

PIPERACILLIN AND TAZOBACTAM

BRAND NAME	PIPERTAZ SANDOZ, PIPTAZ AFT, TAZOCIN EF, TAZOPIP, PIPERACILLIN/TAZOBACTAM KABI
DRUG CLASS	Penicillin antibiotic and beta-lactamase inhibitor
AVAILABILITY	Vial contains 4.5 g as 4 g of piperacillin and 500 mg of tazobactam. ¹ PiperTaz Sandoz, PipTaz AFT, Tazopip and Piperpacillin/Tazobactam Kabi are EDTA-free. ¹ PipTaz AFT also contains sodium bicarbonate. ¹ Tazocin EF also contains citric acid monohydrate and disodium edetate (EDTA). ¹ PiperTaz Sandoz, PipTaz AFT, Tazopip contain 2.35 mmol of sodium for each 1 g of piperacillin. ¹ Piperpacillin/Tazobactam Kabi and Tazocin EF contain 2.84 mmol of sodium for each 1 g of piperacillin. ¹
WARNING	Contraindicated in patients with severe or non-severe immediate (IgE mediated) or delayed (T-cell mediated) hypersensitivity to penicillins.
pH	4.5–6.8 ²
PREPARATION	Reconstitute the vial with 20 mL of water for injections or sodium chloride 0.9%. ¹ It may take 5 to 10 minutes of constant shaking to dissolve. PipTaz AFT, Piperpacillin/Tazobactam Kabi and Tazocin EF may also be reconstituted with glucose 5%. ¹ Powder volume of PiperTaz Sandoz, PipTaz AFT and Tazocin EF – 3.15 mL ³⁻⁵ Powder volume of Piperacillin/Tazobactam Kabi – 3 mL ⁶ If a part-dose is required, reconstitute the vial with 17 mL of water for injections to make a concentration of 200 mg/mL of piperacillin.
STABILITY	Vial: store below 25 °C. ¹ Reconstituted solution: stable for 24 hours below 25 °C or at 2 to 8 °C. ² Infusion solution: stable for 24 hours below 25 °C or at 2 to 8 °C. ² For CoPAT use: stable for 24 hours at 32 °C and 37 °C. ^{7,8} Stability is improved in a citrate-buffered solution. ⁸ Infusion solutions prepared in a sterile production unit are stable for 5 days at 2 to 8 °C. ² Tazocin EF solutions are stable for more than 7 days at 2 to 8 °C. ² Stable for 13 days at 2 to 8 °C when prepared in a citrate-buffered solution. ⁸ See SPECIAL NOTES
ADMINISTRATION	
IM injection	Not recommended
SUBCUT injection	Not recommended
IV injection	In the urgent treatment of critically unwell patients (e.g. sepsis), a 4 g/500 mg dose can be injected over 5 minutes. ⁹
IV infusion	Dilute the dose to at least 50 mL with a compatible fluid and infuse over 20 to 30 minutes. ¹ May also be given as an extended infusion over 3 to 4 hours in critically ill patients. ¹⁰ For patients with fluid restrictions, the reconstituted solution (4.5 g/20 mL) may be infused without further dilution. ^{11,12} The total daily dose (13.5 g to 18 g) may be given as a 24 hour continuous infusion in the community setting. ¹³
IV use for infants and children	Dilute to 15–90 mg/mL of piperacillin and infuse over 30 minutes. ¹⁴ May also be given as an extended infusion over 3 to 4 hours. ¹⁰ A maximum concentration of 160 mg/mL of piperacillin can be used for ambulatory infusion pumps. ¹⁵

COMPATIBILITY

- Fluids** Glucose 5%¹, Plasma-Lyte 148 via Y-site¹⁶, sodium chloride 0.9%¹, Hartmann's via Y-site (PipTaz AFT, Tazocin EF only)¹
- Y-site** EDTA-free brands only (not Tazocin EF) – aminophylline², anidulafungin², aztreonam², bivalirudin², buprenorphine², calcium folinate², calcium gluconate², ceftolozane-tazobactam², clindamycin², dexamethasone², dexmedetomidine², fluconazole², furosemide², granisetron², heparin sodium², hydrocortisone sodium succinate², hydromorphone², linezolid², magnesium sulfate², mannitol², mesna², methylprednisolone sodium succinate², metoclopramide², metronidazole², morphine sulfate², paracetamol², pethidine², potassium chloride², ranitidine², remifentanyl², tigecycline², trimethoprim-sulfamethoxazole², zidovudine²

INCOMPATIBILITY

- Fluids** Albumin and blood products¹, alkaline solutions,¹ Hartmann's¹
- Drugs** Aminoglycosides – amikacin, gentamicin, tobramycin¹ see SPECIAL NOTES
- Aciclovir², albumin¹, amiodarone², azithromycin², caspofungin², ciprofloxacin¹⁷, dobutamine², droperidol², ganciclovir², glycopyrronium bromide¹⁷, haloperidol lactate², hydralazine¹⁷, insulin (Actrapid)¹⁷, labetalol¹⁷, methadone¹⁷, midazolam¹⁷, mivacurium¹⁷, mycophenolate mofetil¹⁷, nifedipine¹⁷, pentamidine¹⁷, promethazine¹⁷, rocuronium¹⁷, thiopental sodium¹⁷, tobramycin¹⁷, tranexamic acid¹⁷, vecuronium¹⁷, verapamil¹⁷

SPECIAL NOTES

Some compatibility information is available for the administration with amikacin and gentamicin.¹ Consult the pharmacist, pharmacy department or medicines information service for advice.

Tazocin EF (only) contains EDTA and citrate to reduce the formation of excessive particles.² It is the preferred product if preparing solutions in advance for community-based parenteral antimicrobial therapy.¹³

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