

Rapid Lesson Sharing

Event Type: CPR Success

Date: September 6, 2017

Location: Chetco Bar East Fire, Oregon

"I always thought the symptoms of a heart attack were only on the left side down the arm. I didn't suspect it was a heart attack because it was on my right side."

Rick
Survivor of this Cardiac Event

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While building a yurt on a new fire camp on the Chetco Bar East Fire in Southern Oregon, an electrical contractor named Rick suddenly collapsed. Colleagues immediately called out for help and the Incident Management Team responded instantly.

The first person to arrive was Bryan, an experienced medic, who quickly assessed the situation and immediately started "Hands Only" Cardio Pulmonary Resuscitation (CPR). The compressions were described as fast and deep.

After two minutes of "Hands Only" CPR by Bryan, an Emergency Medical Technician (EMT) assigned to the incident, who had quickly brought an Automated External Defibrillator (AED) from his vehicle to the scene and applied the AED pads. When the AED analyzed the Rick's heart rhythm, it did not advise a shock. "Hands Only" CPR was resumed.

Objective: Get Rick to Nearest Cardiac Center

Within 30 seconds of resuming CPR, Rick suddenly awoke from his collapsed state and began looking around.

Bryan began asking pertinent medical questions to assess Rick's mental state and his awareness of what occurred only a couple minutes before.

Members of the Incident Management Team called 911. The local fire department arrived with an ambulance close behind with Advanced Life Support (ALS) capabilities.

By this time Rick, was wanting to stand up and move about. But the EMT and Bryan convinced Rick to stay still as the ALS crew helped him onto the ambulance gurney. A quick assessment was made to attempt to bring in a helicopter to transport Rick to the nearest hospital via air ambulance or an incident helicopter. Time was of the essence to get Rick to the nearest cardiac center.



"Anybody can do CPR. Push hard and push fast."

Bryan

Cardiac doctors called Rick’s survival “amazing” thanks to early recognition and activation of EMS, the early intervention with effective “Hands Only” CPR, the early access to advanced life support, and the integrated post-cardiac arrest care.

Successful Chain of Survival

Because of the cardiac event and assessment results, the ALS team requested an air resource to rapidly evacuate Rick to the nearest cardiac center in Medford, Oregon.

The Incident Management Team was already on the radio with the nearest helibase who had a short-haul capable helicopter that could be used for internal patient transport. Due to the rapid progression of this medical incident, an initial 9-Line was not completed. Rick was the priority and there was no one available to complete this step.

What are your plans if you cannot use an air resource to rapidly evacuate a patient?

It was quickly decided that a helicopter could not respond due to the area’s heavy smoke—visibility was less than a half mile at the time. This information was relayed to the ALS crew and they knew they had to load and go, time was of the essence for Rick to get to Medford’s cardiac center. Therefore, the decision was made to transport Rick by ground ambulance to the cardiac center in Medford—an approximate 60-mile trip.

Upon arrival at the medical center cardiac, specialists were standing by. They performed imaging of Rick’s heart. It was determined that one artery had 100 percent blockage and his other artery had 80 percent blockage. Rick immediately went into surgery to insert two stints to open these blockages.

Cardiac doctors called Rick’s survival “amazing” thanks to early recognition and activation of EMS, the early intervention with effective “Hands Only” CPR, the early access to advanced life support, and the integrated post-cardiac arrest care.

This successful chain of survival had all the links in place for an amazing outcome that ensured that Rick is around to tell his story today.

Rick’s Story

Rick had just arrived on the Chetco Bar East Fire two days before his cardiac incident. He had previously been on several other large fires in the Pacific Northwest and was having a progressive fire season.

On day two, Rick started to feel pain in his right shoulder. But he attributed this to the normal aches and pains of his busy fire season.

That evening, he took some aspirin and went to bed—feeling more tired than usual, but nothing too concerning. When Rick woke up the next morning, the pain down his right arm was still present and he was starting to feel more pain in his back between his shoulder blades.

His body also felt more warm than usual. Rick attributed this additional body heat to the humidity in the air and warm temperatures experienced on the fire. He then had a normal breakfast, but was consuming more water than usual. Rick thought this might be because of the dehydration due to the heat and humidity that his body was going through. He was still feeling fatigued.



Rick awoke and looked up to see trees above his head and people surrounding him. He was completely unaware of what had just happened to him.

Rick took more aspirin for the pain and told himself he was just not used to the humid weather in southwest Oregon.

After completing his normal morning routine, he noticed members of the camp crew putting up yurts and pitched in to help them. As he was lifting one of the aluminum support bars for the structure he noticed a substantial increase in a shooting pain down his right arm and an increase in the back pain between his shoulder blades. His vision then went from grey to black.

Several minutes later, Rick awoke. He looked up to see trees above his head and people surrounding him. He was completely unaware of what had just happened to him and the time that had passed.



Bryan's Story

Bryan was transitioning into the Chetco Bar East Fire with the others on the Pacific Northwest Team 13 as a Receiving Distribution Manager. He was also filling in as Medical Unit Leader.

Bryan is an experienced paramedic for his primary job as a rural/city firefighter.

He was assisting with initial camp set-up when he heard the call from across camp for help: Someone had collapsed. Bryan jumped into action and arrived to Rick quickly. He initially thought that Rick was having a seizure. But he instantly realized that Rick was not breathing and that this was not a seizure, but a cardiac event.

Thanks to a briefing with the local fire department the night before, the Incident Management Team knew to call 911 as the most effective means of quickly getting ALS assistance to the fire camp.

Bryan did not have his medical gear handy. He immediately started "Hands Only" CPR. He called for additional help. A Line EMT who was in camp responded with an AED that he had in his vehicle. Thanks to a briefing with the local fire department the night before, the Incident Management Team knew to call 911 as the most effective means of quickly getting ALS assistance to the fire camp.

As Bryan was accomplishing "Hands Only" CPR, the Line EMT prepared the AED by applying the AED pads to Rick's chest. The AED analyzed Rick and no shock was advised. Bryan resumed his "Hands Only" CPR. Within 30 seconds of resuming CPR, Rick suddenly opened his eyes and Bryan stopped CPR. Rick was disorientated and trying to get up. Bryan and the Line EMT convinced Rick to remain lying down while the local fire department with ALS capability responded.

While still disorientated, Rick noted how Bryan knew the exact questions to ask him, he did not know how to respond to them and did not fully understand what was going on. Rick did not know that his heart and breathing had stopped for at least two and half minutes at the moment.

Signs and Symptoms

A heart attack occurs when the blood flow that brings oxygen to the heart muscle is severely reduced or cut off completely. (See: [How the heart pumps blood.](#)) This happens because coronary arteries that supply the heart muscle with blood flow can slowly narrow from a buildup of fat, cholesterol, and other substances that together are called plaque.

Symptoms include tightness or pain in the chest, neck, back, or arms, as well as fatigue, lightheadedness, abnormal heartbeat, and anxiety. Women are more likely to have atypical symptoms than men. (See: [Just a little heart attack, a must watch.](#))

People may Experience:

Pain areas: in the area between shoulder blades, arm, chest, jaw, either arm, or upper abdomen.

Pain circumstances: can occur during rest.

Pain types: can be like a clenched fist in the chest.

Whole body: dizziness, fatigue, lightheadedness, clammy skin, cold sweat, or sweating.

Gastrointestinal: heartburn, indigestion, nausea, or vomiting.

Neck: discomfort or tightness.

Arm: discomfort or tightness.

Chest: discomfort or tightness.

Also common: anxiety, feeling of impending doom, palpitations, shortness of breath, or shoulder discomfort.

If you have a known family history of heart disease, it's important to share that information with your doctor and your family. This will help cue your physician into your genetics, making them more aware of additional risk factors. You can't counteract your genetics, if you have a family history, you must do what you can to change your environment.

Source: [Mayo Clinic](#)

Learning CPR

Bryan and Rick both agreed that the value of knowing CPR is vital. You never know when you could find yourself in a situation where you could save a life. Learning CPR is not complicated. It does not require an advanced degree in rocket medicine. Anyone can learn CPR!

1. CPR saves lives. Annually, more than 300,000 people experience a cardiac event in the United States. You may come in contact with a person who suddenly collapses, loses consciousness, and stops breathing. The longer the body goes without circulation, the lower the chance of survival. By performing CPR, you are able to help the person's blood to keep circulating until more advanced care can be given. The chances of surviving a sudden cardiac event increases significantly—by more than double and even triple—when CPR is started early.
2. Not enough people are performing CPR. Statistics have shown that only 15 to 30 percent of people who experience a cardiac event outside of a hospital receive bystander CPR. A common reason people give to not performing CPR is that they never received the training. Other concerns, such as doing harm to the person, doing harm to oneself, legal risks, or concerns about infection, often diminish once people learn proper CPR techniques and Good Samaritan laws.



3. Mouth-to-mouth resuscitation is not needed. In 2010 the guidelines for performing CPR were changed, people who do not feel comfortable, or who have not received formal training, should attempt “Hands Only” CPR. This is exactly what Bryan used on Rick because he did not have the available equipment.
[Hands Only CPR Video](#)
4. Most cardiac events occur outside the hospital environment, up to 85 percent occur in the home. We have seen cardiac events across the nation on fire incidents, there have been many saves. CPR can be performed by a partner, child, friend, or coworker. There has been a big push, led by the American Heart Association, to bring CPR training to schools. This will save even more lives through training.
5. Take the challenge. Good Samaritan laws provide legal protection for those who provide first aid in good faith and accept no compensation. If you don’t know CPR, learn CPR and gain confidence in knowing that if needed, you can be a lifesaver!

Automated External Defibrillators

AEDs support the “chain of survival.” They can restore a normal heart rhythm in victims of cardiac arrest. When a person suffers a sudden cardiac arrest, their chance of survival decreases by 7 to 10 percent for each minute that passes without defibrillation.

With a few hours of training, anyone can learn to operate an AED and perform CPR safely. While there are many different brands of AEDs, the same basic steps apply to all of them. AEDs are designed for use by non-medical personnel who have been trained. Having more people in a community who can respond to a medical emergency by providing

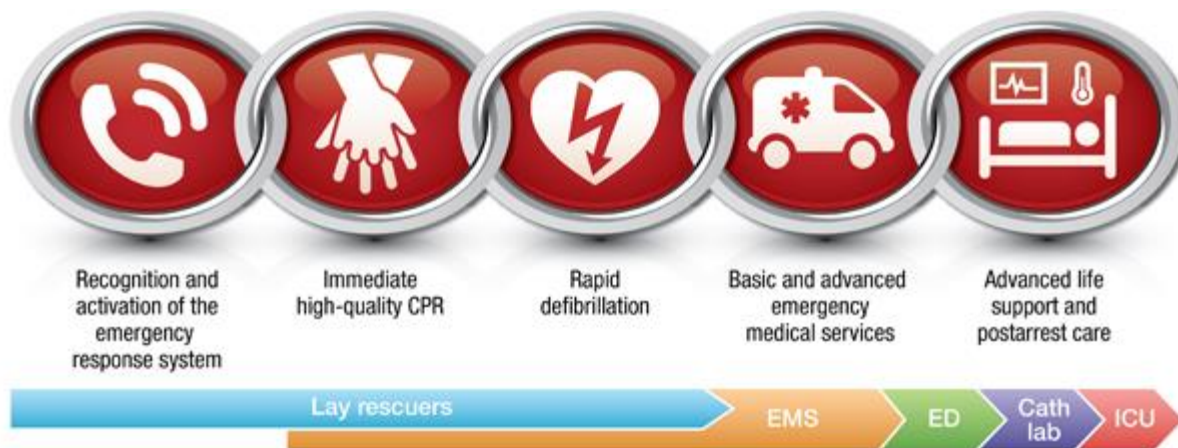


defibrillation will greatly increase cardiac arrest survival rates.



The Incident Management Team assigned to this incident had purchased an AED as a best practice to have readily available. This was a new Incident Command Post and their gear was just arriving. Therefore the Team’s AED was not yet ready. Thankfully, the Line EMT had an AED in their vehicle that was accessible. Even though Rick did not have a shockable rhythm, if his body did have the need, the AED was ready to assist in the chain of survival with a defibrillator shock.

Can we put a price on the lifesaving capabilities of an AED and training for our crew, team, or office?



Questions and Lessons

- ❖ We have adopted lessons from Dutch Creek and have created solid reactive plans. What are we doing to be proactive so we never have to use the Dutch Creek Protocol for a health emergency?
- ❖ Pay attention to your body and its symptoms. No one knows themselves better than you. Do not talk yourself out of getting a check-up or assistance if your body does not feel normal. Always be proactive.
- ❖ Have a yearly medical check-up and share your family history. Early prevention and knowledge can help shift your environment and help make others aware of any conditions you may have.
- ❖ Are you doing everything you can to support the “chain of survival” in your fire camp or office?
- ❖ Learn CPR and how to use an AED. It is inexpensive to acquire the knowledge that can save a life.
- ❖ Plan for the unexpected; the unexpected happens all the time. A helicopter was requested but could not fly due to the heavy smoke. A long transport time is possible and we need to be prepared for this reality. Time was of the essence for Rick—and it could be for your unexpected outcome, too.
- ❖ Does your agency or company have policies to support the purchase of an AED? If not, what steps can we take to make an AED standard equipment?
- ❖ Invest in an AED for your crew, team, or office. Place signage near the AED—including on a vehicle—to show where it is stored so people know its location.
- ❖ Know the signs and symptoms of a cardiac event. They may not match what your perception is. Pain can be down either arm for a cardiac event, not just the left arm.



This RLS was submitted by:

**PNW RLS Team, Aaron Pedersen
and Damen Therkildsen,
with support from the Pacific
Northwest Coordination Group**

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