Automated External Defibrillator (AED) Risk Factors & Ownership Requirements

Ashton Narva
AED Authority®
888.970.7799
ashton.narva@aedauthority.com
Sudden Cardiac Arrest (SCA) Facts

• Heart Attack vs. SCA
• What causes SCA (pre-existing condition, lightning/electrical shock, drowning, trauma)
• Number one killer in the United States - 350,000 annually
• National SCA Survival Rate: 5-7%
Automated External Defibrillators (AEDs)

• AED used within 3 minutes: 75% survival rate
• How an AED works (Stops the heart and allows it to restart, locked up computer)

• Main reasons AED Programs are implemented
  1. They work and save lives – SCD is preventable! (CEO mandate)
  2. Mandates (Federal and State)
  3. Human Resources: Employee Benefit Package
  4. Risk Management: Standard of Care
Duty to have an AED Available

Mandate Examples

1. **Arizona**: State Owned Government Buildings newly constructed or major renovation
2. **California**: Health Clubs
3. **Nevada**: Public Schools, Airports, Event Centers, State & County Buildings
4. **Texas**: Public Schools (non funded)... School Districts should beware
5. **Washington**: Dental Offices
   - One State mandates, other 49 tend to follow...
   - As of February 16, 2010, there are 226 new AED Bills in front of various states. Ref: [http://statescape.com/](http://statescape.com/)

Intellectual Property of AED Authority
Duty to have an AED Available

Standard of Care

"AEDs are becoming an unofficial standard of care, the debate isn't about what happens if you have an AED and use it improperly, but what happens if you don't have an AED at all."

Sandy Lovett, Senior AED associate with the American Red Cross. - 2005
Duty to have an AED Available

Airline Industry (7-11 years ago)
1. Somes v. United Airlines, Inc.
2. Malhorta v. Northwest Airlines
3. Ferguson v. Trans World Airlines
4. Stone v. Frontier Airlines

Health and Recreation (2-5 years ago)
1. Chai v. Sports Fitness Clubs of America
2. 24 hour fitness
3. Bally Total Fitness

Number of PRIMA members with AEDs? “Standard of Care”
AED Ownership Risks

• "The reality, however, is that there are few cases of either users or their employers being sued for using an AED or for administering an AED safety program improperly, says Lisa Berns, an attorney with the law firm Tueth, Keeney, Cooper Mohan & Jackstadt in St. Louis." – 2005

however…..

• Richard Lazar, Esq. believes this second wave of litigation has only just begun. "More than 90 percent of AED deployments are probably flawed. Comprehensive AED programs - not just AEDs - are required to reduce liability risks and improve the chances of saving lives."

• Note: Richard Lazar is the founder and CEO of AED Risk Insights, a Portland, Ore., company which provides risk management and legal information services related to AEDs. He also serves on the SCA Foundation Board of Directors.
AED Ownership Risks

Sure enough…

- **Philadelphia International Airport**: A passenger died of a heart attack after two AEDs failed because the batteries were dead. - Pending

- **Saint Louis International Airport**: SCA victim was less than 20 yards away from an AED. “Essentially, if a business or a city undertakes a gratuitous activity, they have a duty to do it right. The city may not have a duty to get AEDs, but once they do, they have a duty to tell employees, train them and put proper signage up.” - Attorney Matthew Casey, of Casey & Devoti.

- **Madison v Ernest N. Morial Convention Center**: A family brought a wrongful death suit against a convention center claiming an SCA victim’s death was caused by the convention center’s nurse failing to bring or timely call for an available AED. A jury found for the plaintiff and awarded $800,000 in damages.
AED Ownership Risks

- **Rhode Island High School:** A 14-year-old student at a Rhode Island high school died of sudden cardiac arrest during baseball practice because the only AED in the building was locked in the school nurse's office.

- **Cherry Creek Shopping Center:** A Denver man is suing the Cherry Creek shopping center after the death of his daughter. AEDs were not open to the public, there were no signs, the guards are the only ones who have keys to them.

- **A College basketball player died** after suffering a cardiac arrest on the court. The player's family filed suit against the college for failing to use the AED; the case was quickly settled for almost $2.5 million.
Colorado AED Statutes

3 sections to the statutes: Individual, Owner, Mandate (CO School Districts)

Colorado Revised Statute § 13-21-108
What: Rendering Emergency Care to a bystander
When: Sudden Cardiac Arrest – Actual Event
Who: Individual Responder – Acting in good faith, trained or not.

• “Any person licensed as a physician and surgeon under the laws of the state of Colorado, or any other person, who in good faith renders emergency care.... shall not be liable for any civil damages for acts or omissions made in good faith...”
Colorado Revised Statute § 13-21-108.1

This is where it gets a little complicated from a program management point:

What: AED Program Management
When: Prior to use of the AED (Ongoing maintenance, training, etc)
Who: Owner of the AED (City of XYZ, XYZ Public Schools, etc)

- (2)(a)(I) AED has received approval of its premarket notification filed pursuant to 21 U.S.C. § 360(k), from the federal food and drug administration; (Access Cardio Systems)
- (2)(b) "Licensed physician" means a physician licensed to practice medicine in this state.
(3)(a) In order to ensure public health and safety, a person or entity who acquires an AED shall ensure that:

(I) Expected AED users receive training in cardiopulmonary resuscitation (CPR) and AED use through a course approved by the department of public health and environment;

CPR/AED Certification Class via AHA, ARC, etc

(II) The defibrillator is maintained and tested according to the manufacturer's operational guidelines and that written records are maintained of this maintenance and testing;

Monthly visual inspections, replacement of batteries, electrodes, response kits
Colorado Revised Statute § 13-21-108.1 (Continued)

- (III) Written plans are in place concerning the placement of AED's, training of personnel, pre-planned coordination with the emergency medical services system, medical oversight, AED maintenance, identification of personnel authorized to use AED's, and reporting of AED utilization, which written plans have been reviewed and approved by a licensed physician; Policies and Procedures for your AED and AED Program.

- (IV) Any person who renders emergency care or treatment to a person in cardiac arrest by using an AED activates the emergency medical services system as soon as possible. Call 911.

- (b) Any person or entity that acquires an AED shall notify an agent of the applicable emergency communications or vehicle dispatch center of the existence, location, and type of AED. Note: 911 Dispatch Center, not your local EMS/FD.
Colorado Revised Statute § 22-1-125

What: Mandate (“Shall”) acceptance and maintenance of AEDs

Who: Colorado Public School Districts (Note School Districts, not schools)

• (1) encourage school districts to acquire. (3)(a) Each school district is encouraged to acquire an automated external defibrillator

• (3)(b) A school district shall accept a donation of an automated external defibrillator... shall also accept gifts, grants, and donations, including in-kind donations, designated for obtaining an automated external defibrillator, and for inspection, maintenance, and training.

• (3)(c) Any automated external defibrillator acquired by a school district shall be appropriate for use on children and adults.

• (5) To ensure public health and safety, a school district that acquires an automated external defibrillator shall meet the requirements set forth in section 13-21-108.1(3). (Previous two slides – note that it’s now mandated)
AED Program Risk Factors

AED Authority performs numbers of AED Audits and Inspections. Here are examples of our findings over the past 3 months (All are PRIMA Examples):

Risk Factor #1: General Maintenance of the AEDs

- Expired electrodes (2-5 years past expiration date)
- Dead batteries, Frozen Electrodes (Aquatics)
- AED contained electrodes from another brand (Local FD)
- 3rd party electrodes (Local FD), not covered by manufacturer's indemnification or warranty.
- Pediatric electrodes outfitted with Non-pediatric compatible AED (Manufacturer's Service Agreement)
AED Program Risk Factors

Risk Factor #2: Records of Maintenance
• Rarely checked once a month as required by most manufacturer's guidelines (CS requires daily visuals)
• Records are usually non-existent

Risk Factor #3: CPR/AED certified personnel:
• AHA general rule of thumb is 5 certified personnel per AED.
• Aquatic, Fitness Centers, School RN have this covered.
• City Hall, Event Centers, Golf Courses, Utilities, etc. rarely have certified personnel.
• CPR/AED Certification, much different than explaining to employees how the AED works.
• There are 4 nationally recognized programs: AHA, ARC, ASHI, NSC. They will always be approved by the Colorado Department of Health.
AED Program Risk Factors

Risk Factor #4: Placement of AEDs:
- Publically accessible Alarmed Cabinets vs. behind front desk
- Let the employees/public know they are available.
- Locked Doors (reference RI school case)

Risk Factor #5: Policies & Procedures:
- Rarely in place
- Can't find, not on file
- Not specific to AEDs

Risk Factor #6: Dispatch Notification:
- Rarely done – typically the FD/EMS know, not the point of the statute
AED Management Programs (Internal and 3rd Party)

- Risk management/Legal should always get involved and educate the AED program manager, Safety, Security, and Purchasing.

- **Internal Programs**: City/County EMS or FD (pitfalls), Aquatics Directors, RNs (Limited Authority), etc...

- **3rd Party programs**: AED programs are often delegated to Safety and/or Security. They then go to Purchasing (BIDS). If it does go to purchasing and out for bid, be sure the specifications are in line with Colorado Statutes and your requirements. *(Example: "Medical Oversight")*
Good Stories

- South Suburban Goodson Recreation Center (Jul-2009) 19 year old swimmer
- Boulder Bolder (May-2009) 2 runners revived with AEDs
- Wheat Ridge Community Center (Dec-2008) WRHS Student
- City of Aurora - Springhill Golf Course (Jun-2008) 1 week after AED placed
- Stanley Lake High School (2008) 16 year old student
- Aurora Reservoir (2005) Park Rangers save fisherman
- Colorado State University (4 in past 5 years)
- Many, many others (SCHHI example)