ERRATUM

Simple Approximate Formulas for Calculating the Time to Clear Drug and the Time to Accumulate Drug When the Plasma Disposition Curve of the Drug Is Multiexponential

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This Letter to the Editor, published in the *Journal of Pharmacokinetics and Biopharmaceutics*, Vol. 22, No. 6, pp. 565–567, contains two errors in Table I: The exact formulas for “clear body drug content after steady state” and “accumulate body drug content during repetitive dosing or prolonged infusion” are incorrect. The correct formulas are

$$f_{ss} = \sum f_{i,aumc} e^{-\lambda_i t_{fss}}$$

and

$$f_{ss} = 1 - \sum f_{i,aumc} e^{-\lambda_i t_{fss}}$$

respectively. The revised Table I below contains the corrected formulas and re-expresses the other exact formulas so as to demonstrate the general pattern present throughout the exact formulas.

Table I. Exact and Simplified Formulas for Calculation of Time to Clear Drug and Time to Accumulate Drug

Setting	Exact formula	Simplified formula
Clear plasma drug concentration		
After bolus dose	$f_o = \sum f_i e^{-\lambda_i t_{fo}}$	$t_{fo} = -\ln\{f_o/f_z\}/\lambda_z$
After steady state	$f_{ss} = \sum f_{i,auc} e^{-\lambda_i t_{fss}}$	$t_{fss} = -\ln\{f_{ss}/f_{z,auc}\}/\lambda_z$
Clear body drug content		
After bolus dose	$f_o = \sum f_{i,auc} e^{-\lambda_i t_{fo}}$	$t_{fo} = -\ln\{f_o/f_{z,auc}\}/\lambda_z$
After steady state	$f_{ss} = \sum f_{i,aumc} e^{-\lambda_i t_{fss}}$	$t_{fss} = -\ln\{f_{ss}/f_{z,aumc}\}/\lambda_z$
Accumulate plasma drug concentration		
Repetitive dosing or prolonged infusion	$f_{ss} = 1 - \sum f_{i,auc} e^{-\lambda_i t_{fss}}$	$t_{fss} = -\ln\{(1 - f_{ss})/f_{z,auc}\}/\lambda_z$
Accumulate body drug content		
Repetitive dosing or prolonged infusion	$f_{ss} = 1 - \sum f_{i,aumc} e^{-\lambda_i t_{fss}}$	$t_{fss} = -\ln\{(1 - f_{ss})/f_{z,aumc}\}/\lambda_z$