

## **Time-dose response of *Trypanosoma congolense* bloodstream forms to diminazene and isometamidium**

Kaminsky, R.; Chuma, F.; Wasike, R.P.N.

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### **Abstract**

*Trypanosoma congolense* bloodstream forms were propagated in vitro axenically in a simplified cultivation medium at 34 ° C. Viability of a drug-sensitive and a drug-resistant clone were examined for 10 days following exposure to 0.1, 1.0 and 10.0 µg ml<sup>-1</sup> of diminazene aceturate and 0.1, 1.0 and 10.0 ng ml<sup>-1</sup> of isometamidium chloride for various time intervals. Drug-sensitive *T. congolense* were irreversibly damaged after incubation with 10 µg ml<sup>-1</sup> or 1 µg ml<sup>-1</sup> diminazene aceturate for 30 min or 2 h, respectively, while drug-resistant trypanosomes were not affected. Exposure to 10 ng ml<sup>-1</sup> isometamidium chloride eliminated drug-sensitive trypanosomes after 24 h and drug-resistant trypanosomes after 96 h. The data obtained on in vitro time-dose responses of *T. congolense* were related to pharmacokinetic data of diminazene and isometamidium in cattle plasma.