

High percentage of gunshot injuries in Chicagoland not treated at designated trauma centers

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In Cook County, Illinois, which has 19 trauma centers, nearly one-third of gunshot wounds from 2009 to 2013 were treated outside of designated trauma centers, according to a study published online by *JAMA Surgery*.

Each year in the United States, more than 110,000 persons are injured by firearms and more than 30,000 of the wounded die from their injuries. Guidelines recommend that [gunshot wounds](#) proximal to the elbows and knees be treated in specialized trauma units even if it means bypassing a nearby hospital. Studies show that injured patients who are treated in designated trauma centers (i.e., facilities with specialized trauma units) have lower in-hospital, 30-day, and 90-day mortality rates.

There is limited information about outcomes for patients with firearm-related injuries undertriaged to nondesignated facilities (i.e., hospitals without specialized trauma teams or units). In this study, undertriaged cases were defined as patients who met the anatomic triage criteria (based on an assessment of the body part affected and the type of injury suffered by the patient) for transfer to a trauma unit but were treated initially in a nondesignated facility. Lee S. Friedman, Ph.D., of the University of Illinois at Chicago, and colleagues evaluated the prevalence, geographic distribution, and clinical outcomes of undertriage of firearm-related injuries of residents of Cook County, Illinois from 2009 to 2013 using outpatient and inpatient hospital databases.

Of the 9,886 patients included in this analysis, 91 percent were male, 76 percent were African American, and 54 percent were ages 15 to 24 years. In Cook County, 29 percent of firearm-related injuries were initially treated in nondesignated facilities. Among the 4,934 cases

with firearm-related injury who met the anatomic triage criteria, 18 percent received initial treatment at a nondesignated facility and only 10 percent were transferred to a designated [trauma center](#). The occurrence of undertriage was not uniformly distributed across the geographic region but was substantially more pronounced in certain neighborhoods on the west side of Chicago and in southern parts of Chicago and Cook County.

Although the likelihood of dying during hospitalization was greater among patients treated in designated trauma centers, these patients were substantially in worse condition across all measures of injury severity. A smaller proportion of [patients](#) treated in designated trauma centers died during the first 24 hours of hospitalization.

"This study highlights the need for better regional coordination, especially with interhospital transfers, as well as the importance of assessing the distribution of [emergency medical services](#) resources to make the [trauma care](#) system more effective and equitable," the authors write.

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