Recommendations on how to provide cardiac rehabilitation activities during the COVID-19 pandemic

08 Apr 2020

In view of the ongoing COVID-19 pandemic and derived extraordinary measures to prevent the spread of this disease and to organize dedicated clinical services, the delivery of cardiovascular rehabilitation (CR) is hampered in several European countries. In the near future this disaster for sure will stimulate innovation in CR, particularly for alternative person-tailored, remotely guided, home-based programmes.

At present, in light of the uncertain trajectory of the COVID-19 outbreak, there is an urgent need to alleviate the impact of the COVID-19 crisis in terms of reduced delivery of structured CR in cardiac patients, mainly due to de-powering/closure of CR services and redeployment of CR staff.

Secondly, to promote activity resumption of CR facilities after the crisis, with special consideration to those patients who experienced delays in treating acute cardiac conditions.

For these reasons, the Secondary Prevention and Rehabilitation Section of the European Association of Preventive Cardiology (EAPC) has produced the following recommendations to CR services.

General recommendations

1. Evaluate regularly the COVID-19 pandemic situation.
2. Be prepared to handle COVID-19 patients.
3. Consider systematically the consequences of COVID-19 pandemic on cardiac patients.
4. Deliver as much CR as possible under the given circumstances.
5. Be prepared to address patient requests for individual information on their specific disease setting.
6. Educate patients to not postpone medical care, but to find adequate medical help when experiencing symptoms.
7. Detect and fight fake news.
8. Develop and organise telerehabilitation programmes including all core components of comprehensive CR.
9. Provide psychosocial support to patients, both by professionals and by social communities that connect patients.
10. Prepare resumption of activities from the centre point.
Recommendations according to different centre-based and patient-based scenarios

Centre-based scenarios (CBS)
- CBS 1. Totally operating centre
- CBS 2. Partially operating centre (reduction of settings and/or programs)
- CBS 3. Closed centre with staff maintenance
- CBS 4. Closed centre with staff redeployment

Patient-based scenarios (PBS)
- PBS 1. Patients during residential phase 2 CR
- PBS 2. Patients during outpatient phase 2 CR
- PBS 3. Patients during phase 3 CR
- PBS 4. Patients not referred to CR because of COVID-19

Recommendation to CBS 1 and 2
- Support acute cardiac wards in identifying priorities for CR referral in view of reduced supply of CR programmes within the health system.
- Support acute cardiac wards in providing summarised but highlighted important information/recommendations on secondary prevention (not forgetting physical activity and exercise) before hospital discharge.
- Increase patients’ turnover as soon as possible to increase the absolute number of CR programs.
- Provide structured care pathways in case of COVID-19 diagnosis during CR programmes, according to clinical features (i.e. asymptomatic, mild symptoms, moderate-to-high severe symptoms with or without necessity of noninvasive and invasive mechanical ventilation). In case of impossibility by the CR unit itself to manage COVID-19 patients, provide direct track to home quarantine or COVID-19 wards, thus minimising the overload of the emergency care system.
- Provide the following actions according to different PBSs:

<table>
<thead>
<tr>
<th>Action</th>
<th>PBS1</th>
<th>PBS2</th>
<th>PBS3</th>
<th>PBS4</th>
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</thead>
<tbody>
<tr>
<td>No admission if fever, symptoms, other signs of COVID-19 (anosmia)</td>
<td>X</td>
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<td>Patients directly tracked by acute wards should have double (72 hours) negative pharyngeal tests, or (depending on the situation of the acute ward) at least one negative pharyngeal test plus absence of symptoms, lab tests and radiological features suggestive for COVID-19</td>
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<td>Referral to CR after resolution of COVID-19 disease</td>
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<td>Patients that have been into contact with a confirmed COVID-19 case should be isolated</td>
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<td>Patients are obligated to use surgical masks during the whole stay in residential and out-patient services</td>
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<td>Recommendations for supervised exercise training:</td>
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<td>X</td>
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<tr>
<td>a) all patients and physiotherapists with surgical mask;</td>
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<td>b) during use of machines (cyclo-ergometers, treadmill) a minimal distance of 2 meters between patients;</td>
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<td>c) organise 1:1 sessions or reduce as much as possible the number of patients by session;</td>
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<td>d) disinfection of material before and after each activity;</td>
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<td>e) avoid sputum-inducing exercises</td>
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<td>In case of shortened CR programmes, concentrate efforts on the main core components (i.e. lifestyle risk management, psychosocial support, medical advice, education) in an individualized approach based on psychological symptoms, residual cardiac risk and lifestyle assessment</td>
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<td>Patient assessment and risk stratification with exercise test should be performed, whenever possible</td>
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<td>When possible, replace face to face sessions by remote assessment and monitoring, guiding, according to local equipment and expertise (telephone, text messaging, emails, video consultations, web-based platforms and applications)</td>
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<td>Provide special actions for most immunocompromised, such as heart transplanted patients (i.e. early discharge, postponed planned endomyocardial or invasive manoeuvres, more strict self-isolation, etc.)</td>
<td>X</td>
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</table>
Stop community activities interfering with social distancing, self quarantine, and isolation rules

In case of asymptomatic or mild symptomatic COVID-19 diagnosis during the CR program, offer a structured strategy of continuing rehabilitation when possible (no exercise in the presence of symptoms since the risk of sudden worsening of the disease)

In case of moderate or severe COVID-19 diagnosis, stopping the CR program and provide a taking back plan after resolution of the viral disease

Provide information on the importance to restart interrupted or postponed CR programmes, both in COVID-19 and no-COVID-19 patients

Recommendation to CBS 3

- Promote CR staff education on the impact of COVID-19 in cardiovascular patients.
- Consider use of healthcare professionals to regularly monitor patients whose CR programmes were interrupted.
- Consider starting a comprehensive programme monitored at distance, guided by different healthcare professionals, adapted to the different CR phases, tailored to the individual patient, and within safety limits (using telephone, text messaging, emails, video consultations, web-based platforms and applications, tele-video-guided CR).

Recommendation to CBS 4

- Maintain links and relationships among the dispersed staff.
- Active strategy to avoid breakdown of the CR staff and permanent closure of the CR unit.

Released by:

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