DEFIBRILLATORS

Tim ROBERTS 18th May 2017

Preface:

These notes are a distillation of information from several websites and conversations with individuals on this topic with experience in their respective areas [more than those listed in the appendix]. This is a reflection of my current opinion and thinking on the topic of procuring and managing a community provided Public Access Defibrillator.

Cost:

- 1) There has been verbal quotations of £ 1459 + VAT for a machine.
- 2) The Parish Council can claim the VAT back
- 3) The Intelligent Public Access Defibrillator ST1 is an example
- 4) The package comprises:
 - i) Intelligent Public Access Defibrillator ST1 [iPAD], with a carry case and Battery
 - ii) Key pad lockable cabinet to BS compliant [Complete with Bolts Cable Plug top & fitting instructions]
 - iii) 2 sets of Pads
 - iv) AED Starter pack ~ Gloves, Face Shield, wipes etc.
 - v) Training ~ Training is not a qualification it is a 2 hour awareness course. It's not a necessary to have training to use the machine.
- 5) The Cabinet comes complete with Bolts, fittings and cable of about 1 metre in length. Mounting the cabinet can be done by a person familiar with a similar DIY task. There will be a possible cost for wiring in the unit by a qualified electrician.
- 6) It will be necessary to purchase additional signage to identify the location of the AED at key points in the Parish e.g. Noticeboards, Church, Community Buildings, Tennis & Cricket Clubs.

Maintenance on-going Costs:

- 1) There is a 10 yr warranty for the Machine ~ If it is indicated there is a fault there is an immediate loan of a machine whilst the machine is away.
- 2) The Battery needs to be replaced after approximately 5/6 years of life. Cost in the region of £80 / £90 There is an indicator on the machine when this is imminent.
- 3) The Pads have a 3 year shelf life before replacement and must be replaced after use of the machine. The current cost of a set of pads is approximately £20.
- 4) There is a small use of mains electric different sources of reference quote this as "minimal", "pence per annum".

Monitoring:

- 1) The Intelligent Public Access Defibrillator ST1 [iPAD] ~ Self Tests every morning and a wider test each month.
- 2) This is indicated by a panel on the machine that indicates "O" meaning good condition and will function correctly or "X" with a red flashing light and a beep every two minutes. If this is the case then the machine will be replaced immediately whilst under the 10-year guarantee.
- 3) One source said checks are not mandatory but recommended. "Not a requirement" It would be good practice to have a system of checking the machine even if it is only to see the cabinet is secure and un damaged.
- 4) The check is visual and should take place on a regular basis usually weekly. It is usual to record these checks.
- 5) Shortly a QR code system will be in place to record the check on a Smart phone and this would be linked to the WMAS.
- 6) The check is purely visual and can be done by anyone passing
- 7) As yet there is no system available or imminent to interrogate the machines condition remotely via the internet.

Liability:

Possible areas of litigation are the Actions of the First Aider, Machine Failure, Preparedness of the PAD,

Actions of the First Aider: Irrespective of having training or not once the First Aider is in contact with the 999 controller the WMAS carries the liability for the First Aiders actions under the protection of the NHS Litigation Authority. Therefore, before you even open the cabinet you are covered by the NHSLA. In addition, the machine will give clear instructions on its operation, ensures the pads are correctly placed and monitors the casualty through the pads. The machine will then instruct you on the action to take.

<u>Machine Failure:</u> Should the Machine fail in any way the manufacture carries the liability as they are guaranteed for seven years.

<u>Preparedness of the AED</u>: The Provision of the PAD by the Parish council and the agreement to fund its maintenance is evidence of the council fulfilling its duty of care towards the community. The ability to demonstrate that there has been ongoing monitoring of the equipment and its readiness is again evidence of fulfilling its duty of care. Monitoring can be achieved in several ways as outlined above.

Good Samaritan Liability: PADs are now easy enough to use that most countries include the "good faith" use of an PAD by any person under the Good Samaritan laws. "Good faith" protection under a Good Samaritan law means that a volunteer responder (not acting as a part of one's occupation) cannot be held civilly liable for the harm or death of a victim by providing improper or inadequate care, given that the harm or death was not intentional and the responder was acting within the limits of their training and in good faith. PADs create little liability if used correctly

In the common law of England and Wales there is no criminal liability for failing to act in the event of another person being in danger; however, there are exceptions to this rule. In instances where there has been an assumption of responsibility by the bystander, a dangerous situation was created by them, or there is a contractual or statutory duty to act, criminal liability would be imposed on the bystander for their failure to take action. The courts are reluctant to penalize people attempting rescue and English law makes provision for the actions of 'good Samaritans,' unless their actions were grossly negligent or made a situation worse.

The Social Action Responsibility And Heroism Act received its Royal ascent in April 2015. Covering the area of protection for a lay rescuer in an emergency, this new law will give reassurance to members of the public wishing to act to help in an emergency. See websites listed below for further information.

Insurance?:

Aspects of Insurance are complicated and could be seen to relate to Use, Portability and Ownership of the Machine.

- 1) <u>Use:</u> This is covered above by the liability section
- 2) <u>Portability</u>: By the nature of the machine, ie portable, it is difficult to insure for loss or theft. Such an insurance would possibly outweigh the cost of a new machine over a relatively short space of time.
- 3) The function of the cabinet is to prevent theft and vandalism to the machine.
- 4) The likely hood of theft is increased when the machine is released from the cabinet. Such access would have a record of who the caller to the emergency services was.
- 5) Ownership: Is the machine to be owned by the Parish Council or the Village Hall?
- 6) If the Village Hall owns the machine (ie legally gifted to the Hall by the Parish Council) then it is owned by the Village Hall. The machine being external to the building it is not part of contents insurance.
- 7) If the machine is gifted to the Hall then who takes responsibility for the ongoing maintenance costs other than the electrical supply?
- 8) There is also an issue related to potential electrocution should the cabinet become live due to a fault in the mains supply.
- 9) It is recommended the owner of the machine has suitable Insurance to cover loss or damage of the machine.

Insurance Solution:

- 1) The Machine remains the property of the Parish Council along with ongoing costs.
- 2) The Cabinet is gifted to the Village Hall Wired in and installed in a competent manner.
- 3) The nature and function of the cabinet is such that it is designed to prevent impact, storm damage, theft and vandalism to the machine.
- 4) The electrical supply is certified by the halls Electrical Installation Condition certificate (5 yearly ECI cert).
- 5) If the Hall is destroyed or the part of the hall on which the machine is sited damaged by a vehicle impact or subsidence the machine and Cabinet is automatically covered by the Buildings Insurance.

Location, Installation and Safety:

Think of the following when siting the units

- Does this area have a high footfall? ~ A central location? e.g. Pub, Village Hall
- Is it close to a residential area?
- Is the place safe to stop at for pedestrians and drivers?

- Is it easy to find e.g. on a front wall?
- Hard, none slip easy access surface?

Notes:

- <u>Disabled Access:</u> To comply with safety and other regulations, cabinets should be available for access by disabled people and placed so the cabinet is approximately 1.10m from the ground and no more than 1.30m.
- <u>Signage:</u> It should be clearly identified by correct signage. Additional signage should be located at key points in the area to identify the location e.g. Noticeboards, Church, Community Buildings, Tennis & Cricket Clubs. To comply with disability requirements, signage must be such that visually handicapped people, dyslexic, English as a second language, and educationally people can fully understand instructions. Therefore, all instructions should be in an easy to understand and clearly visual icon format not text. The cabinet must also present the international ICLOR defibrillator symbol on the front, in green and standing out from the background colour of the cabinet.
- <u>Installation:</u> Mounting bolts should be appropriate for the location, be strong enough to comply with public liability to prevent the cabinet coming off of the wall, even if climbed on, and be of stainless steel not brass.
- <u>Power Supply:</u> The electrical supply to the cabinet should be a 13 amp, RCD protected with an isolator switch. The Connection could be a 13 amp RCD socket within the building "behind" the cabinet. Cabinets must adhere to BS7671 wiring regulations for safety, and carry warning symbols. Certificate of conformity of installation should be supplied by a qualified electrician.

Sundry Notes:

- The British Heart Foundation retain ownership of the machine and they effectively lease for a one-off fee.
- The Pads used by the ambulance service are more sophisticated than those used on the AEDs as they can detect a wider range of information from the casualty.

Locked or unlocked ?:

The provision of secured locations, including locked cabinets, is often a requirement to meet **legislative**, **insurance**, **functional** and **public finance reasons**. It is also unreasonable to assume a community that has fundraised through extensive methods, should allow open access to their owned equipment in areas where crime and vandalism may occur, without some form of security. The R.C.(U.K.) have agreed with CHT that such exceptions are reasonable. Specifically, the issue of opening a locked box is not "a process that can take several minutes", but one that takes 3 to 8 seconds, and would be as a result of a rescuer receiving well communicated instruction as to locality and access via the ambulance service telephone operator. This is an agreed protocol with most ambulance services. Opening a locked, as opposed to an unlocked cabinet, adds very little time to the activation and time to patient process, especially as the vast majority of instances in which such devices are deployed, happen at a different location to that of the immediate locality of the defibrillator. The majority of any delay the locked cabinet presents would be 'soaked up' in the time the rescuer actually takes to reach the location of the defibrillator. Where codes are used, these should be simple and agreed in advance with the ambulance service, and any lock should be mechanically reliable, preferably of stainless steel components, with electronic and aluminium styles avoided due to their inherent issues.

In the case of PADs especially in rural locations, a degree of theft prevention may be desirable, as they are not usually in a location with inherent security. The CHT works with local ambulance services throughout the U.K. to ensure access to these defibrillators is achieved in the fastest time possible for that environment and location.

Data Protection:

In a community situation, your PAD, after use, will hold clinical data that can be identified to the casualty. It needs to be clear how you will manage this data and what process is in place for data protection and fulfil the Caldecott protocols? Who and how will this data be transferred to the hospital to ensure your 'duty of care' and yet remain data compliant? Will a responsible person "clear" the data from the machine after use? Would it be necessary to hold the data off a cleared machine and if so where? Should copies of the data be held by a responsible person in a secure manner? A secure manner would usually be a lockable filing cabinet or safe with restricted access.

"You don't have to be a fireman to use a fire extinguisher, you don't have to be a paramedic to use a defibrillator."

ACRONYMS	
AED	Automated External Defibrillator
BHF	British Heart Foundation
CHT	Community Heartbeat Trust
ECI cert	Electrical Installation Condition certificate
HS	Heart Start
iPAD	Intelligent Public Access Defibrillator ST1
NHSLA.	National Health Service Litigation Authority
PAD	Public Access Defibrillator
RC (UK)	Resuscitation Council (UK)
SCA	Sudden Cardiac Arrest
WMAS	West Midlands Ambulance Service:

APPENDIX:

NOTE FAQs: Most sites have sections related to Frequently Asked Questions try these links:

http://www.heartstartmidlands.co.uk/benefits

https://www.resus.org.uk/contact-us/

http://www.heartsafe.org.uk/About-Heartsafe/Frequently-Asked-Questions

SOCIAL ACTION, RESPONSIBILITY AND HEROISM ACT 2015:

Websites: http://www.legislation.gov.uk/ukpga/2015/3/contents/enacted

https://www.gov.uk/government/news/courts-to-recognise-good-intentions-of-volunteers-and-small-busineses

DATA PROTECTION:

Websites: https://www.wcppe.org.uk/sites/default/files/file/NES/CaldicottPrinciples-DataProtectionAct.pdf

https://www.shropshirestar.com/news/health/2017/03/14/outrage-after-shropshire-999-responder-dismissed-

over-shredded-patient-forms/

WEST MIDLANDS AMBULANCE SERVICE:

Website: https://wmas.nhs.uk/advice-resources/defibrillators/

Email: cliff.medlicott@wmas.nhs.uk
Contact: Cliff.medlicott@wmas.nhs.uk
Cliff.medlicott@wmas.nhs.uk

[Shropshire Community Response Manager]

HEART START:

Website: http://www.heartstartmidlands.co.uk/
Email: office@heartstartmidlands.co.uk/

Contact: Chris PHILLIPS ~ ~ 01952 373999 [Bridgnorth Office]

[Paramedic for WMAS & p/t volunteer with HEART START]

COMMUNITY HEARTBEAT TRUST:

Website: http://www.communityheartbeat.org.uk/

Contact: 0845 86 277 39

RESUSCITATION COUNCIL (UK):

Website: https://www.resus.org.uk/

Email: https://www.resus.org.uk/contact-us/

Contact: 020 7388 4678

BRITISH HEART FOUNDATION:

Website: https://www.bhf.org.uk/heart-health/how-to-save-a-life/defibrillators