



mRNA Coronavirus Disease 2019 Vaccine-Associated Myopericarditis in Adolescents: A Survey Study

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In this survey study of institutions across the US, marked variability in evaluation, treatment, and follow-up of adolescents 12 through 18 years of age with mRNA coronavirus disease 2019 (COVID-19) vaccine-associated myopericarditis was noted. Only one adolescent with life-threatening complications was reported, with no deaths at any of the participating institutions. (*J Pediatr* 2022;243:208-13).

Since April 2021, more than 1000 patients have been reported to the Vaccine Adverse Event Reporting System (VAERS) with presumed myopericarditis following administration of the mRNA coronavirus disease 2019 (COVID-19) (Pfizer-BioNTech, Moderna) vaccine.¹ The afflicted patients predominantly have been male and <16 years of age, a vast majority of whom developed clinical features of myopericarditis within a few days after receiving the second mRNA COVID-19 vaccine (Pfizer-BioNTech, BNT162b2) dose.¹ The overall reported incidence of myopericarditis after administration of mRNA COVID-19 vaccine has been estimated to be 4.2 and 32.4 per million doses administered in female and male adolescents 12 through 17 years of age, respectively.^{2,3}

Case series⁴ and several other reports suggest wide variability in clinical evaluation and treatment of adolescents 12-18 years of age with mRNA COVID-19 vaccine-associated myopericarditis (VAM) across institutions within the US.⁵⁻¹⁰ To better assess this variability, we conducted a cross-sectional survey of pediatric institutions across the US between July 9, 2021, and August 9, 2021. A secondary objec-

tive of this study was to determine the rate of serious, life-threatening complications (cardiopulmonary arrest requiring resuscitation, need for mechanical circulatory support [extracorporeal membrane oxygenation, Impella or ventricular assist device use], and death) in these adolescents.

Methods

After we obtained appropriate institutional review board approval, a questionnaire that inquired about the institutional practices regarding diagnosis, treatment, and follow-up of adolescents with VAM was emailed to pediatric cardiologists or pediatric infectious disease specialists at 107 institutions (the top 100 institutions in the US News ranking of pediatric cardiology programs and a few additional programs with which the authors were familiar) across the US

COVID-19	Coronavirus disease 2019
IVIG	Intravenous immunoglobulin
NSAID	Nonsteroidal anti-inflammatory drug
PCR	Polymerase chain reaction
VAERS	Vaccine Adverse Event Reporting System
VAM	Vaccine-associated myopericarditis

Affiliation information is available at www.jpeds.com.

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