COUNTY OF SACRAMENTO
EMERGENCY MEDICAL SERVICES AGENCY

Program Document: **Pediatric Cardiac Dysrhythmias**
Policy Number: 9014.25

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Signature on File
EMS Medical Director

Signature on File
EMS Administrator

Purpose:

A. To establish the treatment standard in treating pediatric patients with symptomatic bradycardias.
B. To serve as the treatment standard for treating pediatric patients with tachyarrhythmia's with pulses.

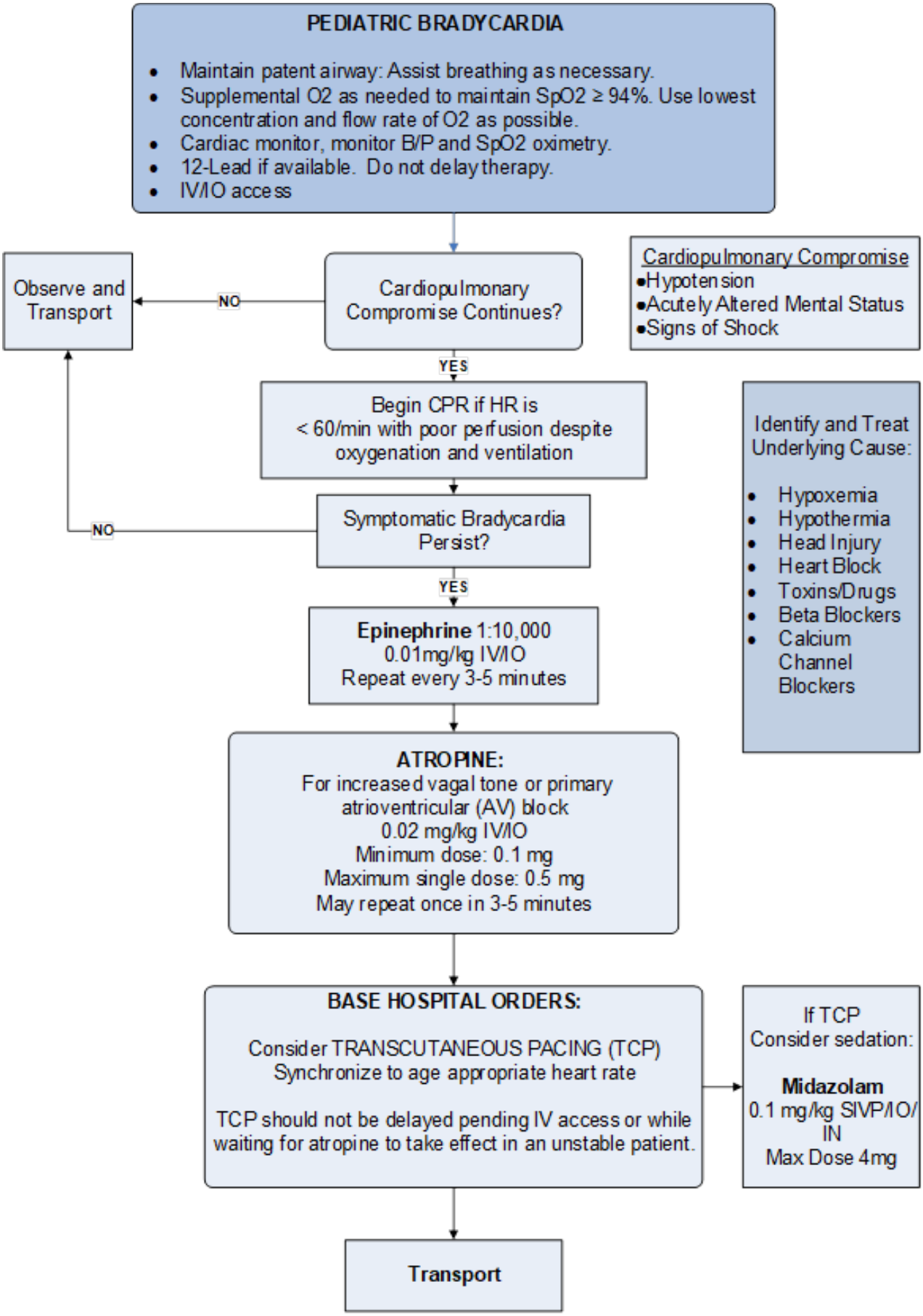
Authority:

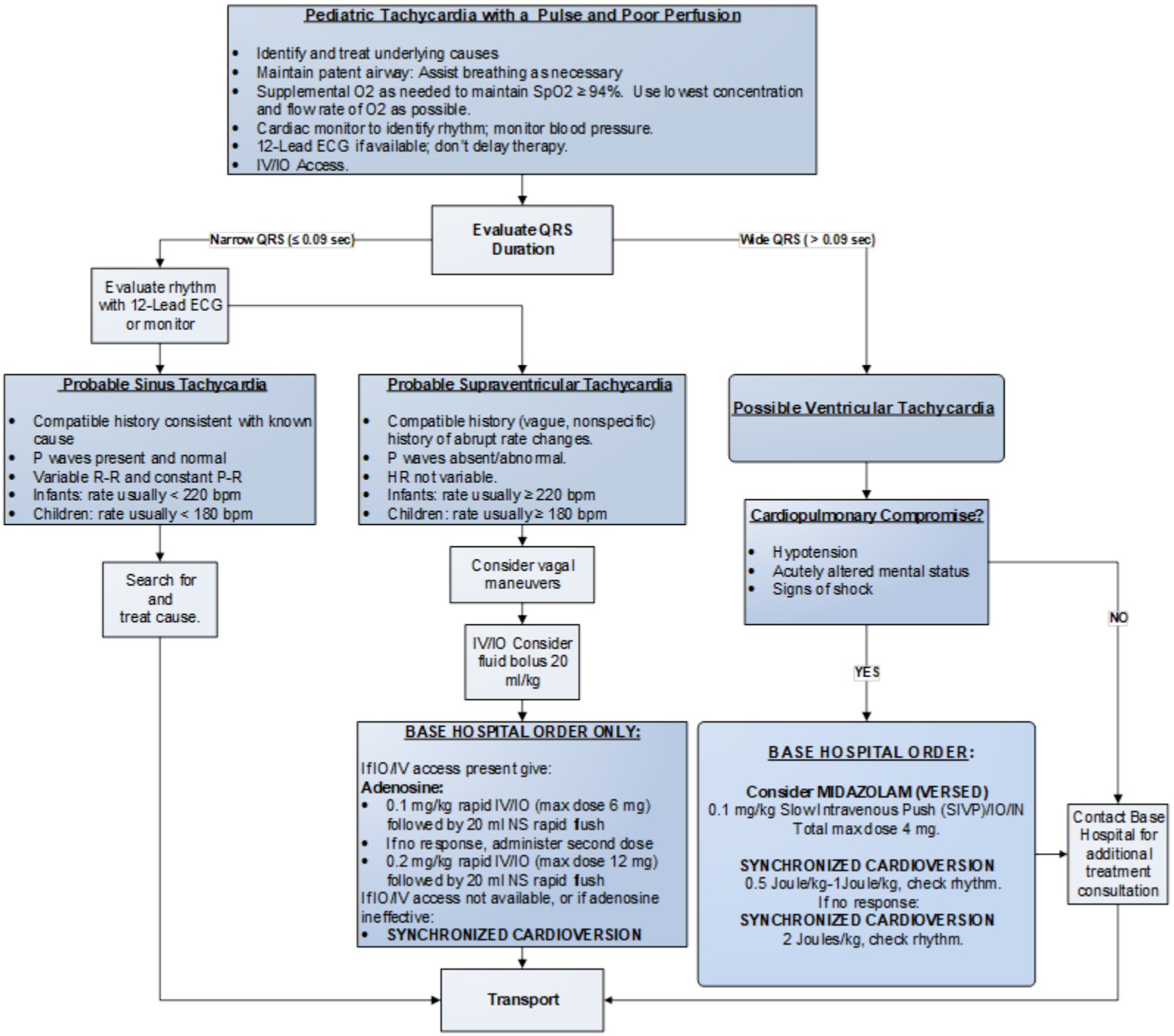
A. California Health and Safety Code, Division 2.5
B. California Code of Regulations, Title 22, Division 9

Protocol:

A. Most pediatric bradycardias can be corrected by hyperventilation with 100% oxygen.
B. When Cardiopulmonary Resuscitation (CPR) is indicated, high quality CPR improves survival: "Push hard, push fast", minimize interruptions; allow full chest recoil, and don't hyperventilate".
C. In the prehospital setting with short transport times, Bag Valve Mask (BVM) ventilation is the method of choice for children who required ventilatory support.
D. Symptomatic Brady and Tachy-Dysrhythmias frequently have an underlying cause which should be recognized and treated in addition to any treatment directed at the dysrhythmia itself. It is critically important to determine the cause of the patient's instability in order to properly direct treatment. Search for and treat possible contributing factors (i.e. Hypothermia, Hyperkalemia, Hypovolemia, Hypoxia, Hypoglycemia, Tamponade, Thrombosis, Tension Pneumothorax, Toxins, Trauma, etc.).

E. Avoiding hypothermia is imperative to the management of the critical pediatric patient. Passive warming measures including warm ambient/environmental temperature, use of blanket, covering head may be used to maintain normal body temperature >37°C or 98.6°F.


PEDIATRIC BRADYCARDIA
Maintain patent airway: Assist breathing as necessary.
Supplemental O2 as needed to maintain SpO2 ≥ 94%. Use lowest concentration and flow rate of O2 as possible.
Cardiac monitor, monitor B/P and SpO2 oximetry.
12-Lead if available. Do not delay therapy.
IV/IO access
Cardiopulmonary Compromise
Hypotension
Acutely Altered Mental Status
Signs of Shock
Cardiopulmonary Compromise Continues?
NO
Observe and Transport
YES
Begin CPR if HR is < 60/min with poor perfusion despite oxygenation and ventilation
Identify and Treat Underlying Cause:
Hypoxemia
Hypothermia
Head Injury
Heart Block
Toxins/Drugs
Beta Blockers
Calcium Channel Blockers
Symptomatic Bradycardia Persist?
NO
YES
Epinephrine 1:10,000
0.01mg/kg IV/IO
Repeat every 3-5 minutes
ATROPINE:
For increased vagal tone or primary atrioventricular (AV) block
0.02 mg/kg IV/IO
Minimum dose: 0.1 mg
Maximum single dose: 0.5 mg
May repeat once in 3-5 minutes
BASE HOSPITAL ORDERS:
Consider TRANSCUTANEOUS PACING (TCP)
Synchronize to age appropriate heart rate
TCP should not be delayed pending IV access or while waiting for atropine to take effect in an unstable patient.
If TCP
Consider sedation:
Midazolam
0.1 mg/kg SIVP/IO/IN
Max Dose 4mg
Transport



Cross Reference:

PD# 8837 - Pediatric Airway Management