

Community Public Access Defibrillator (CPAD) /CPR Guidance

Stockton-on-Tees Borough Council



Contents

1. Background.....	3
1.1 Rationale	3
1.2 Cardiac arrest, cardiopulmonary resuscitation (CPR) and defibrillators.....	3
1.3 cPAD provision and guidance	3
2. cPAD locations in Stockton-on-Tees.....	4
3. cPAD cost and funding.....	4
4. Installation of cPAD on Stockton-on-Tees Borough Council buildings and highways.....	5
5. Installation and ongoing maintenance costs	6
6. cPADs owned by Stockton-on-Tees Borough Council (SBC)	6
7. CPR training and resources.....	6
8. References	7
9. Appendices	7
9.1. Appendix 1: A table displaying the approximate costs of purchasing, installation, and upkeep of a defibrillator.....	7
9.2. Appendix 2: Content of the Public Health Resource Library CPR training resources	8
9.3. Appendix 3: Further information, advice and support	8

1. Background

1.1 Rationale

Stockton-on-Tees Borough Council is regularly contacted by residents, organisations and by elected members regarding the installation of, and support for Community public access defibrillators (cPAD) across the borough. This policy has been developed by the Public Health team and Highways, Estates team to inform the consistent corporate approach of Stockton-on-Tees Borough Council responding to and resolving these queries. Effective use of cPAD devices is supported by cardiopulmonary resuscitation (CPR) knowledge and training. This document also explains how CPR training is supported by the council.

1.2 Cardiac arrest, cardiopulmonary resuscitation (CPR) and defibrillators

Cardiac arrest is a life-threatening condition that occurs when the heart suddenly stops beating effectively, leading to the disruption of blood flow to the vital organs⁽¹⁾. It is a medical emergency that requires immediate intervention to prevent severe brain damage or death. In the event of a cardiac arrest, CPR and defibrillators play a crucial role in saving lives⁽²⁾.

CPR is a lifesaving technique that involves manually compressing the chest and providing rescue breaths to a person experiencing cardiac arrest. By performing CPR, this helps to maintain blood circulation and deliver oxygen to the brain and other organs until professional medical help arrives. In the case of cardiac arrest, performing CPR as soon as possible significantly increases the chances of survival and reduces the risk of long-term complications⁽³⁾⁽⁴⁾.

Defibrillators are devices used to restore a normal heart rhythm during cardiac arrest. These devices deliver an electrical shock to the heart, known as defibrillation, which helps reset the heart's electrical activity and potentially restore its normal function⁽⁵⁾. The use of a defibrillator within the first few minutes of a cardiac arrest can increase the survival rate by up to 70%⁽⁶⁾. This emphasises the importance of defibrillators in public spaces, and training residents of Stockton-on-Tees in CPR.

1.3 cPAD provision and guidance

Defibrillators are devices used to restore a normal heart rhythm during cardiac arrest. A cPAD is a defibrillator that is located in a community setting and available for members of the public to access, 24 hours a day. Devices are accessed through use of a key code which is provided by the 999 operators.

They are safe to use and will not allow a shock to be given unless the heart's rhythm requires it.

cPADs are funded and looked after by 'Guardians'. Guardians are volunteers who are responsible for the purchase and maintenance of the cPAD. They undertake regular checks and register the status of the cPAD on a live list of available defibrillators owned by the North East Ambulance Service (NEAS). This list is called 'The Circuit' and is accessed by the 999 operator when they receive an emergency call to determine the nearest available defibrillator.

Across Stockton-on-Tees there are approximately 141 cPADs. In addition there are an additional 82 devices that located in premises that have restricted access e.g. schools , workplaces. There is currently

no national guidance on the level of provision of defibrillators for a given area, however it has been suggested that any location that has 1000 adults over the age of 35 years present during normal business hours can expect one incident of out of hospital cardiac arrest (OHCA) every 5 years and should have a cPAD available. The North East Ambulance Service (NEAS) suggest that cPADs are installed at a minimum distance of 500m from an existing 24/7 cPAD location, and no more than 1km. The rationale for this is that in a life-threatening emergency, the caller would be alerted to the nearest cPAD within 500m of their location.

NEAS provide guidance to community groups interested in purchasing and installing a cPad [here](#). A defibrillator with an external cabinet costs approximately £1800. It is the responsibility of the organisation, individual or group who wish to purchase the defibrillator to cover any set-up costs and ongoing costs associated with the installation and maintenance of the cPAD, and registration of the cPAD with The Circuit. The community group must also identify a 'Guardian' who is responsible for checking and reporting the device status on 'The Circuit'. The Guardian should routinely check the cPAD every 2 weeks. In the event of the defibrillator having been used in an emergency the guardian is contacted to ensure that pads are replaced and the defibrillator checked. While this is being done the defibrillator will not be listed as available to use.

The 'guardian / community group' are also responsible for providing electricity to keep the defibrillator at operating temperature during the winter, periodical maintenance costs including the cost of replacement batteries and pads, and resolving any other issues with the cPAD that arise. Replacement cost vary greatly between different models and if the defibrillator has been used but usually are only required once every 3-5 years. Funding is available to help with these costs, detailed in Section 3.

2. cPAD locations in Stockton-on-Tees

Once a cPAD has been checked and is available to use, it is registered as readily available on 'The Circuit'. The Circuit is then accessed by the North East Ambulance Service (NEAS) dispatcher at the time of an emergency, who can view the live map of readily available defibrillators and cPADs at that point in time and this map is not accessible to the public. A list of all the defibrillators registered on The Circuit can be found [here](#). This data is not to be used to create a map for the public.

To give an indication of the location of the nearest cPAD to any given postcode, NEAS recommend using the Defib finder website [here](#). However, the information on this website is not exhaustive, and only the NEAS operator can access information on your closest available cPAD at a given time, in an emergency.

3. cPAD cost and funding

Many publicly available defibrillators are funded through donations or local fundraising. NEAS offer funding for areas they have identified as having a higher need for a cPAD across the North East, found [here](#). The identification of these areas is based on population demographics such as age, state of health

and levels of deprivation overlaid with details about the expected number of cardiac arrests in the population.

Stockton-on-Tees Borough Council offers match-funding towards a NEAS community cPAD package in the priority areas identified by NEAS. At present, these areas are TS17 9 (Thornaby) and TS18 2 (Stockton, Grangefield, Portrack). These priority areas can be checked [here](#). SBC supports the maintenance of the cPADs owned by SBC.

The defibrillator owners are responsible for cPAD installation, arranging for Guardians to maintain the cPAD over time and any other ongoing costs. Approximate costs for various components of a cPAD, for the buyer to consider are stated in Appendix 2. Another cost to consider is the time taken by guardians to check the defibrillator, regularly report to NEAS about the condition of the defibrillator, and reinstate the defibrillator after use. Organisations may also want to consider insuring the defibrillator in case of loss and damage.

Any queries regarding the funding of a cPAD should be directed in the first instance to the NEAS website. For any queries related to match funding for a NEAS identified priority location, please contact Public Health at SBC Public.HealthTeam@stockton.gov.uk

4. Installation of cPAD on Stockton-on-Tees Borough Council buildings and highways

The Council will support third party provision of cPAD's and consider requests for these to be installed on Council owned premises, subject to the Council premise being suitable in terms of electrical supply and building structure. The process of receiving permission will be requested via facility.services@Stockton.gov.uk.

The request should provide the following information so control around asbestos can be implemented when this occurs:

1. Building information & drawing/plan of each individual install, with cable routes and intrusive work (holes drilled/route through service voids) and a description of the work taking place.
2. The existing asbestos information will be assessed. From this, one of 3 outcomes will occur.
 - a) If the information is sufficient and there are no asbestos issues, the work can proceed.
 - b) If the information is sufficient, but there are asbestos issues, work can either be replanned to avoid the ACMs or have a LARC enable the work.
 - c) If there is not sufficient information, an asbestos survey will be carried out. Once we have the survey back, either (a) or (b) will apply.

If you have any queries about the installation of a cPAD on a public highway, please contact: HTD@stockton.gov.uk

If you have any queries about the installation of a cPAD on a Stockton-on-Tees Borough Council owned building, please contact: facility.services@stockton.gov.uk

5. Installation and ongoing maintenance costs

Installations carried out by Highways & Street Lighting Operations to date have typically cost £1,000. An additional fee of £420 (at 2022 rates) to cover a Section 50 license, which is necessary to lay new or maintain existing apparatus in the public highway, may be required, however SBC will consider waiving this fee but only for cPADs installed in areas identified as high priority by NEAS, available [here](#).

The energy consumption of each machine will depend upon the ambient air temperature, as heaters are required during cold spells. Based on a worst-case scenario of the heaters being on full power for the coldest 3 months of the year and the internal light being on each day, estimated annual energy costs at today's rate of £0.32 per kWh would be £50.

The annual energy costs may also be considered for a waiver if the cPAD is installed in an identified high priority area, available [here](#).

6. cPADs owned by Stockton-on-Tees Borough Council (SBC)

Stockton-on-Tees Borough Council are responsible for the upkeep of 3 cPADs, located at:

- Stockton Central library
- Stockton High Street (between Shambles and Ramsgate) on the lighting column
- The Security Centre
- Millbeck Care Home*

The Guardians for these defibrillators are the SBC Community Safety/ Community Protection team, who check these weekly and report to NEAS, and are responsible for ordering replacement consumables such as batteries and pads when needed. Maintenance costs for consumables are covered by Public Health, which hold a small budget for supporting the purchase and maintenance of defibrillators in defined areas of need.

* As part of a historical agreement, Public Health are also responsible for funding replacement consumables for the defibrillator at Millbeck Care Home, though SBC are not the registered Guardians for this cPAD.

To enquire about funding replacement pads and batteries for SBC owned defibrillators or those in areas of high priority, please contact Public Health at Public.HealthTeam@stockton.gov.uk.

7. CPR training and resources

CPR training can be accessed through NEAS or by using the training material of the British Heart Foundation (BHF). Public Health promotes general awareness and information of the importance of

Cardiopulmonary resuscitation (CPR) in case of a cardiac arrest, where bystander CPR is crucial. Defibrillators are only ever used in combination with CPR. CPR is a lifesaving technique in emergencies, when someone's breathing or heartbeat has stopped. Further information can be found in the British Heart Foundation Call Push Rescue guide, available [here](#).

There are 2 CPR awareness training kits available to borrow through the Public Health Resource Library, which is in Roseworth Library/Family Hub, Redhill Road, Roseworth, Stockton on Tees TS19 9BX. Information about the content of these kits is displayed in Appendix 3. For further information please contact the Public Health Resource Library on 01642 526933, or resources can be accessed and ordered [here](#).

For any queries about CPR training opportunities, please contact Public Health at SBC Public.HealthTeam@stockton.gov.uk.

8. References

- 1) NHS (2023) Symptoms of a heart attack. <https://www.nhs.uk/conditions/heart-attack/symptoms/>
- 2) Resuscitation Council UK (2021) Adult advanced life support Guidelines. <https://www.resus.org.uk/>
- 3) NHS England (2017) Resuscitation to recovery: A national framework to improve care of people with out-of-hospital cardiac arrest (OHCA) in England. <https://www.england.nhs.uk/london/wp-content/uploads/sites/8/2019/11/Resuscitation-to-Recovery-A-National-Framework-to-Improve-Care-of-People-with-Out-of-Hospital-Cardiac-Arrest-i.pdf>
- 4) BMJ Best Practice (2022) Cardiac arrest. BMJ Publishing Group. <https://bestpractice.bmj.com/topics/en-gb/283>
- 5) British Heart Foundation (2023) How and when to use a defibrillator. <https://www.bhf.org.uk/how-you-can-help/how-to-save-a-life/defibrillators>
- 6) North East Ambulance Service (2018) Automated External Defibrillator (AED). [171163_NEAS_IEC_Leaflet.indd](#)

9. Appendices

9.1. Appendix 1: A table displaying the approximate costs of purchasing, installation, and upkeep of a defibrillator.

These prices are estimates only, and subject to change.

Component	Approximate cost
A new defibrillator (one-off cost)	~£800-£1200 plus VAT
A secure cabinet (one-off cost)	~£600 plus VAT
Installation of the defibrillator (one-off cost)	As per electrician cost
Replacement defibrillator pads (ongoing)	~£45
Batteries	~£200
Annual electricity costs	~£50

9.2. Appendix 2: Content of the Public Health Resource Library CPR training resources

The training kit is developed to support people to learn how to perform CPR through the video, step by step. Therefore, individuals are not required to have the knowledge prior to the training.

Each CPR training kit includes:

- 10 mini-CPR manikins
- 10 pump bags
- BHF DVDs to show:
 - How and when to perform CPR on an adult or child
 - How to put someone in the recovery position
 - How to use a public access defibrillator
- 10 kneel mats
- 1 manual pump for the instructor
- Manikin wipes (borrower will need to replace the wipes)

9.3. Appendix 3: Further information, advice and support

- British Heart Foundation (BHF): How to save life - www.bhf.org.uk/heart-health/how-to-save-a-life
- BHF: How to do CPR - www.bhf.org.uk/heart-health/how-to-save-a-life/how-to-do-cpr with video to show you how to do CPR – this video can be used as training for volunteers and Community groups with steps by steps guide
- BHF: Online CPR training - [Learn CPR in 15 minutes | RevivR | BHF](#)
- BHF – How to use a defibrillator - www.bhf.org.uk/heart-health/how-to-save-a-life/defibrillators/how-to-use-a-defibrillator - a video to demonstrate how to use it as it is very easy to use
- St John Ambulance - www.sja.org.uk

How to use a defibrillator - www.youtube.com/watch?v=UFvL7wTFzI0

- You can now borrow the BHF Call Push Rescue training kits from the Public Health Resources Library (01642 526933) – This link provide information on what includes in the kits <https://www.bhf.org.uk/how-you-can-help/how-to-save-a-life/cpr-kits>
- Stockton Public Health for advice on installing defibrillator 01642 526697
- NHS Choice: Heart Failure www.nhs.uk/conditions/heart-failure/ - information on symptoms, diagnosis, treatment and living with heart failure
- Resuscitation Council (UK) www.resus.org.uk/
- [Public access defibrillation remains out of reach for most victims of out-of-hospital sudden cardiac arrest | Heart \(bmj.com\)](#)