

## Recommendation of physical exercise at home during the COVID-19 pandemic. Response



### Recomendación de ejercicio físico en casa en periodo de pandemia de COVID-19. Respuesta

#### To the Editor,

We appreciate the interest shown in our recent editorial<sup>1</sup> and would like to take this opportunity to reply.

First, we would like to thank the authors for the careful and critical review of our work and for their comments and insights, as this dynamic is key to the scientific endeavor and, as they themselves have mentioned, results in clearer, more specific guidance in publications.

We would like to answer each of their comments:

The authors are correct in that we have not considered “type” to be an exercise variable. Type of exercise can refer to aerobic exercise, strength training, etc, hence it would be more appropriate to refer to “exercise style” or even “training protocol.” We also agree with their opinion that the terms “quantity” and “duration” are equivalent to “volume.”

Regarding the Spanish Society of Cardiology/Spanish Heart Foundation (SEC/FEC) reference, the original source for the information has been cited specifically.

Last, the authors state that “a more critical review was required” of the recommendations provided in the literature we selected. Because the text is brief and our main purpose was to collect, summarize, and compare the recommendations proposed by the most prestigious organizations (American College of Sports

Medicine, American Heart Association, etc) in the field of health and physical exercise during this unique lockdown situation, we did not consider a critical review appropriate. Although it is true that we lacked a more specific, individualized approach to the exercise protocols proposed by these institutions, a critical review would be undertaken in another kind of scientific publication.

We hope to have fully and satisfactorily answered the authors' concerns and would like to thank them sincerely for their valuable contributions to our article.

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## Telemedicine for patients with valvular heart disease or aortic disease in the era of COVID-19



### La consulta telemática para el paciente con valvulopatías o enfermedad aórtica en tiempos de la COVID-19

#### To the Editor,

The Spanish Society of Cardiology recently published a consensus document on telemedicine for clinical cardiologists in the era of COVID-19.<sup>1</sup> This publication lays out key points for improving health care quality in our new telemedicine visits, as well as an overview of conditions seen by clinical cardiologists: ischemic heart disease, heart failure, and arrhythmias. The aim of our letter is to contribute further information and to address major points to review during telemedicine visits with patients with valve disease, as well as to identify which patients should be seen in person and which patients can receive follow-up by primary care.

Several basic issues should be considered during telemedicine visits with a patient who has valve disease, a valve replacement, or aortic disease, particularly the presence of symptoms (dyspnea, congestion, chest pain, dizziness, syncope, palpitations indicating the development of arrhythmia), anticoagulant monitoring, endocarditis prophylaxis, oral hygiene, or treatment modifications (need for diuretics). In patients with chronic valve disease, symptoms are usually progressive and develop slowly. Thus, particularly in situations where physical activity is diminished, for instance, as in the current epidemiologic context, patients should be confirmed as clinically stable and encouraged to continue with their usual level of physical activity, so that any symptoms are revealed and not overlooked.

Additionally, physicians should evaluate any biometric measurements (blood pressure, heart rate, weight) taken by patients themselves and should review current treatments and therapeutic adherence. In patients with mild symptoms consistent with heart failure decompensation, treatment may be adjusted over the telephone and, if necessary, the patient can be referred for an in-person visit and evaluation for a surgical or percutaneous

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procedure. In patients with mechanical valve replacements, telemedicine programs can be developed with nursing support to allow patients to monitor the international normalized ratio themselves. Self-monitoring of the international normalized ratio reduces its variability and lowers the incidence of thrombotic and hemorrhagic events. Along with a very significant reduction in regular in-person visits, this would help prevent COVID-19 exposure among vulnerable patients.

The main difficulty with telemedicine visits in patients with aortic or valve disease relates to the need for imaging tests to aid decision-making. Telemedicine visits could be most beneficial for patients with grade I or II regurgitation or mild stenosis, patients with normal functioning valve replacements, and patients with aortic dilation and stable diameters, as further testing is not essential in these patients. Conversely, in-person visits will be needed in the following cases:

- Patients with new onset of valve disease symptoms (eg, suspected heart failure, congestion, angina, syncope, new arrhythmias).
- Patients with severe valve disease with recent echocardiography revealing progression of parameters indicating the need for surgery should be evaluated in person and have echocardiography repeated within 6 months.<sup>2</sup>
- Patients with severe valve disease who remain asymptomatic and have stable echocardiographic parameters outside the limits indicating surgery could reasonably receive telemedicine follow-up for up to 1 year with 1 echocardiogram per year.
- Patients with aortic dilatation > 45 mm require yearly follow-up imaging scans (echocardiogram for aortic diameter > 45 mm or aortic computed tomography or cardiac magnetic resonance for aortic diameter > 50 mm).
- Patients with aortic disease after acute aortic syndrome should be evaluated, whenever possible, by advanced imaging techniques, by cardiac magnetic resonance or computed tomography, and at in-person visits.

To minimize exposure to COVID-19, patients should be scheduled for imaging tests (particularly in the case of echocardiograms) and in-person visits on the same day, ideally consecutively. Follow-up of

these patients should preferably take place in specialized outpatient offices.

Patients with mild mitral or tricuspid regurgitation do not require follow-up, and can be referred for monitoring only by primary care. Last, patients with mild aortic regurgitation, mild aortic stenosis, or mild mitral stenosis may benefit from priority follow-up by primary care with support from cardiology.

In conclusion, apart from the difficulty arising when additional tests are needed, telemedicine visits can help minimize exposure risks for both patients and health care professionals in the current epidemiologic context.

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#### To the Editor,

We appreciate the letter by González Gómez et al. regarding the consensus document of the Spanish Society of Cardiology on telemedicine consultation for clinical cardiologists in the era of COVID-19<sup>1</sup> because it marvelously complements the information provided in the consensus document, which is focused on ischemic heart disease, heart failure, and arrhythmia. Although the follow-

up of patients with valvular heart disease and aortic disease is hugely important for clinical cardiologists, we were unable to address these conditions due to issues related to document length.

Interestingly, the authors use the same format as the consensus document, reviewing the information to be covered with patients in the telemedicine consultation and discussing which patients would require a face-to-face consultation and which can be followed up in primary care.

The authors recommend a one-time consultation with echocardiography for the follow-up of these patients. Although we believe this to be the most appropriate approach, these patients often require additional tests to complete their assessment, such as transesophageal echocardiography, computed tomography, cardiac magnetic resonance imaging, and cardiac catheterization. We believe that telemedicine consultations can also be highly useful for informing patients of the main results of these tests.

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