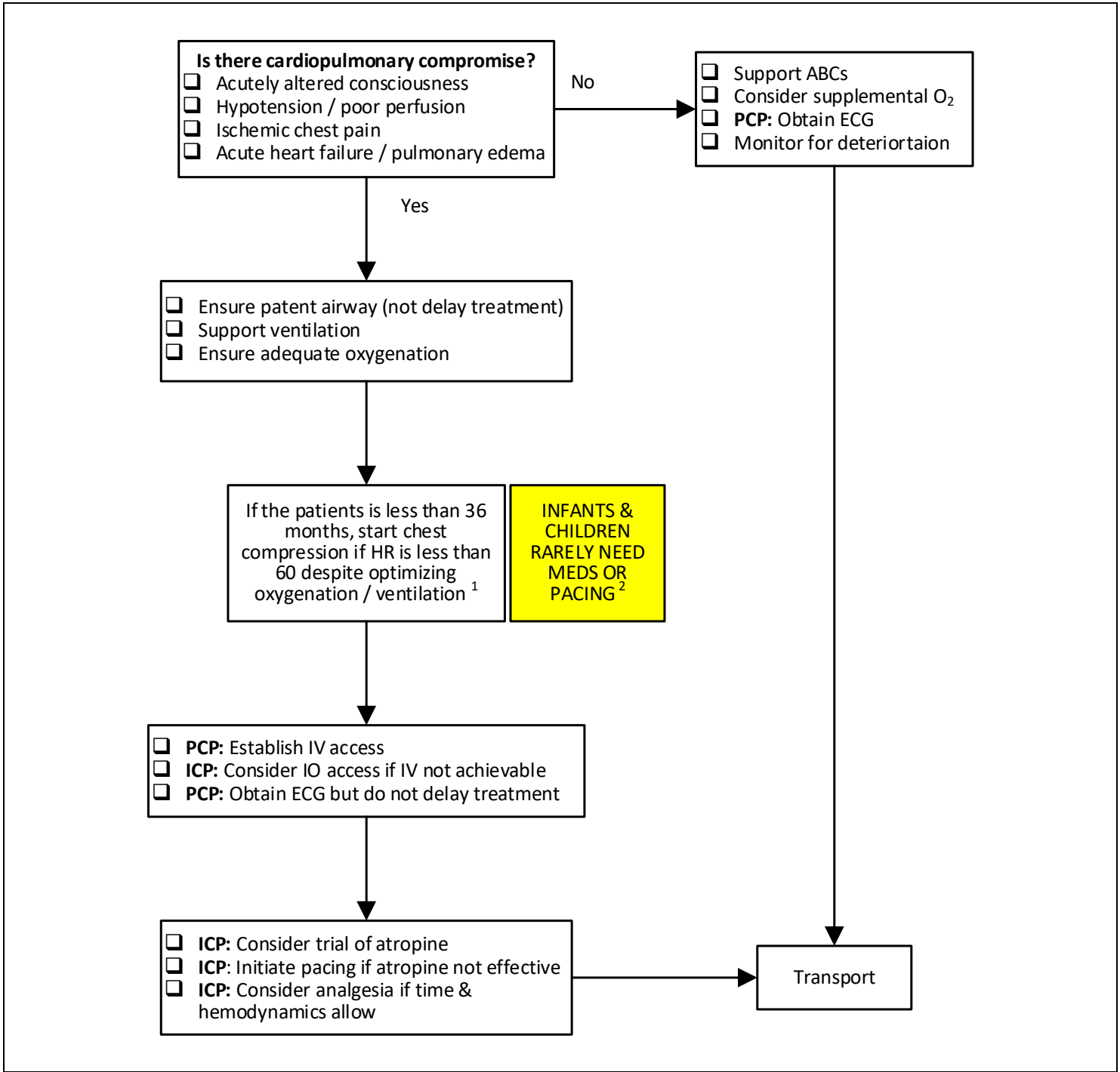
	<b>C05 - UNSTABLE BRADYCARDIA</b>	
	All ages	RESUSCITATION
Version date: 2023-07-16		Effective date: 2024-02-13 (0700)



<b>IDENTIFIER:</b>	<b>EMR:</b> EMR only	<b>PCP:</b> PCP & ICP	<b>ICP:</b> ICP only	None - All providers
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### INDICATIONS

- A palpable pulse with a sustained heart rate (HR) less than the age-appropriate physiological minimum (appendix A) and cardiopulmonary compromise known or suspected to be due to the bradycardia.

### CONTRAINDICATIONS



- Bradycardia without a palpable pulse indicates will be treated as per the appropriate resuscitation care map (C01 / C02).

### NOTES

1. For patients under 3 years of age, a pulse of 60 beats per minute (bpm) is not sufficient to maintain cerebral perfusion. **If the HR is less than 60 beats per minute (bpm) initiate chest compressions (even if you can feel a pulse), while optimizing oxygenation and ventilation** Continue compressions until the HR is consistently above 60 bpm.  
  
For children over 3 years of age, a pulse HR of 60 *may* be sufficient to maintain cerebral perfusion. Assess the adequacy of cerebral perfusion by the patient's level of consciousness. If patient is alert, cerebral perfusion is likely adequate and chest compressions should not be necessary. Above 6 years of age, chest compressions with a palpable pulse are not indicated.
2. In infants and children, bradycardia is *most commonly* due to hypoxemia. Prompt attention to oxygenation and ventilation is vital.
3. Do not pace a patient if the patient has a functioning left ventricular assist device (LVAD).
4. When performing TCP for a patient with an implanted cardioverter defibrillator (ICD) or pacemaker, place the pacing electrodes at least 8 centimeters (3 inches) away from the pulse generator, and inactivate the ICD with a donut magnet.
5. The initial pacer rate should be set at 60 beats per minute (bpm) in adults and adolescents and 80 bpm in children. Based on the patient's response, this can then be adjusted up or down. Once ventricular capture is achieved, the pacer output should be set about ten percent higher.

### LINKS

C01 - BASIC CARDIAC ARREST  
 C02 - ADVANCED CARDIAC ARREST  
 M39 - ATROPINE

APPROVED BY	
	
EMS Medical Director	EMS Associate Medical Director

VERSION CHANGES (refer to X03 for change tracking)
<ul style="list-style-type: none"> <li>• Identifier legend at bottom of flow chart replaces work scope statement in header</li> <li>• Table A moved to appendix</li> </ul>

APPENDIX A: MINIMUM HEART RATE BY AGE (APPROXIMATE)			
AGE IN YEARS	HR (BPM)	AGE IN MONTHS	HR (BPM)
> 18	60	24 - 36	80 - 90
15 - 18	60	18 - 24	90 - 95
12 - 15	60	12 - 18	95 - 100
8 - 12	60	9 - 12	100 - 105
6 - 8	60 - 65	6 - 9	105 - 110
4 - 6	65 - 75	3 - 6	110 - 120
3 - 4	75 - 80	0 - 3	120 - 125