

# RANITIDINE

BRAND NAME	RANITIDINE SANDOZ, ZANTAC
DRUG CLASS	H <sub>2</sub> antagonist
AVAILABILITY	<b>Zantac</b> ampoule contains 50 mg/2 mL of ranitidine as ranitidine hydrochloride. Also contains monobasic potassium phosphate, sodium chloride and dibasic sodium phosphate. <b>Ranitidine Sandoz</b> ampoule contains 50 mg/5 mL of ranitidine as ranitidine hydrochloride. Also contains sodium hydroxide. <sup>1</sup> The solution is clear and colourless to pale yellow. <sup>2</sup>
pH	Zantac: 7 <sup>1</sup>
PREPARATION	Not required
STABILITY	Ampoule: store below 25 °C. <sup>1</sup> Ranitidine Sandoz: protect from light. <sup>1</sup> Infusion solutions prepared with Zantac are stable for 24 hours. <sup>1</sup> Infusion solutions of Ranitidine Sandoz in sodium chloride 0.9%, sodium bicarbonate 4.2% or Hartmann's are stable for 24 hours at 2 to 8 °C. Solutions in glucose 5% or glucose 4% and sodium chloride 0.18% are stable for 8 hours at 2 to 8 °C. <sup>1</sup>
ADMINISTRATION	
<b>IM injection</b>	Suitable. Inject undiluted. <sup>3</sup>
<b>SUBCUT injection</b>	Suitable for use in palliative care as an intermittent injection or continuous subcutaneous infusion. <sup>4</sup>
<b>IV injection</b>	Dilute 50 mg with 20 mL of sodium chloride 0.9% and inject over at least 5 minutes. <sup>1</sup>
<b>IV infusion</b>	Dilute 50 mg in 100 mL of compatible fluid and infuse over 15 to 20 minutes <sup>3</sup> or over 2 hours (25 mg/hour). <sup>1</sup> May also be given as a continuous infusion. Dilute 150 mg in 250 mL of compatible fluid and infuse at a rate of 6.25 mg/hour over 24 hours. <sup>3</sup>
<b>IV use for infants and children</b>	Dilute to 2.5 mg/mL and inject over at least 5 minutes. The maximum rate is 10 mg/minute. Or dilute to less than 0.5 mg/mL and infuse over 15 to 20 minutes or as a continuous infusion. <sup>5</sup>
COMPATIBILITY	
<b>Fluids</b>	Glucose 5% <sup>1</sup> , glucose 10% <sup>3</sup> , Hartmann's <sup>1</sup> , sodium bicarbonate 4.2% <sup>1</sup> , sodium chloride 0.9% <sup>1</sup> , sodium chloride in glucose solutions <sup>1</sup>
<b>Y-site</b>	Aciclovir <sup>3</sup> , amifostine <sup>3</sup> , amikacin <sup>6</sup> , aminophylline <sup>6</sup> , anidulafungin <sup>3</sup> , atracurium <sup>3,6</sup> , aztreonam <sup>3</sup> , bivalirudin <sup>3</sup> , buprenorphine <sup>6</sup> , calcium chloride <sup>6</sup> , calcium gluconate <sup>6</sup> , cefalotin <sup>6</sup> , cefazolin <sup>6</sup> , cefotaxime <sup>6</sup> , ceftazidime <sup>3</sup> , ceftazidime <sup>3</sup> , ceftolozane-tazobactam <sup>3</sup> , ceftriaxone <sup>3</sup> , ciclosporin <sup>6</sup> , ciprofloxacin <sup>3</sup> , cisatracurium <sup>3</sup> , clindamycin <sup>6</sup> , dexamethasone <sup>6</sup> , dexmedetomidine <sup>3</sup> , dobutamine <sup>3,6</sup> , dopamine <sup>3,6</sup> , ephedrine sulfate <sup>6</sup> , esmolol <sup>3,6</sup> , ethanol <sup>7</sup> , fentanyl <sup>6</sup> , filgrastim <sup>3</sup> , fluconazole <sup>6</sup> , foscarnet <sup>3</sup> , furosemide <sup>6</sup> , ganciclovir <sup>6</sup> , gentamicin <sup>6</sup> , glyceryl trinitrate <sup>3,6</sup> , granisetron <sup>3</sup> , heparin sodium <sup>3,6</sup> , hydrocortisone sodium succinate <sup>6</sup> , isavuconazole <sup>3</sup> , labetalol <sup>3,6</sup> , lidocaine <sup>6</sup> , linezolid <sup>3</sup> , magnesium sulfate <sup>6</sup> , methylprednisolone sodium succinate <sup>6</sup> , metoclopramide <sup>6</sup> , midazolam <sup>3</sup> , milrinone <sup>3</sup> , morphine sulfate <sup>6</sup> , noradrenaline (norepinephrine) <sup>6</sup> , paracetamol <sup>3</sup> , piperacillin-tazobactam (EDTA-free) <sup>3</sup> , potassium chloride <sup>6</sup> , remifentanyl <sup>3</sup> , sodium bicarbonate <sup>6</sup> , sodium nitroprusside <sup>6</sup> , suxamethonium <sup>6</sup> , tigecycline <sup>3</sup> , tobramycin <sup>6</sup> , vancomycin <sup>6</sup> , vecuronium <sup>3</sup> , verapamil <sup>6</sup> , zidovudine <sup>3</sup>
<b>Syringe</b>	Information on compatibility with other medicines in a syringe driver is available <sup>8</sup>
INCOMPATIBILITY	
<b>Fluids</b>	No information

**Drugs** Amiodarone<sup>9</sup>, caspofungin<sup>9</sup>, levomepromazine<sup>3</sup>, phenobarbital<sup>3</sup>, sugammadex<sup>1</sup>

**SPECIAL NOTES** Rapid administration can cause bradycardia.<sup>1</sup>

## REFERENCES

1. Product information. Available from [www.tga.gov.au](http://www.tga.gov.au). Accessed 28/06/2019.
2. Ranitidine Sandoz. Consumer medicine information. Available from [www.tga.gov.au](http://www.tga.gov.au). Accessed 28/06/2019.
3. McEvoy GK editor. Handbook on injectable drugs. 20th ed. Bethesda, MD: American Society of Health-System Pharmacists; 2018.
4. Gastrointestinal symptoms in palliative care [July 2016]. In: eTG complete [internet]. Melbourne: Therapeutic Guidelines Ltd; June 2019.
5. Phelps SJ, Hageman TM, Lee KR, Thompson AJ. Pediatric injectable drugs. 11th ed. Bethesda, MD: Am Soc Health-System Pharmacists; 2018.
6. Trissel LA, Leissing NC. Trissel's Tables of physical compatibility. Lake Forest IL: Multimatrix; 1996.
7. Thoma LA, Johnson-Singh A, Wood GC, Wolfe JL. Physical compatibility of 10% alcohol in 5% dextrose injection with selected drugs during simulated Y-site administration. *Am J Health-Syst Pharm* 2000; 57: 2286-7.
8. Dickman A, Schneider J. The syringe driver. Continuous subcutaneous infusions in palliative care. 4th ed. Oxford, UK: Oxford University Press; 2016.
9. Ranitidine. In: IV index [internet]. Trissel's 2 clinical pharmaceuticals database (parenteral compatibility). Greenwood Village, CO: Truven Health Analytics. Accessed 28/06/2019.