New study documents increasing frequency, cost, and severity of gunshot wounds

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The rise in firearm violence has coincided with an increase in the severity of injuries firearms inflict as well as the cost of operations to treat those injuries; policy makers must be more aggressive in addressing violence to curb these trends, researchers report in a large national study of gunshot wounds that appears as an "article in press" on the Journal of the American College of Surgeons website ahead of print.

"Taken together, our findings suggest that gun violence has increased in numbers, at least for the sector that meets surgical criteria, and that these injuries result in a substantial financial burden in addition to the obvious psychosocial burden and other downstream effects," said lead study author Peyman Benharash, MD, MS, with the Cardiovascular Outcomes Research Laboratories and an associate professor-in-residence of surgery and bioengineering at the David Geffen School of Medicine at the University of California Los Angeles. "We hope that our findings are able to better inform policy in terms of violence prevention as well as reimbursement to hospitals, which are often in underserved regions, that care for these patients."

The study authors note that gun violence overall carries an annual cost to the U.S. health care system of $170 billion, with $16 billion for operations alone. The researchers used the National Inpatient Sample (NIS) to identify all hospital admissions for gunshot wounds (GSW) from 2005 through 2016. The researchers did not look at all adult GSW victims admitted to the hospital, estimated at 322,599, but only at the 262,098 victims who required at least one major operation.

Dr. Benharash explained the rationale for the study. "We're now seeing a lot more on the impact of gun violence," he said. "In the past, gun violence was never really discussed in the open; it was thought to only affect a certain population. However, now we know that it affects everyone. In the hopes of trying to reduce it at a systemic level from top to bottom, we're reporting, as surgeons, how gun violence in the patients that we treat has changed over the last decade."

The costs for hospitalizations, measured as median costs adjusted for gross domestic product, increased more than 27 percent over the 12-year study period, from $15,100 to $19,200 (p

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