Tedizolid phosphate 0.8 mg/mL in 0.9% sodium chloride injection was physically compatible with 69 of 86 study drugs during simulated Y-site administration" Ghazi et al (2016).

Abstract:

Purpose: The physical compatibility of commonly used agents that could be coadministered in the clinical setting with tedizolid phosphate during Y-site administration was evaluated.

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Methods: Tedizolid phosphate vials were reconstituted to a final concentration of 0.8 mg/mL. All other drugs were prepared according to manufacturers' recommendations and diluted with 0.9% sodium chloride injection (where applicable) to the highest standard concentrations used clinically. Y-site conditions were simulated in culture tubes by mixing 5 mL of tedizolid phosphate solution with 5 mL of the test drug solutions. The physical characteristics, turbidity, and pH of all admixtures were examined immediately after mixing and at 15, 60, and 120 minutes. Incompatibility was defined as gross precipitation, a positive Tyndall beam test, color changes, or increases in turbidity.

Results: With simulated Y-site administration, tedizolid phosphate was compatible with 69 of

86 drugs in 0.9% sodium chloride injection, including 24 of 31 antimicrobial agents. Of note, incompatibility was observed immediately after mixing except with ceftaroline and diphenhydramine, whose incompatibility with tedizolid phosphate was apparent after 15 and 60 minutes, respectively. Among the drug classes tested, tedizolid phosphate was compatible only with 1 aminoglycoside (amikacin) and incompatible with 1 echinocandin (caspofungin) and 1 cephalosporin (ceftaroline). In addition, tedizolid phosphate was incompatible with divalent cations (calcium chloride, calcium gluconate, and magnesium sulfate), probably due to precipitation with the phosphate component. A pH change of >1 unit occurred only with epinephrine (at 120 minutes).

Conclusion: Tedizolid phosphate 0.8 mg/mL in 0.9% sodium chloride injection was physically compatible with 69 of 86 study drugs during simulated Y-site administration.

Reference:

Ghazi, I., Hamada, Y. and Nicolau D.P. (2016) Physical compatibility of tedizolid phosphate with selected i.v. drugs during simulated Y-site administration. American Journal of Health-System Pharmacy. 73(21), p.1769-1776.

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