

Problem Statement

Thursday, June 29, 2023 11:44 AM

ModelingComplexSystems.net

Collection: Model Construction

Title: Methodology

Section: Drug Levels Model.Preview.Problem Statement

Show the total amount of the prescription drug *Clonazepam* in a patient's blood serum while it is ingested over a four week period.

Model Run Parameters

drug : Clonazepam

dose: 0.25 mg

dose frequency: 3x per day at 8 hour intervals

absorption rate: > 90 percent within 15 minutes

elimination rate: estimated drug half-life for this patient: 35 hours (range: 30 to 40 hours)

initial level: 0.0 mg

time horizon: 4 weeks (672 hours)

patient's blood volume: 5.0 liters

References

Hajira Basit; Chadi I. Kahwaji

Clonazepam

13 May 2023 (last update)

National Library of Medicine,

National Center for Biotechnology Information

URL: <https://www.ncbi.nlm.nih.gov/books/NBK556010/>

NDA 017533 Klonopin (clonazepam) tablets

FDA Approval Labeling Text

October 2013

URL: https://www.accessdata.fda.gov/drugsatfda_docs/label/2013/017533s053,020813s009lbl.pdf