proPOFol

Warnings	Classification	Alternate Names
irritant (reports of vesicant effects)	anesthetic-general	DIPRIVAN

Indications

- induction and maintenance of general anesthesia for surgical procedures
- procedural sedation for surgical and diagnostic procedures
- sedation of mechanically ventilated patients
- sedation in palliative care patients
- ipsilateral hemisphere anesthesia to test for speech and memory (Wada test)
- management of status epilepticus
- Indications and / or prescribing restrictions apply

Reconstitution and Stability

- store at room temperature, (for product manufactured by Baxter: protect from light during storage)
- prior to use, visually inspect emulsion for particulate matter, discoloration or emulsion separation
- shake gently before use
- after vial puncture, complete administration within 12 hours; discard unused portion of vial
- change IV tubing and administration sets every 12 hours

Compatibility

- compatible with D5W, dextrose 5% in sodium chloride 0.45%, dextrose 5% in lactated ringers or lactated ringers

Preparation and Administration

- *Peripheral IV: use large vein in forearm; if possible avoid hand, wrist or antecubital fossa

Administration Route	Approved	Preparation and Administration Instructions	Required Monitoring
Subcutaneous	NO		
Intramuscular	NO		
IV direct*	YES	give undiluted administer slowly at approximately 20 to 40 mg every 10 seconds maximum rate: 10 mg /second	Intensive Monitoring See site-specific restrictions
IV intermittent	NO		
Continuous IV infusion*	YES	**standard solution concentration** 10 mg/mL: 1000 mg/100 mL commercially available premixed emulsion infusion rate: varies with indication and clinical status of patient *rate must be controlled with an infusion pump*	Intensive Monitoring Palliative Monitoring See site-specific restrictions

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Dosage

Use actual body weight (ABW) for dosing; however in obesity (BMI equal to or over 30 kg/m^2), use adjusted body weight (AdjBW) to calculate initial dose, then titrate to effect.

- AdjBW = [IBW + 0.4 (ABW - IBW)], where IBW = ideal body weight

Induction of anesthesia:
1 to 2.5 mg/kg (given as 40 mg every 10 seconds) IV direct until onset

Maintenance of anesthesia (titrated to meet individual requirements):
- 20 to 50 mg IV direct when anesthesia lightening; or
- 100 to 200 mcg/kg/minute continuous IV infusion starting immediately after the induction dose; 30 to 60 minutes later, decrease infusion rate to 50 to 100 mcg/kg/minute (to optimize recovery time).

Elderly or debilitated patients may require up to 50% lower induction and maintenance doses.

Sedation of mechanically ventilated patient:
- 5 mcg/kg/minute continuous IV infusion initially; increase by 5 to 10 mcg/kg/minute every 5 minutes until desired sedation level is achieved (usual range 5 to 80 mcg/kg/minute).
- Daily assessment of minimum effective dose to maintain goal level of sedation is required.

Procedural sedation:
0.25 to 0.5 mg/kg IV direct over 1 minute, then 10 to 20 mg slow IV direct every 1 to 2 minutes as needed until the patient is sedated

Status epilepticus:
1 to 2 mg/kg IV loading dose, then 20 to 200 mcg/kg/minute continuous IV infusion, titrated to achieve seizure cessation or burst suppression on electroencephalography (EEG)

Palliative care sedation:
5 to 15 mcg/kg/minute, continuous IV infusion, increase by 5 to 10 mcg/kg/minute every 30 to 60 minutes until desired response (usual range 15 to 50 mcg/kg/minute; rarely up to 100 mcg/kg/minute)

Potential Hazards of Parenteral Administration

- anaphylaxis (rare), pain during injection, phlebitis
- facilities for assisting respiration and circulation are necessary
- Extravasation risk: irritant (reports of vesicant effects)
  - **refer to** : Extravasation Management (Non-Antineoplastic Vesicant/ Irritant Medications) – Adults

Important Implications

Contraindications/Cautions
- Contraindicated in those with hypersensitivity to soybean or peanut protein and eggs
- Caution in patients with hypovolemia, severe cardiac or respiratory disease or a history of seizures
- Caution: prolonged use (more than 48 hours) of high doses (more than 83 mcg/kg/minute) has been associated with an increased risk of proPOFol infusion syndrome which can lead to cardiac arrest in adults
- Pregnancy/Lactation: refer to Lexicomp or Micromedex

Side effects
- hypotension, apnea, bradycardia; nausea and vomiting (infrequent)
- while proPOFol appears to possess anticonvulsant activity, excitatory phenomena, such as myoclonus, spontaneous movement, tremor and twitching have been observed
- rarely epileptiform movement, urticaria, abnormal ECG, increased plasma glucose
- pancreatitis has been reported following anesthesia with proPOFol, although a causal relationship has not been established; elevation of pancreatic enzymes may occur during prolonged infusions

Monitoring
- lactate, triglycerides, CK levels, liver function tests for infusion duration beyond 48 hours

Other
- IV direct onset of anesthesia: 30 seconds; duration of anesthesia: approximately 3 to 10 minutes
- proPOFol is suspended in a 10% lipid emulsion which is a source of calories