Junctional Ectopic Tachycardia (JET) Care Guideline for Cardiovascular Intensive Care Unit (CVICU)

**Inclusion Criteria:**
- Postoperative Cardiac Surgical Patient.
- Diagnosis of JET confirmed by EKG. Patient must have hemodynamic instability due to the arrhythmia.

**Exclusion Criteria:**
- Patients without temporary pacing wires.

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### Initial Management

- Adequate sedation
- Electrolytes (especially magnesium)
- Temperature 36-37 degrees rectal
- Decrease vasoactives (especially dopamine)
- Attempt brief period of atrial pacing over ventricular rate
- Check threshold of wires
- Obtain atrial ECG to document rhythm
- Obtain ECHO to rule out effusion and check function
- Notify Cardiologist

### Recommendations/Considerations

**GOAL** of treatment is to decrease JET rate just low enough to pace over

- Lower doses may be appropriate in preterm neonate or impaired renal function

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### Secondary Medications/Interventions

- Frequently reassess rhythm to determine ongoing need for medication
- Consider cooling patient further down to 35-36 degrees rectal
  - **Dexmedetomidine** infusion start at 0.2 mcg/kg/hr up to max of 1 mcg/kg/hr.
    - Reserve dexmedetomidine load for extreme situations
  - **Amiodarone** 1 mg/kg over 10 minutes. Repeat in 1 mg/kg increments to a total dose of 5 mg/kg
    - Then amiodarone infusion at 5 mcg/kg/min.
    - Give intravenous CaCl prior to amiodarone load
  - **Procainamide** 7-10 mg/kg load over 30 minutes
    - Then procainamide infusion at 40-60 mcg/kg/min
    - Check levels at 4 hours
    - Use with caution if ejection fraction already decreased
  - **Esmolol** infusion at 50-300 mcg/kg/min
    - Consider loading with caution
    - Consider esmolol as first line agent in patients with JET presenting on POD 2 or greater and the patient is not on dopamine and ejection fraction is normal

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Reassess the appropriateness of Care Guidelines as condition changes. This guideline is a tool to aid clinical decision making. It is not a standard of care. The provider should deviate from the guideline when clinical judgment so indicates.
References for Junctional Ectopic Tachycardia (JET) Care Guideline


