



Ten Mistakes

Every AED Program Manager Should Avoid

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- 1 Consider your AED program a short-term project.
- 2 Focus on the AED rather than training.
- 3 Ignore the need for high-quality CPR.
- 4 Train rescuers about WHAT to do without explaining WHY they do it.
- 5 Fail to schedule and track training for your rescuers.
- 6 Fail to train everyone to recognize sudden cardiac arrest (SCA), to know where the AEDs are, and how to contact someone who is trained.
- 7 Purchase an AED from a “single-product company.”
- 8 Ignore the cost of providing pads and batteries over the life of your AED program.
- 9 Fail to consider the need for rescue accessories in addition to your AED.
- 10 Fail to consider the psychological effects of an attempted rescue on the people in your organization.

Consider your AED program as a short-term project.

1 Setting up an AED program is like investing. It pays to have a long-term perspective. You are going to purchase AEDs and install them. How long will they remain in place before your enterprise decides to replace them? Five years? Ten years? More? Let that be your time horizon. It's easy to think that in a month or two, once all your AEDs are installed and your volunteer rescuers are trained, the project is over. Not so. A good AED program needs a good manager, and that manager needs a long-term perspective. Eventually, rescuing a collapsed victim will have to be accomplished in just a few minutes. Those few minutes require long-term preparation and readiness.

Focus on the AED rather than training.

2 Deciding which AED to install in your facility may not be the most important decision you make. There are differences among AEDs, but it doesn't matter how good yours is if your rescuers are not trained well enough to go get the AED, to apply it quickly and accurately, and then regardless of whether they're advised to shock or not, to start performing high-quality cardiopulmonary resuscitation (CPR) and keep it up until EMS personnel arrive. In a successful rescue, it's the rescuer who makes the save, and not the AED. If your rescuers are not well-trained, it won't much matter what AED you happen to have.

An AED salesperson may tell you his or her AED is the best one because “untrained rescuers can deliver a shock with it.” Don't fall for such simplifications. In the real world, untrained rescuers tend to (a) look for someone else who knows what to do, or (b) call 911 and wait for the ambulance. They don't want to handle what looks like a dead body, and they don't want to embarrass themselves in public. Properly trained and supported, they will have the presence of mind, and the courage, to act quickly and decisively. Plan to train your rescuers regardless of how easy you think your AED is to use.

Ignore the need for high-quality CPR.

3 All of your rescuers should be able to provide high-quality CPR. The latest Guidelines from the American Heart Association (AHA) make it clear that rescue outcomes have barely improved over the last few decades. Why? Because too often rescuers use AEDs without providing high-quality CPR. AEDs don't replace CPR; they augment it. If no shock is advised as a result of the first heart analysis by the AED, then CPR is critical. It is the only thing that might save this particular victim.

If a shock is advised, then CPR is still critical to survival. Research shows that a full minute after a shock is delivered, 60% to 75% of victims have very little or no blood pressure. Victims who have just been shocked need, more than anything else, to have their heart supplied for several minutes with oxygen-rich blood. This can only be done by chest compressions that are 1½ to 2 inches deep at a rate of 100 compressions per minute.

Train rescuers about WHAT to do without explaining WHY they should do it.

In any training, it is always easier to remember WHAT to do and HOW to do it, if you know WHY you are doing it. The same is true for AED/CPR training. Make sure the instructors training your rescuers understand, and teach, WHY CPR is required (even when an AED is present), and not just HOW to do it.

This should include the four life-saving effects of CPR:

- **Restoring the victim's blood pressure to a level that is 10% to 30% of normal.**
- **Providing oxygenated blood to the heart.** The most important thing CPR does for a collapsed victim who has just received a shock is to supply blood to the heart. It's just like starting an automobile. Your electrical system can be working fine. You turn the key and the starter cranks. But without gas, the car will not start running again. Hearts are a lot like cars. Once shocked, they need "gas" in the form of blood.
- **Providing oxygenated blood to the brain.** Even when the victim is resuscitated and survives, brain damage can severely impair his or her quality of life. CPR helps to minimize brain damage by keeping the brain intact for a longer period of time.
- **Evacuating blood that collects in the heart after four minutes.** A victim who has been unresponsive for more than four minutes and has received no CPR will have a heart that is literally "blown up like a balloon" with blood. Why? Because when someone collapses with sudden cardiac arrest the arteries quit moving blood, but the veins don't. For several minutes they continue delivering blood to the heart. Even if the electrical activity of such a distended heart indicates it is shockable, the shock won't work if the blood in the heart is not evacuated and the size of the heart restored to normal. This can only be done by providing at least a minute of chest compressions prior to shocking the heart.

Fail to schedule and track training for your rescuers.

Once your program is under way, it's important to have a plan for how you will maintain rescue-readiness in your organization. Someone needs to track who is trained and when each person was trained, as well as keep their training current. According to the AHA, the maximum student-to-instructor ratio for AED/CPR training should not exceed six.

Purchase an AED from a "single-product company."

Some AED manufacturers over the years have actually gone out of business. This happens because some problem has been detected in the product that is drastic enough that the Food and Drug Administration (FDA) forces the company to recall and re-work a large portion, or perhaps even all, of their AEDs. In such a situation, a small medical device company with no other products can hardly avoid going out of business. In the U.S., there are four well-capitalized companies with broad product lines: Cardiac Science, Physio-Control, Philips, and ZOLL Medical Corporation. The last three have been providing cardiac medical devices for decades.

Fail to train everyone to recognize sudden cardiac arrest, to know where the AEDs are, and how to contact someone who is trained.

The very best AED program would train everyone in your facility in CPR and the use of an AED. This is rarely possible. A certified AHA, Red Cross, or National Safety Council training class lasts four hours. Some of the people in your facility will get this kind of complete training. But everyone else should receive enough information to recognize sudden cardiac arrest and begin taking action immediately to get the rescue under way. Teach everyone, with emails, memos, or even very brief training, how to recognize SCA, what your AEDs look like, and where they are located. Publicize who in your facility has been trained in CPR and the use of an AED. Teach everyone to locate at least one trained person and go get the nearest AED if someone collapses. All telephone operators, receptionists, HR, and security personnel should have an up-to-date list of who is currently trained. Anyone should be able to ask them to contact a trained rescuer immediately.

Finally, you should encourage everyone who witnesses a collapse to begin pushing on the victim's chest as soon as possible, even before the arrival of the AED or a fully-trained rescuer.

Ignore the cost of providing pads and batteries over the life of your AED program.

Of course you will probably be very interested in what your AED program will cost. Buying the cheapest AED is not necessarily the best way to keep your costs down. Remember that accessories will have to be replaced on a regular basis. Electrode pads typically have a shelf-life of two years. Batteries, too, will have to be replaced regularly. Depending on your AED, batteries may need replacement every year or could last as long as five years.

When calculating the “Total Cost of Ownership” for your AEDs, consider not just the dollars you will spend. Consider also the logistics and headaches. If you have 15 AEDs in your program and your electrode pads last 2 years and your batteries 3 years, then over the next ten years of your program someone will have to install a total of 180 different accessories at different times in different places. Even if the accessories are free, who will do this? How will it be scheduled, managed, and tracked?

Plan to develop a system to do so (a spreadsheet may do the job) or subscribe to an online management system.

Fail to consider the need for rescue accessories in addition to your AED.

Once fully-trained and equipped with an AED, there are a few accessories it would be very wise for you to supply to your rescuers.

- A pair of **scissors** for cutting off clothing.
- A large absorbent **paper towel** for wiping sweat from the chest of the victim prior to attaching electrode pads.
- A **razor** for shaving hair, since a male victim may have enough chest hair to prevent the needed contact with electrode pads.
- A pair of **rubber gloves** to protect the rescuers’ hands.
- A **barrier mask** for optional rescue breathing during CPR.

Many AED providers and manufacturers offer a rescue accessory package that can be kept with every AED. Consider purchasing these kits along with your AEDs. It will help provide the best support to your rescuers when a life is at stake in your facility.

Fail to consider the psychological effects of an attempted rescue on the people in your organization.

Here’s hoping implementing an AED program will be like buying life insurance. It’s nice to know you’ve got it, but it’s comforting not to have to take advantage of it. Yet the larger your organization, and the more employees you have, the more likely you are to “have an event”. If and when you do, how will it affect the people in your organization? Will there be any after-effects?

For many AED programs, the person who collapses will likely be an employee, a relative of any employee, or a customer or user who happens to be in the area. Whoever it is, it will likely be someone known to many people in your organization. The rescuers who attempt the rescue are even more likely to be well known in your organization. For a large number of people in your organization, this event will be long remembered, and all those memories will focus on what happened in a few terrifying minutes.

If the people in your AED program are well-trained and well-equipped, the chances that a victim of sudden cardiac arrest will survive are maximized, and the memories that persist in your organization will be the best they can be. If the victim survives, your organization will recall how a life was saved. If not, then everyone will recall that the people in your organization – including you, as program manager – did all they could to save the victim.

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