To: American College of Cardiology

American College of Chest Physicians

American College of Physicians

American College of Radiology

American Heart Association

American Society of Echocardiography

American Thoracic Society

European Association of Cardiovascular Imaging

European Society of Cardiology

European Society of Radiology

Heart Rhythm Society

Infectious Disease Society of America

North American Society of Cardiovascular Imaging

Radiologic Society of North America

Society of Cardiovascular Magnetic Resonance

Society of Critical Care Medicine

Society of General Internal Medicine

Society of Hospital Medicine

Dear Society Leadership:

We are a group of clinicians, researchers and imaging specialists writing in response to recent publications and media coverage about myocarditis after COVID-19. We work in different areas such as public health, internal medicine, cardiology, and radiology, across the globe, but are similarly concerned about the presentation, interpretation and media coverage of the role of cardiac magnetic resonance imaging in the management of asymptomatic patients recovered from COVID-19.

Studies^{1–3} investigating the prevalence of myocarditis in patients with recent COVID-19 have found features of subclinical myocarditis on cardiac magnetic resonance (CMR) imaging in patients without symptoms. Some commentators have raised concern that COVID-19 may lead to frequent, serious long-term cardiac sequelae even among people who have had mild infection and are currently asymptomatic.

We wish to emphasize that the prevalence, clinical significance and long-term implications of CMR surrogates of myocardial injury on morbidity and mortality are unknown. Further, it is unclear if the elevated T1 and T2 flagged in these studies are clinically significant, particularly in isolation, if treatment is needed, and, if so, what the management should be. These important questions should inspire future prospective studies.

Nonetheless, these reports have attracted significant media coverage, at times amplified by speculation on possible clinical implications, thus generating substantial anxiety amongst members of the general public. As a result, we are aware that some individuals are seeking CMR testing despite the absence of cardiac symptoms. We believe that, given the preliminary nature and limitations of the current evidence, testing asymptomatic members of the general public after COVID-19 is not indicated outside of carefully planned and approved research studies with appropriate control groups.

In light of your societies' standing in the community and advocacy against low-yield testing and low-value medical care through your sponsorship of the Choosing Wisely⁴, Image Wisely⁵, and other similar campaigns, we request that you offer clear guidance discouraging CMR screening for COVID-19 related heart abnormalities in asymptomatic members of the general public.

Sincerely,

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References:

- Puntmann VO, Carerj ML, Wieters I, Fahim M, Arendt C, Hoffmann J, Shchendrygina A, Escher F, Vasa-Nicotera M, Zeiher AM, Vehreschild M, Nagel E. Outcomes of Cardiovascular Magnetic Resonance Imaging in Patients Recently Recovered From Coronavirus Disease 2019 (COVID-19). *JAMA Cardiol* [Internet]. 2020;Available from: http://jamanetwork.com/journals/jamacardiology/fullarticle/2768916
- Huang L, Zhao P, Tang D, Zhu T, Han R, Zhan C, Liu W, Zeng H, Tao Q, Xia L. Cardiac Involvement in Patients Recovered From COVID-2019 Identified Using Magnetic Resonance Imaging. *JACC Cardiovasc Imaging* [Internet]. 2020;Available from: http://www.sciencedirect.com/science/article/pii/S1936878X20304034
- 3. Clark DE, Parikh A, Dendy JM, Diamond AB, George-Durrett K, Fish FA, Fitch W, Hughes SG, Soslow JH. COVID-19 Myocardial Pathology Evaluated Through scrEening Cardiac Magnetic Resonance (COMPETE CMR). *medRxiv*. 2020;2020.08.31.20185140.
- 4. Cassel CK, Guest JA. Choosing wisely: helping physicians and patients make smart decisions about their care. *JAMA*. 2012;307:1801–1802.
- 5. Brink JA, Amis ES. Image Wisely: a campaign to increase awareness about adult radiation protection. *Radiology*. 2010;257:601–602.