

Management of Acute Reactions

Reaction:

URTICARIA:

Treatment

1. No treatment needed in most cases
2. H₁-receptor blocker:
Diphenhydramine (Benadryl) PO/IM/IV 50mg or
Hydroxyzine (Vistaril) PO/IM/IV 25-50mg
H₂-receptor blocker may be added:
Cimetidine (Tagamet) 300mg PO or IV slowly, diluted in 10ml D5W solution or
Ranitidine (Zantac) 50mg PO or IV slowly, diluted in 10ml D5W solution

If severe/widely disseminated:

- Alpha-agonist (arteriolar and venous constriction)
Epinephrine SC (1:1,000) 0.1-0.3ml (if no cardiac contraindication)

FACIAL/LARYNGEAL EDEMA:

1. Alpha-agonist (arteriolar and venous constriction)
Epinephrine 0.1-0.3ml 1:1,000 SC or if SC route fails or if peripheral vascular collapse then,
1.0-3.0ml, 1:10,000
slowly IV
May repeat x3 prn up to a max. of 1.0mg.
2. O₂ 2-6L/min

If not responsive to therapy or for obvious laryngeal edema (acute):

- Call Anesthesiologist/CODE team.
Consider intubation.

BRONCHOSPASM:

1. O₂ 2-6L/min
Monitor: ECG; O₂ saturation (pulse oximeter); BP
2. Epinephrine 0.1-0.3ml 1:1,000 SC or β-agonist inhalers (bronchiolar dilators - [i.e., metaproterenol (Alupent), terbutaline (Brethaire) or albuterol (Proventil)]). If SC route fails or if peripheral vascular collapse then, 1.0-3.0ml, 1:10,000 slowly IV
May repeat x3prn up to a max. of 1.0 mg.

Alternatively

1. Aminophylline: 6.0mg/kg IV in D5W over 10-20 minutes (loading dose); then 0.4-1.0mg/kg/hr, prn. (See page 17).
OR Terbutaline 0.25-0.5mg IM/SC
2. Call CODE for severe bronchospasm (or if O₂ saturation ≤ 88).

HYPOTENSION WITH TACHYCARDIA:

1. Legs up; Trendelenberg position. Monitor: ECG, pulse oximeter, BP.
2. O₂ 2-6L/min
3. Rapid administration of large volumes of isotonic lactated Ringer's solution. (Ringer's lactate > normal saline > D5W)

If poorly responsive:

1. Epinephrine 0.1-0.3ml 1:1,000 SC or if SC route fails or if peripheral vascular collapse then 1.0-3.0ml, 1:10,000 slowly IV
May repeat x3 prn up to a max. of 1.0mg.

If still poorly responsive:

Transfer to ICU for further management

HYPOTENSION WITH BRADYCARDIA - VAGAL REACTION

1. Legs up; Trendelenberg position; secure airway; give oxygen
2. Secure IV access; give atropine 0.6-1.0mg IV slowly
3. Monitors in place: ECG, pulse oximeter, BP
4. Monitor vital signs, repeat atropine up to 2.0mg total dose
5. Push fluid replenishment IV (Ringer's lactate > normal saline > D5W)

HYPERTENSION, SEVERE:

1. Monitors in place: ECG, pulse oximeter, BP.
2. Apresoline - 5.0mg IV
3. Sodium nitroprusside—arterial line; infusion pump necessary to titrate.
4. For pheochromocytoma—phentolamine (regitine) 5.0mg (1.0mg in children) IV

SEIZURES/CONVULSIONS:

1. O₂ 2-6L/min
2. Consider diazepam (Valium) 5.0mg or midazolam (Versed) 2.5mg IV
3. If longer effect needed, obtain consultation; consider phenytoin (Dilantin) infusion 15-18mg/kg at 50mg/min
4. Careful monitoring of vital signs required

PULMONARY EDEMA:

1. Elevate torso; rotating tourniquets (venous compression)
2. O₂ 2-6L/min
3. Diuretics - furosemide (Lasix) 40mg IV slowly
4. Consider morphine/meperidine (Demerol)
5. Corticosteroids optional