



Top 10 Takeaways

The ACC's Heart House Roundtable, *Emerging Strategies and Criteria for the Diagnosis and Management of Myocarditis*, identified the following 10 key opportunities to address the gaps associated with the pathogenesis, diagnosis, treatment, and prognosis of myocarditis.

01

Timely referral of severe myocarditis patients to specialists and medical centers with advanced diagnostic and management capabilities such as transplant and mechanical circulatory support is critically important. Referral in the earliest stages of high-risk myocarditis and or cardiogenic shock could decrease mortality through timely evaluation for these therapies.

02

Diagnostic criteria for myocarditis are evolving regarding pathology, imaging, and biomarkers. There is a growing recognition of the role of newer diagnostic modalities in diagnosis and monitoring of myocarditis. Diagnostic criteria are not consistently applied and do not incorporate advances in our understanding of cardiac immunology, inflammation, or injury. Specifically, the roles for endomyocardial biopsy, advanced cardiac imaging, and recently described blood-based biomarkers -especially circulating cells- of inflammation and injury in specific clinical scenarios require updating.

03

Management of myocarditis varies according to severity of the presentation and specific etiology. It is important for specific etiology to be determined for timely initiation of appropriate treatment strategies and supportive care. Deep clinical and immune phenotyping will be required to develop safer and more effective personalized treatments for myocarditis subtypes.

04

Monitoring for recovery and return to play after myocarditis can vary according to the severity of presentation, specific etiology, comorbidities, and clinical trajectory. Current recommendations are not supported by clinical studies or registries.

05

There is inadequate health care coverage for myocarditis care. Many patients are not covered for repeat imaging and/or testing following myocarditis diagnosis or initial testing with advanced imaging in the outpatient setting. Patients may require repeat diagnostic evaluation to ascertain resolution of abnormal cardiac involvement and/or for consideration of additional therapies such as guideline directed management of cardiomyopathy or heart failure if they have persistent symptoms and or cardiac dysfunction.

06

There is inequity in evaluation, diagnosis, treatment of myocarditis, and surveillance post myocarditis. Patients with poor access and inadequate health care coverage are unable to be appropriately evaluated and are infrequently considered for advanced therapies. Underrepresented minority groups are also not represented well in current myocarditis studies. The burden of disease in diverse populations should be a focus of the next generation of clinical and translational research studies. Collaborative and/or international studies will best serve this objective.

07

Management algorithms are frequently based on expert opinion or small case studies in the absence of well-designed clinical trials. Clinical trials and international -transatlantic, intercontinental- registries are necessary to determine the value of advanced imaging and endomyocardial biopsy as well as define potentially lifesaving and safer treatments targeting specific inflammatory pathways.

08

Additional studies are needed to define contributions of genetic background and immune phenotype (inflammatory cell function and quantity) as risk modifier for myocarditis; how and when does genetic testing improve classification, modify management, inform future risk of recurrent cardiac inflammation and/or stratify risk for both myocarditis and related disease (i.e. cardiomyopathy) in relatives.

09

Partnership with industry, academic centers, and patient advocacy groups are needed to successfully complete multicenter, international registries for the study of myocarditis. Decentralized structures for enrollment coupled with specialized centers for clinical research should be considered in the formation of such registries.

10

The psychosocial burden of the diagnosis of myocarditis including depression and anxiety are considerable in both patients and their caregivers. This burden has not been systematically measured or consistently addressed in current practice.

