FT DRUG: Propofol

REFERENCE ONLY

Drug Name: Propofol Trade Name: Diprovan

REVISED: November 1, 2018

Class:

Sedative

General Anesthetic

Mechanism of Action:

 Propofol causes sedation by potentiating GABA receptors in the CNS, possibly by slowing channel closing time.

Indications:

Sedation for intubated/mechanically ventilated patients

Sedation for special painful procedures

Contraindications:

Situations where anesthesia/sedation is not indicated

Children less than 2 months of age

Hypersensitivity

Hypotension

Precautions:

• Hypotension/hypertension

Anaphylaxis

Dosage:

IV Infusion

• IV/IO: 5-50 mcg/kg/min

Titrated in 5 mcg/kg/min increments to sedation and blood pressure

Onset:

 Propofol's onset is typically around 40 seconds from administration time, and has a short duration (3-5 minutes after administration is discontinued).

Duration:

Based on infusion duration

Side Effects:

• Hypotension/hyperten sion

Transient apnea

Dystonias

• Pain at injection site

• hyperlipidemia

bradycardia

Interactions:

 Increased effects with narcotics (e.g., morphine, meperidine, fentanyl), sedatives (e.g., benzodiazepines, barbiturates, chloral hydrate, droperidol) and potent inhalational agents (e.g., isoflurane, enflurane, halothane).

Concomitant fentanyl may cause bradycardia in pediatrics.

 Increased risk of propofol infusion syndrome with vasoconstrictors, steroids, and inotropes.





PEARLS:

- Monitor for anaphylactic/anaphylactoid reactions, life-threatening anaphylactic reactions reported.
- Monitor closely for hypotension.
 - o Correct fluid deficits/hypotension prior to use.
- Lower induction doses and slower rate of administration needed in elderly, debilitated or ASA-PS III/IV patients;
- Monitor for early signs of hypotension, bradycardia, apnea, airway obstruction, and/or oxygen de-saturation.
- **Propofol Infusion Syndrome**: Propofol infusion syndrome is characterized by severe metabolic acidosis, hyperkalemia, lipidemia, rhabdomyolysis, hepatomegaly, and cardiac/renal failure.
 - Consider alternative means of sedation if increased dose is required.
- Avoid abrupt d/c prior to weaning or for daily evaluation of sedation level; may result in rapid awakening with associated anxiety, agitation, and resistance to mechanical ventilation.
- Local pain, swelling, blisters, tissue necrosis reported following accidental extravasation.
- Older literature contains cautions against propofol use in those patients
 with an egg or soy allergy. More recent evidence shows that there is little
 to no connection between propofol and egg allergies. Most reports of
 anaphylaxis to propofol have occurred in patients without egg allergy and
 the vast majority of patients with egg allergy receive propofol without
 reaction.