

Implementing a T-CPR Program: Just Having a Protocol isn't Enough

Bend Fire Department and Deschutes County 9-1-1, Deschutes County, Oregon



In 2012, Petar Hossick attended the acclaimed Resuscitation Academy in Seattle. “At the time I thought the Academy was strictly related to field practice,” says Hossick, the training captain for Bend Fire Department in Oregon. While there, he noted that a significant portion of the course was spent discussing dispatch systems. The training reaffirmed the critical value that bystander CPR brings. “Time makes a difference,” he says. “EMS can never get there faster than the telecommunicators.”

When he returned to Bend, the largest city in central Oregon’s Deschutes County, Hossick looked at the department’s out-of-hospital cardiac arrest (OHCA) survival numbers. The EMS chief at the time said he thought they were doing OK, but the department hadn’t really been tracking the data. In doing the research, Hossick discovered they weren’t OK—they were actually below the national average and way below what the best systems were reporting.

Hossick realized that to make a difference in his community’s OHCA survival rate, he would not only have to convince his department of the need for high-performance CPR, but would also need to enlist the help of the communications center with effective telecommunicator CPR (T-CPR).

He approached Megan Craig, training coordinator for Deschutes County 9-1-1, the county’s centralized emergency call center that handles nearly 70,000 calls annually. Telecommunicators had a protocol for T-CPR but didn’t know how well and consistently it was being applied or how long it was taking to get hands on chest.

“We started by just listening to relevant calls,” Hossick says. “We didn’t have any metrics—we thought we knew where we were, but we really didn’t.”

What they did know was that a heavy-handed mandate to improve T-CPR wasn’t going to give them the results they wanted. Armed with data about unrecognized cardiac arrest calls and the length of time to get hands on chest, they instead took an approach that involved continuous improvement, with plenty of coaching and feedback.

Teaching the “Why” of CPR

In teaching telecommunicators the principles of CPR, the organization initially used a traditional CPR class. But when that didn’t seem to be igniting the spark they wanted, they brought in High-Performance CPR instructors from the Bend Fire Department. It started to click after that, Craig says. “We put our telecommunicators in the place of the caller, and they got it.”

As Hossick and his colleagues passionately shared the science behind what happens in the body during cardiac arrest, telecommunicators got deep insight into the importance of time. They heard recordings of agonal breathing and saw videos showing how blood flows during CPR. They came away with a thorough understanding of why they needed to be aggressive in determining when a patient was not breathing and assertive with callers about quickly starting effective chest compressions.

During roll-out of the T-CPR program, first with new hires and eventually with all telecommunicators, Hossick was working with his

fire department colleagues and with the Bend Police Department to successfully implement HP- CPR. The programs really jump-started once they began seeing more and more survivors. In 2012, the survival rate in Bend for bystander-witnessed, shockable-rhythm cardiac arrest was just 20%; by 2018, they achieved a 70% survival-to-discharge rate. That means dozens of people – parents, grandparents, siblings, friends – have been given a second chance at life.

Keys to Success

Having a baseline knowledge of your OHCA survival rate and tracking outcomes is fundamental to any program, Hossick says. Bend subscribes to the CARES registry, which allows the department to track OHCA cases using defined criteria that allows them to benchmark and improve.

But measurement is just one piece. “I believe that the only way to be successful at HP-CPR and T-CPR is to collaborate,” Hossick says. “We can’t be in silos – we have to be connected. Each link is so important and vital to the next.” He also notes that the impact of the partnership between EMS and dispatch on T-CPR has been invaluable in other ways. With field providers and telecommunicators sharing ride-alongs and sit-alongs, both agencies now have a much better appreciation for each other’s role, with greater interaction that benefits all callers.

Part of that collaboration involves the feedback loop. Craig and Hossick meet monthly to listen to cardiac arrest calls and identify areas for improvement. Their team makes regular visits to the dispatch floor to provide feedback – with the intent not to penalize or judge anyone, but rather to teach and continuously improve.

Craig also recommends feedback beyond the more formal quality improvement process, through timely emails or conversations discussing tough calls or complimenting good technique. And even when patients don’t survive, she says, telecommunicators need to hear that giving the patient every chance at survival is still doing the best job possible.

“Our best today is going to be different than our best in a year,” she explains. “We’re always evolving. As we have access to more information, we have a responsibility to learn and continue to improve.”

The Ultimate Inspiration—Meeting Survivors

Bend Fire began inviting telecommunicators to regular survivor celebrations, where they meet survivors, their family and friends, the fire crews and law enforcement officers who responded, and often other bystanders who performed CPR. This experience allows everyone a chance to connect and see the impact of their collaboration.

On the wall in Deschutes County 9-1-1 is a sign on a bulletin board that says, “What’s your why?” It’s filled with notes and photos from survivors. “When our telecommunicators started meeting survivors and started seeing the outcomes, it changed everything,” Craig says.

“Meeting a survivor and their family is like a battery recharge for the team,” Hossick says. Whether the survivor is a four-year-old who had a respiratory arrest or a man in his forties whose step-daughter and wife performed CPR on him, making that connection and closing the loop makes all the difference.

Overcoming Challenges

Implementation has not come without its challenges. Chief among them, Craig and Hossick say, is changing culture. People get used to the way things are and aren’t necessarily eager to change. They have to believe that they can make a difference for OHCA patients. “You’re going to have tough conversations,” admits Craig. “Identifying potential snags and critics – and listening to their concerns – is essential.”

“In that first six months,” Hossick adds, “it took repeated trainings and reinforcement and reaching out with data to get the results we were hoping for.” Craig and Hossick suggest

patience and incremental change, rather than sweeping top-down decrees. “You don’t have to do this all at once,” Craig says. “Doing so could actually be detrimental.”

Hossick also suggests getting stakeholders involved early on—everyone from line level staff to your chief or executive director and governing board. They also worked closely with the Bend

Police Department and the local health system, important partners in different ways.

Their recommendation for other agencies looking to collaborate to improve cardiac arrest survival in their community? It comes down to basic communication. “Start having conversations with each other,” says Craig. “Find a person from each agency that has a passion for this.”