



Change in Practice PCP Autonomous IV

Intravenous and Fluid Therapy

Medical Directive – Auxiliary

Ability to initiate IV access
and
Ability to administer fluid
and fluid boluses in general

IV Therapy

Actual or potential need
for intravenous medication

OR

Fluid Therapy

IV Therapy

Conditions

- Age \geq 2 years old

Contraindication

- Suspected fracture proximal to the access site

IV Therapy

Maintenance infusion

- ≥ 12 years old
 - 30 - 60 ml/hr
- ≥ 2 year to < 12 years old
 - 15 ml/hr

IV Therapy

Fluid Bolus

Conditions

- Age \geq 2 years old
- Hypotension - SBP $<$ 70mmHg $+(2 \times \text{age in years})$

Contraindication

- Signs of fluid overload

IV Therapy

Fluid Bolus

≥ 12 years old

- 20 ml/kg
- Reassess every **250** ml
- Maximum volume 2000 ml

≥ 2 year to < 12 years old

- 20ml/kg
- Reassess every **100** ml
- Maximum volume 2000 ml

IV Therapy

Fluid Bolus

Mandatory Patch Point

IV NaCl bolus

≥ 2 years to < 12 years old

suspected Diabetic Ketoacidosis (DKA)

IV Therapy

Clinical Considerations

Microdrips and Volume Control Sets

Indicated for patient <12 years old

Return of Spontaneous Circulation

Medical Directive

Ability to administer fluid and
fluid boluses in the setting of a ROSC

ROSC

Conditions

- Hypotension - SBP $< 70\text{mmHg} + (2 \times \text{age in years})$
- Chest auscultation is clear
- ≥ 2 years old

ROSC

Contraindications

- Fluid overload
- SBP \geq 90 mmHg

ROSC

< 12 years old

- 10 ml/kg
- Reassess every **100**ml
- Maximum volume 1000 ml

≥ 12 years old

- 10 ml/kg
- Reassess every **250**ml
- Maximum volume 1000 ml

Cardiac Ischemia

Medical Directive

Ability to initiate an IV to administer NTG to patient's experiencing cardiac ischemia for the first time

Cardiac Ischemia

ASA

- ≥ 18 years old
- Able to chew and swallow

Cardiac Ischemia

ASA

Contraindications

- Allergy or sensitivity to ASA or NSAIDS
- If asthmatic, no prior use of ASA
- Current active bleeding
- CVA or TBI in the previous 24 hours

Cardiac Ischemia

ASA

- 160 - 162mg PO
- One dose

Cardiac Ischemia

Nitroglycerin

- ≥ 18 years old
- Unaltered LOA
- 60 – 159 bpm
- Normotension
- Prior history of Nitroglycerin use **OR**
IV access obtained

Cardiac Ischemia

Nitroglycerin

Contraindications

- Allergy or sensitivity to nitrates
- Phosphodiesterase inhibitor use within the previous 48 hours
- SBP drops by 1/3 or more of its initial value after nitroglycerin is administered
- 12 lead ECG compatible with Right Ventricular Infarct

Cardiac Ischemia

Nitroglycerin

- 0.3 or 0.4 mg SL
- Every 5 minutes
- Maximum # of doses 6

Acute Cardiogenic Pulmonary Edema

Medical Directive

Ability to initiate an IV to administer single strength NTG to patient's experiencing pulmonary edema where the SBP is between 100 and 140 mmHg

OR

Double strength NTG where the SBP is ≥ 140 mmHg

ACPE

Moderate to severe respiratory distress

AND

Suspected acute
cardiogenic pulmonary edema

ACPE

Nitroglycerin

Conditions

- ≥ 18 years old
- 60 – 159 bpm
- Normotension
- Ascertain prior history of nitroglycerin use
OR establish IV access

ACPE

Nitroglycerin

Contraindications for Nitroglycerin

- Allergy or sensitivity to nitrates
- Phosphodiesterase inhibitor use within the previous 48 hours
- SBP drops by 1/3 or more of its initial value **after** Nitroglycerin is administered

ACPE

Nitroglycerin

- ✓ SBP ≥ 100 - < 140 mmHg
- ✓ IV or History of Use
 - 0.3 or 0.4 mg SL
 - Every 5 minutes
 - Maximum of 6 doses

ACPE

✓ **SBP \geq 140 mmHg**

NO IV or History of Use

- 0.3 or 0.4 mg SL
- Every 5 minutes
- Maximum of 6 doses

YES IV or History of Use

- 0.6 or 0.8 mg SL
- Every 5 minutes
- Maximum of 6 doses

Cardiogenic Shock

Medical Directive

Ability to administer fluid
AND
fluid boluses
in the setting of cardiogenic shock

Cardiogenic Shock

STEMI-positive 12-Lead ECG
AND
Cardiogenic Shock

Cardiogenic Shock

Conditions

- ≥ 18 years old
- Hypotension (SBP < 90 mmHg)
- Clear chest on auscultation

Cardiogenic Shock

≥ 18 years old

- 10 ml/kg
- Reassess every 250 ml
- Maximum volume 1000 ml

Hypoglycemia

Medical Directive

Ability to administer
Dextrose 50% in Water
OR Dextrose 10% in Water
to hypoglycemic patients

Hypoglycemia

Agitation

OR

Altered LOA

OR

Seizure

OR

Symptoms of Stroke

Hypoglycemia

Dextrose 50% in Water

Dextrose 10% in Water (premix)

Conditions

- Age \geq 2 years old
- Altered LOA
- Hypoglycemia

Contraindication

- Allergy or sensitivity to Dextrose

Hypoglycemia

Dextrose 50% in Water

- ≥ 2 years old
- Concentration D50W
- IV route
- 0.5 g/kg (1 ml/kg)
- Maximum single dose - 25g (50ml)
- Repeat 10 minutes
- Maximum of 2 doses

Hypoglycemia

**Dextrose 10% in Water
(premix)**

- ≥ 2 years old
- Concentration D10W
- IV route
- 0.2 g/kg (2 ml/kg)
- Maximum single dose - 10g (100ml)
- Repeat 10 minutes
- Maximum of 2 doses

Hypoglycemia

Glucagon

Conditions

- Altered LOA
- Hypoglycemia

Contraindications

- Allergy or sensitivity to dextrose
- Pheochromocytoma

Hypoglycemia

Glucagon

Weight < 25 kg

- 0.5 mg IM
- Repeat 20 minutes
- Maximum of 2 doses

Weight ≥ 25 kg

- 1.0 mg IM
- Repeat 20 minutes
- Maximum of 2 doses

Hypoglycemia

Clinical considerations

- * Patient responds to dextrose or Glucagon; may receive oral glucose or other simple carbohydrates
- * Mild signs/symptoms; oral glucose or other simple carbohydrates
- * Informed refusal: final set of v/s including a BGT must be attempted and documented

Moderate to Severe Allergic Reaction

Medical Directive

Ability to administer
diphenhydramine by intravenous
following an epinephrine administration
or to a moderate allergic presentation

Moderate to Severe Allergic Reaction

Exposure to a probable allergen

AND

Signs and/or symptoms of a
moderate to severe allergic reaction
(including anaphylaxis)

Moderate to Severe Allergic Reaction

Epinephrine 1mg/ml, 1:1000

Condition

- For anaphylaxis only

Contraindication

- Allergy or sensitivity to epinephrine

Moderate to Severe Allergic Reaction

Epinephrine 1mg/ml, 1:1000

- Concentration 1mg/mL = 1:1,000
- IM route
- 0.01 mg/kg
- Maximum single dose = 0.5mg
- Maximum of 2 dose
- Dosing interval = q 5 minutes

Moderate to Severe Allergic Reaction

Diphenhydramine

Condition

- ≥ 25 kg

Contraindication

- Allergy or sensitivity to Diphenhydramine

Moderate to Severe Allergic Reaction

Diphenhydramine

Weight \geq 25 kg to $<$ 50 kg

- 25 mg IV/IM
- Maximum single dose 25 mg
- Maximum of 1 dose

Weight \geq 50 kg

- 50 mg IV/IM
- Maximum single dose 50 mg
- Maximum of 1 dose

Adult Analgesia

Medical Directive

Ability to initiate an IV to administer
ketorolac for patients experiencing mild to
severe pain

Adult Analgesia

Ketorolac

Conditions

- ≥ 18 years of age
- Unaltered LOA
- Normotension

Adult Analgesia

Ketorolac

Contraindications

- NSAID or Ibuprofen use within previous 6 hours
- Allergy or sensitivity to ASA or NSAIDs
- Anticoagulation therapy
- Current active bleeding
- History of peptic ulcer disease or GI bleed
- Pregnant
- If asthmatic, no prior use of ASA or other NSAIDs
- CVA or TBI in the previous 24 hours
- Known renal impairment

Adult Analgesia

Ketorolac

- IM or IV
- 10 – 15 mg dose
- No repeats

Opioid Toxicity

Medical Directive

Ability to initiate an IV to administer
naloxone for patients experiencing opioid
toxicity

Opioid Toxicity

Altered LOC

AND

Respiratory depression

AND

An inability to ventilate

AND

Suspected opioid overdose

Opioid Toxicity

Naloxone

Conditions

- ≥ 12 years of age
- Altered LOA
- RR < 10 /min

Contraindications

- Allergy or sensitivity to naloxone
- Uncorrected hypoglycemia

Opioid Toxicity

Naloxone

IV route

- Up to 0.4 mg
- Maximum single dose 0.4 mg
- Maximum of 3 doses
- Immediately

SC/IM/IN routes

- 0.8 mg
- Maximum single dose 0.8 mg
- Maximum of 3 doses q10 minutes

Nausea / Vomiting

Medical Directive – Auxiliary

Ability to administer Dimenhydrinate
by intravenous
for patients complaining of
nausea or vomiting

Nausea / Vomiting

Dimenhydrinate

Conditions

- ≥ 25 kg
- Unaltered LOA

Contraindications

- Allergy or sensitivity to Dimenhydrinate or other antihistamines
- Overdose on antihistamines or anticholinergics or tricyclic antidepressants

Nausea / Vomiting

Dimenhydrinate

Weight \geq 25 kg to $<$ 50 kg

- 25 mg IV/IM
- Maximum single dose 25 mg
- Maximum of 1 dose

Weight \geq 50 kg

- 50 mg IV/IM
- Maximum single dose 50 mg
- Maximum of 1 dose