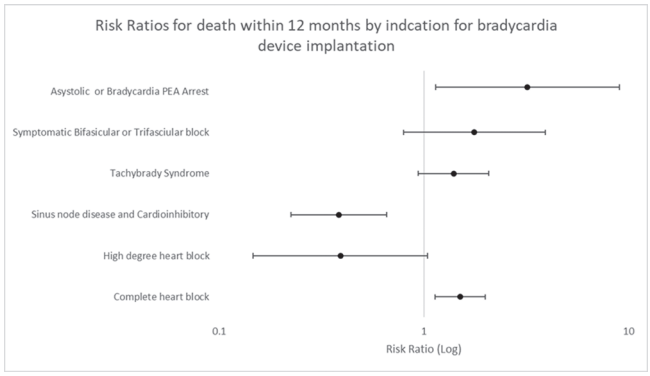


Abstract 101 Figure 3 Risk Ratios for death within 12 months by indication for bradycardia device implantation

demonstrated,1 sinus node dysfunction, sinus bradycardia and carotid hypersensitivity had lower mortality at 12 months (OR 0.38 95% CI 0.22-0.66). Interestingly, second degree heart block had reduced odds for mortality at 12 months but did not reach statistical significance.

Conclusion Inpatient implantation, indication of complete heart block and sinus arrest were found to be important factors for early mortality. There is growing evidence of non-modifiable factors at implant that affect mortality which should be considered as part of informed consenting process prior to device implantation.2

Conflict of Interest Nil

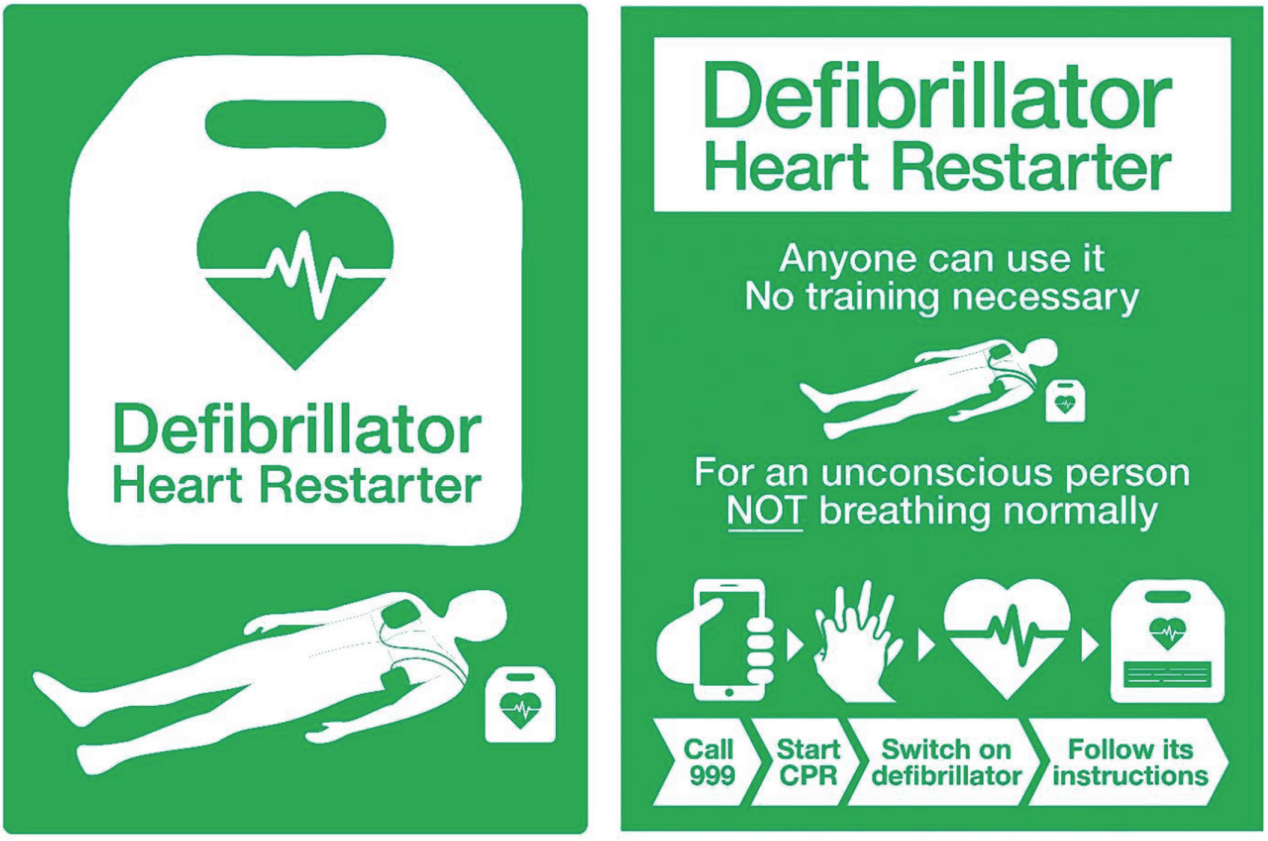
102 AWARENESS AND CONFIDENCE OF USE OF AUTOMATED EXTERNAL DEFIBRILLATORS ON NEWCASTLE UNIVERSITY CAMPUS: A CROSS-SECTIONAL INTERCEPT STUDY

[1]Molly Hunt, [2]Chris Wilkinson, [3]Elaine McColl. *[1]Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University; [2]Hull York Medical School; [3]Population Health Sciences Faculty of Medical Sciences*

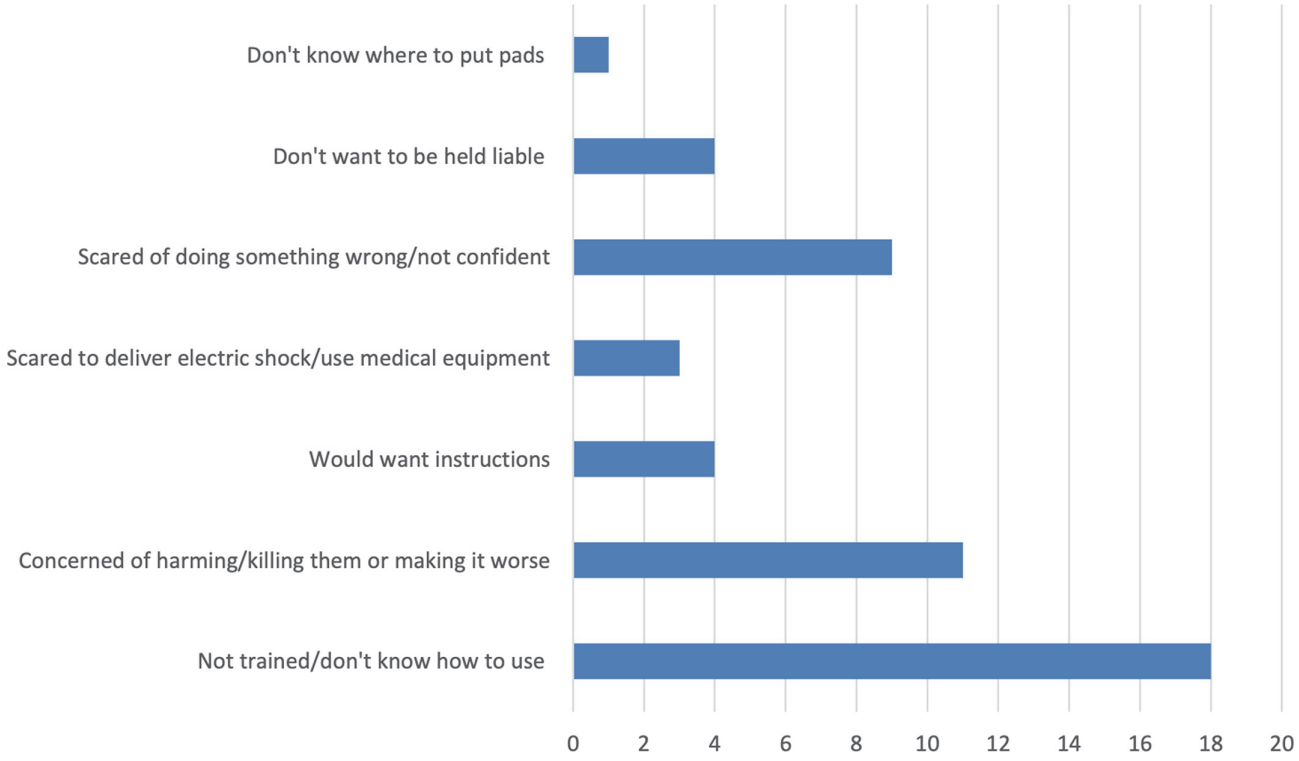
10.1136/heartjnl-2023-BCS.102

Introduction Survival following out of hospital cardiac arrest (OHCA) is less than 10% in England. Although early defibrillation with an automated external defibrillator (AED) can more than double survival rates, they are used in just 2.4% of witnessed OHCAs in the UK. Increased usage has the potential to save lives. This study investigated the awareness amongst university campus users of the location and purpose of AEDs and explored their reported willingness and confidence to use one in OHCA.

Methods A cross-sectional intercept interview study was conducted using a questionnaire administered to members of the public, staff and students at eight locations across the Newcastle University campus during May to July 2022 using convenience sampling. Informed consent from participants and University ethical approval were obtained, and demographic data were collected. An image was used to establish whether participants could identify an AED (Figure 1), and binary responses on willingness to obtain and use an AED were reported as proportions and compared with Chi-square. Self-reported confidence of use was reported on a scale of 1-10,



Abstract 102 Figure 1 Standard automated external defibrillator (AED) sign (left) and poster (right). (source: https://www.resus.org.uk/library/additional-guidance/guidance-defibrillators/guidance-standard-sign)



Abstract 102 Figure 2 Response frequencies of the reasons given for unwillingness to use an automated external defibrillator (AED), n=34.

Abstract 102 Table 1 Reported ability to identify, describe, and use an automated external defibrillator by staff, student, and public groupings

	Staff (n=31)	Students (n=54)	Public (n=85)	Significance
Able to identify an AED	27 (87.1%)	49 (90.7%)	73 (85.9%)	N/A
Correctly described the function of an AED	27 (87.1%)	48 (88.9%)	67 (78.8%)	N/A
Willing to use an AED	28 (90.3%)	44 (81.5%)	64 (75.3%)	p = 0.191
Reports knowing how to use an AED	12 (38.7%)	23 (42.6%)	18 (21.2%)	p = 0.018
Confidence rating out of ten (median, IQR)	6, 3 to 7	7, 5 to 8	6, 3 to 7	N/A

Abbreviations: AED: automated external defibrillator, IQR: interquartile range

and summarised using median (IQR) comparing those who had and had not received first aid training; comparisons were made using Mann-Whitney. Barriers to using an AED were reported as free-text responses, and analysed thematically.

Results 170 interviews were completed (31 university staff [18.2%], 54 students [31.8%] and 85 members of the public [50.0%]). 58 (34.1%) had never received first aid training.

Overall, 149 (87.6%) were able to identify an AED, and 142 (83.5%) correctly described their function (Table 1). 150 participants (88.2%) reported they would be willing to retrieve an AED in an emergency, and 136 (80.0%) were willing to use one. However, just 65 (31.2%) reported that they knew how to use an AED. The median confidence rating for using an AED, across all respondents, was 6/10 (interquartile range 4/10 to 7/10) and tended to be higher amongst those that had received first aid training than those that had not (medians: 7/10 vs 3.5/10, P=0.003). The most common barriers to using AEDs were lack of knowledge and training, and fear of causing harm (Figure 2).

Conclusion Participants were generally aware of the purpose of an AED and tended to be willing to retrieve and use one. However, they reported limited knowledge of how to access and use an AED, and lack of confidence in doing so. The reported barriers suggest that these issues are likely to be amenable to educational strategies, which is reinforced by our finding that first aid training was associated with increased reported confidence to retrieve and use an AED.

OHCA is a time-critical emergency; and increases in population willingness and confidence to use an AED has the potential to save lives.

Conflict of Interest None

103 CREATION OF AN IMAGE-BASED ELECTROCARDIOGRAM DATASET TO FACILITATE REAL-WORLD ARTIFICIAL INTELLIGENCE-ENHANCED ELECTROCARDIOGRAM ANALYSIS

[1]Neil Bodagh, [2]Darwon Rashid, [2]Miguel Bernabeu, [2]Steven E Williams, [2]Rachel Burns. [1]*King's College London, St Thomas' Hospital*; [2]*University of Edinburgh*

10.1136/heartjnl-2023-BCS.103

Background Artificial intelligence-enhanced electrocardiogram (AI-ECG) analysis offers the potential to improve care for patients with cardiovascular disease. Most of the algorithms developed to date are limited by their reliance on digital ECG signals, yet paper-based or image-based ECGs remain pervasive within numerous healthcare settings. Therefore, a disconnect