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The urban severity score (UISS) better predicts mortality following penetrating gunshot wounds (GSW)☆

DR. CHADRICK EVANS (Peoria, Illinois): I congratulate the authors, instead of trying to give us another score that encompasses all trauma patients, to instead isolate one subset, and that's the gunshot wound population. Their Urban Injury Severity Score appears to correlate better with length of stay and mortality compared to ISS and the new ISS scores. In addition, the gunshot wound number and the type of injury, which is assault versus accident, appear to correlate as well. I do have a few questions for the authors.

How do you envision this score being used going forward, and that is in the clinical setting, research setting or both? As you mentioned, ISS score of 15 or above has commonly been the threshold for major trauma. Did you identify a threshold score for your scoring system from major penetrating trauma?

Have you considered adding the number of gunshot wounds and/or the type of injury to your score to better correlate with length of stay or mortality? And then, as you mention in your manuscript, you guys cap the score of your UISS score at 75 to correlate better with the ISS score. Do you suggest that we use that going forward to better fall in line with ISS? And then finally, what do you see as the biggest hurdle to applying this score universally to all gunshot wound patients?

DR. TOBON: So the injury severity score is a mandatory requirement on the trauma program registry, so we do envision that the injury severity score could be adjusted to calculate all injuries as we request on the Urban Injury Severity Score and applied this nationally. When we talk about the capping score of 75, we did have 11 patients that will go above 75. If we cap these patients at 75, the data did not change. So we think it's completely reasonable to cap it at 75, as this will allow all the trauma programs and software that are already designed to keep giving the same scores. There's going to be a lot of difficulties on the way to adopt this in broader aspect, but definitely I think it mainly is training. We just need to train the people about the uses of the score. You will be surprised that even if the injury severity score has been there for more than ten years, there is still a lot of places that they don't even know what the injury severity score is. So it definitely is training and educating the population on what are the advantages of using these scores and what do they allow us to – how do they allow us to give better patient care?

DR. DONN SCHRODER (St. Clair Shores, Michigan): Just one question on definition. You talked about number of gunshot wounds. Do you mean holes or do you mean high velocity projectiles? Because if I'm shot through the right arm in and out and that same bullet goes through my chest in and out and in and out my left arm, that's six holes. So is it six gunshot wounds or is it just one high velocity projectile that you're counting?

DR. TOBON: It's the number of projectiles.

DR. HELFRICH LORING (Sikeston, Missouri): Just one comment. Also in agreement with what he said, there should be a lot more emphasis on the actual type of the weapon, because a 22 gunshot wound that is not a hollow point is not going to do near the damage that a 9-mm hollow point, and vice versa with shotgun versus high velocity rifles, too.

DR. TOBON: This is where the AIS helps us a lot, because the AIS allows us to have the injury classified from 1 through 6; 1 being really a non-lethal injury, while 6 is a lethal injury. So it doesn't matter what type of weapon you use. It's still going to give you an injury, and this injury you can classify it between the 1 and 6 with the AIS score.

☆ Presentation given by Miguel Tobon, M.D.

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