



Richard A.
Culbertson, PhD

Trauma Care: Economic Versus Social Justice

Philosophies may differ between a market approach to equity and a social approach.

Trauma vividly demonstrates the principle of the “medical commons” identified by Harvard University Dean Emeritus Howard Hiatt. The sudden and unexpected advent of the principle pushes aside traditional health disparity distinctions of economic status, race and gender in favor of proximity and skill in achieving a successful result. Trauma care and its distribution across locales provide a real-time test of the ethical perspectives identified by Peter M. Budetti MD, JD, in his classic research as market justice versus social justice. As the provision of trauma care becomes increasingly attractive financially to providers in the current market-based model, will quality be sacrificed as a result of the inevitable reduction in the number of cases per facility?

All Trauma Is Local

Traumatologists have identified the “golden hour” as highly predictive of success in trauma care. If the patient receives definitive care in the first hour following injury, chances of survival are significantly enhanced. Obviously, the patient cannot shop for trauma care, and whatever options exist in the locale of injury define the range of possibilities.

Transport to a regional facility by surface or air is typically part of an inclusive trauma system design so

that injured persons receive care as rapidly as possible. States have taken a formal role in the creation of trauma system plans, which call for coordination of trauma units with lesser capabilities and transfer agreements as required to more comprehensive facilities. As of 2016, 41 states had such plans in place. In many instances, these plans impose limitations on the number of such facilities allowed to operate.

In the Indiana State Department of Health’s *Trauma White Paper*, published in May 2012, the trauma system plan approach is described as “getting the right patient to the right place at the right time.” The report asserts that trauma systems seek to decrease incidence of trauma and to ensure optimal, equitable and accessible care for all persons sustaining trauma. The ethical concept of justice speaks to these objectives and creates the framework for ethical analysis.

Economics of Trauma Care

Provision of high-level trauma care is costly, and cost has historically been a barrier to entry for organizations considering establishment of a comprehensive trauma facility. The American College of Surgeons crafted criteria for verification of facilities at levels of capability, ranging from the basic Level

III to the full-capability Level I facility. Particular attention is paid by the ACS to availability of skilled medical personnel for Level I verification, especially the presence of an attending trauma surgeon on a 24-hour basis. A surgically directed critical care unit is mandated, as are activities related to resident training, conducting research and performing injury prevention and control.

Recent developments have demonstrated that hospitals increasingly view trauma services as desirable and feasible offerings based on community benefit and financial prospects.

The ACS also mandates at least 1,200 trauma patient admissions per year to maintain Level I status, which further encourages limitation of entrants into the field. As a result, most Level I facilities are major urban teaching hospitals with the ability to draw on resident physicians to buttress their capabilities. Public hospitals are particularly likely to fulfill this role as a safety-net provider with a history of tax support for trauma care that transcends hospital and physician payment from the usual public and private insurers.

Historically, trauma services were regarded as a community benefit and economic burden, the burden having caused hospitals to discontinue provision of such services. In 1990, multiple hospitals exited the Los Angeles County Trauma Network, which at that time had been considered a national model. Then-CEO of Huntington Memorial Hospital,

Pasadena, Calif., Allen Mathies, MD, wrote in the *Los Angeles Times* that “This means that there will be some [patients] who die. The question that the public has to answer is, are deaths worse than raising taxes?”

A Reversal of Historical Trends

More recently, the economics of trauma care have been reappraised as a result of payment changes and improvement in quality and outcomes. In urban locations, victims of penetrating trauma were often uninsured and presented a substantial financial burden to the trauma center, unless costs were offset by tax payments. With Medicaid expansion taking place in 32 states, the financial exposure for organizations has diminished, as reported in a 2017 Commonwealth Fund report. Legislation that scales back or eliminates Medicaid expansion is likely to expose safety-net hospitals to large cost increases. Motor vehicle and industrial accidents (blunt trauma) have generated predictable payment from auto insurers and workers’ compensation.

Quality of care, as reflected in patient outcomes, also has improved and has been recognized favorably by the media. A 2012 Johns Hopkins/Howard University study of shootings in 2010—the most recent data available—reported improved survival rates of penetrating trauma victims, attributable in part to improved surgical techniques and post-surgical management advanced by work in the field and research by military health providers. In 2010, 13.96 percent of shooting victims died, nearly two percentage points lower than in 2007, according to the study authors.

Public support for trauma services also is high. The Indiana Department

of Health reports that six in 10 Americans “would be extremely or very concerned if they found out there was no trauma center within easy reach of where they live.”

Interest in Creating Trauma Centers

Although several trauma centers closed two decades ago, recent developments have demonstrated that hospitals increasingly view trauma services as desirable and feasible offerings based on community benefit and financial prospects. The University of Chicago Medicine, a private not-for-profit, has announced a major commitment to trauma services that will restore a Level I trauma center to Chicago’s South Side for the first time in 25 years.

Republican Florida Gov. Rick Scott has publicly stated in the *Miami Herald*, “I want to get rid of the cap on trauma centers. I want to let the private sector figure out what we should do there.” His position is supported in part by a desire to see more trauma units in rural locations, in keeping with the “golden hour” principle of enhanced survival.

The expansion of trauma centers to suburban locations also has been noted in metropolitan areas such as Pittsburgh. The case mix of injuries resulting from blunt trauma has been economically more advantageous, minimizing market barriers to entry. This trend could mirror the historic pattern of dissemination of medical advances from specialty centers to community providers.

Market Versus Social Justice—Who Benefits?

Advocates of a market response to issues of allocative, or distributive,

justice argue that the market is most efficient in achieving the ethical objective of equity in the distribution of services. Production and distribution of services are based on market demand. Social justice proponents, on the other hand, assert that healthcare is a social resource and that equitable allocation is achieved by central planning.

Broader distribution of trauma facilities would seem to benefit all under either philosophy. Yet the problem of the “commons” remains. Do new entrants diminish the quality of existing services when resources are finite? Joshua B. Brown and colleagues argue in a 2016 *Annals of Surgery* article that “Increasing volume was associated with improving outcomes, whereas decreasing volume was associated with worsening outcomes. High-level trauma center infrastructure seems to facilitate the volume-outcome relationship. The trauma center designation process should consider volume changes in the overall system.”

The ethical balance here is the question of time lost in transit to a trauma facility versus dilution of highly skilled and costly services—professional and institutional—as services proliferate. An equitable and just solution to the problem of trauma care requires community-based solutions that transcend the interests of individual providers for the greatest societal benefit. ▲

Richard A. Culbertson, PhD, is professor and director of health policy and systems management at LSU School of Public Health, New Orleans. He is an ACHE Faculty Associate and former COO of a Level I trauma center in St. Paul, Minn. (rculbe@lsuhsc.edu).