

Doctors on (video) call: Rural medics get long-distance help in treating man gored by bison

December 11 2023, by Arielle Zionts, KFF Health News



Credit: Pixabay/CC0 Public Domain

Rural medics who rescued rancher Jim Lutter after he was gored by a bison didn't have much experience handling such severe wounds.

But the medics did have a doctor looking over their shoulders inside the [ambulance](#) as they rushed Lutter to a hospital.

The emergency medicine physician sat 140 miles away in a Sioux Falls, South Dakota, office building. She participated in the treatment via a video system recently installed in the ambulance.

"I firmly believe that Jim had the best care anyone has ever received in the back of a basic life support ambulance," said Ed Konechne, a volunteer emergency medical technician with the Kimball Ambulance District.

The ambulance service received its video system through an initiative from the South Dakota Department of Health. The project, Telemedicine in Motion, helps medics across the state, especially in [rural areas](#).

Telehealth became commonplace in clinics and patients' homes during the COVID-19 pandemic emergency, and the technology is starting to spread to ambulances. Similar programs recently launched in regions of Texas and Minnesota, but South Dakota officials say their partnership with Avel eCare—a Sioux Falls-based telehealth company—appears to be the nation's only statewide effort.

Lutter, 67, and his wife, Cindy, are among the 12 residents of Gann Valley, a town just east of the Missouri River in central South Dakota. They operate a hunting lodge and ranch, where they raise more than 1,000 bison.

Last December, Lutter went to check on a sick bison calf. The animal was in the same pen as Bill, a 3-year-old bull that was like a family pet.

"We raised him from a tiny little calf, and I always told everybody he thinks I'm his mother. He just followed me everywhere," Lutter recalled. Lutter climbed into the pen and saw Bill calmly walk toward him.

"What does Chuck Norris say? 'Always expect the unexpected.' Well, I didn't do that. I didn't expect the unexpected," he said.

The bison suddenly hooked Lutter with his horns, repeatedly tossed him in the air, and then gored him in the groin. Lutter thought he was going to die but somehow escaped the pen and found himself on the ground, bleeding heavily.

"The red snow was just growing," he said.

Lutter couldn't reach his cellphone to call 911. But he managed to climb into a front-end loader, similar to a tractor, and drove a few miles to the house of his brother Lloyd.

Jim Lutter's pain didn't kick in until his brother pulled him out of the loader and into a minivan. Lloyd called 911 and began driving toward the ambulance base, about 18 miles away.

Rural ambulance services like the one in Kimball are difficult to sustain because insurance reimbursements from small patient volumes often aren't enough to cover operating costs. And they're largely staffed by dwindling ranks of aging volunteers.

That's left 84% of rural counties in the U.S. with at least one "ambulance desert," where people live more than 25 minutes from an ambulance station, according to a study by the Maine Rural Health Research Center.

Konechne, the volunteer medic, was working his regular job as a hardware store manager when a dispatcher came onto his portable radio with a call for help. He hustled two blocks to the Kimball fire station and hopped into the back of an ambulance, which another medic drove toward Gann Valley.

Lloyd Lutter and the ambulance driver both pulled over on the side of the country road once they saw each other coming from opposite directions.

"I opened the side door of the van where Jim was and just saw the look on his face," Konechne said. "It's a look I'll never forget."

Rural medics often have less training and experience than their urban counterparts, Konechne said. Speaking with a more experienced provider via video gives him peace of mind, especially in uncommon situations. Konechne said the Kimball [ambulance service](#) sees only about three patients a year with injuries as bad as Jim Lutter's.

Katie DeJong was the emergency medicine physician at Avel eCare's telehealth center who took the ambulance crew's video call.

"What? A bison did what?" DeJong remembers thinking.

After speaking with the medics and viewing Lutter's injuries, she realized the rancher had life-threatening injuries, especially to his airway. One of Lutter's lungs had collapsed and his chest cavity was filled with air and blood.

DeJong called the emergency department at the hospital in Wessington Springs—25 miles from Gann Valley—to let its staff know how to prepare. Get ready to insert a chest tube to clear the area around his lungs, she instructed. Get the X-ray machine ready. And have blood on standby in case Lutter needed a transfusion.

DeJong also arranged for a helicopter to fly Lutter from the rural hospital to a Sioux Falls medical center, where trauma specialists could treat his wounds.

Konechne said he was able to devote 100% of his time to Lutter since DeJong took care of taking notes, recording vital signs, and communicating with the hospitals.

Nurse practitioner Sara Cashman was working at the emergency department in Wessington Springs when she received the video call from DeJong.

"It was nice to have that warning so we could all mentally prepare," Cashman said. "We could have the supplies that we needed ready, versus having to assess when the patient got there."

A doctor inserted a tube into Lutter's chest to drain the blood and air around his lungs. Medics then loaded him into the helicopter, which flew him to the Sioux Falls hospital where he was rushed into surgery. Lutter had a fractured collarbone, 16 broken ribs, a partially torn-off scalp, and a 4-inch-deep hole near his groin.

The rancher stayed in the hospital for about a week and compared his painful wound-packing regimen near his groin to the process of loading an old-fashioned rifle.

The video technology that helped save Lutter had only recently been installed in the ambulance after Telemedicine in Motion launched in fall 2022.

Funding pays for Avel eCare employees to provide and install video equipment and teach medics how to use it. The company also employs remote health care professionals who are available 24/7.

So far, 75 of South Dakota's 122 ambulance services have installed the technology, and an additional 18 plan to do so. The system has been used about 700 times so far.

Avel's contract ends in April, but the company hopes the state will extend Telemedicine in Motion into a third year. Once the state funding ends, ambulance services will need to decide if they want to start paying for the video service on their own. Patients wouldn't be charged extra for the video calls, said Jessica Gaikowski, a spokesperson for Avel eCare.

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Citation: Doctors on (video) call: Rural medics get long-distance help in treating man gored by bison (2023, December 11) retrieved 13 May 2024 from

<https://medicalxpress.com/news/2023-12-doctors-video-rural-medics-long-distance.html>

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