

HRS/EHRA/APHRS consensus recommendations for diagnosis and management of early repolarization syndrome

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Expert consensus recommendations on early repolarization diagnosis

- (1) ERS is diagnosed in the presence of J-point elevation 1 mm in 2 contiguous inferior and/or lateral leads of a standard 12-lead ECG in a patient resuscitated from otherwise unexplained VF/polymorphic VT
- (2) ERS can be diagnosed in an SCD victim with a negative autopsy and medical chart review with a previous ECG demonstrating J-point elevation 1 mm in 2 contiguous inferior and/or lateral leads of a standard 12-lead ECG
- (3) ER pattern can be diagnosed in the presence of J-point elevation 1 m in 2 contiguous inferior and/or lateral leads of a standard 12-lead ECG

Expert consensus recommendations on early repolarization therapeutic interventions

- Class I (**Sager 2013**) ICD implantation is recommended in patients with a diagnosis of ERS who have survived a cardiac arrest
- class Iia (**Surawicz 2011**) Isoproterenol infusion can be useful in suppression of electrical storms in patients with a diagnosis of ERS
- (**Hoogendijk 2013**) Quinidine in addition to an ICD can be useful for secondary prevention of VF in patients with a diagnosis of ERS.

➤ Class IIb (**Wellens 2008**) ICD implantation may be considered in symptomatic family members of ER syndrome patients with a history of syncope in the presence of ST-segment elevation >1 mm in two or more inferior or lateral leads (**Rautaharju 2009**) ICD implantation may be considered in asymptomatic individuals who demonstrate a high-risk ER ECG pattern (high J-wave amplitude, horizontal/descending ST segment) in the presence of a strong family history of juvenile unexplained sudden death with or without a pathogenic mutation

➤ Class III (**Haissaguerre 2008**) ICD implantation is not recommended in asymptomatic patients with an isolated ER ECG pattern

(Piori 2013) Quinidine in addition to an ICD can be useful for secondary prevention of VF in patients with a diagnosis of ERS.

APHRS, Asia Pacific Heart Rhythm Society; EHRA, European Heart Rhythm Association; ER, early repolarization; HRS, Heart Rhythm Society; ICD, implantable cardioverter defibrillator; SCD, sudden cardiac death; VF, ventricular fibrillation; VT, ventricular tachycardia.