

P-05-1105 Make Cardiopulmonary Resuscitation (CPR) Compulsory in Schools, Correspondence – Petitioner to Committee, 25.01.21

Thank you for contacting me regarding the response Kirsty Williams gave to the petition I started. While I appreciate and respect her stance on the matter, I have outlined below the key points that I would like iterated at the Committee meeting. In addition to this, I will also attach a document that I made to help explain the need for CPR teaching in schools.

I am thrilled that the Health and Wellbeing AoLE is in place to support students, as we have seen a rise in both physical and mental illnesses over the past few decades. However, I see no reason as to why we cannot have this in place and additionally make CPR teaching compulsory. Just having 2 hour-long sessions per year in Secondary Schools would have a grand impact in the survival rate. It doesn't need to be part of the AoLE as it takes up practically no time at all. I've done the maths and having two hour-long sessions per year would only take up 0.2% of lesson time - leaving the remaining 99.8% for other subjects. Scotland and England have managed to incorporate CPR into the curriculum so why not Wales when it has been shown to save lives? Teaching it in schools is the best way to ensure every Welsh person gets exposure to CPR, as school is the only place where everyone attends.

*Teaching CPR in schools has been shown in countless studies to have a great impact on survival rates for out-of-hospital cardiac arrests (OOHCAs). In Denmark, the survival rate of OOHCA increased 3-fold after 10 years of CPR teaching in schools so a similar increase in Wales would have a tremendous effect! There are over 5000 OOHCA's every year in Wales, and less than 10% of people survive. Even if we were to only double the survival rate, that still means an extra 500 Welsh lives saved **every year**. 500 fewer grieving families. 500 fewer funerals.*

The exposure people have to CPR is limited and often poorly demonstrated. A large proportion of people have only ever seen it done on TV, and this is done incorrectly as you can't perform CPR on a conscious person. Additionally, TV rarely shows the rescuer assessing the victim to see if they actually require CPR. A lot of the time when someone collapses, it's due to other causes (low blood sugar, simple faint, electrolyte disturbances). Performing CPR on these people is not only pointless, but also life-threatening. Therefore, it is necessary for people to learn how to assess to see if someone actually needs CPR or not. If we do not have CPR being taught in schools, then this will not be covered, meaning people who didn't need CPR were given it. I am not meaning to sound as though I want to deter others from performing CPR - I am wanting people to be taught how to perform a proper assessment so they know whether or not CPR is appropriate.

In addition to this, I don't think people realise how traumatic giving CPR is until they've done it themselves. I was teaching a first-year student how to perform CPR and I

mentioned that you would break the victim's ribs in doing so. He looked horrified and initially didn't believe me. He then asked if that's when you're meant to stop. We never want to hurt others, especially when the person in front of us is on the floor and vulnerable. However, to give someone the best chance, we have to overcome this innate feeling within us - something that doesn't come easy without exposure.

I have attached a document explaining the evidence behind my stance, and hope that you can take the time to read it. Thank you for considering my petition for debate and I look forward to hearing back from you.

Please send my kind regards to Ms Williams and I hope that I have been able to convince her of the benefit of teaching CPR in addition to her Health and Wellbeing AoLE.

Best wishes,

CPR Factsheet

What is CPR and why is it important?

Cardiopulmonary Resuscitation (CPR) is an element of basic life support consisting of **chest compressions and rescue breaths**. It is a lifesaving activity for those who have a cardiac arrest (where the electrical activity of the heart goes haywire). The general public have very little experience seeing CPR being performed, and what little they do see (e.g. on TV dramas) is rarely done correctly. Without adequate training, people's lives are at risk which is why I am wanting CPR to be made part of the Welsh curriculum.

What is the Senedd's stance on CPR being taught at schools?

Last year, Kirsty Williams announced that CPR would not be incorporated into the national curriculum, saying "there'll be nothing to stop schools teaching CPR". (1) I feel that this passive approach is counterproductive, as it means that **only a fragment of pupils will have the opportunity** learn this lifesaving procedure. Additionally, without annual revision of CPR technique (which is not mandatory), skills learnt in a one-off session will likely not be retained indefinitely.

What is passer-by CPR and how effective is it?

Passer-by CPR refers to CPR being performed on the street by a member of the public (with or without previous training). It has been shown to **improve the survival rate of those who have a cardiac arrest by 2-3x**. (2,3) Although the data is missing for Wales, the figures for England suggest that only 40-50% of those who have a cardiac arrest out of hospital receive CPR before an ambulance arrives. (3)

Although passer-by CPR can save lives, there are several issues that occur when CPR is attempted by those without proper training.

1. **CPR Quality** – In order to perform effective CPR, compressions must be deep enough and at the correct pace. This will consequently lead to ribs being broken. Those without adequate training might not perform compressions deep enough, rendering the compressions futile. Alternatively, they might start performing CPR correctly but then stop after feeling the ribs break, out of fear that they will do more damage than good. A study published in 2017 assessed the competency of 13-14 year olds before and after being taught CPR. (4) Before the teaching session, many of the students were not competent at performing CPR correctly. They were given the scenario where someone collapsed in the street from a cardiac arrest to see if they could respond appropriately. Only 38.5% of children did compressions that were deep enough, 65% were performing compressions at the correct rate, and just over half (58%) had their hands in the correct position. This indicates that without training, a large proportion of the population who have the capacity to learn CPR do not have sufficient understanding without proper training.
2. **Rescuer Hesitancy** – research shows that many people would be hesitant to perform CPR in case they cause harm to the victim. (5) Even if CPR is conducted, hesitancy can drastically decrease the survival rate. (3)
3. **Disparity in who gets CPR** – it was revealed that the general public were less likely to perform CPR depending on the age and sex of the victim. (5,6). A potential influencing factor is the appearance of appearing predatory. To counter this, education is needed to confirm that there is no issue with performing CPR on an unconscious woman (if it is necessary)!!
4. **Unnecessary CPR** – without performing a proper assessment, it is not possible to tell if someone needs CPR just by looking at them. While CPR is lifesaving, there are some risks associated with performing it, leading to unnecessary harm to the victim. These include rib fractures and a condition called pneumothorax (where air gets into the chest cavity outside the lungs).

Is teaching CPR in schools effective?

YES!!!

It has been shown that children as young as 10 years old can perform chest compressions **as effectively as adults** (4). Additionally, research has shown that middle school children aged 13-14 can retain the understanding of CPR for at least 4 months after having a 45 minute session explaining how to perform it. Additional revision sessions two months after initial teaching improved knowledge retention, demonstrating the importance of re-educating students. Not only can children learn it, but they can also use it! Multiple studies have shown that educating schoolchildren in correct CPR procedure has been shown to **increase bystander CPR rates**. (2,7)

A study in Denmark showed that there was a **3-fold increase in cardiac arrest survival rates** after 10 years of mandatory CPR training in schools and other initiatives to support CPR understanding amongst the general population. (8) The current survival rate of out-of-hospital cardiac arrest in Britain is 7-8%, (3) so a similar increase of survival rate in Wales would be a tremendous achievement!

Why teach it in schools?

A common argument against teaching CPR in schools is that they would learn it in other areas of life. However, teaching it in schools is the **only way to ensure everyone learns it**. For example, making it compulsory to learn at work would mean that unemployed people would miss out on learning this procedure. Additionally, it has been shown that national training in schools has the greatest impact at improving bystander CPR rates. (7) Additionally, it can be done at **minimal cost and disruption** to the school day.

What should be covered in CPR lessons?

- Proper assessment of an unconscious person to determine if CPR is necessary (DRS ABC)
- How to correctly perform CPR
- How to use an automatic external defibrillator (AED)
- Addressing issues such as women being less likely to receive CPR (6) and clarifying any concerns students might have
- Legal obligations and implications of performing CPR (SARAH Act 2015)
- Recent updates in CPR procedure e.g. due to COVID, it is now recommended that rescue breaths are not given when performing passer-by CPR, and that the mouth is covered to limit victim-rescuer spread of COVID-19 while performing CPR (9)

References

1. Jones T. Call for compulsory CPR lessons rejected [Internet]. BBC News. 2019 [cited 25 August 2020]. Available from: <https://www.bbc.co.uk/news/uk-wales-politics-48093718>
2. Böttiger B, Semeraro F, Wingen S. "Kids Save Lives": Educating Schoolchildren in Cardiopulmonary Resuscitation Is a Civic Duty That Needs Support for Implementation. *Journal of the American Heart Association*. 2017;6(3).
3. National Institute for Health and Care Excellence (NICE). Bystander CPR for out-of-hospital cardiac arrest [Internet]. National Institute for Health and Care Excellence (NICE); 2016 [cited 25 August 2020]. Available from: <https://www.evidence.nhs.uk/document?id=1664953&returnUrl=search%3Fq%3DCPR%25252boutcomes&q=CPR%252boutcomes>
4. Watanabe K, Lopez-Colon D, Shuster J, Philip J. Efficacy and retention of Basic Life Support education including Automated External Defibrillator usage during a physical education period. *Preventive Medicine Reports*. 2017;5:263-267.
5. Becker T, Gul S, Cohen S, Maciel C, Baron-Lee J, Murphy T et al. Public perception towards bystander cardiopulmonary resuscitation. *Emergency Medicine Journal*. 2019;36(11):660-665.
6. British Heart Foundation. Women less likely to receive bystander CPR than men, research shows [Internet]. Bhf.org.uk. 2018 [cited 25 August 2020]. Available from: <https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2019/may/women-less-likely-to-receive-bystander-cpr-than-men-research-shows>
7. Böttiger B, Bossaert L, Castrén M, Cimpoesu D, Georgiou M, Greif R et al. Kids Save Lives – ERC position statement on school children education in CPR. *Resuscitation*. 2016;105:A1-A3.
8. Wissenberg M, Lippert FK, Folke F, Weeke P, Hansen CM, Christensen EF, Jans H, Hansen PA, Lang-Jensen T, Olesen JB, Lindhardsen J, Fosbol EL, Nielsen SL, Gislason GH, Kober L, Torp-Pedersen C. Association of national initiatives to improve cardiac arrest management with rates of bystander intervention and patient survival after out-of-hospital cardiac arrest. *JAMA*. 2013; 310:1377–1384
9. Resuscitation Council UK Statement on COVID-19 in relation to CPR and resuscitation in first aid and community settings [Internet]. Resuscitation Council UK. 2020 [cited 25 August 2020]. Available from: <https://www.resus.org.uk/covid-19-resources/covid-19-resources-general-public/resuscitation-council-uk-statement-covid-19>