**All Party Parliamentary Group for Defibrillators**

*Medical Professionals and First Responders*

**Date**: 14th June 2023

**Time:** 10.00 – 11.00

**Chair**: Lord Aberdare

Minutes takes by: Tamsin Melville, DGA (Secretariat)

**Members present**:

* Lord Aberdare
* Baroness Finlay

**Speakers** :

* Dr Oliver Segal, Leading London Cardiologist at St Barts, specialising in Atrial Fibrillation, Arrhythmias and heart rhythm, electrophysiology, catheter ablation, pacemakers, CRT devices & left atrial appendage occlusion devices.
* Dr Thomas Keeble, Consultant Cardiologist and senior clinical lecturer, with an expertise on Cardiac Arrest survivorship and rehabilitation
* Dr Jon Bingham, Consultant in Trauma, Resuscitation and Anaesthesia at University Hospitals of North Staffordshire NHS Trust but also works with Midlands Air Ambulance and a charity called [AEDdonate](https://atpscan.global.hornetsecurity.com/index.php?atp_str=pUcRyUnkd3lZUi3NKchWtKfMXJ282EQe-VfJA9_v_7FWwoHnsemacUYVt0ZGXaIPPvDoQgDH6d-5qqg-IY1kYXUC73aBR6zRX3OJ1XaAT_tOIpaJz7KT6inR0wdOXBOS71cvhHBsGoJKglGGNRbp29KtP-sPcXlJZ-E_JDeTS2TX7Mt774e75m-cXLCmust-OhsLJ0Usr-iVcTdSnh1larZyQFxwcPsvUsKfyh6maGPjCiRmysp_pVg2iIZX47TWV02Tgmg8s1rDljl_fPyOaehTGhum_qgCxxF5JUr6KGJPbbXP1tjT7j9RapzMr7Tp5TVuRa27pMox3p19Q7wsauOaX-sgAwXR6ayecUlJHYk3g6VUhAvr8OgMO4wdIzo6IwyTYJtXYHNGYIRPxCM6OiOOnxI5JRhWE84ZJTqHuyrL%22%20\o%20%22https://www.aeddonate.org.uk/about/)
* Louise Walker, Vice Chair of the National Ambulance Service Responder Managers’ Group (NASRMG)

**Audience:**

* Esther Kuku, Resuscitation Council UK
* James Cant, Resuscitation Council UK
* Marcus Loney-Evans, Resuscitation Council UK
* Luke Starr, Rapid Response Revival
* Anne Jolly, SADS UK
* Tamsin Melville, DGA (Secretariat)
* Sonia Kharaud, DGA (Secretariat)

**Minutes**

Lord Aberdare opened the meeting and introduced himself and the other members. He then welcomed the external speakers to the fourth APPG for Defibrillators session with Medical Professionals and First Responders.

Lord Aberdare spoke about the reason for the formation of the group and how the group aims to raise awareness of defibrillator access and help improve sudden cardiac arrest survival rates. He recalled how he used to be involved with St John Ambulance Wales, and how important defibrillator access is. He was staggered by the difference between countries where first aid training is required in schools and those who did not.

He then asked the speakers to introduce themselves.

Dr Segal introduced himself as a consultant cardiologist in electro physiology which is the study of heart rhythm problems. He implants pace makers and part of his role is to treat those who have suffered cardiac arrest and give them a pathway. He sees people who have been rescued in the community. He said that the provision of community defibrillators is the key to rescuing those in the community. He said it is important that the provision of defibrillators is as widespread as possible and the training to use them is also important.

Lord Aberdare, thanked Dr Segal for his introduction and then asked Louise Walker to introduce herself.

Louise Walker said that she has worked for over 20 years teaching resuscitation and also worked as an in-hospital nurse treating cardiac arrest. She then became a community training officer. She said that she reunites cardiac arrest survivors with their rescuers and the most difficult aspect of her job is when the chain of survival is not met and they have been unable to rescue patients. She believes education is about having community awareness and also encouraging children to learn. On the Isle of Wight, they have a scheme called ‘Every child is a life saver’. She would like to tell the group of the lessons she has learnt on the way and also represent the National Ambulance Service.

In particular she wanted to highlight community awareness and education.

Lord Aberdare thanked Louise Walker and asked Dr Jon Bingham to introduce himself.

Dr Bingham said that he has been a doctor since 2002 and he is a consultant with Midlands Air Ambulance. More recently he has become a trustee of AEDonate which has given over 3,000 defibrillators to the community. He said that delayed defibrillators and delayed CPR lead to reduced survival. There is evidence that bystanders providing CPR support will improve outcomes.

He spoke about the chain of survival and how we need to make sure that all these links are managed.

He said that defibrillators should be everywhere and that more cardiac arrests happen at home, where people generally don’t have access to defibrillators.

He said that public access defibrillators are not kept up to date and some defibrillators have expired and have mouldy pads. He said the circuit is great at locating defibrillators, but guardians need to manage their defibrillators to make sure they are on the circuit and that it is up to date and useable.

He also explained how first aid training is a basic life support that should be afforded to all. In 2015 the UK introduced the Compulsory Emergency First Aid Education Bill, which added first aid to the curriculum for children aged 12 and above. The government turned down the opportunity to train primary school children on grounds that it would have been too much for the school curriculum.

He said workplace training is also not sufficient as 18% of people in the UK have had first aid training in the last two years, however, they do not have the confidence to administer CPR or use a defibrillator in an emergency situation.

Providing training from an earlier age at key stage 2, from the age of 7, he said, would help tackle this lack of confidence.

He commended the defibrillator for school’s programme but said, no money had been provided to service the defibrillators There is also no money for the insurance of these devices. Consequently, some schools do not want to provide defibrillators for public use on the outside of buildings, as the insurance is too costly and instead they may keep defibrillators within buildings on school premises but this means that they may not be accessible when needed.

He commended the roll out of defibrillators in schools but said this needs to be complimented with adequate CPR and defibrillator training and offered to more students.

Lord Aberdare thanked Dr Jon Bingham for his contribution, and then asked Dr Keeble to introduce himself.

Dr Keeble introduced himself and said that there is no clear reliable way to receive CPR and defibrillation as it is mainly luck.

He said that there is too much luck, chance and randomness, which means that we don’t have a reliable outcome if someone were to have a cardiac arrest.

He said that out of the 79% of cardiac arrest in the East of England, there was a defibrillator within 500 metres but in only 10% of cases the defibrillator was used. This is due to a variety of factors and education is a part of that.

He believes the advent of defibrillators will be a game changer. He thinks we will have personalised defibrillators in the next few years where people will have them in their cars or it will become mandatory for taxis to have them. As the cost comes down and availability and access goes up, he thinks we will see many more defibrillators.

Secondly, he said that all cardiac arrests are meant to go to a cardiac arrest centre but in the UK only 44% of them do. He said we have to standardise where defibrillator patients go, which should be a cardiac centre.

Lastly, he said survivors should have better care, and the right to recovery. There should also be support for bystanders and those that have administered CPR or a defibrillator. Individuals who rescue someone from having a sudden cardiac arrest have shown signs of PTSD and must be supported. Lord Aberdare thanked Dr Keeble and the other speakers for their contributions.

Lord Aberdare also welcomed Baroness Finlay to the meeting.

Lord Aberdare said that a lot of issues he found striking including, an up to date database of defibrillators.

He mentioned an app on his phone called Defib Map which doesn’t work, and highlighted the issue of defibrillator data. He raised the issue of training at an early stage in schools and personal defibrillators. Lord Aberdare said he is very interested in personal defibrillation and the opportunity it presents, he specifically mentioned CellAED as leading the way in this space.

He also raised aftercare support and the striking figure that only 10% of defibrillators were used.

Baroness Finlay, thanked the group. She said she was interested to hear about defibrillator responsibility. She wanted to ask who should be responsible for defibrillators. Should ambulances be responsible for an area or should it be manufacturers who should log who they have sold it to?

She was also interested to learn about cardiac arrest patients who had not been transferred to specialist centres. She asked who should be responsible for cardiac arrest patients going to a cardiac arrest specialist centre?

Dr Bingham responded to Baroness Finlay. He said that you can never have a perfectly maintained set of defibrillators unless it becomes mandatory requirement, and a duty of care is introduced to maintain these. The Ambulance service would be a good idea but there is a lack of funding, and they are over stretched. The legal responsibility needs to be devolved to somebody who can maintain defibrillators.

He said that it is so difficult to find a working defibrillator on databases and that these are not often up to date.

However he said that the Ambulance service is great at providing CPR support over the phone if someone was able to call 111.

Lord Aberdare thanked Dr Bingham and said that personal defibrillators would change the terms of trade.

He then asked if Dr Segal would like to add anything?

Dr Segal said that it is a complex problem with no easy solution. He believes the Government should mandate defibrillators to be in all settings. He said that as cardiac arrests mostly happen at home then the optimal solution would be to have defibrillators in the home. Specifically, he said the Government should make it a mandatory requirement to carry personal defibrillators.

He also spoke of standardising technology so that it is easy and simple to have defibrillators in the home. He believes the Government should set up a framework for this to make sure there are more defibrillators but make sure they are also easy to use.

Lord Aberdare thanked Dr Segal and asked if Dr Keeble had any comments.

Dr Keeble responded to Baroness Finlay’s question in regard to why patients are not going to cardiac arrest centres.

He presented the resuscitation to recovery document which suggested that everybody should attend a cardiac assessment centre (CAC). However he said that if you have a cardiac arrest with a shockable rhythm there is a 90-97% chance that it is a heart problem. So if you are going to take people to cardiac centres preferentially, then you should choose those who have a shockable rhythm and will likely have a heart problem. He said cardiac arrests are a heterogenous group of patients.

He also had data from the Essex Cardiothoracic Centre which showed that 44% of shockable rhythms came to a cardiac centre. They then changed the algorithm to ensure all shockable patients went to their cardiac centre and after 6 months they improved absolute survival by 7%. He believes that this is because shockable patients are going to a cardiac centre with 24 hour monitoring.

He said they are finalising the data and will publish this later in the summer, in hope that other centres will install this simple algorithm to their systems. It would mean an extra one patient per week visiting a cardiac centre but he believes the costs are lower than ITU.

He said that it is cost effective which is unusual when it comes to improving patient outcomes.

Lord Aberdare asked Louise Walker what she thought.

Louise Walker agreed with the speakers. She said that it is correct that most cardiac arrest happen in the home and while it is the gold standard to have defibrillators in the home, it is also important to have community access defibrillators. She said that if you have a second rescuer at the site, then someone can run to get a defibrillator which is publicly available.

She said we are in a much better situation now, due to all ambulances now being involved with the Circuit as well as the computer aide system as part of a 999 call.

She said that ambulance response times are struggling which is why it’s so important to go back to early education and public access defibrillators. She said that if ambulance response times haven’t been within target times, then some patients have benefitted from someone being able to do CPR within the first 3 minutes which is crucial.

She agrees that funding is a big issue. She said that Ambulance services have acquired public access defibrillators. However it is the ongoing costs which are an issue.

Lord Aberdare added that if there is an increase in personal defibrillators then it would transfer the funding responsibility to the individual families who purchased a defibrillator.

Louise Walker then said that this would raise health inequalities and that this would perpetuate this issue.

Anne Jolly spoke about ambulance guardianship. She said that ambulances are too stretched to be guardians. She said SADS UK have sponsored defibrillator pad officers in Wales, and from this the Welsh government have sponsored pads officers across Wales. She suggests that something like this should be done in England so that regions have pad officers. She thinks to have a guardian is good but someone who would also do the checking and training would be very helpful.

She added that we should bring in measures for house builders to provide defibrillators. She said that some automatically put fire extinguishers in kitchens and we should also do this with defibrillators.

She then referred to Dr Keeble and the trauma for resuscitation attempts. She said that SADS UK provide support for people who administered CPR and if there are more resources out there such as defibrillators and more training, then there will be more people saving lives but then there needs to be support for people who have done this.

Lord Aberdare asked what organisation the pads officers sit with?

Anne responded that they are part of Save a Life Cymru (SALC).

Lord Aberdare then asked if James Cant had any comments.

James Cant thanked all the speakers. He said there will never be an ambulance that will go quick enough. He said that early use of a defibrillator is a game changer.

He said we have an ultimate medical emergency, as the greatest determinant for survival is what the public does in these instances rather than what clinicians do.

He said we are asking a lot of the public as they are being asked to buy a defibrillator, service it and then potentially use it in a time of emergency.

It is a large ask of the public.

He said that there will be a series of measures which will make it a cultural societal norm so that when you are faced in that emergency situation the public is able to act efficiently.

He mentioned the Circuit and how we now need to encourage people who have purchased a defibrillator to then register them.

There is an ongoing responsibility from the public after they purchase a defibrillator to register it, service it and then use it if necessary.

He agreed with the Welsh guardians point. He thinks this could be added to existing services such as traffic wardens who can check defibrillators.

He thinks that we are at a tipping point in terms of public consciousness. Especially with Christian Eriksen and David Ginola.

In terms of houses, he said builders often have defibrillators on site and he would encourage them to leave those behind as a legacy to the community.

He wants to look at where the gaps are in terms of defibrillator density.

Lord Aberdare was struck by the cultural issue. He thinks that the public need to increase their understanding and capability which is why it’s important to involve schools at an early age.

He then asked what happens if a student in a school is required to administer a defibrillator to another student, who is responsible for the after care for the administrator as well as the bystander and recipient.

Dr Bingham wanted to pick up on trauma. Pre-emptive measures is hugely important. Therefore providing education at an earlier stage helps people to deal with trauma more manageably. If you’ve had training and education earlier then you are protected from ongoing traumatic situations. Which would be another positive from providing education earlier.

He said that we need to be careful of personal defibrillators. He said we are moving in the right direction as it starts out very cheap. Over a four year time scale it works out cheaper to have a personal device which is maintained by an organisation. He mentioned he had a conflict due to his background and who he works with.

He said that we need to make sure that these newer devices are stored between 15-20 degrees. Storage is something we need to be aware of but he added that this will improve with time and that it is still a fantastic move in the right direction.

He said everybody loves to be on social media when defibrillators are installed but nobody talks about maintenance. Ongoing, workable defibrillators which are registered and serviced are essential.

Louise Walker returned to the ask for the community to step up and use defibrillators. She said that we need to make it accessible and free. She said face to face training is very valuable as the public have lots of questions.

She thinks it starts with schools as it eliminates the fear. She said that they also installed a defib guardian programme on the Isle of Wight so that people are checking their defibrillators.

She also offered out of hospital cardiac arrest debriefs. People ask many questions and this helps with trauma management and it’s important to spread the word.

In terms of responsibility for aftercare if a child gave CPR to another child then it would likely be ambulances as well as schools who hold the aftercare responsibility. But it’s not clear and this is something we can look at in terms of education.

Dr Keeble presented more data on health inequality. He said there is a ten fold difference in terms of defibrillators per 100,000 in terms of deprived versus affluent areas in the East of England. He said this won’t change until we have a more nationalised understanding of this. He thinks we should standardise education and standardise support.

Dr Segal thanked the speakers and their passion. He said it is a critical issue and coordination from government is critical and he thinks personal defibrillators are the only solution which will maximise opportunity for people to have a defibrillator in the community. He thinks the more work we do the better, with the caveat of education and training.

Lord Aberdare summarised the discussion and said the key themes included, funding, maintenance of defibrillators, training which should start early and continue to be ongoing as well as aftercare and dealing with trauma. He said the issue has much wider ramifications and the speakers had illustrated that.

He said that the minutes of the meeting will be published.

Lord Aberdare thanked the speakers for attending and closed the meeting.