

SERIOUS INJURIES • SUPERIOR CARE
TRAUMA SYSTEMS MATTER



Southern Nevada Trauma System

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Intentional and unintentional injuries are the leading causes of death and disability for those between the ages of 1 and 44 in the United States each year and generate significant social and economic expenses for medical treatment and lost productivity of victims. Further, natural and man-made disasters are capable of producing large numbers of injured patients. The recognition of the significant impact that traumatic injury has on the individual and society has led to a greater emphasis on the development of trauma systems of care. Trauma systems conduct daily operations to optimize patient outcome and can readily adapt to manage an influx of injured patients resulting from a mass casualty incident.

What is Trauma?

Trauma is a disease process that has identifiable causes, established treatment procedures, and defined methods of prevention. The trauma patient is a person who requires timely diagnosis and treatment of their injuries by a multidisciplinary team of health care professionals, supported by the necessary resources, to reduce or eliminate the risk of death or permanent disability.¹

What is a Trauma System?

A trauma system is an organized, coordinated, comprehensive injury response network of essential resources that promotes injury prevention and control initiatives and provides specialized care for those who are injured. The system facilitates appropriate triage and transportation of trauma patients through the emergency medical services system to designated health care facilities that possess the capability, competence, and commitment to provide optimum care for the victims of trauma. It also promotes rehabilitation services to decrease the likelihood of long-term disability and maximize the potential for injured

patients to return to their prior level of functional capacity and reintegration into the community.

The goals of a trauma care delivery system are to:

- reduce the incidence and severity of injuries;
- improve the health outcome of those who are injured by ensuring equitable access to the most appropriate health care resources in a timely manner;
- promote efficient, cost-effective delivery of care;
- implement performance improvement activities to ensure quality care throughout the system; and
- advocate for sufficient resources to meet the needs of the injured in the community.

Components of the Southern Nevada Trauma System:

PREHOSPITAL

The prehospital component of the trauma system is designed to provide initial assessment and management of injured patients at the scene of an emergency and safe and efficient transport to the most appropriate health care facility. In Clark County, there are six public fire departments that provide advanced life support emergency medical services (EMS); Boulder City Fire Department, Clark County Fire Department, Henderson Fire Department, Las Vegas Fire & Rescue, Mesquite Fire & Rescue, and North Las Vegas Fire Department. The three private 9-1-1 response EMS agencies serving the area are American Medical Response-Las Vegas, Community Ambulance, and MedicWest Ambulance. Rotor-wing air ambulance services are provided at the scene of an emergency by Mercy Air Services and TriState CareFlight.

HOSPITALS

There are 15 acute health care facilities in Clark County with emergency departments capable of caring for injured patients depending on the extent of the injuries and the availability of resources at the facility. Patients whose injuries have the potential to be fatal or produce disability are preferentially transported by EMS to trauma centers. There are three State designated and American College of Surgeons (ACS) verified trauma centers in the Clark County Trauma System; University Medical Center is verified as a Level I and Pediatric Level II trauma center, Sunrise Hospital & Medical Center is verified as a Level II trauma center, and St. Rose Dominican Hospital-Siena Campus is verified as a Level III trauma center.

Classification of Trauma Centers:

The classification system developed by the ACS-Committee on Trauma is used to codify the necessary resources to provide optimal care to injured patients. It is not a ranking of medical care provided by a health care facility but the recognition of the depth of resources available within the institution.

LEVEL I

A Level I trauma center provides comprehensive care for the most severely injured patients. The required clinical resources include emergency medicine, general and subspecialty surgical and anesthesia services. A Level I trauma center is expected to provide leadership in trauma system planning, education and research. In addition, the center is required to meet certain volume performance standards such as admitting at least 1,200 seriously injured patients annually.

LEVEL II

A Level II trauma center also provides comprehensive trauma care for severely injured patients. In population-dense areas, the Level II supplements the clinical activities and expertise of the Level I facility. A Level II trauma center is expected to provide initial and definitive trauma care and work together with the Level I trauma center to optimize resources available to injured patients in the area.

LEVEL III

A Level III trauma center provides trauma care based on the defined scope of care and expertise available at the facility. A Level III trauma center supplements the clinical activities and expertise of the Level I and Level II trauma centers by providing definitive care to the less severely injured patients in the region, leaving the comprehensive trauma resources available to the most severely injured patients. Level III trauma centers transfer injured patients that exceed the facility resources to Level I and Level II trauma centers.

PEDIATRIC LEVEL I OR LEVEL II

A Pediatric Level I or Level II trauma center is a health care facility that has committed the necessary resources and expertise to meet the specialized needs of the pediatric population. A pediatric trauma center is expected to assume a leadership role in the care of injured children within the community.

EMS agencies, non-trauma center hospitals, and trauma centers are all important components of an inclusive and integrated trauma system that is capable of matching the right patient, to the right resource, in the right amount of time to optimize their outcome.

¹ 2002 Trauma System Agenda for the Future. U.S. Department of Transportation, National Highway Traffic Safety Administration