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Research priorities relating to the delivery of cardiovascular prevention and rehabilitation programmes: results of a modified Delphi process

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ABSTRACT

Objective The purpose of this British Association for Cardiovascular Prevention and Rehabilitation (BACPR) research priority setting project (PSP) was to identify a top 10 list of priority research questions for cardiovascular prevention and rehabilitation (CVPR).

Methods The PSP was facilitated by the BACPR clinical study group (CSG), which integrates as part of the British Heart Foundation Clinical Research Collaborative. Following a literature review to identify unanswered research questions, modified Delphi methods were used to engage CVPR-informed expert stakeholders, patients, partners and conference delegates in ranking the relevance of research questions during three rounds of an anonymous e-survey. In the first survey, unanswered questions from the literature review were ranked and respondents proposed additional questions. In the second survey, these new questions were ranked. Prioritised questions from surveys 1 and 2 were incorporated in a third/final e-survey used to identify the top 10 list.

Results From 459 responses across the global CVPR community, a final top 10 list of questions were distilled from an overall bank of 76 (61 from the current evidence base and a further 15 from respondents). These were grouped across five broad categories: access and remote delivery, exercise and physical activity, optimising programme outcomes, psychosocial health and impact of the pandemic.

Conclusions This PSP used a modified Delphi methodology to engage the international CVPR community to generate a top 10 list of research priorities within the field. These prioritised questions will directly inform future national and international CVPR research supported by the BACPR CSG.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ While there is robust evidence supporting the effectiveness of cardiovascular prevention and rehabilitation (CVPR), practice is continuously evolving and creating new gaps in the evidence base. Globally, the COVID-19 pandemic has fast tracked the need for alternative models of CVPR delivery, further raising new research questions.

WHAT THIS STUDY ADDS

⇒ The British Association for Cardiovascular Prevention and Rehabilitation clinical study group employed a five-step Delphi methodology to synthesise research questions gathered from existing literature and 459 international CVPR experts and patients and establish a list of top 10 CVPR research priorities.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This project provides a comprehensive starting point for future advancement of the international CVPR research agenda.

INTRODUCTION

Cardiovascular disease (CVD) is a major cause of mortality globally, contributing to an estimated 17.9 deaths per year.[1] Environmental and lifestyle risk factors play a crucial role in the development of CVD and people diagnosed with CVD can benefit from interventions aimed at reducing cardiac risk factors and improving secondary prevention.[2]

In those with coronary heart disease (CHD) and heart failure (HF), cardiovascular prevention and rehabilitation (CVPR) programmes can effectively reduce mortality (relative risk (RR) 0.74; 95% CI 0.64 to 0.86), hospital admissions (RR 0.82, 95% CI 0.70 to 0.96)[3 4] and increase health-related quality of life.[5] A comprehensive CVPR intervention typically includes exercise training, diet and weight management interventions, lifestyle education, psychosocial support, smoking cessation and medical management.[6]

In the UK, the British Association for Cardiovascular Prevention and Rehabilitation (BACPR) is a membership-based

organisation setting quality standards specific to the delivery of CVPR interventions. The BACPR Standards and Core Component document set out the priority patient groups that should be offered CVPR.[6] Additionally, the BACPR council listens to, and respond to, the needs of its membership, providing information and support to professionals working in this specialty.

While there is a robust evidence base supporting the effectiveness of CVPR for people with CHD and HF,[3 5] practice continues to evolve, continually raising new research questions. Indeed, the COVID-19 pandemic has fast tracked the need for alternative home and digital models of CVPR delivery raising the research question of their relative effectiveness and safety to traditional centre-based CVPR programmes.[7 8]

The British Heart Foundation Clinical Research Collaborative (BHF-CRC) has been established to provide a forum for research collaborations across the cardiovascular disease societies of the UK which are affiliated with the British Cardiovascular Society. Committed to advancing research within the field of CVPR, the BACPR established a clinical study group (CSG) to work as part of the BHF-CRC. From the outset, this CSG agreed that its first task would be to undertake a project to establish research priorities within the field of CVPR. This project idea was fully supported by, and received funding from, the BHF-CRC.

This CVPR research priority setting project (PSP) was the first to be carried out in the United Kingdom and Europe.[9] The PSP protocol was developed in October 2019 and its purpose was to identify unanswered questions from the CVPR community (BACPR stakeholders, partners and affiliated patient groups, including the Cardiovascular Care Partnership (UK)) and to prioritise research questions that they agreed were the most important. The aim of this report is to provide a summary of the PSP project, methods and findings.

METHODS

The Delphi method provides a transparent and reproducible process for developing research priorities. The stages of the PSP were derived from the Delphi methodology.[10]

The Delphi method

Where there is uncertainty within an area of healthcare research, the Delphi method has been widely adopted as a technique to gain the opinion of experts or lay people about a given issue.[9] The method is based on the premise that gathering opinions from a large group of relevant individuals offer a valid data collection process to generate group consensus and aid decision-making on a topic.[9–12] The Delphi method supports the gathering of feedback and the generation of ideas from respondents via several rounds of a survey until agreement is obtained on research priorities.[12] The Delphi method has been modified over time and can include a review of the existing literature to inform the survey.[12] Thus, to identify contemporary priorities within existing published research, the current project approached the Delphi method after an initial literature review. As the BHF-CRC has developed an IT infrastructure using Microsoft Forms to support virtual working across its groups and was keen for BACPR to integrate this in the project to trial its use in the research process, all ideas and feedback gathered as part of the Delphi approach for this PSP were collected via the Microsoft Forms platform (e-survey).

Modified Delphi process

The process of setting up the PSP was facilitated by the BACPR CSG. The BACPR CSG comprised 13 individuals from its membership and included a range of clinicians, including specialist nurses, physiotherapists, psychologists, academics and a BACPR patient representative. On the group, there was representation from the National Audit of Cardiac Rehabilitation and the Cochrane Collaboration. Although the CSG led the project, the group was keen to involve the BACPR membership and its wider partners, including patients, in shaping the list of clinical research priorities for the delivery of CVPR programmes.

As part of the CSG, a project facilitator role was advertised to the BACPR membership, and the successful candidate was appointed to lead on aspects of data collection, management and assimilation. The project facilitator (SM) was supported by the BHF-CRC, the CSG and the CSG lead (AC). The CSG lead oversaw the PSP, meeting regularly with the project facilitator throughout the process.

PSP protocol

The PSP protocol consisted of the following five steps to identify research questions within the field of CVPR.

Step 1: identify initial research uncertainties

To build a search strategy, the CSG agreed the search terms and defined the population, intervention, comparison and outcome (PICO) in accordance with the 2017 BACPR standards and core components[13] (online supplemental appendix 1). The PICO formed a screening tool to assess and select the sources for the research gaps in evidence. A computerised search of the literature was undertaken in the Cochrane database, Cochrane Central Register of Controlled Trials (CENTRAL), PROSPERO, clinical guidelines, including European Society of Cardiology, the National Institute for Health and Care Excellence, Scottish Intercollegiate Guidelines Network and NHS Evidence search. Additionally, Google Scholar and the reference list of the BACPR standards and Core Components were hand searched for possible additional literature sources. The literature review was carried out between March and June 2021 to identify unanswered questions from statements describing the need for further research. A data extraction sheet was created to collect the unanswered research questions. The extracted questions were checked by a second reviewer and shared with the CSG for comment. Each of these questions was

aligned to a core component of comprehensive CVPR[13] and reviewed by the CSG during July 2021.

Step 2: identification of stakeholders and partners

Through peer knowledge and consultation, a purposive sample of 17 expert stakeholder and patient groups suitable as survey respondents was identified and agreed on by the CSG. Expert stakeholders, partners and patients were defined as CVPR informed groups of individuals that included clinicians, affiliated patient groups and family members, within the wider international CVD community with expertise spanning the BACPR core components for CVPR. The stakeholders, patients and partners were contacted by email and invited to participate in the project. Stakeholder and partner recruitment took place between August and December 2021.

Step 3: ranking the relevance of research questions

During August and September 2021, two researchers (SM and AC) created an electronic survey (e-survey) to allow stakeholders and partners to rate existing research questions identified within *step 1*. In addition, the e-survey included open-ended questions inviting respondents to volunteer additional unanswered research questions, particularly where these had arisen during the COVID-19 pandemic. The survey was developed in accordance with The Checklist for Reporting Results of Internet E-Surveys.[14] The purpose of the e-survey, the estimated time of completion and a section explaining the informed consent process were included. The survey included 17 questions split between nine sections: *Participant Information*, *Core Components of CVPR* (encompassing health behaviour change, lifestyle risk factor management, psychosocial health, medical risk management, long-term strategies), *Methods of Delivery* and *Additional Questions'* The survey was created within Microsoft Forms and stored securely within the BHF-CRC platform. The e-survey was piloted with the wider CSG.

The first e-survey was disseminated to stakeholders, patient and partner groups via email during November 2021. Two response reminders were emailed by BACPR during December 2021. Completed survey responses were recorded and reviewed for new research question suggestions put forth by respondents. These new research question suggestions were categorised according to whether the questions were: out of scope and removed, a duplication of the original questions rated in the survey or in scope and retained for development as a researchable question. Members of the CSG reviewed and agreed all decisions taken about the additional research question submissions and contributed to the formation of the new researchable questions.

Step 4: ranking the relevance of the new questions

Two researchers (SM and AC) created the second e-survey which included the new additional researchable questions that had been agreed on by the CSG by the end of *step 3*. The survey was created and stored as detailed in *step 3*. The e-survey was piloted with the wider CSG and disseminated in June 2022 to the stakeholder membership detailed in *step 2*.

Step 5: partner and stakeholder workshop

When the PSP protocol was written in 2019, it had been hoped that *step 5* would be a face-to-face workshop, during which its attendees would use a streamlined list of priority questions from *steps 3* and *4* to finalise a 'top 10' list of research priorities for CVPR. However, to minimise the need for travel in the wake of the pandemic, the CSG agreed that *step 5* should take the form of a final e-survey, plus a conference session within the programme of the 2-day BACPR Annual Conference 2022. Thus, the researchers (SM and AC) used the questions generated in *steps 3* and *4* to develop this final e-survey, adhering to the creation and storage processes of the previous surveys. Due to the time lapse between the e-surveys in *steps 3* and *4*, it was necessary to check the original important questions against current evidence and remove questions that had been answered or were in the process of being answered. The overall top 30 important questions from these steps were contained within the final e-survey and represented five key categories: *Access and Remote Delivery*, *Exercise and Physical Activity*, *Optimising Outcomes for CVPR Programmes*, *Psychosocial Health* and *The Impact of the Pandemic*. These themed categories were identified by the researchers (initially identified by AC and checked by SM). Respondents were invited to select a set number of the top priorities from each section; the number that could be selected from each category was weighted, depending on the number of priorities within that category. The final e-survey was emailed to all stakeholders, partners, affiliated patient groups and attendees of the conference in October 2022, 1 week in advance of the event. Additionally, a quick response code for the survey was placed on the tables of all conference attendees. The survey closed at the end of first conference day and reminders to non-responders were prompted throughout the day. Dissemination of the results were shared in a session held during day 2 of the conference.

Data analysis

Published Delphi methods do not specify definitive scoring criteria to employ when accepting or rejecting unanswered questions.[15 16] The criteria agreed by the CSG to facilitate group consensus regarding endorsement or rejection of a question were based on other Delphi studies and defined prior to the development of the e-survey at *step 3*. Specifically, a question was endorsed where the sum of positive responses for the categories 'important' and 'very important' reached 75% or above (table 1).

RESULTS

The results of the modified Delphi process reflect the consensus of opinions from 459 stakeholders, partners, patients and conference attendees of BACPR. The final

Table 1 Example consensus of question endorsement/rejection

Example questions	Very important	Important	Neutral	Low importance	Not at all important
Question 1. How can psychological interventions improve cardiac and mental health outcomes in those diagnosed with coronary heart disease?	43.8%	43.3%	9%	3.9%	0.0%
Question 2. Are mobile app interventions effective for smoking cessation in people diagnosed with coronary heart disease?	16.5%	40.3%	29.5%	11.4%	2.3%

Question 1=clear consensus that question endorsed (sum of positive responses ≥75).
Question 2=clear consensus that question rejected (sum of positive responses <75).

research priorities for the delivery of CVPR programmes were explored in a five-step process containing three rounds of an e-survey. The findings from each step are shown in figure 1.

At *step 1*, an initial scoping review resulted in 83 unanswered research questions, distilled to 58 after duplication checks were completed by SM and AC. The CSG suggested that a hand search of the literature was completed where questions did not represent all of the core components for CVPR as outlined by the BACPR.[13] This resulted in a further three questions being identified, taking the total to 61 unanswered research questions. At *step 2*, 14 of the 17 invited stakeholder and partner groups agreed to share the first survey with an approximate membership of 2000 people including patient groups. Survey dissemination to these individuals in *step 3* resulted in 180 completed e-survey responses representing 29 countries.

Table 2 shows the breakdown of respondents by profession across all surveys within the methodology. From *step 3*, 28 questions met the predefined scoring criteria and were retained. Additionally, the respondents suggested a further 27 research questions of which 15 were in scope and retained for rating in the second survey (*step 4*).

From the second e-survey in *step 4*, 190 completed survey responses were collected (table 2), representing 31 countries. Respondents rated the importance of 15 questions resulting in nine questions reaching the predefined criteria (of being ranked as 'important' or 'very important' by ≥75% respondents). The nine questions from this survey were combined with the 28 questions from the first survey and carried forward to the next step.

After refinement of these questions, a total of 30 questions (online supplemental appendix 2) were carried

Figure 1 Summary of the findings from the five-step process. BACPR, British Association for Cardiovascular Prevention and Rehabilitation.

Table 2 Survey respondents by profession

Working in NHS organisation	(n)	Working in non-NHS organisation	(n)	Work in:	(n)
First survey—completed by n=180					
Doctor	13	Doctor	5	Academic research role	26
Nurse	35	Nurse	7	I have a heart condition	10
Exercise professional	15	Exercise professional	13	Friend/family member*	2
Physiotherapist	20	Physiotherapist	8	Other	7
Occupational therapist	5	Occupational therapist	0		
Psychologist	12	Psychologist	0		
Dietitian	2	Dietitian	0		
Total	**102**		**33**		**45**
Second survey—completed by n=190					
Doctor	0	Doctor	12	Academic research role	20
Nurse	43	Nurse	13	I have a heart condition	2
Exercise professional	19	Exercise professional	12	Friend/family member*	1
Physiotherapist	25	Physiotherapist	17	Other	5
Occupational therapist	5	Occupational therapist	0		
Psychologist	15	Psychologist	0		
Dietitian	1	Dietitian	0		
Total	**108**		**54**		**28**
Third survey—completed by n=89					
Doctor	0	Doctor	0	Academic research role	7
Nurse	41	Nurse	1	I have a heart condition	2
Exercise professional	10	Exercise professional	3	Friend/family member*	1
Physiotherapist	12	Physiotherapist	2	Other	1
Occupational therapist	1	Occupational therapist	0		
Psychologist	2	Psychologist	3		
Dietitian	2	Dietitian	1		
Total	**68**		**10**		**11**

*Of person with heart condition.
NHS, UK National Health Service.

forward to the third and final round of the survey at *step 5*. This final survey generated 89 completed survey responses from participants of the UK attending the BACPR Annual Conference 2022 (table 2). From this final survey, the 'top 10' research priorities for CVPR identified by the conference attendees are displayed in table 3.

DISCUSSION

This is thought to be the first project in the UK and Europe to formally assess CVPR research priorities. Three rounds of the modified Delphi e-survey enabled data to be collected across an international community. The findings will inform future BACPR research priorities for service commissioners, healthcare professionals and patients and their families.

The priority questions rated by e-survey respondents focused on access and remote delivery, exercise and physical activity, optimising outcomes for CVPR programmes, psychosocial health and the impact of the pandemic. These areas largely align with published research recommendations outlined in two recent reviews.[17 18] These reviews advocate similar research priorities which align to the increased challenges faced by CVPR programmes in practice: increasing multimorbidity and diversity within the CVPR population, the need to leverage innovative methodologies to address repeated calls to improve patient access to CVPR programmes and the impact of the pandemic and need to evaluate technology-based models of care from a multicentred perspective across a diverse patient population, and using meaningful clinical, cost-effectiveness and psychosocial outcomes.[17 18] In relation to psychosocial health, the research priorities reflect the current concerns of the CVPR community and research as anxiety and depression, widening access to psychological support and the

Table 3 Final list of top 10 CVPR research priorities

Research areas	Questions
Access and Remote Delivery	What is the best way to assess exercise capacity remotely when a face-to-face test is not possible?
	Can cardiac rehabilitation programmes meet the needs of those with multi-morbidity?
Exercise and Physical Activity	What is the optimal exercise-based cardiac rehabilitation frequency, intensity, time and type to improve aerobic fitness?
	When to restart moderate to high intensity exercise and sport after an acute event and decompensated heart failure?
Optimising Outcomes from Programmes	How do content and intent of cardiac rehabilitation educational interventions compare on risk factors, behaviour, and hospitalisation in those diagnosed with coronary heart disease?
	What is the efficacy of cardiac rehabilitation collaborative care management incorporating exercise, mental health, and behaviour strategies?
	What is the optimal intensity and duration of behavioural change components required to achieve effective secondary prevention of coronary heart disease?
Psychosocial Health	What is the role of peer group sessions on normalising and reducing psychological stress in patients with cardiac disease?
	What is the effectiveness of remote delivery of psychological support vs computerised cognitive behavioural therapy for anxiety and depression in patients with cardiac disease?
The Impact of the Pandemic	What is the long-term impact on patient health outcomes (major adverse cardiac events) in people who failed to access or delayed accessing healthcare services during the COVID-19 pandemic?

CVPR, cardiovascular prevention and rehabilitation.

effectiveness of psychological interventions remain an uncertainty within CVPR practice and research.[19–22]

Though the pandemic necessitated that *step 5* be delivered as a survey/conference session rather than a face-to-face workshop, a strength of this project was that its timing, and the flexibility inherent in its methodological design enabled quick, simple changes to be made to ensure that the impact of the COVID-19 pandemic on the perceived priority areas was able to be captured. This was considered imperative to ensure that the project's relevance, and notably, three of the resulting top 10 priorities (and nine of the top 30) focused on remote delivery and the impact of the pandemic.

While hard to gauge whether a lack of face-to-face participant engagement had a negative impact on the project, a limitation is that less than 10% of the approximately 2000 invited respondents completed each survey. When the first survey was sent out in late 2021, healthcare staff were facing winter staffing crises/redeployment due to the continuing impact of the COVID-19 pandemic,[23] thus may not have had the time or inclination to participate. Also, the final survey was the third sent to respondents within 10 months and was perhaps negatively impacted by survey fatigue. Nonetheless, the total number of responses across all three surveys was 459. In keeping with other projects using the modified Delphi methodology, this project has demonstrated a similar response rate,[16] and although low, this is probably reflective of typical engagement with this type of exercise, particularly within a difficult global healthcare climate.

A recent, similar project undertaken by the British Society for Cardiac Imaging (BSCI)/British Society of Cardiac CT (BSCCT)[24] recommended that other groups working as part of the BHF-CRC undertake this type of work to help build a comprehensive picture of UK cardiovascular research priorities and needs to help inform research funders and relevant government bodies. From the outset, the BACPR CSG and the wider BACPR council have envisaged the current project to be the starting point for future advancement of the CVPR research agenda as part of this comprehensive picture advocated by BSCI/BSCCT. That the priority questions were generated both from the existing research evidence base and from clinicians/patients/family members with practical experience of the specialty makes them both academically robust and clinically relevant. From this project, the BACPR will now seek to support collaborative work across the CVPR and CVD community to help answer these questions to help strengthen the evidence base and enhance CVPR delivery.

CONCLUSIONS

This project examined the current evidence base for CVPR to identify 'unanswered' research questions. A prioritisation process was, thus, undertaken using a modified Delphi methodology consisting of three electronic surveys involving healthcare professionals and patients across the international CVPR community. These surveys generated a top 30 list of priority research questions, from which a final top 10 list of questions was identified. The top 10 formed five broad categories of question: access and remote delivery, exercise and physical activity, optimising programme outcomes, psychosocial health and impact of the pandemic. These prioritised questions will

directly inform future national and international CVPR research.

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Contributors SM was the project facilitator and main researcher—conducting the literature review and leading on data collection and analysis. AC supported SM in this role and acted as guarantor for the project. All other authors reviewed and contributed to all steps of the project and contributed to the writing of the manuscript.

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Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval This study was survey-based and these surveys were sent to a wide range of stakeholders and partners within the CVPR community. Survey completion was considered consent to take part. This was stated on the opening page of every survey.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as supplementary information.

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Appendix 1: PICO* Used in Literature Review

Design	P	I	C	O
Systematic reviews, RCT's, guidelines and CR audits/evaluations	Coronary Heart Disease/CHD/Heart disease/cardiac disease Myocardial Infarction/MI/ myocardial ischemia Acute Coronary Syndrome/ NSTEMI/STEMI/Unstable Angina Stable Angina Heart Failure/HFrEF/HFpEF PCI/CABG/angioplasty/ Revascularisation/ Post valve surgery/ Atrial fibrillation/arrhythmia Post heart transplant Congenital heart disease/ Post implantable cardioverter defibrillator Inherited cardiac conditions/hypertrophic cardiomyopathy Cardiac resynchronisation therapy Age: no restrictions Time limiters: 2015 – to date (post search dates for Anderson L, Thompson DR, Oldridge N, Zwisler AD, Rees K, et al. (2016))	*Multi-component cardiac rehabilitation (CR) Structured delivery by CR staff Under supervision of CR staff Inpatient/outpatient Delivered anywhere globally Time: anytime relative to event/diagnosis *Multi-component to include any of BACPR core components: Health behaviour change and education, lifestyle risk factor management, psychosocial health, medical risk management, long-term strategies	Usual care – patients with index event not participating in CR	Primary/secondary outcomes (BACPR components) Total mortality Cardiovascular mortality Major cardiovascular events (include no. of events per pt. & no. of pts. having an event) Non-fatal myocardial infarction Hospital readmission all cause Hospital readmission specific to CV/cardiac/HF related Unplanned hospital readmission for any cardiovascular event Exercise capacity Quality of Life BMI/waist circumference/weight Tobacco cessation Blood pressure/glucose/blood lipids Medication adherence Return to work

(*Population, Interention, Comparison, Outcomes)

Appendix 2: Top 30 Unanswered Questions

Access and Remote Delivery:

1.	What is the long-term clinical and cost-effectiveness of web-based interventions used in secondary prevention of coronary heart disease?
2.	What are the long-term effects of digital approaches to cardiac rehabilitation (including adverse events)?
3.	What is the best way to assess exercise remotely when a face-to-face test is not possible?
4.	How can assessment of health and digital literacy be incorporated into cardiac rehabilitation?
5.	Can digital health technology increase accessibility to cardiac rehabilitation for more diverse patient groups?
6.	Can cardiac rehabilitation programmes meet the needs of those with multi-morbidity?

= select top 2 questions

Exercise and Physical Activity:

7.	What is the effectiveness of high intensity interval training versus moderate intensity continuous training at specific frequency, duration, and intensity for all coronary heart disease patients, and incorporating elderly and women?
8.	What is the optimal exercise-based cardiac rehabilitation frequency, intensity, time, and type to improve aerobic fitness in people diagnosed with coronary heart disease?
9.	Determine the benefit of regular exercise on survival in patients diagnosed with heart failure.
10.	Determine when to restart moderate to high intensity exercise and sport after an acute event and decompensated heart failure.
11.	Determine the safety profile of unsupervised home-based high intensity interval training following supervised exercise-based cardiac rehabilitation in patients diagnosed with cardiovascular disease.
12.	What is the definitive objective assessment of impact of exercise-based cardiac rehabilitation upon physical activity?

= select top 2 questions

Optimising Outcomes from Programmes:

13.	What are the long-term clinical outcomes and adverse events across home-based, centre-based and hybrid exercise-based cardiac rehabilitation for those diagnosed with coronary heart disease?
14.	What is the efficacy of cardiac rehabilitation collaborative care management incorporating exercise, mental health, and behaviour strategies?
15.	Is a traditional 8-week comprehensive exercise-based cardiac rehabilitation multidisciplinary-delivered programme more clinically and cost-effective than usual practice?
16.	What is the clinical and cost-effectiveness of exercise-based cardiac rehabilitation upon symptoms and quality of life in those with stable angina?
17.	What is the optimal intensity and duration of behavioural change components required to achieve effective secondary prevention of coronary heart disease?
18.	What is the short and long-term clinical, cost-effectiveness and impact upon physical and psychological outcomes (including complications) of exercise-based cardiac rehabilitation following heart valve surgery?
19.	What are the long-term clinical outcomes from exercise-based cardiac rehabilitation in heart failure patients treated with cardiac resynchronisation therapy?
20.	How do content and intent of cardiac rehabilitation educational interventions compare on risk factors, behaviour, and hospitalisation in those diagnosed with coronary heart disease?
21.	Can the short-term benefits of exercise-based cardiac rehabilitation on exercise capacity in transplant patients be maintained in the longer term?

= select top 3 questions

Psychosocial Health

22.	What is the impact of physical and psychological components of cardiac rehabilitation on promoting return to work up to six months following diagnosis of coronary heart disease?
23.	What is the impact and acceptability of dedicated mental health practitioners delivering enhanced psychological care for patients with new-onset depression?
24.	What is the effectiveness of remote delivery of psychological support versus computerised cognitive behavioural therapy for anxiety and depression in patients with cardiac disease?
25.	What is the effect of mindfulness on mental health and risk factors in coronary heart disease patients with at least mild depression?
26.	What is the role of peer group sessions on normalising and reducing psychological stress in patients with cardiac disease?

= select top 2 questions

The Impact of the Pandemic:

27.	Are there any adjustments needed to rehabilitation delivery and exercise prescription for individuals with long covid?
28.	What impact on patient outcomes did the reduction in access to face-to-face general practice services and cardiac rehabilitation have?
29.	What is the long-term impact on patient health outcomes (major adverse cardiac events) in people who failed to access or delayed accessing healthcare services during the covid-19 pandemic?
30.	How do the outcomes of traditional centre-based programmes compare to hybrid flexible delivery programmes that have developed during the pandemic?

= select top 1 question