Supplementary Table 1: Definitions for ICI-induced myocarditis (*adapted from Herrmann et al.*[8])

IC-OS 2021 Consensus[8]

1/ Either pathohistological diagnosis:
Multifocal inflammatory cell infiltrates with overt cardiomyocyte loss by light microscopy of cardiac tissue samples

2/ Or clinical diagnosis:
A troponin elevation (new, or significant change from baseline) with 1 major criterion or a troponin elevation (new, or significant change from baseline) with 2 minor criteria after exclusion of acute coronary syndrome or acute infectious myocarditis based on clinical suspicion

Major Criterion
CMR diagnostic for acute myocarditis (modified Lake Louise criteria)

Minor Criteria
- **Clinical** syndrome (including any one of the following: fatigue, muscle weakness, myalgias, chest pain, diplopia, ptosis, shortness of breath, orthopnea, lower extremity edema, palpitations, lightheadedness/dizziness, syncope, cardiogenic shock)
- Ventricular **arrhythmia** and/or new **conduction system disease**
- **Decline in cardiac (systolic) function**, with or without regional WMA in a non-Takotsubo pattern
- **Other immune-related adverse events**, particularly myositis, myopathy, myasthenia gravis
- **Suggestive CMR** (meeting some -but not all- of the modified Lake Louise citeria)

Modifiers

Severity of Myocarditis	
Severe	Hemodynamic instability, heart failure requiring non-invasive or invasive ventilation, complete or high-grade heart block, and/or significant ventricular arrhythmia
Non-Severe (clinically significant)	Symptomatic but hemodynamically and electrically stable, may have reduced LVEF, no features of severe disease
Smoldering (sub-clinical)	Incidentally diagnosed myocarditis without any clinical signs or symptoms
Recovery from Myocarditis	
Complete Recovery	Patients with complete resolution of acute symptoms, normalization of biomarkers and recovery of LVEF after discontinuation of immunosuppressants
Recovering	Ongoing improvement in patient clinical symptoms, signs, biomarkers and imaging parameters, but not yet normalized, while on tapering doses of immunosuppressants

Bonaca et al.[9]

Definitive	Pathology OR Diagnostic CMR + syndrome + biomarker or ECG OR Echo WMA + syndrome + biomarker + ECG + negative angiography
Probable	Diagnostic CMR (no syndrome, ECG, biomarker) OR Suggestive CMR with either syndrome, ECG or biomarker OR Echo WMA and syndrome (with either biomarker or ECG) OR Syndrome with PET scan evidence and no alternative diagnosis
Possible	Suggestive CMR with no syndrome, ECG or biomarker OR Echo WMA with syndrome or ECG only OR Elevated biomarker with syndrome or ECG and no alternative diagnosis