
Site Assessment Tool

A) Introduction:

The site assessment tool is designed to provide a rational process for determining the optimal quantity and placement locations of AEDs required to provide a timely response to a sudden cardiac arrest.

The American Heart Association recommends defibrillation in 3 to 5 minutes - ideally in less than three minutes. Every additional minute lowers the rate of successful resuscitation by 7 to 10 percent. To achieve a good response time, there must be enough AEDs in the right places, a clear communications pipeline, and enough people trained to respond quickly.

There are two general approaches in minimizing the response time. The first approach places emphasis on having many trained responders, thereby increasing the likelihood that a trained responder will be near an AED location and able to "grab and go" (as in the case of a continually staffed security station). The second approach emphasizes the strategic placement of additional devices minimizing the distance that fewer responders would travel to get the AED.

However, considering these two elements alone is not enough. When performing this assessment, you must consider all the steps that need to take place within the 3-5 minute window of survivability. These steps include:

- Recognizing the event as a cardiac emergency
- Communicating the emergency
- Activating the internal responders
- Retrieving the AED
- Responding to the victims location
- Attaching the AED and delivering the shock

Applying an AED and delivering the first shock takes roughly one minute. To meet a goal of less than 3 minutes from "drop to shock," that leaves 2 minutes to get an AED to the victim (for a security guard to grab an AED and run to the victim, or for a coworker to dash to get an AED and then dash back to the victim). Walking at a brisk pace, a person can cover about 300 feet per minute.

Communication systems within a facility will greatly impact the time to respond. In the event of a sudden cardiac arrest, how will bystanders alert both internal AED responders and external emergency medical system teams (police, fire, or paramedics) without delay? Precious time can be saved with automatic notification systems. Ideally, AEDs are stored in a monitored wall cabinet that automatically notifies building security or other designated responders when the cabinet is opened. While performing this assessment, be alert to potential wiring connections for monitored wall cabinets. Attempt to place AEDs near electronic smoke detectors, fire alarm beacons, or fire alarm activators. You must also consider what type of wall cabinet will be used in the recommended placement locations. Recessed cabinets are not appropriate for many wall surfaces such as marble, stone, or steel. Architectural restrictions or policies within the facility may also influence what type of storage cabinets are most appropriate.

Secured areas can present special problems in terms of response time. Consider locating units within secured areas unless the likely responders can easily transcend security checkpoints. Alternately, personnel at the security check points can serve as members of the ERT. When security personnel are members of the ERT, internal policies must address whether security personnel can leave their post to respond to medical emergencies. If these alternative strategies are not feasible, then make sure that time measurements include the worst case delay the ERT will encounter when required to pass through a

security check-point.

Special attention should be paid to areas where large numbers of people visit, work or assemble, such as cafeterias, auditoriums, gymnasiums, sports facilities, shop floors and offices. Other locations of concern are high-traffic areas such as hallways near restrooms, reception areas, and main entrances. Also consider places:

- that are harder for emergency medical system teams to reach (such as deep inside a facility, high in a tall building, inside secured areas or remote locations)
- where people may be subject to strenuous activity, including exercise
- with many older people, who are at higher risk for SCA
- near hazards such as high voltage electricity

Once it is decided who will likely respond, what communications will be relied upon, and which areas to protect, you can determine the number of AEDs and their specific locations. There is not one simple formula that applies to all facilities. Walking the facility while carrying a stopwatch and a building diagram is the best way to determine the optimal number and placement of AEDs. Ideally, a “drop to shock” time of no longer than 3 minutes is desirable.

Consider locating AEDs so they are:

- highly visible, such as in wall mount brackets or glass cabinets on building walls in general view – similar to fire extinguishers
- near expected responders, such as in security vehicles or at a security or first aid station
- close to where the largest number of people spend their time
- tied into your communications system, either by automatically triggering a call to security or placed near telephones
- protected from tampering, theft or damage (recessed mounts and alarmed cabinets are available)
- accessible during all shifts or hours of operation

The availability of trained personnel greatly impacts the effectiveness of an AED program. Security, safety, fire, and medical personnel should be considered as the primary source of responders. Other “natural” responders include “Hall Monitors”, “Floor Captains” or other personnel designated to assist or respond to various medical and non-medical emergencies. The customer can assist you in identifying these individuals. Finally, volunteer responders should be offered training. More personnel trained in a given facility increases the likelihood of a more timely and effective response. The goal of an AED program is to have multiple responders and multiple AEDs arrive at the scene of a medical emergency.

The following work sheets are intended to provide the data necessary to design a rational plan regarding the optimal number of AEDs to be placed, the specific placement locations, and enhancements to existing policies, communication systems, and personnel training policies.

In larger facilities this assessment may need to be performed repetitively for each building, floor or area of the facility.

Studying the site map in advance will be helpful in planning the assessment process, but there is no substitute for walking the site with a stopwatch. Pay particular attention to secure areas, locked doors, and security checkpoints that can have a substantial impact on response time.

B) General Survey:

1) Total Facility Personnel Count

Peak # _____ Time Range(s) _____

Low # _____ Time Range(s) _____

Estimated percentage over 50 years of age _____

Average number of hours in work day _____

2) Other Organizations at this Location:

Name _____ Contact Person _____ Phone # _____

Name _____ Contact Person _____ Phone # _____

Name _____ Contact Person _____ Phone # _____

Name _____ Contact Person _____ Phone # _____

Name _____ Contact Person _____ Phone # _____

3) Medical Clinic On-site? Y___ N___ If Yes,

Contact Person _____ Phone # _____

Location _____ Hours of Operation _____

AED Available Y___ N___ Model _____

4) Fitness Facility On-site? Y___ N___ If Yes,

Contact Person _____ Phone # _____

Location _____ Hours of Operation _____

AED Available Y___ N___ Model _____

5) On-site Public Safety Personnel:

Security:

Contact Person _____ Phone # _____

Fire:

Contact Person _____ Phone # _____

Safety:

Contact Person _____ Phone # _____

6) Nearest Hospital(s)

Name _____

Name _____

7) What type of defibrillators do responding ALS agencies carry:

Agency Name _____ Type: _____

Agency Name _____ Type: _____

8) Is there a coordinated training program for CPR, AED, or First-aid? Y___ N___

If Yes,

Contact Person _____ Phone # _____

Estimated # of personnel currently trained in CPR and/or AED? _____

9) Is there a coordinated program of "Floor Captains", "Floor Monitors" or other persons designated to respond to non-medical emergencies?

Y___ N___ If Yes,

Contact Person _____ Phone # _____

Describe program. _____

Are these persons trained in _____ CPR _____ AED _____ First-aid (check all that apply)

10) Sequence of Events

Currently, what chain of events would take place in the event of a medical emergency? (please number in the order in which they take place)

- Call security via _____ phone _____ radio _____ pager
- Call medical via _____ phone _____ radio _____ pager
- Call safety via _____ phone _____ radio _____ pager
- Call building operator _____ phone _____ radio _____ pager
- Call 911
- CPR started
- Internal team responds

- Someone sent to meet responding EMS. If yes, who _____
 - Other (please describe) _____
-

11) How is EMS notified and by whom?

- Contacted by those witnessing emergency
 - Contacted by security
 - Contacted by safety
 - Contacted by medical
 - Contacted by building operator
 - Other (please describe) _____
-

12) Do any potential responders carry a two-way radio?

- Security
- Safety
- Medical
- Maintenance
- Supervisory staff
- Other _____

13) Is there a facility-wide public address system? Y____ N____

If yes, how is it accessed?

- Anyone can page from any phone
- Only accessible from building operator
- Other (please describe) _____

14) Are first-aid equipment / supplies available and where are they located?

15) What forms or reports are kept for medical emergencies at this site?

(If a standardized form is used please attach a sample)

16) Establish Response Time Objective:

Establish Response Objective 3-5 Minutes 3 minutes 4 minutes 5 minutes (determined by customer)

17) Is a facility map available?

- Yes If yes, provide two copies with completed assessment

- No If no, sketch layout including public, non-public & secured areas and identify security check points, fitness facilities, medical units or high risk areas as identified on the "AED Location Worksheet" below. Multiple pages may be required.

18) Facility description

- a) Number of buildings to be assessed _____
- b) Number of floors of main structure _____
- c) Location of security desks/checkpoints _____

c) Describe general shape and size of facility _____

19) Are there any internal security policies that may affect this AED program?

- a) Are guards able to leave their post to in an emergency? Y____ N____

Comments _____

- b) Are all floors / areas of the facility accessible to responders during all shifts?

Y____ N____

Comments _____

- c) Are any security desks / checkpoints manned 24 hours? Y____ N____

Comments _____

20) List all individuals participating in the timed trials:

Name: _____ Title: _____

Organization / agency _____ Phone: _____

Name: _____ Title: _____

Organization / agency _____ Phone: _____

Name: _____ Title: _____

Organization / agency _____ Phone: _____

Name: _____ Title: _____

Organization / agency _____ Phone: _____

C) AED Location Worksheet

Using the building diagrams, identify a central location that appears appropriate for the placement of an AED. When determining this location, you should consider locating AEDs:

- in highly visible, highly accessible locations
- near points of travel such as stairs or elevators
- close to potential responders (safety, medical, security personnel, etc.)
- near high risk areas such as fitness facilities, cafeterias, areas of strenuous physical activity or electrical work, or high population centers
 - at standardized locations in multi-level buildings
 - near telephones or occupied offices

1) Specific description of proposed location _____

Building # _____ Floor # _____

2) Time to travel to most distant point of potential coverage area to determine the response radius from this location (*consider adjacent floors*) _____ minutes _____ seconds

The timed trials should be performed at a brisk walk of approximately 300 feet per minute.

3) If the time exceeded one-half of the response goal, consider an alternate location or a second AED placement location. Then perform another timed trial (for each location) to confirm the ability to meet the response goal.

4) Identify response barriers within the response radius from this location.

- | | <u>Comments</u> |
|---|-----------------|
| <input type="checkbox"/> Stairs | _____ |
| <input type="checkbox"/> Security checkpoints | _____ |
| <input type="checkbox"/> Security doors | _____ |
| <input type="checkbox"/> Elevators | _____ |
| <input type="checkbox"/> Special access areas | _____ |
| <input type="checkbox"/> Other | _____ |



-
- Other _____
 - Other _____

5) Wall cabinet style for this location

- Surface mount Semi-recessed Recessed (*check all that apply*)

6) Alarm system connection available

- Yes No

If yes, Type Smoke detector Fire alarm activator Beacon Siren

7) General Comments _____

Site Assessment Summary Report

Facility Name: _____

Address: _____

Key Contact Name: _____ **Phone:** _____

Date of Assessment: _____

Total number of AEDs recommended for this facility _____

Are there any locations within this facility not covered by the recommended number and placement of the AEDs? Y _____ N _____ If yes, describe _____

List specific recommendations for AED placements: (*include building name/number, floor, and specific description of location including room name/number if available. If in public areas, such as a hallway, attempt to provide as accurate a description as possible, i.e. 4th floor hallway next to room 123*). Use additional sheets as necessary.

1. _____
2. _____
3. _____

- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____

Submitted by:

Name: _____ **Phone:** _____