MCW is regional home to comprehensive trauma programs

Jonathan I. Ravdin, MD
Dean and Executive Vice President, Medical College of Wisconsin

The key to preventing traumatic injury and providing the best care possible is to approach trauma as a disease. Most injuries are preventable, and establishing ways to systematically prevent injuries from occurring, as well as providing optimal care for injured patients, is an appropriate public health and medical framework. As with any other complicated severe affliction such as cancer or cardiovascular disease, interdisciplinary, collaborative teams care for our injured patients. By this systematic approach, the Medical College of Wisconsin (College) seeks to both prevent and provide optimal care for injuries within our community.

A study by Mackenzie et al found a 25% mortality reduction for patients treated at Level I trauma centers.1 Certified by the American College of Surgeons, Froedtert Hospital & the Medical College of Wisconsin have the only adult Level I trauma center in southeastern Wisconsin. The Children’s Hospital of Wisconsin, together with the College’s Children’s Specialty Group physicians, provide the only Level I trauma center in the state dedicated to the care of injured children. Level I trauma centers provide the highest level of specialty expertise with extensive resources devoted to the treatment of injured patients and improvement of patient outcomes. A Level I trauma center also establishes and commits resources to research and education, consistent with the strategic initiatives of the Medical College of Wisconsin and its hospital partners.

Our adult trauma service is staffed by the Division of Trauma and Critical Care within the Department of Surgery at the Medical College of Wisconsin. The pediatric trauma service is staffed by the surgeons of the Division of Pediatric Surgery. In a Level I trauma center, precise coordination occurs between faculty physicians and staff in dozens of departments. These experts are immediately available 24 hours a day, 7 days a week to provide the continuum of care, which begins when the injury occurs and continues through the return to normal life.

Though the public may not generally be aware of the organizational structure of trauma care, it benefits from the strengths of a Level I trauma center housed within an academic medical center, providing an interdisciplinary approach and a solid scientific foundation. The Medical College of Wisconsin’s research leadership is a central characteristic of its trauma program.

Faculty from multiple disciplines are investigating numerous ways to improve care and prevent injuries. These include studies of Emergency Medical Services triage criteria, resuscitation fluids, post-traumatic stress, quality of life after trauma, surgical intensive care, and palliative care services. The trauma programs of both Froedtert Hospital and Children’s Hospital have strong ties to the Injury Research Center (Center) at the Medical College of Wisconsin. The Center is a federally funded collaboration among more than 10 College departments that seek to reduce the burden of injury in the Great Lakes region of the Midwest through research, education, prevention, and public policy initiatives. Current Center research includes evaluating the functional outcome and health status of patients after moderate-to-severe trauma.

Contributing additional knowledge about injuries through research is the Froedtert & the Medical College of Wisconsin Crash Injury Research and Engineering Network (CIREN) Center. Faculty in this federally designated center conduct research to help significantly reduce the number of deaths on the nation’s roadways and mitigate the severity of injuries sustained in motor vehicle crashes. The College’s Department of Neurosurgery just opened a new research facility at the Zablocki VA Medical Center in Milwaukee to evaluate the safety of vehicle occupants under various crash modes. The resulting information will be used to develop new criteria to assess the crashworthiness of vehicles and improve vehicle safety restraint systems.

Trauma centers are of tremendous value to the community because traumatic injury is the No. 1 cause of death.
death for Americans under the age of 44 and the leading cause of disability for every age group. The state health plan, *Healthiest Wisconsin 2010*, identifies intentional and unintentional injuries and violence as a priority. Viewed from a public health perspective, the prevention of injury through targeted initiatives to reduce its burden on society is a key focus area of the College’s Healthier Wisconsin Partnership Program, which funds population-based community-academic partnership projects.

Community initiatives at the College include those designed to improve injury care, rehabilitation, and prevention. For example, staff lead programs to help seniors reduce their risk of falls by teaching them how to fall-proof their homes and avoid fall hazards. This intervention is important because falls were the most common reason for a patient to be hospitalized for injury at Froedtert in 2008. We work with the public health departments, the Children’s Health Education Center, and community agencies to improve home, school, and pedestrian safety in the high-risk pediatric population. We also sponsor a number of programs to teach teens the importance of vehicle safety and the risks involved with impaired or distracted driving.

Through the collaboration of Medical College of Wisconsin, Children’s Hospital of Wisconsin, and Children’s Service Society of Wisconsin, Project Ujima is a unique project devoted to preventing traumatic injury caused by violence. Project Ujima utilizes a network of services that assist a child or adolescent injured by violence with physical, psychological, and social recovery. The aim is to prevent the cycle of violence by reducing the number of repeat victims of violence.

Physicians, nurses and other caregivers throughout the region can also take advantage of the basic and advanced professional trauma education provided by the trauma centers. One such effort is the combined Advanced Trauma Life Support Courses and the Trauma Nurse Core Content Course, which are organized multiple times a year and staffed by members of the College’s Division of Trauma and Critical Care.

Whether an injury is the result of a motor vehicle crash, a fall, violence, or recreational or occupational injury, the need for excellent coordinated care is essential. Through our adult and pediatric Level I trauma centers, Medical College of Wisconsin faculty provide the highest possible level of patient care. Our research endeavors keep us on the leading edge, and our community engagement ensures that the knowledge we develop reaches the people who need it most.

**Reference**

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