AUTOMATED EXTERNAL DEFIBRILLATORS (AEDs) IN PUBLIC PLACES AND SCHOOLS

WARDS AFFECTED

All.

EXEMPT/CONFIDENTIAL ITEM

NO

1. PROPOSED DECISION

1.1 For Cabinet to approve the installation and use of AEDs (automated external defibrillators) in specific Council settings in line with NWAS (North West Ambulance Service) recommendations.

1.2 For Cabinet to approve the Council working with NWAS (North West Ambulance Service) and BHF (British Heart Foundation) to enhance the ‘Chain of Survival’ in St Helens.

1.3 For Cabinet to approve the development of guidance for use by local schools and voluntary sector organisations who wish to install AEDs within their settings.

2. JUSTIFICATION FOR THE DECISION

2.1 St Helens Council currently has no corporate policy in relation to the use or installation of defibrillators and there are no defibrillators installed within Council owned public buildings or workplaces, with the exception of Queens Park Leisure Centre and school settings where schools have made a school based decision to purchase AEDs.

2.2 The "chain of survival" in St Helens is currently being reviewed by the North West Ambulance Service (NWAS). Their aim is to work with communities, volunteer networks and partner organisations to improve cardiovascular health outcomes in the North West.

2.3 The sudden death of a child is a devastating event and whilst an extremely rare occurrence, the death of a small number of children locally from cardiac related conditions has led to local charities advocating and fund raising for defibrillators in schools. A number of local schools and sports clubs have already utilised fund raising activity to purchase and install defibrillators on their sites.
3. FACTS SUPPORTING THE PROPOSED DECISION

3.1 Background to AEDs

3.1.1 AEDs are used to help resuscitate people who have had a cardiac arrest. Fully automated defibrillators analyse the victims’ electrical activity and will determine and administer the correct short pulse of electricity to correct the arrhythmia. This process is conducted without any need for intervention from the operator. Only two (“shockable”) arrhythmias are likely to respond to such treatment, which include ventricular fibrillation (VF) and pulseless ventricular tachycardia. These are both life threatening and if left untreated, the victim will die within minutes. There are many other arrhythmias (not all life threatening), which will not respond to electric shock (the “non-shockable” arrhythmias).

3.1.2 AEDs are said to exert high sensitivity for the shockable arrhythmias. This means the machine will pick up most (if not all) cases of VF. Similarly, the AED is said to exert high specificity for the non-shockable arrhythmias. In other words, the AED can pick out most (if not all) cases, which shouldn’t be shocked.¹

3.1.3 Defibrillators are compact, lightweight and durable.

3.1.4 Modern defibrillators test themselves daily and will both sound and display a warning if there is a fault with the device. However, daily visual checks are required and systems must be in place to ensure proper storage and maintenance.

3.1.5 Although AEDs are intrinsically safe to use and are designed to be used by anyone, it is recommended that people undertake some awareness training to increase the speed of treatment, increase confidence and improve the effectiveness of CPR treatment.

3.1.6 Currently there are no legal duties to provide defibrillators.

3.2 Evidence of Effectiveness

3.2.1 Evidence from various studies from around the world, including Scotland, report that the effectiveness of AEDs in public places ranges from 5.2% to 39% of successful recovery in respect of out of hospital cardiac arrest.

3.2.2 In Canada, data on 7,707 arrests which occurred in 21 communities and 11 hospitals (all ages, between 1995 and 2000) found that only 37% of the heart rhythm abnormalities were of the shockable variety.²

3.2.3 Most arrests occur in the home. Overall, survival is poor, despite treatment. Of the 7,707 arrests occurring in Canada, 85% occurred in the home. The remaining 15% occurred in public places.

3.2.4 Children experience fewer cardiac arrests than adults. Respiratory problems, trauma or poisons cause the majority of cardiac arrests in children. The incidence of cardiac arrest varies by age. In younger people (less than 35 years), it has been estimated to occur between 0.3 to 3.6 per 100,000 population per year.³ ⁴
3.2.5 From the point a person collapses to the delivery of the first shock is the single most important determinant of survival. The British Heart Foundation state that every minute that passes without defibrillation the chances of survival decreases by 10%.

3.2.6 According to the British Heart Foundation, AEDs should be sited in locations which have a high probability of a cardiac arrest event. A report from Cheshire West Director of Public Health shows that with regard to hospital admissions for cardiac arrests, over 50 year olds are most at risk, particularly men. The report recommends that defibrillators are best used in a highly targeted way, such as workplaces that employ people of 50 years plus, Leisure and Community Sports Centres where they accept people for weight management, cardiac rehabilitation or GP exercise on referral.

3.2.7 NWAS and the British Heart Foundation do not consider schools to be an effective location for public access AEDs to be installed due to such small numbers of incidence and short opening hours.

3.2.8 Of greater priority is the need to train and utilise ‘First Responders’ i.e. Police and the Fire Service in the use of defibrillators and/or train the public or school community in CPR techniques.

3.2.9 Research concludes that the provision of AEDs where no arrests are likely or no one is trained to use them was thought to be futile.  

3.3 Proposal for Installation and use of Defibrillators in Council Settings

The Council has worked with NWAS on the identification of sites suitable for AED installation. Installation of AEDs in sites that meet the community resuscitation team criteria will be funded by NWAS, although the hosting organisation, in this case the Council is responsible for ensuring the equipment is visually checked daily and staff are appropriately trained. Training is provided by NWAS. A Memorandum of Understanding between NWAS and the host, in this case the Council is available in Appendix 1

Sites where defibrillators are installed should follow the criteria of significant footfall and be easily accessible to the public, in line with the evidence in 3.2 above. Sites proposed for installation are:-

- Queens Park Health and Fitness Centre (already in place)
- Central Library
- Wesley House Contact Centre
- Sutton Leisure Centre
- Parr Swimming and Fitness Centre
- Selwyn Jones Sports Centre
Defibrillators will be purchased and maintained by NWAS who will also provide training on their use and maintenance of the equipment to staff on site. Therefore no costs will be incurred by the Council.

3.4 **Chain of Survival**

Chain of Survival is a British Heart Foundation project based within North West Ambulance Service. They are working with the Public Health Department within the Council to identify and implement ways to prevent cardiac disease and improve outcomes for local residents following a cardiac event.

Their work includes:

- The recruitment of community resources such as staff responders, community first responders and co responders to improve health provision.
- Installation of AEDs in areas known for either a high prevalence of cardiac related calls or an area with large numbers of people visiting. The AEDs provided are stored in a secure box but are accessible to the general public 24 hours a day via a 999 call.
- Conducting a needs assessment in the region in order to identify suitable locations to install a defibrillator.

NWAS have already placed defibrillators in a number of sites within the Borough including Asda, the town centre bus station and Langtree Stadium. The Public Health Team are working with NWAS 'chain of survival' and Community Resuscitation Team to identify and work with other suitable sites that are not council owned. It is imperative that NWAS 'chain of survival' knows where defibrillators are situated within a borough so that they can be used by first responders. Public Health is working with NWAS to identify a definitive list of AEDs within the Borough regardless of where they are situated and who they are owned by.

Helena Housing are also working with the Council and NWAS and are placing defibrillators in their headquarters, depot in Sutton Industrial Estate and within a sheltered accommodation and retirement village setting.

3.5 **Guidance for the use of AEDs by Schools and Voluntary Sector Settings**

A decision about the installation of defibrillators in a school is a matter for the Head Teacher and Governors to determine. The Local Authority has no powers to compel schools to install such equipment and given the lack of an evidence base for use of defibrillators within school settings, it would not be appropriate to do so.
However, a number of schools and local sports clubs have already purchased defibrillators. Guidance will be developed to support schools and voluntary sector organisations who wish to purchase and utilise defibrillators within their settings. This will include the recommendation that the equipment is bought from NWAS approved suppliers, staff are trained in accordance with NWAS recommendations, that the equipment is maintained and checked in line with manufacturer's advice. A draft policy will be developed in partnership with the Safety, Risk and Resilience Manager and shared for comments with Headteachers as part of the implementation phase. Schools and voluntary sector organisation will be encourage to inform Public Health and NWAS where community defibrillators are installed so that this information can be added to the 'chain of survival' data base and used by first responders locally.

Schools will also be encouraged to participate in the 'Heart Start' Program run by British Heart Foundation and recommended by 'chain of survival' Appendix 2

A Health and Wellbeing Governor event planned for the 17th October 2013 will be utilised as an opportunity to provide school governors with information about the use of defibrillators in schools settings and the wider 'chain of survival'.

4 RISKS- Risks Associated with the Proposed Decision

4.1 The likelihood of deployment of a defibrillator is extremely remote. However, the consequences of not having one available for use in the event of an incident could be fatal for an individual.

4.2 AEDs are intrinsically safe to use so misuse does not present a risk of harm to individuals.

4.3 There is no legal obligation (statute or civil) to provide AEDs. However, once a site considers installation they must ensure adequate coverage and there is a legal obligation to maintain the equipment and train an adequate number of staff. For AEDs placed in Council buildings by NWAS, their MOU will mitigate some risks.

The potential increase in liability for schools or voluntary sector organisations is not insignificant. Once an organisation installs a device and begins to assist an injured person we accept a duty of care to them. This duty of care will extend to:

- Ensuring that there are an adequate number of AEDs in suitable locations around the site to ensure that the device is obtainable quickly and without exposing the rescuer to harm. This may involve several AEDs across each site.
- Ensuring that there are adequate numbers of staff suitably trained in the use of an AED in addition to emergency first aid.
- Ensuring that an adequate number of staff are on duty at the site at all times.
- Ensuring that there is a resilient system for rapidly summoning the trained AED operator and/or bringing the AED to the injured person whilst maintaining CPR.
• Ensuring that the AEDs are present and functioning on a daily basis, and recording these checks.
• Ensuring that the AEDs are serviced in accordance with the manufacturers recommendations.

An organisation installing an AED may be liable for any death or injury that arises from a breach of this duty.

5 OTHER IMPLICATIONS

5.1 Legal – Liability surrounding the use or non use of AEDs on Council premises needs consideration. The potential for negligence may arise if the defibrillators are not properly maintained or the number of defibrillators on site is not deemed sufficient. The person providing assistance has a duty of care for the person in receipt of treatment which could be deemed to be breached.

5.2 Financial – There are two AED’s recommended by NWAS; one costs £650 + VAT with a 5 year warranty, whilst the second costs £750 + VAT with a 7 year warranty. NWAS will provide a free 1 hour training session by Paramedics for new venues that purchase an endorsed AED. Additional maintenance costs need consideration. Batteries last 4 years and cost £200 and pads are £25 each and will need replacing every 18 months.

However the proposed decision within this report recommends that the council hosts NWAS defibrillators and if schools and voluntary organisations wish to purchase AEDs then they will be resourced and maintained by them.

5.3 Insurance - The Council Insurance Policy covers the legal liability for damages and AEDs would be covered within this policy, subject to the normal terms and conditions. Therefore no costs will be incurred by the Council.

5.4 Human Resources –There should be at least 1 trained AED operative on duty at any one time. An appropriate person should be assigned to maintain the device.

5.5 Land and Property (Asset) – None

5.6 Anti-Poverty – None

5.7 Effects on existing Council Policy – A combined First Aid and Defibrillator Policy will be developed with Corporate Safety.

5.8 In addition, if they were installed in schools, their First Aid Policy would need to be reviewed.

5.9 Effects on other Council Activities – None

5.10 Human Rights – None

5.11 Equalities – Appendix 3
5.12 Asset Management – None

5.13 Health – This work is in line with Department of Health's initiative to place 3000 AEDs within the community nationally, to assist in preventing premature death due to Coronary Heart Disease.

6. PREVIOUS APPROVAL/CONSULTATION

None

7. ALTERNATIVE OPTIONS AND IMPLICATIONS THEREOF:

7.1. Not working with NWAS to install AEDS in Council and community settings and not providing guidance to schools and mapping where AEDs are within the Borough would seriously hinder the 'chain of survival' within St Helens.

7.2. St. Helens Council purchase and install AEDs. In this case, the Council would be responsible for the use, maintenance, training, insurance, financial and legal implications of owning the devices.

8. References

This report was developed using shared research from neighbouring authorities and a basic search of the evidence available. Information and guidance from The Resuscitation Council (UK) and the British Heart Foundation was also used.


Further reading:

British Heart Foundation. www.bhf.org.uk: 2013

Appendix 1: Memorandum of Understanding
Appendix 2: Heart Start Programme
Appendix 3: EIA

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