Acute Reactions To Contrast Media Algorithm

URTICARIA

MILD:
  Observation
  Consider
  diphenhydramine
  25-50mg PO/IM or
  25mg IV

SEVERE:
  As above + IV fluids
  and/or epinephrine.

NO hypotension use
epinephrine 1:1000
0.1-0.2mg SQ.

WITH hypotension use
epinephrine 1:10,000
1ml (0.1mg) IV over
2-5 minutes

BRONCHOSPASM

O$_2$ by mask 10L
Albuterol MDI 2-3 puffs
If unresponsive to
  inhaler, epinephrine
  as below:

NO hypotension use
epinephrine 1:1000
0.1-0.2mg SQ.

WITH hypotension use
epinephrine 1:10,000
1ml (0.1mg) IV over
2-5 minutes

LARYNGEAL EDEMA

O$_2$ by mask 6-10L

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

ANAPHYLAXIS-LIKE
generalized systemic

Suction as needed
Elevate legs
O$_2$ 10L by mask
IV fluids (NS or LR)
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
Repeat small doses
as needed up to 1mg
total

For bronchospasm:
  add Albuterol MDI
  2-3 puffs

Antihistamine:
  diphenhydramine
  25-50mg IM or IV
  (may cause or ↑ hypotension or
  thicken bronchial secretions)

Corticosteroids:
  methylprednisolone
  80-125mg IV

HYPOTENSION

Elevate legs
O$_2$ by mask 10L
IV fluids (rapid NS or LR)
If unresponsive, call
  CODE and administer
  epinephrine as
  below:

epinephrine 1ml
  1:10,000 (0.1mg) IV
  over 2-3 minutes

If IV access cannot be
obtained:
  epinephrine 1:1000
  0.3mg IM (Epi-Pen®)

VAGAL REACTION
hypotension + bradycardia

Elevate legs
O$_2$ 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

O$_2$ by mask 10L
IV fluids: (administer slowly)

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

HYPERTENSION

O$_2$ by mask 10L
IV fluids: (administer slowly)

Nitroglycerin:
  0.4mg sublingually (may
  repeat Q 15 min)
  or
  nitroglycerin ointment
  one inch strip
  (wear gloves to rub in)

SEIZURES

Protect patient
Suction airway
Monitor for obstruction
  by tongue
O$_2$ by mask if not
  vomiting

If caused by
hypotension ±
bradycardia, treat per
protocol

If uncontrolled,
consider anti-
convulsant
(e.g., diazepam or
lorazepam)

HYPOGLYCEMIA

O$_2$ by mask 10L
IV fluids (D5W)
Dextrose 50% IV
  (25gm/50mL)
Oral glucose
  (orange juice)