

Mass shootings may trigger unnecessary blood donations

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Mass shootings often trigger a sharp increase in blood donations for affected communities but more than 15 percent of the product intended to save lives could be discarded, according to a study released today in *The Journal of Trauma and Acute Care Surgery*,

A typical [blood](#) donation takes two days to process but most blood transfusions for shooting victims occur within the first 24 hours of a mass casualty event, according to first author M. James Lozada, DO, assistant professor of Anesthesiology at Vanderbilt University Medical Center.

"There is an emotional desire after these events to immediately donate blood, but that's not always necessary and it's not always the best immediate response. The best thing you can do is donate blood year around," said Lozada, who started the study while completing a fellowship in obstetric anesthesiology at Northwestern University Feinberg School of Medicine in Chicago.

When the deadliest mass shooting in U.S. history unfolded in Las Vegas on Oct. 1, 2017, 58 people were killed and 869 injured. There were 220 hospital admissions, including at least 68 critical care admissions.

A public call for [blood donations](#) was issued during a press conference the following morning by Clark County Sheriff Joseph Lombardo. The call for donations was amplified in news stories.

News reports that included the terms "blood donation" and "Las Vegas" blanketed the country, and over the first three days the American Red Cross saw a 53 percent increase in blood donations nationwide.

In an Oct. 2, 2017 press release, the AABB (formerly known as the American Association of Blood Banks) stressed that current U.S. blood supplies were adequate to meet the needs of the shooting victims.

The Las Vegas blood bank, United Blood Services, reported having received 791 donations immediately following the mass shooting and reported to study authors that 137 of these donations (17 percent) went unused and were subsequently discarded, compared to an average 26 wasted donations per month at the blood bank.

Study authors concluded that, in hindsight, a call for immediate blood donation was unnecessary.

"From our data, it is likely that the total one-day blood component transfusions needed in Las Vegas were more than in any mass shooting on record," Lozada said.

"One of the things that we propose in the paper is for cities to develop some protocols for these scenarios, where instead of issuing a blanket call for blood donation you would do it in a systematic way. As one suggestion, you might do it by ZIP code." he said.

Three Las Vegas health care systems provided data for the study, having admitted 185 victims among them. During the first 24 hours patients received 499 blood components, or 2.7 units per admission, an amount similar to mass shootings in Oslo, Norway, in 2011 and Orlando, Florida, in 2016, and approximately twice the amount used in the November 2015 Paris attacks.

"Our findings are important to help us prepare for the next mass shooting in the United States. It shows us the amount of blood components we likely will need. It will also help first responders adequately prepare to save lives," Lozada said.

The Federal Emergency Management Agency recently released its after-action report for the Las Vegas [mass shooting](#). Among other recommendations, for would-be first responders to mass casualty events the FEMA report stresses the need for more robust and plentiful medical kits and supplies, to include tourniquets and bandages.

"We're just now getting into an era of really recognizing the benefits of tourniquets and pre-hospital care in civilian mass casualty events," Lozada said. "In Paris they had much more ability to respond immediately with tourniquets, bandages and medications. That could account for the comparatively reduced need for blood products seen in that attack."

Provided by Northwestern Memorial HealthCare

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