Acute Reactions To Contrast Media Algorithm

**URTICARIA**
- **MILD:** Observation
- **SEVERE:** As above + IV fluids and/or epinephrine.
  - NO hypotension use epinephrine 1:1000 0.1-0.2mg SQ.
  - WITH hypotension use epinephrine 1:1000 1ml (0.1mg) IV over 2-5 minutes

**BRONCHOSPASM**
- O₂ by mask 10L
- Albuterol MDI 2-3 puffs
  - If unresponsive to inhaler, epinephrine as below:
  - NO hypotension use epinephrine 1:1000 0.3mg SQ or IM (Epi-Pen©)
  - WITH hypotension use epinephrine 1:10,000 1ml (0.1mg) IV over 2-5 minutes

**LARYNGEAL EDEMA**
- Suction as needed
- Elevate legs
- O₂ by mask 10L
- IV fluids (NS or LR)
  - If unresponsive, call CODE and administer epinephrine as below:
  - NO hypotension use epinephrine 1:1000 0.3mg SQ or IM (Epi-Pen©)
  - WITH hypotension use epinephrine 1:10,000 1ml (0.1mg) IV over 2-3 minutes

**ANAPHYLAXIS-LIKE generalized systemic**
- Suction as needed
- Elevate legs
- O₂ by mask 10L
- IV fluids (NS or LR)
  - If unresponsive, call CODE and administer epinephrine as below:
  - NO hypotension use epinephrine 1:1000 0.3mg SQ or IM (Epi-Pen©)
  - WITH hypotension use epinephrine 1:10,000 1ml (0.1mg) IV over 2-3 minutes

**HYPOTENSION**
- Elevate legs
- O₂ by mask 10L
- IV fluids (rapid NS or LR)
  - If unresponsive, call CODE and administer epinephrine as below:
  - NO hypotension use epinephrine 1:1000 0.3mg SQ or IM (Epi-Pen©)
  - WITH hypotension use epinephrine 1:10,000 1ml (0.1mg) IV over 2-3 minutes

**VAGAL REACTION hypotension + bradycardia**
- Elevate legs
- O₂ by mask 10L
- IV fluids (NS or LR) wide open
  - Atropine: 0.6-1mg IV; repeat every 3-5 minutes as needed up to 3mg

**ANGINA**
- Nitroglycerin: 0.4mg sublingually; may repeat Q 5 min x 3 doses or nitroglycerin ointment one inch strip (wear gloves to rub in)
- Morphine 2mg IV
- O₂ by mask 10L
- IV fluids: (administer slowly)

**HYPERTENSION**
- O₂ by mask 10L
- IV fluids: (administer slowly)

**SEIZURES**
- Protect patient
- Suction airway
- Monitor for obstruction by tongue
- O₂ by mask if not vomiting
- If caused by hypotension + bradycardia, treat per protocol
- If uncontrolled, consider anti-convulsant (e.g., diazepam or lorazepam)

**HYPOGLYCEMIA**
- O₂ by mask 10L
- IV fluids (D5W)
  - Dextrose 50% IV (25gm/50mL)
  - Oral glucose (orange juice)

**ANAPHYLAXIS-LIKE**
- Suction as needed
- Elevate legs
- O₂ 10L by mask
- IV fluids (NS or LR)
  - If IV access cannot be obtained: epinephrine 1:1000 0.3mg IM (Epi-Pen©)
  - Repeat small doses as needed up to 1mg total

**Antihistamine:**
- diphenhydramine 25-50mg IM or IV (may cause ↑ hypotension or tachycardia from bradycardia)