have significant implications for the future of the profession. The report urges Congress and HHS to implement policy changes and payment reforms to ensure that prehospital care is included as a seamless component of healthcare delivery, rather than being viewed and paid as merely transportation providers.





"We applaud the recommendations made by the trauma care experts in this report, and support their conclusion that reimbursement reform is necessary for EMS to fully realize its potential in a national trauma care system," said NAEMT President Dennis Rowe.

ADVANCES IN BATTLEFIELD MEDICINE

Historically, some of the greatest advances in trauma care have been made during wartime. Ten years of data on traumatic injuries from the wars in Iraq and Afghanistan showed that 1,000 soldiers who died between 2001 and 2011 could have been saved with better treatment.

Yet the numbers show much was learned. The percentage of wounded service members who died of their injuries in Afghanistan decreased by nearly 50% between 2005 and 2013.

Some of that can be attributed to a shift that occurred around 2005 establishing tourniquets as a first-line treatment for severe extremity bleeding instead of a treatment of last resort,

A review of

found

1 in 5

deaths from

published studies

traumatic injuries

were potentially

survivable with

better care.

Kupas said. Other deaths were prevented through more sophisticated trauma treatments and techniques implemented by surgical teams, such as new blood-transfusion products.

"A colonel once said it best: if you're going to be wounded at war, you don't want to be wounded in the beginning of war. You want to be wounded at the end," Kupas said.

"Everything has to ramp up. Over time, the field medics gain more experience. Surgeons and other medical personnel know more and are able to provide better care for combat wounds than when they were first taken out of their civilian practice."

But even in the military, there isn't yet consistency in the application of the latest techniques across all U.S. forces. In part,



that's because the military has no single military medical command – instead, those responsibilities are divided among commanders in different branches of the military and regions of the world. On the front lines, combat commanders with little or no medical training are in charge of medical personnel, leading to differences in practices and policies, according to the report.

TRAUMA: LEADING CAUSE OF DEATH

On the civilian side, trauma is a significant public health problem.

Trauma is the leading cause of death

for Americans aged 45 and younger, leading to 147,790 deaths in 2014. A review of published studies by the committee found that about one in five of those injured could potentially have survived had they received better care.

Trauma injuries occur due to a wide range of events, from car wrecks to stabbings to falls. Shooting rampages, such as the attacks in the

Orlando nightclub and in San Bernardino, Calif., give the issue greater urgency.

As in the military, there are disparities throughout civilian trauma care.

Death rates from trauma vary among regions, between hospitals that aren't designated trauma centers and those staffed and equipped as trauma centers. Survival rates also vary among hospitals designated as trauma centers. While

some states have statewide EMS trauma protocols, in other states protocols are determined agency by agency.

"The greatest opportunity to save lives after injury is in the prehospital setting", the report noted. Yet "EMS is a disjointed set of systems across the nation with differing standards of care and few universal protocols."

The quality of trauma care, from the time of the accident through hospital care and discharge, varies greatly depending on when and where an individual is injured, placing lives unnecessarily at risk, according to the report.

"Both the military and civilian sectors have made impressive progress and important innovations in trauma care, but there are serious limitations in the diffusion of those gains from location to location," Committee Chair Donald Berwick, president emeritus of the Institute for Healthcare Improvement, said in a statement. "Even as the successes have saved many lives, the disparities have cost many lives."

Advances in the military sector can be lost over time. When wars wind down, military trauma teams see few combat wounds, making it difficult to gain experience and keep skills sharp. The report proposes that between wars, military trauma teams spend time in the top civilian trauma centers, and that military hospitals double as civilian trauma centers. This would ensure that civilians benefit from lessons learned on the battlefield, and would keep military trauma teams prepared for the next conflict. "It's a two-way street," Kupas explained.

Dr. Frank Butler, chair of the DoD's Committee on Tactical Combat Casualty Care (Co-TCCC) and military medicine advisor for NAEMT's Prehospital Trauma (PHT) Committee, urged cooperation and sharing best practices between military and civilian prehospital practitioners as well.

"If a combat casualty lives long enough to reach the care of a surgeon, the odds are overwhelming that he or she will survive," Butler said. "The greatest opportunity to improve combat casualty care lies in the prehospital phase of care, because that is where most combat fatalities occur."

RECOMMENDATIONS FOR EMS

Recommendations related to EMS are woven throughout the 400-page report. One with potentially far-reaching implications is a recommendation to modify CMS's ambulance fee schedule to reimburse EMS for patient care, rather than transport only.

"The implications are huge," Kupas said. "Adequate funding at that level will allow EMS to develop and be ready to provide trauma treatment that's needed to save lives. At the same time, seeing EMS as a true healthcare provider rather than a transportation provider would help in the development of community paramedicine and mobile integrated healthcare."

While it's unrealistic to expect identical resources to be available in remote or very rural areas compared to the heart of a major city, much work needs to be done on reducing disparities, Kupas added.

One example: Tourniquets are not expensive and have been proven effective again and again. Yet not all EMS practitioners are issued tourniquets, and many places don't have protocols establishing tourniquets as a first-line treatment for severe extremity bleeding.

"Where you get injured shouldn't determine whether you live or die, on the battlefield or in the civilian world," Kupas said. "Yes,

Recommendations Specific to EMS

The report calls for:

- Amending the Social Security Act to identify EMS as a provider type.
- Modifying CMS's ambulance fee schedule to better link the quality of prehospital care to reimbursement and healthcare delivery reforms.
- Establishing responsibility, authority, and resources within HHS to ensure that prehospital care is an integral component of healthcare delivery, not merely a provider of patient transport.
- Supporting and appropriately resourcing an EMS needs assessment to determine the necessary EMS workforce size, location, competencies, training, and equipment needed for optimal prehospital medical care.

there is a big difference if you're in the middle of Wyoming versus downtown Baltimore right by Maryland Shock Trauma. But there needs to be best care guidelines that are applied across the board."

The report was sponsored by numerous federal agencies and national organizations, including: NAEMT, NAEMSP, American College of Emergency Physicians, American College of Surgeons, Trauma Center Association of America, DoD, U.S. Department of Homeland Security, and the U.S. Department of Transportation. Dr. Norman McSwain served as a member of the committee that wrote the report until his death in 2015.

The National Academies of Sciences, Engineering, and Medicine are private, nonprofit institutions that provide independent, objective analysis and public policy recommendations.



NAEMT Advances Military/Civilian Trauma Care Cooperation

NAEMT is at the forefront of efforts to improve trauma care readiness, education and collaboration in both the civilian and military sectors.

- ✓ Tactical Combat Casualty Care (TCCC), a course provided by NAEMT through a partnership with the DoD and the American College of Surgeons' Committee on Trauma, provides combat medics, corpsmen, and pararescuemen with the tools they need to save lives on the battlefield. The partnership allows the civilian and the military sectors to work together seamlessly to share advances in prehospital trauma care.
- ✓ NAEMT is a partner in the White House/ Department of Homeland Security's "Stop the Bleed" Campaign.
- ✓ NAEMT partners with the American College of Surgeons on Bleeding Control for the Injured (B-Con), a 2.5-hour course that teaches members of the public to take action to stop severe bleeding.
- ✓ NAEMT submitted comment to the Senate committee considering the 2017 National Defense Authorization Act, requesting that all military medical personnel receive standardized medical training consistent with TCCC.