

Cardiovascular Disease Prevention and Rehabilitation during COVID-19

Croí - delivering the right care, at the right time - 'virtually'

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Introduction

We are all aware that as a consequence of COVID-19 there has been significant disruptions to essential cardiology services with resultant negative implications for patients. One area seriously impacted by the pandemic has been hospital based cardiac rehabilitation. Reported attendance drops of over 70% due to issues such as cardiac rehab programme closure, staff re-deployment etc is very concerning given that cardiac rehabilitation has been shown to reduce hospital readmissions by up to 25% and cardiovascular mortality by as much as 58%.

What is Croí MySláinte?

In response to this urgent situation, Croí, the heart & stroke charity in Galway in collaboration with the National Institute for Prevention & Cardiovascular Health, developed a virtual, web-based, CVD prevention and rehabilitation programme, called MySláinte. Supported by Sláintecare Integration funding, this 12 week programme offers a new and alternative way of delivering preventive care making it accessible for people to access from the comfort and safety of their home. Delivered by a specialist interdisciplinary team (Cardiovascular Nurse Prescriber, Physiotherapist, Dietitian) with sessional Psychology and Cardiologist support the programme addresses the medical and lifestyle drivers of CVD, whilst providing important psychosocial support at a time of increased anxiety and social isolation for patients. The programme was co-designed with input from key stakeholders including patients, health care professionals (including cardiac rehabilitation staff) and e-learning technologists. It has been modelled on the evidence based MyAction programme and aligns to best practice International guidelines for remote delivery of healthcare to CVD patients.

The core components of Croí MySláinte include lifestyle modification (smoking cessation, healthy food choices, and physical activity), medical risk factor management (blood pressure, lipids, and glucose) and the prescription of cardio-protective

medication where appropriate. The programme is delivered using a web based platform (see figure 1) which hosts a wide range of interactive educational resources, including bespoke pre-recorded videos and links to weekly live zoom sessions. Croí MySláinte adopts an integrated care approach to care with referrals from multiple sources including cardiac rehabilitation units, hospital cardiology departments and general practice.

Once a patient agrees to participate in the programme they are invited to attend an individual virtual consultation with the health team (nurse, dietitian and physiotherapist). Following this initial assessment they receive access to the online platform and attend a group-based, 2 hour live session once a week. This includes an exercise component, goal setting and an interactive workshop. The programme places a strong emphasis on self-management by utilising specific behavioural change techniques and self-monitoring tools. For example, all participants are provided with a blood pressure monitor for home measurement, a fitbit to track their steps, heart rate and exercise progression, food and exercise diaries and a workbook to support goal setting and overall tracking of progress. The objective is to equip individuals with the knowledge skills and confidence to make changes to their lifestyle in a realistic way that can be sustained long-term. Weekly virtual interdisciplinary team meetings are held to review lifestyle, risk factor and therapeutic goals and where necessary, the nurse prescriber facilitates medication optimisation working in collaboration with the GP and Cardiologist.

Outcomes

Since Croí MySláinte commenced in September 2020, a total of 105 patients have been referred to-date with an uptake rate of 73% (n=77). The main barriers to participation include poor digital literacy skills, inadequate IT support (equipment and broadband), other health issues and family commitments. In just four months, three 12 week programmes have been delivered with a completion rate of 83%

(n=64) being observed. The age range of participants is between 35 and 84 years with an average age of 63 years. The programme outcomes are based on the primary endpoints for lifestyle, risk factor and therapeutic goals as recommended by the European Society of Cardiology and these are currently being evaluated.

Through qualitative focus groups, findings to date reveal that patients feel the programme has acted as an important catalyst for improving their health behaviour. Knowledge acquired on the programme, together with the actions required to self-manage (monitor blood pressure, track fitness and weight) have empowered participants to better manage their health. Patients have reported improvements in their confidence and relationship with their GP as they feel they are now "more in the driving seat". The convenience and timing of the programme was highly valued as many patients reported otherwise waiting between 3 -12 months for Cardiac Rehab. The peer support component was also highly valued "I didn't think it would be possible for me to do a programme like this as I am caring for my wife with Alzheimer's, but online access is a lifesaver, I can connect with people and not feel so alone".

Key learnings

The Croí MySláinte Programme is the first programme of its kind in Ireland delivering comprehensive, interdisciplinary CVD prevention and rehabilitation 'virtually'. While the clinical outcomes have yet to be fully evaluated, the virtual delivery model signals new opportunities and an alternative option to traditional CR or as an adjunct to existing programmes. This programme has proven that:

- It reduces traditional attendance barriers such as travel, work, childcare or carer responsibilities.
- Age is not a barrier to accessing an online programme.
- Nurse prescribing ensures efficient medical management - especially important during COVID where there is limited access to General Practice and specialist clinics.



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- Patients can become active participants in their own care.
- Administration support is vitally important to participants as they become familiar with the technology.
- The co-design approach to programme development was essential and invaluable to implementation.
- Standard operating procedures such as; inclusion and exclusion criteria, key performance indicators, policies and procedures (data protection and health and safety) etc are essential.

The Croí Heart and Stroke Centre was awarded European Association of Preventive Cardiology accreditation in 2020 in recognition of its high quality prevention and management programmes. It is the first and only centre in Ireland to receive this accreditation.

The Croí MySláinte programme is funded by the Government of Ireland's Sláintecare Integration Fund 2019, under Grant Agreement Number 121 to support the delivery of services which focus on prevention, community care and integration of care across all health and social care settings.