

BUPRENORPHINE

BRAND NAME	TEMGESIC
DRUG CLASS	Strong opioid analgesic with mixed agonist/antagonist activity
AVAILABILITY	Temgesic ampoule contains 300 microgram/mL of buprenorphine hydrochloride. Also contains glucose and hydrochloric acid. ¹ The solution is clear and colourless. ¹ Controlled drug: use must be recorded.
WARNING	May cause respiratory depression when given in high or repeated doses or to patients who are elderly or have compromised respiratory function. Monitor at-risk patients closely. ¹ See SPECIAL NOTES Naloxone may not be effective in reversing respiratory depression caused by buprenorphine. ¹
pH	4 ¹
PREPARATION	Not required
STABILITY	Store below 30 °C. Protect from light. ¹
ADMINISTRATION	
IM injection	Suitable ¹
SUBCUT injection	Suitable in palliative care patients as an intermittent injection or as a continuous subcutaneous infusion. ² Also see the monograph for BUPRENORPHINE SUBCUT DEPOT.
IV injection	Inject undiluted over at least 2 minutes. ^{1,3}
IV infusion	Dilute to 30 microgram/mL with sodium chloride 0.9%. e.g. dilute 1500 microgram to 50 mL. Suitable for patient controlled analgesia (PCA). ³
Epidural infusion	Suitable. ³ Seek specialist advice.
COMPATIBILITY	
Fluids	Glucose 5% ⁴ , Hartmann's ⁴ , sodium chloride 0.9% ⁴
Y-site	At 40 microgram/mL of buprenorphine: amifostine ⁴ , cisatracurium ⁴ , filgrastim ⁴ , granisetron ⁴ , linezolid ⁴ , piperacillin-tazobactam (EDTA-free) ⁴ , remifentanyl ⁴ At 150 microgram/mL of buprenorphine: amikacin ⁵ , atracurium ⁵ , aztreonam ⁵ , calcium chloride ⁵ , calcium gluconate ⁵ , cefalotin ⁵ , cefazolin ⁵ , cefotaxime ⁵ , cefoxitin ⁵ , ceftazidime ⁵ , ceftriaxone ⁵ , ciclosporin ⁵ , clindamycin ⁵ , dexamethasone ⁵ , digoxin ⁵ , ephedrine sulfate ⁵ , erythromycin ⁵ , esmolol ⁵ , fentanyl ⁵ , fluconazole ⁵ , gentamicin ⁵ , glyceryl trinitrate ⁵ , heparin sodium ⁵ , hydrocortisone sodium succinate ⁵ , labetalol ⁵ , lidocaine ⁵ , magnesium sulfate ⁵ , methylprednisolone sodium succinate ⁵ , metoclopramide ⁵ , midazolam ⁵ , morphine sulphate ⁵ , noradrenaline (norepinephrine) ⁵ , paracetamol ⁴ , potassium chloride ⁵ , ranitidine ⁵ , sodium nitroprusside ⁵ , suxamethonium ⁵ , tobramycin ⁵ , vancomycin ⁵ , verapamil ⁵
INCOMPATIBILITY	
Fluids	No information
Drugs	Aminophylline ⁶ , ampicillin ⁶ , azathioprine ⁶ , flucloxacillin ⁶ , indometacin ⁶ , phenobarbital ⁶ , sodium bicarbonate ⁶
SPECIAL NOTES	Patients with compromised respiratory function include those with obstructive sleep apnoea and those concurrently taking medicines that can cause CNS or respiratory depression. Monitor sedation score and respiratory rate. ⁷ Buprenorphine is a partial opioid agonist. It may cause withdrawal symptoms when given to patients who are dependent on other opioids. Buprenorphine is approximately 30 times more potent than morphine: 300–400 microgram IM/IV buprenorphine = 10 mg IV morphine. ^{3,7}

REFERENCES

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