Considerations for Face to Face and Remote Delivery of the Exercise Component of Core Cardiovascular Rehabilitation during the COVID-19 Pandemic

This is a guidance document from the BACPR Exercise Professionals Group (EPG) and is a supplement to 'Delivery of the Physical Activity and Exercise Component of Core Cardiovascular Rehabilitation during the COVID-19 Pandemic' (2nd Edition, November 2020)

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During the early stages of the COVID-19 pandemic many cardiovascular rehabilitation (CR) teams rapidly moved from centre-based face-to-face delivery of their services to supporting patients remotely with telephone or video calls and on-line/virtual options for exercise. This guidance document seeks to provide checklists for good practice for returning to face-to-face assessment and group classes, as well as for delivering remote assessments and virtual exercise sessions.

In their joint position statement, BACPR/BCS/BHF (Dawkes et al., 2020) state that as the risk of COVID-19 decreases cardiac rehabilitation teams will need to determine when group-based rehabilitation can safely resume, but that these should be 'brought back as early as possible to complement digital offerings'. The information gained from face-to-face assessment allows optimised exercise prescription and programming and can therefore increase clinical effectiveness and outcomes. Teams should have discussions with their clinical leads and Infection Prevention and Control (IPC) teams to determine when it is appropriate to re-commence face-to-face activity, and take into account any local restrictions.

There is an increasing awareness that in the long-term there will be a need to maintain a digital offering, alongside face-to-face rehabilitation to improve choice for patients, and increase uptake of services, especially in those groups that are currently under-

represented. It is however, also important to ensure there isn't 'digital exclusion' of those patients who do not have digital access or skills. Ongoing research and development of remote CR options remains important to ensure those who remain medically too vulnerable to attend face-to-face assessment/group exercise are not disadvantaged.

Teams should update existing or create new Standard Operating Procedures (SOPS) to reflect any changes in the provision of the exercise component of cardiac rehabilitation. Risk assessments for face-to-face and remote delivery should also be completed as per local protocol, taking into account the considerations below, and should inform individual rehabilitation offerings.

This document includes the following sections:

1. Considerations for face-to-face functional exercise testing (FET) in home, community and centre-based settings
2. Considerations for face-to-face delivery of a group exercise session
3. Considerations for remote assessment
4. Considerations for remote delivery of a group exercise session
5. Considerations for transfer from the core (phase III) to community exercise (phase IV) programmes

1. Considerations for face-to-face functional exercise testing (FET) in home, community and centre-based settings

Venue

- A suitable room must be identified to carry out a centre-based FET:

  I. following guidance from the IPC Team

  II. following guidance from the resuscitation department particularly if different from usual accommodation

  III. that meets minimum standards as described by the Association of Physiotherapists in Cardiovascular Rehabilitation (ACPICR) for the delivery of the exercise component for cardiac rehabilitation (CR)

- Community venues must be risk assessed to ensure they meet IPC guidance and safe working practices can be established. If venues used are shared facilities it is essential to consider this in risk assessments. Venues should also have their own risk assessments that need to be considered in your SOP.
- Home-based visits must have been agreed by senior management and must meet all the local organisational requirements for visiting patients' homes. Discussion with the patient for a suitable place to perform the FET should have taken place. This may be outside. Consideration of health and safety must remain paramount.

Staff competences

All staff to be involved with the FET must:

- Have been assessed for a FFP3 mask in the unlikely event that cardiopulmonary resuscitation (CPR) is required
- Be competent to don and doff Personal Protective Equipment (PPE)

- Be up to date with IPC mandatory training plus IPC training specifically related to COVID-19
- Be up to date with resuscitation mandatory training plus resuscitation training specifically related to COVID-19

Identification of patient & booking of their FET appointment

- A clinical reasoning process should be agreed locally and documentation completed to justify the reason for the FET/home visit balanced against the risk of COVID-19 for the individual patient. "*Programs should focus on the patients with the greatest needs and those who may derive the greatest potential benefit"* (AACVPR, 2020. Page 2).
- The patient must consent to participating in the FET/home visit
- An FET/ home visit appointment letter should be sent or emailed to the patient detailing local COVID-19 guidance for outpatient appointments and home visits

Screening for COVID-19 symptoms

- A local screening protocol for outpatient attendance and home visits should be used to screen patients for COVID-19 symptoms:
    - the day before the FET/home visit; this may be in the morning for an afternoon appointment
    - on arrival for the FET/beginning of the home visit

- Staff should be feeling fit and well. Some services may require completion of a COVID-19 self-assessment questionnaire.
- Some services may require formal documentation of patient and staff COVID-19 screening
- For patients suspected or known to have had COVID-19 (whether they have tested positive or not) should be screened for signs of post viral syndrome e.g. activity induced fatigue, sleep disturbances, cognitive dysfunction, orthostatic intolerance

Patient arrival & departure (ingress and egress) for centre-based

- This should be organised according to local advice from the IPC team who can visit the venue and advise accordingly
- All patients will be required to wear a mask and use alcohol hand gel on arrival on the premises
- Some authorities may require patient temperature checking
- Patients should attend alone (unless the patient is unable to attend without a carer) and at their appointment time. Strict appointment times will be needed
- Patients can be met at the department door or phoned on arrival to agree and explain access requirements
- Staff and patients should maintain 2m social distancing wherever possible
- All windows and doors should be opened to allow max ventilation where possible
- The use of the toilet facilities should be discouraged however a plan for social distancing and cleaning should be made should they be needed. In some venues, it may be possible to allocate facilities for patient use only
- Patients should bring their own water bottle and any other items they may need during the appointment although items should be kept to a minimum

PPE

PPE to be worn by staff for a FET:

- Disposable apron (single patient use)
- Disposable gloves (single patient use)
- Fluid Resistant Surgical Mask (FRSM) (sessional use)
- A visor should be worn by the clinician leading the procedure (and support staff if they are closer than 2 metres to the patient during the test).

An adequate stock of PPE must be maintained at all times

Appropriate FFP3 masks and full gowns must be available for use in case of the need to perform CPR.

Guidance for performing the FET

- Two staff (e.g. competent CR clinician & support staff) should undertake the FET, or if a staff member is working alone there should be other staff within easy reach in case of an emergency.
- A working phone must be present, if this is a mobile phone this must be fully charged with a good signal
- Resus equipment must be readily available (minimum requirement is an AED)
- FET's are not deemed to be aerosol generating procedures. The patient should remove their mask during the test in line with World Health Organisation guidance but should replace it (if it is their own) or supplied with a clean one at the end of the test

Cleaning post FET

- Any surfaces, or touch points including door handles, that the patient or staff have been in contact with during the time of the appointment should be wiped down with alcohol-based wipes
- Visor should be cleaned after the session according to IPC requirements and can be re-used by the same clinician. They should be labelled clearly for each individual staff member
- All equipment used e.g. heart rate monitors, saturation monitors, blood pressure monitors, glucometers etc. must be cleaned according to IPC requirements
- Disposal of PPE should be according to local IPC guidance

2. Considerations for face to face delivery of a group exercise session

Documentation

- A documented comprehensive CR assessment including a FET will have been completed prior to attending exercise session
- Participants will have completed a COVID-19 symptom questionnaire before each exercise session, along with other local guidance, for example a temperature check

- A register of names and contact details for all group participants (including staff) will be recorded to facilitate contact tracing, should it be required.

Venue considerations

- A risk assessment of the venue should be completed
- Where possible, consideration should be given to utilising a community venue for group exercise delivery, rather than acute hospital settings
- The venue used for the group exercise session should follow national COVID-19 guidance for health and hospitality settings as appropriate
- Where possible, the room utilised for group exercise should be large and well-ventilated
- Ensure effective communication and signage to encourage effective IPC measures and physical distancing
- Where possible, a one-way system should be in situ
- Windows and doors should be opened to allow for maximum ventilation
- Area suitable to allow for staff and participants to maintain a minimum of 2m physical distancing wherever possible
- Where possible, each participant should have a dedicated area ('pod') in the venue for their exercise session
- Allow gaps between pods to allow route to toilet and back without entering other pods
- Hand sanitiser should be available at all entrances and exits and in area used for exercise session and after toilet use
- Exercise session time will be minimum duration to reduce exposure time (i.e. approx. 60 minutes)

Staff

- A risk assessment for staff members should be completed
- Number of staff present should be minimised, while ensuring ratio of appropriately qualified staff to participants in each exercise session
- Staff will be screened prior to each exercise session as advised by local IPC guidance

- Staff will wear appropriate PPE as advised by local IPC guidance
- Staff will guide participants through demonstration and vocal prompts rather than hands on approach wherever possible
- Staff will maintain a minimum distance of 2m from participants as much as possible

Participants

- A risk assessment for participants should be completed. This should ensure the risk/benefit of participant attending a face to face exercise session
- Participants should wear a face covering at all times apart from during exercise session
- Participants should attend the exercise session alone, unless absolutely essential to facilitate the session. If so, the relative/carer will complete screening and tracing information.

Equipment

- Where possible, each participant should have their own set of exercise and monitoring equipment for exercise session
- All equipment to be cleaned as per local IPC guidance before and after exercise session
- Where individual exercise and monitoring equipment is not available, equipment will be cleaned between each participant
- Consideration should be given to material of equipment used to ensure it can be suitably cleaned
- All touch points – doors, surfaces and chairs to be cleaned before and after each exercise session

Emergency Protocol

- Emergency Protocol should be reviewed and updated, especially in situation of a venue change
- Local Resuscitation team should be consulted

- Medical first aid kit should be available, including a defibrillator and appropriate PPE in case of cardiac arrest (check latest Resuscitation guidelines)

Other considerations

- Wherever possible, participants should be encouraged to bring their own water
- Does the site have car parking facilities to reduce travel by public transport?
- If possible, can participants wait in the car/be collected from the car for their appointment to reduce time in waiting areas?
- Is there access to toilet facilities? If so, ensure touch points cleaned between patients using them and depending on facilities, limit to one at a time?
- Consider layout of the exercise area in case of a patient later testing positive and requirements needed for tracing detail. For example, documenting the 'pod' number that each participant used to allow you to identify the distance between each participant
- The use of the toilet facilities should be discouraged however a plan for social distancing and cleaning should be made should they be needed. In some venues, it may be possible to allocate facilities for patient use only
- Consider allocating a designated, appropriately distanced area for a patient if they become temporarily unwell during the session, and need to sit and recover whilst being monitored

3. Considerations for remote assessment

General guidance on telephone/video consultations (further guidance from NHS England can be read here)

- Ensure the patient's name and date of birth are confirmed and documented with every remote contact
- Take and record verbal consent for the consultation
- Ensure you give your name and designation and the patient understands the purpose of the consultation. Set expectations around the likely duration of the consultation

- Consider a face to face appointment if a remote assessment is not appropriate if local guidance allows this. Clinicians should use their professional judgement to make decisions about the most appropriate consultation method on an individual basis

Further guidance on video consultations:

- Ensure you have the patients phone number in case the video call fails
- Ensure you follow local guidance on digital platforms which have appropriate Information Governance approval
- Ensure staff offering video consultations have received appropriate training and are confident to use them.
- An initial telephone call may be required to assess appropriateness of a future video call. Consider if the patient has the digital access and skills required. Ask questions as to which device a patient may use, and whether they have Wifi.
- For video consultations, ideally send the patient a user guide to the digital platform being used in advance, and allow some time on the first video call to help orientate the patient to its functions.
- When using video-conferencing using a headset will improve audio quality, increase privacy and ensure patient confidentiality.

Remote assessment

- A full subjective assessment can be carried out by telephone or video call, and this limits the contact time during any planned face-to-face appointments.
- A video call also allows a patient to demonstrate some physical function that may be useful during the consultation e.g. shoulder range of movement following sternotomy.
- If the patient has access to Telehealth, or has their own blood pressure monitor it may be possible to take some physical measures during the remote assessment, or the patient may have recent recordings from other face to face appointments.
- It may be possible to use some functional tests remotely to gain understanding of physical function such as a sit-to-stand test, or a step test. There are however safety

concerns with conducting any remote fitness testing without monitoring, and potential risks of trips or falls. The clinician should consider the risks and benefits before conducting such tests. If a functional test is performed remotely, the risks and benefits are discussed with the patient and verbal consent is gained. Ideally a FCT is supervised in the home setting, or performed in a community or hospital venue - see previous sections.

- Detailed questioning of current physical activity levels and perceived exertion during daily activities can provide an indication of physical fitness and help guide future exercise prescription.
- The Duke Activity Status Index (Hlatky et al., 1989) provides a self-reported estimate of functional capacity and can be useful at assessment and reassessment.

4. Considerations for remote delivery of a group exercise session

- Prior to offering remotely supervised group exercise, a local risk assessment and standard operating procedure on delivering remotely supervised group exercise and a standard operating procedure for managing an unwell patient should be in place.
- Prior to participating a patient should have a face to face assessment where physical measures (Blood pressure/Heart rate) can be recorded, and a functional exercise test can be performed.
- Prior to participating in a virtual group class, patients should be screened individually to ensure they :
    - Have access to the technology/equipment required to participate and the skills to use it. (Consider that some patients may benefit from some coaching/orientation to digital platforms used).
    - Have a safe environment to exercise within at home, and have been advised on appropriate footwear and clothing.
    - Are aware they should have some water nearby, and their GTN spray/asthma inhalers (if prescribed) available.
    - Have the physical capacity to participate independently i.e. no significant balance impairment

- Are aware of adverse signs and symptoms when exercising at home and the importance of reporting these to the exercise lead.
- Provide a telephone number should they need to be contacted.
- Provide a telephone number for a carer/neighbour who could be contacted in an emergency. Patients are aware their front door should be unlocked whilst they are exercising.
- Have consented in line with the local standard operating procedure

The environment:

Consider the following when choosing a suitable location for hosting a remote group exercise class:

- Through traffic – choose somewhere that avoids this to maintain patient confidentiality
- Acoustics – some gyms/spaces may be large and echoey, smaller rooms may be better.
- Sufficient space to demonstrate the exercises

Equipment:

- Laptop or tablet with webcam for demonstrating the exercises
- A second laptop or tablet for member of staff monitoring/responding to patients
- A multi-directional speaker/microphone or headset with integrated microphone to improve audio quality

During a remote group class:

- A minimum of two members of staff should be present – one to lead the exercise component, and one to observe the patients on a second screen to monitor/correct technique and watch for signs of overexertion or other concerning symptoms
- The staff member monitoring the exercise will be a qualified member of staff trained to recognise signs and symptoms that may indicate potential harmful events.

- Patients will be screened before each exercise session and verbally consent to no health changes that would increase risk of exercising
- Use validated measures of perception of exertion to monitor patients response to exercise, and adapt exercise prescription accordingly
- Patients should be encouraged to sip water and keep their feet moving throughout their exercise session to minimise the risk of hypotension and hence arrhythmias
- If a patient becomes unwell then intervention would be needed from their GP/111 or 999 as appropriate – follow your 'unwell patient SOP'.
- Remind patients that they need to remain on screen throughout so that they can be observed

5. Considerations for the transfer from core (phase III) to community exercise (phase IV) programmes

Phase IV Transfer Forms

Patients should be transferred to an appropriately qualified exercise professional (e.g. level 4 exercise specialist in Cardiovascular Prevention and Rehabilitation). If BACPR Standards and Core Components are followed, the Phase III to Phase IV transfer form should include an assessment of functional capacity (FC) by whatever means has been possible.

The Phase III team should have information regarding a patient's FC, based on any pre cardiac rehabilitation exercise assessment, DASI, information gained from any other subjective assessments and, ideally a post cardiac rehabilitation exercise assessment.

By the end of Phase III, there should be a clear idea of the METS a patient can exercise at, since the structured exercise sessions (face to face or virtual) provide a clear evaluation of the patients FC every time they attend or have follow-up by remote resources (telephone/video). This information should be included on the transfer form.

The patient's consent should be obtained and the Phase III to Phase IV transfer form completed by the CR professional. Transfer forms are valid for 6 months, so they may end up being out of date if Phase III programmes have been delayed or if Phase IV programmes

have not restarted promptly and have waiting lists. In this case, the patient may need to request the referral to Phase IV from their GP.

If information is missing or needs clarification, the referring Phase III team or GP should be contacted, prior to participation for the Phase IV exercise programme. The patient could have an initial consultation whilst awaiting further information on clinical status.

It is highly recommended that Phase IV providers contact their referring Phase III programmes on resuming services post lockdown to understand what services have been offered (face to face or virtual).

Transfer to Phase IV without attendance at a Phase III exercise programme

In some circumstances, due to long waiting lists for Phase III or limited capacity, patients may be referred straight to a Phase IV programme without attendance (virtual or face to face) at any Phase III exercise sessions.

The Phase III team should, nonetheless, have assessed the patient and have sufficient information regarding their FC and clinical status in order to ensure a referral to Phase IV is safe and appropriate.

If information is missing or needs clarification, the referring Phase III team should be contacted, prior to participation in the Phase IV exercise programme. The patient could still have an initial consultation whilst awaiting further information on clinical status.

Phase IV Risk Stratification

The Phase IV assessment shall include the BACPR criteria for risk stratification, utilising all relevant patient information (e.g. left ventricular ejection fraction, history of arrhythmia, symptoms, functional capacity). Depending upon the level of risk identified, exercise intensity, level of monitoring and supervision can be established. (BACPR, 2018).

Phase IV Exercise Guidance

In order to maximise Phase IV uptake, completion and outcomes, programmes should adapt to deliver a menu-based approach to meet a patient's individual needs during the current

pandemic. Providing Phase IV programmes in a safe and an effective way will depend on local government guidance and service provision. Changes to service delivery may use a variety of modes e.g. centre-based, home-based or web-based. For all patients, irrespective of mode of programme delivery interventions provided are evidence-based and should address the individual's needs. Physical activity and exercise guidance should start at an intensity relevant to their Phase III programme. During Phase IV patients shall be supported to participate in a personalised structured exercise programme, have documented evidence of regular reviews, goal setting and gradual exercise progression.

In order to demonstrate effective health outcomes and ascertain the extent to which a patient's goals have been achieved during Phase IV, any parameters assessed initially should be reassessed upon programme completion. The aim of this process is to develop a patient's confidence to exercise independently. It is important that by the end of a Phase IV programme, exercise professionals assist adherence and empower patients to participate in long term physical activity and exercise.

References

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