

DYSRHYTHMIAS SYMPTOMATIC BRADYCARDIA

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DATE: January 2012

Information needed:

See Dysrhythmia: Overview Protocol

- The definition of “symptomatic bradycardia” is a medical patient with a pulse rate of <50 bpm and any one or more of the following
 - SBP less than 90
 - Altered mental status
 - Pulmonary edema
 - Ischemic chest pain unrelieved by nitroglycerin or with associated hypotension

Treatment:

- Routine medical care
- If the patient is asymptomatic, no treatment of the bradycardia may be warranted
- 12 Lead EKG
- Assess vital signs and perform secondary survey
- If the patient is asymptomatic, but the heart rate is less than 50 bpm, establish a saline lock or an IV of NS TKO
- If the patient is symptomatic, establish an IV/IO of NS and administer atropine 0.5 mg IV/IO, may repeat q 3-5 minutes to a maximum dose of 3 mg
- For symptomatic patients combined with one or more of the following conditions, if available, go directly to transcutaneous pacing (TCP)
 - An IV cannot be established
 - Atropine is ineffective
 - If type II 2nd degree AV block or 3rd degree block is noted
 - The patient is status–post heart transplant
- Transcutaneous Pacing (TCP)
 - For anxiety, consider midazolam (Versed[®]) 1-2 mg IV/IO. Monitor and observe respirations.
 - For pain control during transcutaneous pacing, consider morphine sulfate 2-5 mg slow IV push as needed for discomfort. May repeat in 2-5 mg increments q 5 min to a max of 20 mg, provided patient has SBP >90. If unable to establish an IV 2-5 mg of morphine sulfate may be administered IM/IO. May repeat in 2-5 mg increments q 10 min to max of 20 mg of morphine sulfate
- If the heart rate normalizes (>80 BPM) but hypotension persists:

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- Administer fluid challenge 250-1,000 ml NS in incremental doses in the presence of clear lung sounds; titrate to a SBP of >90 mg
- If patient remains hypotensive (SBP<90), administer dopamine 5 mcg/kg/min IV. If inadequate response, may increase every 5 minutes in 5 mcg/kg/min increments to maintain SBP > 90mmHg. Maximum dose is 20 mcg/kg/min. Consider base physician contact.
- If no capture, then dopamine 10 mcg/kg/min

Precautions and Comments:

- If utilizing TCP, verify mechanical capture (via palpable femoral pulses) and patient tolerance.
- Utilize midazolam and morphine as needed for anxiety and pain control, but use caution in the hypotensive patient
- Patients with chest pain of ischemic origin may not respond to a trial dose of atropine. If transcutaneous pacing is available, it is not necessary to give a full trial of a total of 3 mg of atropine before attempting TCP