EPD/25/59 - Development of a cardiac arrest aftercare intervention for survivors: CAROUSel

BACKGROUND
Every year in the UK, around 30,000 people experience an out-of-hospital cardiac arrest (CA) and their heart can only be restarted by cardiopulmonary resuscitation (CPR). More people are surviving a CA due to public awareness campaigns on learning CPR, investment in community defibrillators and advances in medical care. However, survival comes with many long-term emotional and physical problems. Around half of survivors may suffer a brain injury leading to problems with memory and problem-solving; a third will have anxiety, depression or post-traumatic stress disorder (PTSD), and up to 70% can struggle with fatigue. These problems affect work, home and social activities and can cause more health problems. Families, too, are significantly affected, often dealing with anxiety, fear for the future, financial strain and the burden of caring for the survivor.

THE GAPS IN CA AFTERCARE
There is currently no specialist aftercare for CA survivors in Scotland. Cardiac rehabilitation, while beneficial if you have had a heart attack, is not available to all CA survivors and does not address the cognitive or psychological problems they suffer. The Scottish Government has identified CA aftercare as essential to improving survivors' outcomes, but we lack high-quality research studies on how it should be delivered. Of the studies that do exist, none included specific methods to develop the intervention, and none were conducted in the UK. Without this evidence, it is unlikely that health organisations and policymakers will support plans to improve CA aftercare.

To fill this gap, the CAROUSel Project will develop an aftercare intervention tailored to the needs of CA survivors in Scotland.

METHOD
The project is guided by an established framework for developing and evaluating complex healthcare interventions. The first four studies will lay the groundwork for study five, which will design a new CA aftercare intervention in collaboration with key stakeholders.

STUDY 1: ‘What do we know about what works already?’
We will review existing research on aftercare interventions for CA survivors, examining whether they were effective, their costs, and how they were developed. This will help us understand what works, what doesn’t, and how the interventions could be used in Scotland.

STUDY 2: ‘Who are the CA survivors in Scotland?’
We will look at data from the Scottish Ambulance Service and health records to identify the characteristics of CA survivors in Scotland and map their healthcare journey. This study ensures that the new aftercare intervention meets the needs of Scottish survivors and is delivered at the right time and in the right place. For example, how many survivors are in rural locations and may need digital interventions?

STUDY 3: ‘What aftercare do CA survivors need, and how does this change over time?’
We will recruit survivors and their family members from two hospitals to participate in interviews and surveys at three-time points: in-hospital, 2-4 weeks after discharge, and long-term (6-8 months after discharge). This will provide us with an in-depth understanding of CA survivors' recovery journey from hospital to home, their unmet needs, and potential solutions to improve the situation for future survivors.

STUDY 4: ‘How could the CA aftercare intervention be provided?’
We will invite healthcare professionals who treat CA survivors in the hospital/community to participate in focus groups to discuss the opportunities and barriers to delivering CA aftercare in the current healthcare system.

STUDY 5: ‘What should the new aftercare intervention look like?’
We will combine the findings from the first four studies and share these with stakeholders (survivors, family members, representatives from healthcare organisations, charities and the Scottish Government) to produce a detailed prototype model of the aftercare intervention ready to be tested and implemented.