

Definitive Care Facilities

Essential to the development of a trauma care system is the designation of definitive trauma care facilities. The trauma care system is a network of definitive care facilities that provides a spectrum of care for all injured patients. In an area with adequate Level I resources, it may not be necessary to have Level II centers. Similarly, when Level I and II centers can provide care for the volume of trauma patients in the region, Level III centers may not be necessary. In less densely populated areas and certainly in rural areas, however, Level II and III centers will be essential. It must be emphasized that in any trauma system, the designating authority should be responsible for determining the anticipated volume of major trauma patients and assessing available resources to determine the optimal number and level of trauma centers in a given area.

Conceptually, effective trauma systems must have a lead hospital. These lead hospitals should be the highest level available within the trauma system. In many areas, Level I centers will serve as the lead hospitals. In systems with a less dense population base, Level II facilities may assume this role. In smaller community and rural settings, Level III centers must serve as the lead hospital.

In most trauma systems, a combination of levels of designated trauma centers will coexist with the other acute care facilities. The trauma care system must establish trauma facility standards. Historically, these standards have been based on the guidelines established in this ACS-COT document. We have attempted to emphasize resource differentiation between centers. We do not view our classification scheme as a ranking of medical care, but as a ranking of resource depth. We expect the commitment to quality care to be the same regardless of resources.

Level I

The Level I facility is a regional resource trauma center that is a tertiary care facility central to the trauma care system. Ultimately, all patients who require the resources of the Level I center should have access to it. This facility must have the capability of providing leadership and total care for every aspect of injury, from prevention through rehabilitation. In its central role, the Level I center must have adequate depth of resources and personnel.

Because of the large personnel and facility resources required for patient care, education, and research, most Level I trauma centers are university-based teaching hospitals. Other hospitals willing to commit these resources, however, may meet the criteria for Level I recognition.

In addition to acute care responsibilities, Level I trauma centers have the major responsibility of providing leadership in education, research, and system planning. This responsibility extends to all hospitals caring for injured patients in their regions.

Medical education programs include residency program support and postgraduate training in trauma for physicians, nurses, and prehospital providers. Education can be accomplished through a variety of mechanisms, including classic continuing medical

education (CME), trauma and critical care fellowships, preceptorships, personnel exchanges, and other approaches appropriate to the local situation. Research and prevention programs, as defined in this document, are essential for a Level I trauma center.

Level II

The Level II trauma center is a hospital that also is expected to provide initial definitive trauma care, regardless of the severity of injury. Depending on geographic location, patient volume, personnel, and resources, however, the Level II trauma center may not be able to provide the same comprehensive care as a Level I trauma center. Therefore, patients with more complex injuries may have to be transferred to a Level I center (for example, patients requiring advanced and extended surgical critical care). Level II trauma centers may be the most prevalent facility in a community, managing the majority of trauma patients.

The Level II trauma center can be an academic institution or a public or private community facility located in an urban, suburban, or rural area. In some areas where a Level I center does not exist, the Level II center should take on the responsibility for education and system leadership.

Level III

The Level III trauma center serves communities that do not have immediate access to a Level I or II institution. Level III trauma centers can provide prompt assessment, resuscitation, emergency operations, and stabilization and also arrange for possible transfer to a facility that can provide definitive trauma care. General surgeons are required in a Level III facility. Planning for care of injured patients in these hospitals requires transfer agreements and standardized treatment protocols. Level III trauma centers are generally not appropriate in an urban or suburban area with adequate Level I and/or Level II resources.

Level IV

Level IV trauma facilities provide advanced trauma life support before patient transfer in remote areas where no higher level of care is available (see Chapter 13, Rural Trauma Care). Such a facility may be a clinic rather than a hospital and may or may not have a physician available. Because of geographic isolation, however, the Level IV trauma facility is the de facto primary care provider. If willing to make the commitment to provide optimal care, given its resources, the Level IV trauma facility should be an integral part of the inclusive trauma care system. As at Level III trauma centers, treatment protocols for resuscitation, transfer protocols, data reporting, and participation in system performance improvement are essential.

A Level IV trauma facility must have a good working relationship with the nearest Level I, II, or III trauma center. This relationship is vital to the development of a rural trauma system in which realistic standards must be based on available resources. Optimal care in rural areas can be provided by skillful use of existing professional and institutional resources supplemented by guidelines that result in enhanced education, resource allocation, and appropriate designation for all levels of providers. Also, it is essential for

the Level IV facility to have the involvement of a committed health care provider who can provide leadership and sustain the affiliation with other centers.

An inclusive system should leave no facility without direct linkage to a Level I or II trauma center. This association should facilitate expeditious transfer of seriously injured patients who require a higher level of care. Exchange of medical personnel between Level I/II and Level III/IV facilities may be an excellent way to develop this relationship. The Level I and II trauma centers have an obligation to extend their educational outreach to rural areas in the form of Introduction professional education, consultation, or community outreach. A mechanism should provide feedback about individual patient care and outcome analysis to the referring hospital.

Use of the resources Document

An obvious outgrowth of the ACS-COT guidelines for optimal care was the development of a verification process whereby a hospital could be evaluated to determine whether ACS criteria were being met. This verification process was established in 1987, and at the time of this writing, more than 1,800 verification and consultation site visits were completed (see Chapter 22, Consultation/Verification Program). This document has become a guide for the Consultation/Verification program of the ACS-COT. This edition was developed to further aid the process of consultation and verification of trauma centers. Attention was given to providing support for resource expenditure within an inclusive system of trauma care. As the verification process matured, better definitions were sought for many of the assessed areas within a hospital

Differentiation Between Levels of Care

A sincere attempt was made to avoid discrepancies of resource needs between the different levels of care. Although the quality of care is expected to be similar throughout all levels of care, the severity and the volume of injured patients were accepted as the drivers of resource utilization. As severity and volume increase, more human and financial resources are required to ensure optimal care. Hopefully, the differences in resource commitment will allow each facility at each level to expend an acceptable amount of resources based on the needs of the patient population served. Our resource assignment tried to be practical given current medical marketplace demands.