

PROPOFOL:

Class: General Anesthetic

Indications: Induction of anesthesia in patients ≥ 3 years of age; maintenance of anesthesia in patients > 2 months of age; in adults, for monitored anesthesia care sedation during procedures; sedation in intubated, mechanically-ventilated ICU patients, postoperative antiemetic; refractory delirium tremens.

Available dosage form in the hospital: AMP (1%, 10%), 20MG / 1 ML 50ML VIAL

Dosage:

Dosage must be individualized based on total body weight and titrated to the desired clinical effect.

Wait at least 3-5 minutes between dosage adjustments to clinically assess drug effects. Smaller doses are required when used with opioids. The following are general dosing guidelines (see "Abbreviations" section in front section for explanation of ASA-PS classes):

-General anesthesia: Note: Increase dose in patients with chronic alcoholism (Fassoulaki, 1993); decrease dose with acutely intoxicated (alcoholic) patients.

-Induction:

-Healthy adults, ASA-PS 1 or 2, < 55 years: I.V.: 2-2.5 mg/kg (~40 mg every 10 seconds until onset of induction)

-Debilitated, ASA-PS 3 or 4: Refer to geriatric dosing.

-Maintenance:

-Healthy adults, ASA-PS 1 or 2, < 55 years:

-I.V. infusion: Initial: 100-200 mcg/kg/minute (or 6-12 mg/kg/hour) for 10-15 minutes; usual maintenance infusion rate: 50-100 mcg/kg/minute (or 3-6 mg/kg/hour) to optimize recovery time.

-I.V. intermittent bolus: 25-50 mg increments as needed

-Debilitated, ASA-PS 3 or 4: I.V. Infusion: Refer to geriatric dosing.

-Monitored anesthesia care sedation:

-Healthy adults, ASA-PS 1 or 2, < 55 years: Slow I.V. infusion: 100-150 mcg/kg/minute (or 6-9 mg/kg/hour) for 3-5 minutes **or** slow injection: 0.5 mg/kg over 3-5 minutes followed by I.V. infusion of 25-75 mcg/kg/minute (or 1.5-4.5 mg/kg/hour) **or** incremental bolus doses: 10 mg or 20 mg

-Debilitated or ASA-PS 3 or 4 patients: Use 80% of healthy adult dose

-ICU sedation in intubated mechanically-ventilated patients: Avoid rapid bolus injection; individualize dose and titrate to response.

-*Continuous infusion:* Initial: 5 mcg/kg/minute (or 0.3 mg/kg/hour); increase by 5-10 mcg/kg/minute (or 0.3-0.6 mg/kg/hour) every 5-10 minutes until desired sedation level is achieved; usual maintenance: 5-50 mcg/kg/minute (or 0.3-3 mg/kg/hour); reduce dose after adequate sedation established and adjust to response (eg, evaluate frequently to use minimum dose for sedation). Daily interruption with retitration or a light target level of sedation is recommended to minimize prolonged sedative effects (Barr, 2013).

-Elderly, debilitated, or ASA-PS 3 or 4 patients: Refer to geriatric dosing.

-Postoperative nausea and vomiting (PONV), rescue therapy (unlabeled use; Gan, 2007; Unlugenc, 2004): I.V.: 20 mg, may be repeated

-Refractory status epilepticus (unlabeled use): 1-2 mg/kg bolus (optional), then 33-167 mcg/kg/minute (or 2-10 mg/kg/hour) (Claassen, 2002; Kälviäinen, 2007; Meierkord, 2010; Rossetti, 2004); titrate to desired effect (eg, burst suppression on EEG). **Note:** Doses > 83 mcg/kg/minute (or > 5 mg/kg/hour) may increase the risk of hypotension and propofol-related infusion syndrome (PRIS) especially if used for > 48 hours; consider alternative therapies to avoid the risk of PRIS in longer term propofol infusions.

Geriatric

-General anesthesia: Note: Increase dose in patients with chronic alcoholism (Fassoulaki, 1993); decrease dose with acutely intoxicated (alcoholic) patients.

-Induction: Elderly, debilitated, ASA-PS 3 or 4: I.V.: 1-1.5 mg/kg (~20 mg every 10 seconds until onset of induction)

-Maintenance: Elderly, debilitated, ASA-PS 3 or 4: I.V. infusion: 50-100 mcg/kg/minute (or 3-6 mg/kg/hour)

-Monitored anesthesia care sedation: Elderly, debilitated, ASA-PS 3 or 4: I.V.: Use 80% of healthy adult dose

-ICU sedation in intubated mechanically-ventilated patients: Avoid rapid bolus injection; individualize dose and titrate to response:

-Continuous infusion: Elderly, debilitated, ASA-PS 3 or 4: Use 80% of healthy adult dose; reduce dose after adequate sedation established and adjust to response (eg, evaluate frequently to use minimum dose for sedation). Daily interruption with retitration or a light target level of sedation is recommended to minimize prolonged sedative effects (Barr, 2013).

Renal Impairment:

No dosage adjustment necessary.

Hepatic Impairment:

No dosage adjustment necessary

Common side effect:

Cardiovascular: Hypotension (children 17%; adults 3% to 26%)

Central nervous system: Movement (children 17%; adults 3% to 10%)

Local: Injection site burning, stinging, or pain (children 10%; adults 18%)

Respiratory: Apnea lasting 30-60 seconds (children 10%; adults 24%), apnea lasting >60 seconds (children 5%; adults 12%)

Pregnancy Risk Factor: B