

SCOPE: ALS, CCT	
<b>MEDICATION:</b>	<b>EPINEPHRINE (Adrenaline)</b>
<b>INTERVENTION:</b>	<p><u>Classification:</u> Adrenergic catecholamine, Sympathomimetic</p> <p><u>Actions:</u> In small doses, Beta effects (vasodilation) dominate. Beta-1:contractility, inotropic, increases AV conduction, automaticity; Beta-2: bronchodilation, skeletal muscle vasodilation; In large doses, Alpha effects (vasoconstriction) dominate, increasing systemic vascular resistance and blood pressure; Alpha – peripheral vasoconstriction, fight or flight response</p> <p><u>Contraindications:</u></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><u>Precautions:</u></p> <ul style="list-style-type: none"> <li>• May precipitate or aggravate angina pectoris or induce cardiac dysrhythmias</li> <li>• Vesicant; ensure proper needle or catheter placement prior to and during infusion. Avoid extravasation</li> <li>• Due to peripheral constriction and cardiac stimulation, pulmonary edema may occur</li> <li>• Use with caution in patients with cardiovascular diseases (i.e. arrhythmias, cerebrovascular disease, coronary artery disease, heart disease, hypertension)</li> <li>• May transiently increase blood glucose levels in patients with diabetes</li> <li>• Correct blood volume depletion before administering any vasopressor</li> <li>• Psychomotor agitation or temporary worsening of symptoms may occur in patients with Parkinson's</li> <li>• Use with caution in patients with pheochromocytoma and thyroid disease</li> <li>• Do not administer catecholamine's and sodium bicarbonate simultaneously through an IV catheter or tubing because alkaline solutions such as the bicarbonate inactivate the catecholamines</li> </ul> <p><u>Concentration:</u></p> <ol style="list-style-type: none"> <li>I. <u>Adult:</u> 2 mg in 250 ml (1:1,000)</li> <li>II. <u>Pediatric:</u> 10 mg in 250 ml (1:1,000);</li> <li>III. 1 mg of 1:1,000 mixed with 10 ml NS = 1 mg of 1:10,000 concentration</li> </ol> <p><u>Dosage:</u></p> <ol style="list-style-type: none"> <li>I. <u>Severe Allergic Reaction – Anaphylaxis:</u> <ol style="list-style-type: none"> <li>a. <u>Adult:</u> <ol style="list-style-type: none"> <li>i. IM: 0.3-0.5 mg every 5min x3 doses (1:1,000)</li> <li>ii. IV/IO infusion: 0.1-1 mcg/kg/min</li> </ol> </li> <li>b. <u>Pediatric:</u> <ol style="list-style-type: none"> <li>i. IM: 0.01 mg/kg every 5 min (max dose 0.5 mg) (1:1,000)</li> <li>ii. IV/IO infusion: 0.1-1 mcg/kg/min</li> </ol> </li> </ol> </li> <li>II. <u>Acute Asthma:</u> <ol style="list-style-type: none"> <li>a. <u>Adult:</u> <ol style="list-style-type: none"> <li>i. IM: 0.3 mg, may repeat x2 q 20mins (1:1000)</li> </ol> </li> <li>b. <u>Pediatric:</u></li> </ol> </li> </ol>

If this is a patient care policy, the information contained herein is used to provide guidance in the care of patients, but should not, and does not replace or preclude the use of clinical judgment.

<i>FOR OFFICE USE ONLY</i>	
Originator:	Original Date:
Revised Date:	
Effective Date: 06/01/18	Page 1 of 2

	<p>i. IM/SQ: 0.01 mg/kg, may repeat x2 q 20mins (max single dose 0.3 mg) (1:1,000)</p> <p>III. <u>Sepsis:</u></p> <p>a. Adult:</p> <p>i. IV/IO: 0.1-1 mcg/kg/min</p> <p>b. Pediatric:</p> <p>i. IV/IO: 0.05-1 mcg/kg/min, titrate by 0.05 mcg/kg/min</p> <p>IV. <u>Cardiogenic Shock:</u></p> <p>a. Adult:</p> <p>i. IV/IO: 0.1-1 mcg/kg/min</p> <p><u>Onset of Action:</u> IV/IO: 1-5 mins; IM: 5-10 mins</p> <p><u>Duration:</u> IV: 5-10 mins, IM 1-4 hrs</p> <p><u>Adverse Effects:</u> Headache, nausea, vomiting, anxiety, tremors, weakness, cardiac arrhythmias and arrest, hypertension, tachycardia, palpitations, peripheral vasoconstriction, sweating, and precipitation of angina</p> <p><u>Special Considerations:</u></p> <p>I. N/A</p>
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