

**Supplementary Table S1** Centers for Disease Control and Prevention case definitions for COVID-19 vaccine-associated myocarditis

Probable case	Confirmed case
≥1 new or worsening symptom	≥1 new or worsening symptom
Chest pain, pressure, or discomfort	Chest pain, pressure, or discomfort
Dyspnea or shortness of breath	Dyspnea or shortness of breath
Palpitations	Palpitations
Syncope	Syncope
And ≥1 new finding of	And
Elevated troponin above the upper limit of normal	Histological confirmation of myocarditis
Abnormal ECG or rhythm monitoring consistent with myocarditis	Or
Abnormal ventricular systolic function or wall motion abnormality on echocardiography	Elevated troponin above upper limit of normal and cardiac MRI findings consistent with the original or revised Lake Louise criteria for myocarditis
Cardiac MRI findings consistent with the original or revised Lake Louise criteria for myocarditis <sup>a</sup>	And no other identifiable cause of the symptoms and findings

Abbreviations: COVID-19, coronavirus disease 2019; ECG, electrocardiogram; MRI, magnetic resonance imaging.

Note: And no other identifiable cause of the symptoms and findings.

Source: Adapted from Gargano et al with permission. Copyright 2021, Centers for Disease Control and Prevention.

**Supplementary Table S2** Patient data

Patient ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Sex	F	M	M	M	F	M	M	M	M	M	M	M	F	M	
Age, y	16	16	15	15	12	15	15	15	14	13	14	15	15	17	
Combined medical condition	a												b		
Brand of COVID-19 vaccine	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	Pfizer	
Dose of vaccine with symptoms	2	1	1	1	1	2	1	2	1	2	2	2	1	2	
Days from vaccine administration to symptom onset, d	0	7	5	1	0	3	1	1	1	2	1	0	2	8	
<b>Clinical symptoms</b>															
Fever	+	-	+	-	-	-	+	-	-	+	-	-	-	-	
General weakness	+	-	+	-	-	-	-	-	-	-	-	-	-	+	
Nausea	+	-	+	-	-	-	-	-	-	-	-	+	-	-	
Vomiting	+	-	+	-	-	-	-	-	-	-	-	+	-	-	
Dyspnea	+	-	-	-	-	-	-	-	+	+	-	+	+	+	
Headache	+	-	-	-	-	-	+	-	-	-	-	-	-	-	
Chest pain	-	+	+	+	+	+	-	+	+	+	+	+	-	+	
Orthopnea	+	-	-	-	-	-	-	-	-	-	-	+	-	-	
Chest discomfort	+	-	-	-	-	-	+	+	+	-	-	+	+	+	
Palpitation	-	-	-	-	-	-	+	-	-	-	-	-	+	-	
Duration of symptoms, d	44	22	7	7	60	4	13	6	13	4	5	5	45	21	
<b>Laboratory test</b>															
CK (IU/L, reference range < 250 IU/L)	+	+	+	+	+	+	-	-	+	+	+	+	-	-	
CK-MB (ng/mL, reference range < 5 ng/mL)	-	-	+	+	+	+	-	-	-	+	+	+	-	-	
Troponin-I (pg/mL, reference range < 60 pg/mL)	+	-	+	+	+	+	+	+	+	+	+	+	-	-	
BNP (pg/mL, reference range < 40 pg/mL)	+	-	+	-	+	+	-	-	-	+	-	+	-	-	
Other proven myocarditis etiology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>ECG</b>															
ST elevation	-	-	+	-	+	+	-	-	-	+	+	+	-	-	
T inversion	-	-	-	-	-	-	-	-	-	-	-	+	-	-	
AV block	-	-	-	-	+	-	-	-	-	-	-	-	-	+	
<b>Echocardiography</b>															
Decreased LVEF	-	+	-	-	-	-	-	-	-	-	-	-	+	-	
Pericardial effusion	-	-	-	-	-	-	-	-	-	+	-	-	-	-	

Supplementary Table S2 (Continued)

MRI																
Late gadolinium enhancement	+		+													
Decreased LVEF	-		-													
Pericardial effusion	-		-													
CDC case definition of myocarditis																
	C	P	C	P	C	P	C	P	C	P	C	P	C	P	P	
Treatment																
NSAIDs	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
Steroid	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inotropic	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
Vasodilator	-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
Disposition	Ward	OPD	Ward	Ward	ICU	Ward	Ward	Ward	Ward	OPD	Ward	Ward	Ward	Ward	Ward	OPD

Abbreviations: AV, atrioventricular; BNP, B-type natriuretic peptide; C, confirmed; CDC, Centers for Disease Control and Prevention; CK, creatine kinase; COVID-19, coronavirus disease 2019; ECG, electrocardiography; ICU, intensive care unit; LVEF, left ventricular ejection fraction; MRI, magnetic resonance imaging; NSAIDs, nonsteroidal anti-inflammatory drugs; OPD, outpatient clinic; P, probable.

<sup>a</sup>Concomitant COVID-19 mRNA vaccination associated rapidly progressive glomerulonephritis.

<sup>b</sup>History of cured acute myocarditis 10 years ago.