Northern Ireland Ambulance Service
Health and Social Care Trust

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Guide to Automated External Defibrillator (AED) Cabinets

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As the Guardian of an Automated External Defibrillator (AED), you may wish to consider having your AED available to the public 24 hrs a day. In order to do this you will require an AED cabinet to keep your AED safe and protected from the environment around it.

This leaflet has been designed to:

- help you with key information to enable you to make an informed choice about purchasing an AED cabinet.
- set out your responsibility as an AED Guardian in the preservation and maintenance of your AED cabinet.

The main purpose of purchasing an AED cabinet is to protect your AED from the environmental elements. In cool or cold conditions, the AED battery can drain, therefore it is important to keep the AED in a cabinet where the internal temperature is controlled to prevent this from happening.

Outside or Inside Cabinet?

If your AED is going to be placed outside then it is important that a suitable cabinet is chosen to ensure the AED is protected from environmental conditions, tampering or theft and that it is connected to an electricity source.

When choosing an outdoor AED cabinet, you should check that it is temperature controlled to keep the AED at the correct operating temperature, preserving battery life and condition of your AED.

Outdoor cabinets must have a heater and some may also have a fan linked to a temperature sensor so if the weather is too cold the heater turns on automatically and in hot weather, a fan system helps to extract excess heat. With this in mind, the cabinet needs to have an electricity supply.

Please bear in mind this will maintain the life span of your AED's battery pack ensuring it is emergency ready and saving you money on replacement batteries.

Indoor cabinets must **NEVER** be used outdoors as they are not suitable and you may invalidate the warranty of your AED.

Cabinets Unlocked or Locked?

The Resuscitation Council UK recommend that all cabinets should be unlocked and easily accessible.

Some locked cabinets need a numerical code to unlock the door such as the ones below. However, if yours requires a key to open it please consider purchasing a new cabinet as this is **NOT** easily accessed in an emergency.

Remember a new AED cabinet may have a factory set access code. If you wish to have a specific code then speak to the AED cabinet distributor who may be able to request this for you, depending on the brand.

Things to consider regarding location

- Can the cabinet be connected to an accessible electricity source nearby?
- Is the lighting adequate around where you wish to site the cabinet?
- Is there a CCTV present to deter/prevent theft or vandalism?
- Can or is your AED fitted with a tracking device such as GPS? Most are not but it may be something you wish to consider.

How do I get the code to open the cabinet in an emergency?

If an AED is Emergency Ready then the Ambulance Service will give you the code when you ring 999 or 112 to confirm a cardiac arrest has occurred.

Alarm system – choosing a cabinet that has an alarm can be useful as this helps deter tampering and theft. The alarm also helps alert others to the emergency that is taking place.

Lighting – most outdoor AED cabinets are supplied complete with lighting so the AED can be visible in dark conditions. Some AED cabinets only have lighting to the inside of the cabinet once opened so we recommend that any outdoor defibrillator cabinet is situated in a position that has external lighting to ensure the cabinet is always visible in an emergency.

IP rating – the IP rating stands for ingress protection rating and shows how dust and waterproof the cabinet is. Some cabinets may have a 'breather drain' which reduces condensation build up inside the cabinet which in turn reduces the chances of internal corrosion inside the cabinet.

The higher the IP rating the more weatherproof the cabinet is. Please note that the cabinet rating will change if holes are drilled for wall mounting or for wires to be passed through so please check with the manufacturer if it is pre drilled and if not will this affect the rating and or warranty?

It is very important that the electrician fitting the cabinet ensure screws are correctly fitted and sealed to prevent water ingress. If the screws are not sealed properly water can get into the cabinet causing condensation and possible damage to the AED over time.

- The benefits of a high IP rating are less chance of water or dust ingress.
- The down side to a high IP rating is that the cabinet can suffer from condensation issues if they do not have a ventilation system.

Colour of cabinet – typically AED cabinets are a high visibility yellow, but there are also **green**, **red, or white with a red cross**. The important factor is that it is easily visible in an emergency.

Construction and materials used

Stainless steel is typically the most expensive product for constructing an outdoor AED cabinet with, but will be strong, durable and probably outlast most of its internal components. Marine grade stainless steel is preferable for any site near the sea where salt water or salty air is present.

Mild steel is generally cheaper but will be strong & durable providing it is a thick gauge steel. The downside to mild steel is that it will rust and this can happen more quickly if the powder coating/paint finish becomes scratched or damaged.

Mild steel is not recommended near coastal areas as corrosion will become a problem.

Aluminium is typically lighter and will be strong and durable providing it is a thick gauge. The downside is that aluminium can suffer corrosion.

Plastic cabinets are usually lighter than metal and providing they are made of durable plastics such as polycarbonate and ABS will be strong, durable and don't suffer from corrosion like some metal cabinets can, however they may be flammable and in direct UV light may become brittle.

Warranty – check the warranty period and if this includes moving parts such as locking mechanisms and heaters etc. Does the manufacturer offer full support in the event of a warranty claim? In most cases the AED cabinet shell will have a long warranty but heaters and locks usually have a shorter warranty.

Spare parts – are replacement parts readily available for an AED cabinet? Parts such as LED lighting, heaters and fanning systems in most cases will not last as long as the cabinet so ensure that replacements parts are available otherwise you may need a new cabinet in the event of a component failure.

Checks and serviceability – your AED cabinet will need to be checked regularly to ensure it is in good general condition and to ensure that moving parts are working such as the door hinges and locking mechanism where applicable. Ask the manufacturer if spare parts are readily available in the event of failure of a component. If for example the lock mechanism stops working or the front of the cabinet was vandalised can spare parts be fitted rather than needing to replace the whole unit? Thoroughly read the cabinet instructions as not adhering to them could invalidate the warranty.

Status indicator visible – can your AED status symbol be easily viewed through the front of the cabinet? This can be useful as at a glance you will be able to ensure that the AED is present and see the status of the AED. All modern AED's carry out their own periodic self-tests and have a status indicator that is typically GREEN if the AED is

emergency ready and RED if the AED needs attention or there is a fault. Please note that you should still check that the cabinet opens correctly on a frequent basis.

In some locations an AED cabinet will be chosen with a solid front door with no viewing window. If this is the case the AED cabinet will need to be opened on a regular basis to inspect that the AED is present and in working order.

Signage – It is important that your AED location is clearly signed.

- Firstly, your AED cabinet should have written instructions or an infographic for bystanders to follow in an emergency, the letters AED or defibrillator and the universal heart symbol as below.
- Secondly if space is available a sign should be placed above the AED cabinet in an elevated position (this helps if a vehicle parks in front of the AED location obscuring the view).
- Thirdly signage can be added to local businesses etc describing the nearest AED location to raise awareness of its existence.

Size – check if all items fit in the cabinet such as the AED with carry case and rescue ready* kit?

There are some AEDs which are larger and may not fit correctly in some AED cabinets so check before you buy.

Registering your AED on The Circuit

It is essential that the Northern Ireland Ambulance Service is given full details of the location of your AED and any code or specific details which would be required to access the device in an emergency.

You can register your AED on **The Circuit** where all the details are uploaded immediately to the NIAS Ambulance control system.

When we receive a 999/112 call, we have the AED details on our system should we need to direct a bystander to it in an emergency.

In summary the main things to consider when choosing your AED cabinet are;

- Is the cabinet needed for inside or outside use? If it is outside then:
- What is the IP rating so it can be determined how much protection the AED cabinet will have against the weather?
- Does it need to be locked or unlocked?
- Is there ventilation for the AED so condensation build-up is prevented?
- Is it accessible when needed?
- Is it labelled and easily identifiable?
- Is the AED registered on The Circuit and available to NIAS in the event of an emergency.

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In the event of an Out of Hospital Cardiac Arrest, the priority is to start CPR, get an AED and apply the pads to the persons' chest with minimum delay. Unlocked cabinets allow immediate access to an AED in a situation where seconds count.

Where conditions allow, AEDs should be placed in openly accessible (unlocked) cabinets that allow immediate access in an emergency.

A decision to place a public-access defibrillator in a locked cabinet should be made only on the basis of careful risk assessment in that specific location.

N.I.A.S.
Community Resuscitation Team

The Northern Ireland Ambulance Service would like to thank you for helping us create a Community of Lifesavers.

For more information, contact us on:

www.nias.hscni.net

or

email resus.admin@nias.hscni.net

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