

Sevoflurane

Class: General Anesthetic, Inhalation

Indications: Induction and maintenance of general anesthesia

Unlabeled: Intraoperative cardio-, hepatic-, and neuroprotection (ischemic preconditioning)

Available dosage form in the hospital: Solution, Inhalation: 250 mL bottle.

Dosage: Anesthesia: Inhalation: Minimum alveolar concentration (MAC), the concentration that abolishes movement in response to a noxious stimulus (surgical incision) in 50% of patients, is 2.6% (25 years of age). Surgical levels of anesthesia are generally achieved with concentrations from 0.5% to 3%; the concentration at which amnesia and loss of awareness occur is 0.6%.

-MAC values for surgical levels of anesthesia:

-25 years:

-Sevoflurane in oxygen: 2.6%

-Sevoflurane in 65% N₂O/35% oxygen: 1.4%

-40 years:

-Sevoflurane in oxygen: 2.1%

-Sevoflurane in 65% N₂O/35% oxygen: 1.1%

-60 years:

-Sevoflurane in oxygen: 1.7%

-Sevoflurane in 65% N₂O/35% oxygen: 0.9%

-80 years:

-Sevoflurane in oxygen: 1.4%

-Sevoflurane in 65% N₂O/35% oxygen: 0.7%

Common side effects: >10%:

Cardiovascular: Hypotension (4% to 11%; dose dependent)

Central nervous system: Agitation (7% to 15%)

Gastrointestinal: Nausea (25%), vomiting (18%)

Respiratory: Cough increased (5% to 11%)

1% to 10%:

Cardiovascular: Bradycardia (5%), tachycardia (2% to 6%), hypertension (2%)

Central nervous system: Somnolence (9%), dizziness (4%), fever (1%), headache (1%), hypothermia (1%), emergence delirium

Gastrointestinal: Salivation increased (2% to 4%)

Respiratory: Airway obstruction (8%), laryngospasm (2% to 8%), breath-holding (2% to 5%), apnea (2%)

Miscellaneous: Shivering (6%), movement (1%)

Pregnancy Risk Factor: B