

Trauma's Golden Hour

Trauma Centers Must Be Prepared for Everyday and Mass Casualty Trauma

All Trauma Care is Emergent but Not All Emergency Care is Trauma

Emergency rooms and departments treat ill and injured people, while trauma centers handle the most severe, life-threatening blunt force and penetrating injuries. Emergency medical technicians (EMTs) transport complex injury victims meeting special triage criteria past local hospitals to trauma centers where a sophisticated and highly trained interdisciplinary team of health care professionals provides the services needed to save that person's life and prevent further disability or physical deterioration. Trauma centers dedicate extensive staff, physician and faculty resources 24/7, including up to 16 physician specialties so that seriously injured patients have the best possible chance of survival and least residual disability. They accept and treat 678,000 injured patients annually, and provide support to other health care providers in their region to optimize the initial care of the injured patient prior to transfer.

Getting the Right Patient to the Right Place at the Right Time

In emergency medicine, the **golden hour** is the first 60 minutes after the occurrence of a major multi-system trauma. It is widely believed that the victim's chances of survival are greatest if he or she receives definitive care within the first hour. The concept – "golden hour" – comes from U.S. military wartime experience, particularly in the Vietnam War. The golden hour can be summarized by the 3R rule of Dr. Donald Trunkey, an academic trauma surgeon, "Getting the right patient to the right place at the right time."

| Typical Patient Injuries Treated | |
|---|----------------------|
| EMERGENCY ROOM | TRAUMA CENTER |
| Broken Leg | Multiple Fractures |
| Back Sprain | Paralysis |
| Broken Rib | Punctured Lung |
| Laceration | Stab Wound |
| Concussion | Brain Injury |

Trauma centers were a 1970's outgrowth of the emergency medical service system (EMS) built by the military in Vietnam and brought back to the United States. Approximately 600 of the nation's nearly 6,000 hospitals serve as trauma centers and anchor an EMS system that has lowered the U.S. death rate from assaults by 70%. There are four levels of trauma center designation with Level I having the highest level of capability.

Trauma is predictable. It happened yesterday, it is happening today, and it will happen tomorrow. Trauma centers play a critical role in saving the lives of those seriously injured in everyday accidents and assaults. Further, trauma centers are uniquely positioned to respond to emergencies of mass scale, such as another terrorist attack, when compared to general hospitals based on their resources, constant state of readiness, extra capacity, and strong healthcare facility connections with the local and regional emergency care community. Now that America needs its trauma centers more than ever, economic threats have placed this essential public service at serious risk.

| Trauma Center Patient Cause of Injury | % of Patients |
|---------------------------------------|---------------|
| Motor Vehicle Crash | 59% |
| Fall | 13% |
| Assault (Gun Shot, Stabbings) | 12% |
| Other Accident | 10% |
| Burn | 3% |
| Recreation Accident | 2% |
| Suicide | 1% |

| Trauma Centers in the News | | |
|---|--------------------------------|-------|
| Parties Treated | Hospital | Level |
| Bluffton University baseball team-bus crash | Grady Hospital | I |
| Governor Corzine – Car crash | Cooper University Hospital | I |
| Virginia Tech | Montgomery Regional Hospital | III |
| Minneapolis – bridge collapse | Hennepin County Medical Center | I |