KETAMINE

BRAND NAME	KETALAR, KETAMINE BAXTER, INTERPHARMA
DRUG CLASS	Anaesthetic
AVAILABILITY	Ketalar vial and Baxter ampoule contain **200 mg/2 mL** of ketamine as ketamine hydrochloride. Ketalar brand also contains benzethonium chloride (phemerol).[1] Interpharma ampoule contains **100 mg/10 mL** or **250 mg/5 mL** of ketamine as ketamine hydrochloride. The 100 mg/10 mL ampoule also contains sodium chloride.[1] The solution is clear and colourless to slightly yellow.[1] Controlled drug: use must be recorded.
pH	3.5–5.5[1]
PREPARATION	The 200 mg/2 mL ampoule or vial must be diluted for IV use[1]
STABILITY	Vial: store below 30 °C. Protect from light.[1] Diluted solutions of 50 mg/mL for injection: use immediately or store for up to 24 hours at 2 to 8 °C.[1] Infusion solutions of 1 mg/mL in sodium chloride 0.9% and 10 mg/mL (in syringe) are stable for 24 hours at room temperature.[2]
ADMINISTRATION	
IM injection	Suitable[1]
SUBCUT injection	Suitable as an intermittent subcutaneous injection or as a continuous subcutaneous infusion.[3] Low dose infusions are used in conjunction with other analgesics for neuropathic pain, severe acute pain and refractory migraine. Seek specialist advice.
IV injection	Dilute the 200 mg/2 mL vial or ampoule with 2 mL of water for injections or sodium chloride 0.9% to make a concentration of 50 mg/mL.[1] Inject over at least 1 minute.[1] Some centres use concentrations of 10 mg/mL for injection. The 100 mg/10 mL or 250 mg/5 mL ampoule can be injected undiluted.[1]
IV infusion	Dilute 100 mg to 50 mL or 100 mL with sodium chloride 0.9% or glucose 5% to make a concentration of 2 mg/mL or 1 mg/mL respectively.[2] Some centres use infusion solutions of 4 mg/mL: dilute 200 mg to 50 mL with sodium chloride 0.9%. Low dose infusions are given in conjunction with other analgesics for neuropathic pain, severe acute pain and refractory migraine. Seek specialist advice.
IV use for infants and children	Dilute with an equal volume of compatible fluid and inject over at least 1 minute,[1,4] or dilute to 1–2 mg/mL and give as a continuous infusion.[4,5] Some centres use more concentrated solutions for infusion e.g. dilute 200 mg to 50 mL with sodium chloride 0.9% to make a concentration of 4 mg/mL.
COMPATIBILITY	
Fluids	Glucose 5%[1], Plasma-Lyte 148 via Y-site[6], sodium chloride 0.9%[1]
Y-site	Ceftazidime[7]
Syringe	Information on compatibility with other medicines in a syringe driver is available[8]
INCOMPATIBILITY	
Fluids	No information
Drugs	Aciclovir[2], ampicillin[2], barbiturates[1], furosemide[2], heparin sodium[2], meropenem[2], phenobarbital[1], potassium phosphates[2], quinine[1], sodium bicarbonate[2]
SPECIAL NOTES	Respiratory depression can occur with rapid administration and high doses.[1] Monitor cardiac and respiratory function when used at anaesthetic doses.[1] When used at analgesic doses monitor heart rate, blood pressure, respiratory rate and sedation score. A transient rise in blood pressure of 20–25% can occur a few minutes after IV injection.[1] Some patients may have involuntary movements of the arms and legs during IV infusion for anaesthesia.[1] Emergent reactions may occur during recovery and sometimes up to 24 hours later. These include vivid dreams, hallucinations, delirium and irrational behaviour.[1] Reactions are less common with lower doses used for analgesia. Management may include dose reduction, cessation or administration of a benzodiazepine. Check your local guidelines or seek specialist advice.

REFERENCES

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