

PBPK model for acetaminophen & metabolites

21 parameters estimate in original publication

37 parameters fixed at constant values in original publication



Prior distribution of model parameters

Elementary effect test

Morris

Variance-based SA

FAST

Jansen

Owen



Convergence test

- Sample size effects on output variability
- Effective estimators in sensitivity determination



Sensitivity analysis for model parameter



21 original parameters

37 additional parameters

No. of insensitive parameters

No. of sensitive parameters

No. of sensitive parameters

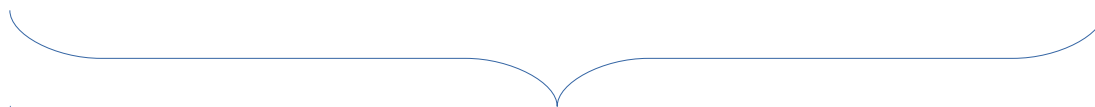
No. of insensitive parameters

Simulation 4
All parameters

Simulation 1

Simulation 2

Simulation 3



Accuracy / Precision

Computational Efficiency

Global Sensitivity Analysis

MCMC Simulations

Evaluation of Model Performance