	C05 - UNSTABLE BRADYCARDIA	
	All ages	RESUSCITATION
ALL - Paramedics with all work scopes will follow this protocol except where indicated by PCP (primary & intermediate only) or ICP (intermediate only).		
Version date: 2022-07-16	Effective date: 2022-09-27 (0700 hrs)	

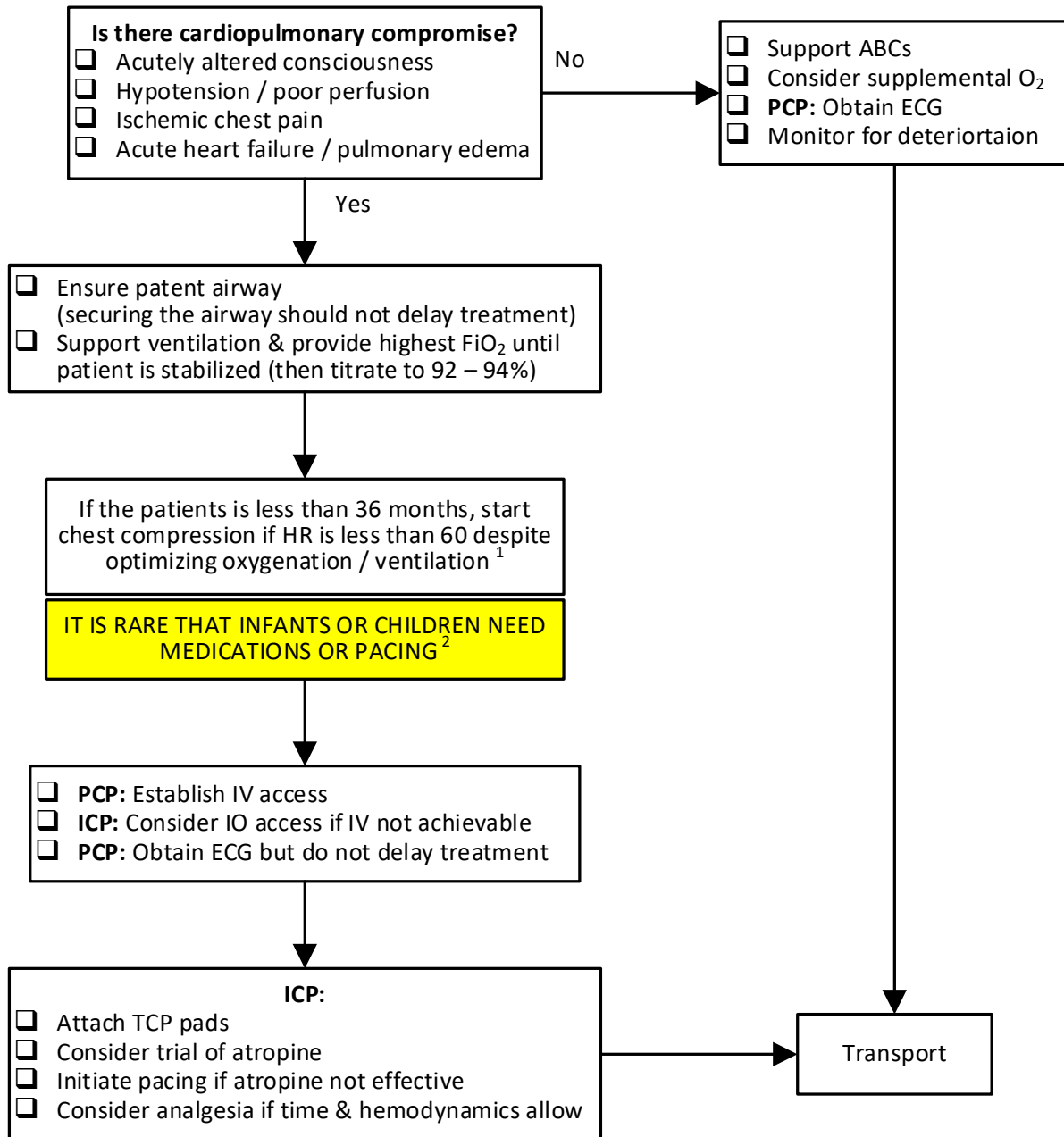


TABLE A: MINIMUM PHYSIOLOGICAL HEART RATE (BPM) BY AGE ²

AGE (YRS)	HR (BPM)	AGE (YRS)	HR (BPM)	AGE (MOS)	HR (BPM)	AGE (MOS)	HR (BPM)
> 18	60	6 - 8	60 - 65	24 - 36	80 - 90	6 - 9	105 - 110
15 - 18	60	4 - 6	65 - 75	18 - 24	90 - 95	3 - 6	110 - 120
12 - 15	60	3 - 4	75 - 80	12 - 18	95 - 100	0 - 3	120 - 125
8 - 12	60			9 - 12	100 - 105		

INDICATIONS

- A palpable pulse with a sustained heart rate (HR) less than the age-appropriate physiological minimum (table 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. Children rarely need atropine or transcutaneous pacing (TCP).
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 RESUSCITATION C02 - ADVANCED RESUSCITATION M39 - ATROPINE

APPROVED BY	
	
Medical Director - Provincial EMS/PT	Associate Medical Director - Provincial EMS/PT

VERSION CHANGES (refer to X03 for change tracking)
<ul style="list-style-type: none"> • Compliance statement moved out of header to become policy & procedure A03 • Work scope statement added to header