

Electrocardiogram: Part III: Intraventricular Conduction Disturbances^{53,2-1} are used for this document, although it is acknowledged that these recommendations are not without controversy.^{53,2-1}

4. GENERAL EVALUATION OF PATIENTS WITH DOCUMENTED OR SUSPECTED BRADYCARDIA OR CONDUCTION DISORDERS

4.1. History and Physical Examination of Patients With Documented or Suspected Bradycardia or Conduction Disorders

Recommendation for History and Physical Examination in Patients With Documented or Suspected Bradycardia or Conduction Disorders		
COR	LOE	Recommendation
I	C-EO	1. In patients with suspected bradycardia or conduction disorders a comprehensive history and physical examination should be performed.

Synopsis

The history and physical examination remains the foundation for the medical evaluation of any patient and is particularly helpful for the patient with possible arrhythmias (Figures 1, 2, and 3). The 2017 ACC/AHA/HRS guideline for the evaluation of syncope and the 2017 AHA/ACC/HRS guideline for management of patients with ventricular arrhythmias and the prevention of sudden cardiac death emphasize the importance of the history and physical examination in the initial evaluation particularly for identifying those patients with structural heart disease.^{54,1-1,54,1-2}

Recommendation-Specific Supportive Text

1. The history should outline the frequency, timing, duration, severity, longevity, circumstances, triggers and alleviating factors of symptoms suspicious for bradycardia or conduction disorders. The relationship of the symptoms to medications, meals, medical interventions, emotional distress, physical exertion, positional changes, and triggers (eg, urination, defecation, cough, prolonged standing, shaving, tight collars, and head turning) can help narrow the broad differential diagnosis. Because of the propensity of some commonly prescribed medications (and nutraceuticals) to elicit or exacerbate bradyarrhythmias, a thorough review of both prescription and over-the-counter medications is essential (Table 4 and Table S1 in the Web Supplement). Bradycardia and conduction

tissue disorders can be the first manifestation of a systemic illness or heart disease (Table 5). A complete history should include comprehensive cardiovascular risk assessment, family history, travel history, and review of systems. Like the medical history, the physical examination should not only focus on manifestations of bradycardia but also signs of underlying structural heart disease and systemic disorders. Care should be taken to correlate slow radial pulses with precordial auscultation or carotid pulse assessment as some rhythms (eg, ventricular or conducted atrial bigeminy) can be misinterpreted as bradycardia if premature beats generate inadequate stroke volume to be palpable peripherally. As disorders of autonomic regulation figure prominently in the differential diagnosis of syncope and near syncope, orthostatic changes in heart rate and blood pressure can be helpful. Carotid sinus massage can be helpful in patients with symptoms suggestive of carotid sinus hypersensitivity syndrome (syncope or near syncope elicited by tight collars, shaving, or turning the head). Carotid sinus massage should be performed in both the supine and upright position in a safe environment with careful blood pressure and electrocardiographic monitoring. Careful carotid auscultation (and/or carotid ultrasound) to exclude an ipsilateral carotid bruit (or significant abnormalities) is mandatory before performing this maneuver as strokes precipitated by carotid sinus massage have been reported.^{54,1-5}

4.2. Noninvasive Evaluation

4.2.1. Resting ECG in Patients With Documented or Suspected Bradycardia or Conduction Disorders

Recommendation for Electrocardiogram (ECG) in Patients With Documented or Suspected Bradycardia or Conduction Disorders Referenced studies that the support recommendation are summarized in Online Supplement 1.		
COR	LOE	Recommendation
I	B-NR	1. In patients with suspected bradycardia or conduction disorder, a 12-lead ECG is recommended to document rhythm, rate, and conduction, and to screen for structural heart disease or systemic illness. ^{54,2,1-1-54,2,1-4}

Synopsis

The resting ECG is an essential component of the initial evaluation of those with known or suspected bradycardia or conduction disorder. An appropriately timed ECG during a symptomatic episode may provide a definitive diagnosis. For those in whom physical examination or telemetry monitoring suggest bradycardia or conduction disturbance, a 12-lead ECG is useful to