

Assessment Points				
System	Effect	Assessment by Hx	PE	Test
CV	Commonly no Sx Bradycardia on occasion	Exercise tolerance Angina SOB	Signs of CHF and decreased perfusion	ECG CXR
RENAL	Likely normal			Renal function testing?
CNS	No effect or decreased perfusion of CNS	No Sx or only mild Sx: Fainting, dizziness	Normal Bruits	PE Carotid US

Key References: Epstein AE, DiMarco JP, Ellenbogen KA, et al.: 2012 ACC/AHA/HRS focused update incorporated into the ACCF/AHA/HRS 2008 guidelines for device-based therapy of cardiac rhythm abnormalities: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society, *J Am Coll Cardiol* 61(3):e6–e75, 2013; Coumbe AG, Haksuh N, Newell MC, et al.: Long-term follow-up of older patients with Mobitz type 1 second-degree atrioventricular block, *Heart* 99(5):334–338, 2013.

Perioperative Implications

Preoperative Preparation

- Consider availability of transcutaneous pacing.

Monitoring

- Based on coexisting disease.
- Observe for and prepare to treat tertiary block when positioning PA cath in pt with Mobitz I block.

Airway

- None

Induction and Maintenance

- Regional or general.
- No contraindications to any standard anesthetic drugs.
- Intraoperative processes and drugs that increase atrial rate could decrease ventricular rate.

Extubation

- None

Adjuvants

- Cautious use of drugs that slow AV conduction

Anticipated Problems/Concerns

- Extension of infarcted area with higher-degree block and CHF

Mobitz II (Second-Degree Atrioventricular Block)

James R. Zaidan

Risk

- Occurs after anterior infarction and can quickly proceed to third-degree heart block

Perioperative Risks

- Risk of developing third-degree block

Worry About

- Rapid development into third-degree block, which requires temporary transvenous pacing

Overview

- Unlike Mobitz I block, Mobitz II block is located in bundle of His or bundle branches, resulting in lengthening QRS duration.
- PP and RR intervals are constant, and PR intervals are constant prior to the dropped QRS complex.

Etiology

- Acquired; usually associated with MI

Usual Treatment

- Temporary pacemaker insertion should be considered soon after onset of this block because third-degree block commonly occurs.
- Pacing does not improve survival.
- Atropine usually does not improve conduction.

Assessment Points

System	Effect	Assessment by Hx	PE	Test
CV	Bradycardia	Exercise tolerance Angina SOB	Signs of CHF and decreased perfusion	ECG CXR Other tests as indicated
GU	Likely normal			Renal function testing?
CNS	Decreased perfusion of CNS	Fainting, dizziness	Normal? Bruits	PE Carotid US

Key References: Epstein AE, DiMarco JP, Ellenbogen KA, et al.: 2012 ACC/AHA/HRS focused update incorporate dinto the ACCF/AHA/HRS 2008 guidelines for device-based therapy of cardiac rhythm abnormalities: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society, *J Am Coll Cardiol* 61(3):e6–e75, 2013; Arias MA, Sánchez AM: Obstructive sleep apnea and its relationship to cardiac arrhythmias, *J Cardiovasc Electrophysiol* 18(9):1006–1014, 2007.

Perioperative Implications

Preoperative Preparation

- Evaluation of CAD important.
- Likely a transvenous pacemaker will be in place.
- Transcutaneous pacing should be available if temporary transvenous pacing was not established prior to induction of anesthesia.

Monitoring

- Based on severity of heart disease and extent of infarcted area.

- Prepare to treat third-degree block when positioning a PA cath.

Airway

- None

Induction and Maintenance

- No contraindications to any standard anesthetic drugs.
- Any inraop process or drug increasing atrial rate could worsen block and decrease ventricular rate.

Adjuvants

- Cautiously use drugs that slow conduction through AV node unless they also slow SA nodal rate and allow 1:1 AV conduction and increased ventricular rate.
- First-degree AV block will persist if 1:1 conduction occurs.