## 'I'm not letting you die'

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In the movies, gun violence ends with a clink.

After the shots are fired, after the frantic rush to the hospital, after the blood-soaked T-shirt is cut away, the scene ends with a surgeon pulling a bullet out of the victim and dropping it into a metal container.

Clink.

But for trauma teams like the one at Penn Presbyterian Medical Center, which deals with more than 300 gunshot victims a year, that clink is a split-second in a long — and sometimes futile — journey to save bodies ripped apart by lead. The impact is especially harsh when the patient isn't even old enough to drive a car.

"How often can you take care of a kid in braces that is pouring his entire blood volume out on the floor and not be affected by it?" said Jeremy Cannon, trauma medical director at the West Philadelphia medical center.

In Philadelphia, more than 1,000 people have been shot in each of the last four years, and nearly one in five die. This year likely will be even worse, with 823 people shot as of July 31. Father's Day weekend alone saw 19 shooting cases involving a total of 28 victims. A month later, a mass shooting at a West Philadelphia playground wounded seven.

Many times, police officers scoop victims into their cruisers, knowing it can be fatal to wait for an ambulance. At the nearest trauma center — Philadelphia has seven — the medical team heaves victims onto a stretcher. Security guards pass a metal-detecting wand over the patient, a routine step to make sure no weapons get into the trauma bay.

What happens in the next hours, days, and even months is hidden from public view. Words exchanged between the trauma nurses and panicked victims, incisions made by surgeons, the moment patients learn they will never walk again, all occur behind closed doors.

But for members of the health team, who are privy to all that happens up to and beyond the moment the bullet is extracted and plunked onto the dish, those are the instants that become embedded in their memories, the scenes they cannot escape.

## Rhonda Browning, trauma nurse



Rhonda Browning has been an emergency-room nurse for 30 years, 15 of those in Philadelphia.

Treating gunshot victims is part of her routine. Every time a trauma is on the way, she feels a rush of adrenaline, giving her the energy to lift patients who far outweigh her out of squad cars and onto stretchers.

She circles around their bed in the trauma bay, joined by a team of eight to 10 nurses, techs, and doctors, all assuming positions and roles they have practiced too often. They work together to keep the patient breathing as they do a careful inspection, address any obvious sources of bleeding, and methodically check for more entry and exit wounds.

"We look under armpits, under breasts, in between legs, in between hair," Browning said. "We do the same thing every time whether they're shot in the head or shot in the foot."

Other parts of the job never become routine — like seeing the panic in the patients' eyes, most of them the same age or even younger than Browning's five sons in their 20s and 30s.

One recent gunshot patient had braces on his teeth, just like each of her sons when they were young.

"He's never gonna know what his teeth look like straight," she kept thinking.

Patients who are conscious and can speak often grip Browning's arm and beg: "Please, miss. Please, miss. Don't let me die."

Browning pulls down her surgical mask so they can see the sincerity in her face. "You're not dying," she says. "As long as I'm here, I'm not letting you die."

For some patients, that's a lie. But Browning doesn't want anyone's last thought to be the fear of dying.

"Maybe it makes me feel a little better too," she said.

## Michael Atweh, director of operations for pathology and lab medicine



Michael Atweh oversees a nearly 20-person team that operates the blood bank at Penn Presbyterian.

Each day around 3:30 a.m. the team receives deliveries from the American Red Cross: dozens of 350-milliliter bags filled with platelets, red blood cells, or plasma. Each unit is tested, cataloged, and stored at a precise temperature: platelets at room temperature, red

blood cells refrigerated, and plasma frozen.

Taking that time on the front end creates space for speed later on, Atweh said.

Located on the fifth floor, the blood bank is a six-minute walk from the trauma bay on the first floor. For many gunshot victims, that can be too long, explained Atweh, who directs operations for pathology and lab medicine.

That's why his team always keeps some stock in the trauma bay, so the medical team can get started while couriers run laps back and forth to the blood bank, carrying coolers stacked with whatever else is needed.

Some patients can use more than 100 units of blood products, Atweh said.



Three years ago on Christmas Eve, demand was unusually high. Atweh jumped into a security van for a fast ride over to the Hospital of the University of Pennsylvania less than a mile away. He was back with supplies in under 10 minutes.

"When you see [gun violence] on the news," Atweh said, "it doesn't have the same impact as it does when you know that patient is a couple of floors down, bleeding a lot, and really needs you."

Jeremy Cannon, trauma medical director



Jeremy Cannon spent nine years as a military surgeon, cutting shrapnel and high-caliber slugs out of soldiers in Iraq and Afghanistan, before coming to Philadelphia in 2015. While the facilities and the patients are different, the tension of the operating room is similar, he said.

Practiced as team members are, they still can get anxious and energized. Someone always has to tell everyone to keep the noise down so the operating team can hear one another.

"We all know the patient is potentially bleeding to death and they could die at any minute," Cannon said.

Some weeks ago, Cannon operated on a patient who arrived at the hospital with a single gunshot wound on the right side of his back. At first the young man was awake and cooperative, but soon he became agitated.

When Cannon opened his abdomen to look for injuries, he found the bullet had ripped through the man's intestines and torn apart his pancreas. Blood was pooling inside his abdomen.

Cannon knew that to stop the bleeding and save the man, he had to immediately remove part of the pancreas — a surgery that is typically slow and meticulous. Surgeons are taught to handle the tissues with the utmost care, use the smallest incision possible, and tie up

each blood vessel individually.

"But in trauma, you just have to get in," Cannon said.



The surgery would normally take four hours. His team finished it in two.

Still, the man lost about eight liters of blood, his own and the transfusions he was given. That's almost twice the amount in an average human body.

"On the one hand it makes me think Philadelphia is a great training environment for people who might need to operate in a combat zone," Cannon said. "On the other hand it disgusts me. Why is the community not doing more to stop this?"

Jose Pascual, co-medical director of the surgical ICU



Jose Pascual has been treating gunshot victims for more than a decade as a trauma surgeon at Penn Presbyterian and, since 2010, as co-medical director of the surgical ICU at the Hospital of the University of Pennsylvania. He recently led a training on treating gunshot victims for his colleagues at Penn Presbyterian.

Whenever Pascual loses a patient, especially the youngest ones, the dread of telling their families is overwhelming.

"Every time I walk into a room to tell the mother, I ask myself, 'Why am I doing this job?' " he said.

Fathers have punched walls and mothers have thrown themselves on the ground, screaming. "That part gives me nightmares that linger on for days," he said.

Sometimes family members blame him for not doing enough. That's painful for Pascual, whose own grief compels him to run through unsuccessful surgeries many times over, looking for what he could have done differently.



But for every tragedy, Pascual tries to remember the saves — like an 11-year-old boy who walked into the hospital with his hand pressed to his neck, blood pouring out between his fingers. He had been shot in the throat.

Once on a bed, he began choking on his blood. Pascual tried to put in a breathing tube, but the airway was so damaged, it took three attempts to get it in.

But by then, four minutes had passed. Enough time for the boy's brain to swell, causing damage.

For weeks, the boy remained in the ICU, hooked up to a ventilator.

More than a month later, he smiled at a nurse. It was a recovery Pascual had deemed impossible. Today, the boy is at home, able to talk and move around with the help of a walker, he said.

"Whenever you think this is unsurvivable or this person's life is not worth living," Pascual said, "you will be taught otherwise."

Franklin Caldera, associate professor of clinical physical medicine and rehab



Franklin Caldera's time with patients extends long beyond their initial hospital stay. Depending on the location of a patient's wound, rehabilitation and chronic pain management can continue for years.

"We try to help them rebuild their lives," Caldera said.

Patients who are paralyzed need to learn how to use a wheelchair, make their homes accessible, and have family members adjust to providing a new level of care.

Even with less severe injuries, the effects can last a lifetime.

One man Caldera's been treating for six years was shot in the leg. The bullet caused severe nerve damage — a condition that's not only exceedingly painful but can also make it difficult to walk.

After months of therapy and with the help of a brace, the man was able to walk again. But he's continued seeing Caldera because of the ongoing pain — pain that might improve but will likely never cease completely.

That's often the most difficult part of the job, Caldera said, explaining the permanence of certain injuries.

Many patients go into denial, while others suffer from depression and hopelessness. Family members sometimes get upset that doctors are giving their loved ones bad news.

"We don't want them to lose hope," he said. "But we have to be realistic."

## John Ehman, chaplain & manager of pastoral care



John Ehman is not a medical provider, but at Penn Presbyterian, he is considered an equal member of the trauma team. The chaplain carries the same pager as physicians. And he's expected to wait outside the emergency room with the rest of the team to greet the police car or ambulance delivering the patient.

Unlike his colleagues, though, Ehman often focuses entirely on the family.

He calls mothers, fathers, wives, and husbands to tell them they need to get to the hospital right away. He sits with them while the patient is in surgery. He listens to them tell the story of how the shot was fired or what the person was doing earlier that day. If asked, he prays with them.

"It's less important what we say than our capacity to hear the families," Ehman said.

Some images have never left him.

One is of a father who stood by his dying son's bed, so quiet and stoic, gripping his hat in his hands in a way that conveyed profound helplessness.

"He was a very strong and dignified man facing the reality of a much larger force in the world," Ehman said.

Another is the image of two brown eyes. Ehman remembers kneeling down to be at eye level with an elderly woman sitting in a wheelchair. She had just lost a third grandchild to gun violence. In her eyes, Ehman saw weariness and love, strength and fragility.

"Even desperate grief in its own way is an expression of love," he said.



When Ehman hears a mother sobbing, "My baby, my baby," he hears more than her raw grief.

It's a sound filled with longing for circumstances to have been different, he said. For a son to not have left the house that day or for him to have taken a different route to work.

The cries bring Ehman back to a mural at 49th Street and Woodland Avenue in West Philadelphia.

In a black and white panel, a woman presses her hands against her ears, curling into herself. The words "My baby my baby. No no no. I don't want to hear it" arch around her. They form the outline of a headstone.