

Package ‘tdm’

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Title A Tool for Therapeutic Drug Monitoring (TDM)

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Description TDM is designed to estimate individual pharmacokinetic parameters with one or more drug serum/plasma concentrations obtained from a single subject or multiple subjects using JAGS (Just Another Gibbs Sampling) interfaced through rjags and JAGS. Besides, it also can calculate a suggested dose with the target drug concentration (C ->D) or calculate a predicted drug concentration with a given dose (D -> C).

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Depends R (>= 2.12.0)

Imports rjags, coda, png, grid, deSolve

License GPL (>= 2)

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all.Amianhinfusionsm *Process to estimate individual PK parameters of aminophylline anhydrous iv infusion with multiple concentrations*

Description

Process to estimate individual PK parameters of aminophylline anhydrous iv infusion with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Amianhinfusionsss *Process to estimate individual PK parameters of aminophylline anhydrous iv infusion with one concentration*

Description

Process to estimate individual PK parameters of aminophylline anhydrous iv infusion with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Amianhirsm *Process to estimate individual PK parameters of aminophylline anhydrous IR tablet with multiple concentrations*

Description

Process to estimate individual PK parameters of aminophylline anhydrous IR tablet with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Amianhirss	<i>Process to estimate individual PK parameters of aminophylline anhydrous IR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of aminophylline anhydrous IR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Amicrsc	<i>Process to estimate individual PK parameters of aminophylline anhydrous CR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of aminophylline anhydrous CR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Amidihcrsc	<i>Process to estimate individual PK parameters of aminophylline dihydrous CR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of aminophylline dihydrous CR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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all.Amidihinfusions *Process to estimate individual PK parameters of aminophylline dihydrous iv infusion with one concentration*

Description

Process to estimate individual PK parameters of aminophylline dihydrous iv infusion with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Amidihirsm *Process to estimate individual PK parameters of aminophylline dihydrous IR tablet with multiple concentrations*

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Process to estimate individual PK parameters of aminophylline dihydrous IR tablet with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Amidhirss *Process to estimate individual PK parameters of aminophylline dihydrous IR tablet with one concentration*

Description

Process to estimate individual PK parameters of aminophylline dihydrous IR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Amism *Process to estimate individual PK parameters of aminoglycoside with multiple concentrations*

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Process to estimate individual PK parameters of aminoglycoside with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

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Description

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all.Carss	<i>Process to estimate individual PK parameters of carbamazepine with one concentration</i>
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Description

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all.ChiValss	<i>Process to estimate individual PK parameters of valproate for children with one concentration</i>
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Description

Process to estimate individual PK parameters of valproate for children with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Description

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Process to estimate individual PK parameters of cyclosporine A with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Description

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Description

Process to estimate individual PK parameters of enfuvirtide with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

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Description

Process to estimate individual PK parameters of enfuvirtide with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Description

Process to estimate individual PK parameters of enoxaparin with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Evesm	<i>Process to estimate individual PK parameters of everolimus with multiple concentrations</i>
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Description

Process to estimate individual PK parameters of everolimus with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Evess	<i>Process to estimate individual PK parameters of everolimus with one concentration</i>
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Description

Process to estimate individual PK parameters of everolimus with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Process to estimate individual PK parameters of imatinib mesylate with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

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Description

Process to estimate individual PK parameters of indinavir with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

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Process to estimate individual PK parameters of indinavir with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Litcitss	<i>Process to estimate individual PK parameters of lithium citrate with one concentration</i>
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Description

Process to estimate individual PK parameters of lithium citrate with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Litss	<i>Process to estimate individual PK parameters of lithium carbonate with one concentration</i>
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Description

Process to estimate individual PK parameters of lithium carbonate with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.OO.sm	<i>Main function to run opioids tdm</i>
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Description

Main function to run opioids tdm

References

1. Linares, O and Linares, A. Computational Opioid Prescribing: A Novel Application of Clinical Pharmacokinetics. *Journal of Pain and Palliative Care Pharmacotherapy*. Vol 25, No 2, June 2011
2. Linares, O, Daly, D and Linares, A. Personalized Oxycodone Dosing: Using Pharmacogenetic Testing and Clinical Pharmacokinetics to Reduce Toxicity Risk and Increase Effectiveness. *Pain Medicine*, 2014,...

all.0xtcrss	<i>Process to estimate individual PK parameters of oxtriphylline CR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of oxtriphylline CR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.0xtirsm	<i>Process to estimate individual PK parameters of oxtriphylline IR tablet with multiple concentrations</i>
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Description

Process to estimate individual PK parameters of oxtriphylline IR tablet with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.0xtirss	<i>Process to estimate individual PK parameters of oxtriphylline IR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of oxtriphylline IR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Description

Process to estimate individual PK parameters of phenytoin with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Description

Process to estimate individual PK parameters of ritonavir with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Ritss	<i>Process to estimate individual PK parameters of ritonavir with one concentration</i>
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Description

Process to estimate individual PK parameters of ritonavir with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Tacsm	<i>Process to estimate individual PK parameters of tacrolimus with multiple concentrations</i>
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Description

Process to estimate individual PK parameters of tacrolimus with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Tacss	<i>Process to estimate individual PK parameters of tacrolimus with one concentration</i>
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Description

Process to estimate individual PK parameters of tacrolimus with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Thecrss	<i>Process to estimate individual PK parameters of theophylline CR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of theophylline CR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Theirsm	<i>Process to estimate individual PK parameters of theophylline IR tablet with multiple concentrations</i>
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Description

Process to estimate individual PK parameters of theophylline IR tablet with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Theirss	<i>Process to estimate individual PK parameters of theophylline IR tablet with one concentration</i>
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Description

Process to estimate individual PK parameters of theophylline IR tablet with one concentration at steady-state including estimation of PK parameters and dose adjustment.

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Description

Process to estimate individual PK parameters of valproate with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Valss	<i>Process to estimate individual PK parameters of valproate with one concentration</i>
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Description

Process to estimate individual PK parameters of valproate with one concentration at steady-state including estimation of PK parameters and dose adjustment.

all.Vansm	<i>Process to estimate individual PK parameters of vancomycin with multiple concentrations</i>
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Description

Process to estimate individual PK parameters of vancomycin with multiple concentrations at steady-state including estimation of PK parameters and dose adjustment.

all.Vanss	<i>Process to estimate individual PK parameters of vancomycin with one concentration</i>
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Description

Process to estimate individual PK parameters of vancomycin with one concentration at steady-state including estimation of PK parameters and dose adjustment.

Ami.model	<i>Algorithm to estimate individual PK parameters of aminoglycoside</i>
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Description

Algorithm to estimate individual PK parameters of aminoglycoside by Bayesian technique(JAGS).

References

Burton ME, Chow MS, et al., (1986). Accuracy of Bayesian and Sawchuk-Zaske dosing methods for gentamicin. Clin Pharm 5(2): 143-9.

 Ami.more

Function for individual dosage adjustment of aminoglycoside

Description

Function to predict individual concentrations of aminoglycoside or to calculate their suggested doses after predicting individual PK parameters with single concentration.

 Ami.sm

Algorithm to estimate individual PK parameters of aminoglycoside with multiple concentrations

Description

Algorithm to estimate individual PK parameters of aminoglycoside with multiple concentrations at steady-state.

References

Burton ME, Chow MS, et al., (1986). Accuracy of Bayesian and Sawchuk-Zaske dosing methods for gentamicin. Clin Pharm 5(2): 143-9.

 Ami.ss

Algorithm to estimate individual PK parameters of aminoglycoside with one concentration

Description

Algorithm to estimate one subject's PK parameters of aminoglycoside with one sampling at steady-state.

References

Burton, M. E., M. S. Chow, et al. (1986). Accuracy of Bayesian and Sawchuk-Zaske dosing methods for gentamicin. Clin Pharm 5(2): 143-9.

 Amianh.menu

Aimnophylline anhydrous input form menu

Description

Aimnophylline anhydrous input form menu including IR tablet, CR tablet and iv infusion.

Amianhcr.model	<i>Algorithm to estimate individual PK parameters of aminophylline anhydrous CR</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline anhydrous CR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Amianhcr.more	<i>Function for individual dosage adjustment of aminophylline dihydrous CR</i>
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Description

Function to predict individual concentrations of aminophylline dihydrous CR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Amianhcr.ss	<i>Algorithm to estimate individual PK parameters of aminophylline anhydrous CR with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline anhydrous CR with one sampling at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

Amianhinfusion.model *Estimate individual PK parameters of iv infusion aminophylline anhydrous with loading dose*

Description

Estimate individual PK parameters of iv infusion aminophylline anhydrous with loading dose by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Amianhinfusion.more *Function for individual dosage adjustment of iv infusion aminophylline anhydrous with loading dose*

Description

Function to predict individual concentrations of iv infusion aminophylline anhydrous with loading dose or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Amianhinfusion.sm *Algorithm to estimate individual PK parameters of iv infusion aminophylline anhydrous with loading dose by multiple concentrations*

Description

Algorithm to estimate individual PK parameters of iv infusion aminophylline anhydrous with loading dose with multiple concentrations at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

Amianhinfusion.ss	<i>Algorithm to estimate individual PK parameters of iv infusion aminophylline anhydrous with loading dose with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of iv infusion aminophylline anhydrous with loading dose with one concentration at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

Amianhir.model	<i>Algorithm to estimate individual PK parameters of aminophylline anhydrous IR</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline anhydrous IR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Amianhir.more	<i>Function for individual dosage adjustment of aminophylline anhydrous IR</i>
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Description

Function to predict individual concentrations of aminophylline anhydrous IR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Amianhir.sm	<i>Algorithm to estimate individual PK parameters of aminophylline anhydrous IR with each multiple concentrations</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline anhydrous IR with each multiple concentrations at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Amianhir.ss	<i>Algorithm to estimate individual PK parameters of aminophylline anhydrous IR with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline anhydrous IR with one sampling at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Amidih.menu	<i>Aimnophylline dihydrous input form menu</i>
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Description

Aimnophylline dihydrous input form menu including IR tablet, CR tablet and iv infusion.

Amidihcr.model	<i>Algorithm to estimate individual PK parameters of aminophylline dihydrous CR</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline dihydrous CR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Amidihcr.more	<i>Function for individual dosage adjustment of aminophylline dihydrous CR</i>
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Description

Function to predict individual concentrations of aminophylline dihydrous CR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Amidihcr.ss	<i>Algorithm to estimate individual PK parameters of aminophylline dihydrous CR with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline dihydrous CR with one sampling at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

Amidihinfusion.model *Algorithm to estimate individual PK parameters of iv infusion aminophylline dihydrous with loading dose*

Description

Algorithm to estimate individual PK parameters of iv infusion aminophylline dihydrous with loading dose by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Amidihinfusion.more *Function for individual dosage adjustment of iv infusion aminophylline dihydrous with loading dose*

Description

Function to predict individual concentrations of iv infusion Aminophylline dihydrous with loading dose or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Amidihinfusion.sm *Algorithm to estimate individual PK parameters of iv infusion aminophylline dihydrous with loading dose by multiple concentrations*

Description

Algorithm to estimate individual PK parameters of iv infusion aminophylline dihydrous with loading dose with multiple concentrations at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

Amidihinfusion.ss	<i>Algorithm to estimate individual PK parameters of iv infusion aminophylline dihydrous with loading dose</i>
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Description

Algorithm to estimate individual PK parameters of iv infusion aminophylline dihydrous with loading dose with one sampling at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

Amidihir.model	<i>Algorithm to estimate individual PK parameters of aminophylline dihydrous IR</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline dihydrous IR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Amidihir.more	<i>Function for individual dosage adjustment of aminophylline dihydrous IR</i>
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Description

Function to predict individual concentrations of aminophylline dihydrous IR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Amidihir.sm	<i>Algorithm to estimate individual PK parameters of aminophylline dihydrous IR with multiple concentrations</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline dihydrous IR with multiple concentrations at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Amidihir.ss	<i>Algorithm to estimate individual PK parameters of aminophylline dihydrous IR with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of aminophylline dihydrous IR with one sampling at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Amism.more	<i>Function for individual dosage adjustment of aminoglycoside</i>
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Description

Function to predict individual concentrations of aminoglycoside or to calculate their suggested doses after predicting individual PK parameters with multiple conc..

AntiHIV.menu	<i>Anti-HIV drugs menu</i>
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Description

Anti-HIV drugs menu including enfuvirtide, indinavir and ritonavir.

cal.again	<i>Calculate another drug again?</i>
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Description

Decide to redo another drug?

Car.model	<i>Algorithm to estimate individual PK parameters of carbamazepine</i>
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Description

Algorithm to estimate individual PK parameters of carbamazepine by Bayesian technique(JAGS).

References

Jiao, Z., M. K. Zhong, et al. (2003). Population pharmacokinetics of carbamazepine in Chinese epilepsy patients. Ther Drug Monit 25(3): 279-86.

Car.more	<i>Function for individual dosage adjustment of carbamazepine</i>
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Description

Function to predict individual concentrations of carbamazepine or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Car.sm	<i>Algorithm to estimate individual PK parameters of carbamazepine with multiple concentrations</i>
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Description

Algorithm to estimate individual PK parameters of carbamazepine with multiple concentrations at steady-state.

References

Jiao, Z., M. K. Zhong, et al. (2003). Population pharmacokinetics of carbamazepine in Chinese epilepsy patients. Ther Drug Monit 25(3): 279-86.

Car.ss	<i>Algorithm to estimate individual PK parameters of carbamazepine by each one concentration</i>
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Description

Algorithm to estimate individual PK parameters of carbamazepine by each one concentration at steady-state.

References

Jiao, Z., M. K. Zhong, et al. (2003). Population pharmacokinetics of carbamazepine in Chinese epilepsy patients. Ther Drug Monit 25(3): 279-86.

ChiVal.model	<i>Algorithm to estimate individual PK parameters of valproate in children</i>
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Description

Algorithm to estimate individual PK parameters of valproate in children by Bayesian technique(JAGS).

References

B. Blanco Serrano et al, Valproate population pharmacokinetics in children. Journal of clinical pharmacy and Therapeutics (1999) 24,73-80.

ChiVal.more	<i>Function for individual dosage adjustment of valproic acid in children</i>
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Description

Function to predict individual concentrations of valproic acid in children or to calculate their suggested doses after predicting individual PK parameters with single concentration.

ChiVal.sm	<i>Algorithm to estimate individual PK parameters of valproate in child with each multiple concentrations</i>
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Description

Algorithm to estimate individual PK parameters of valproate in child with each multiple concentrations at steady-state.

References

B. Blanco Serrano et al, Valproate population pharmacokinetics in children. Journal of clinical pharmacy and Therapeutics (1999) 24,73-80.

ChiVal.ss	<i>Algorithm to estimate individual PK parameters of valproate in child with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of valproate in child with one concentration at steady-state.

References

B. Blanco Serrano et al, Valproate population pharmacokinetics in children. Journal of clinical pharmacy and Therapeutics (1999) 24,73-80.

ChiValcpr	<i>Equation for the calculated conc. of valproate in children at steady-state</i>
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Description

Equation for the calculated conc. of valproate in children at steady-state

 Cyc.model

Algorithm to estimate individual PK parameters of cyclosporine-A

Description

Algorithm to estimate individual PK parameters of cyclosporine-A by Bayesian technique(JAGS).

References

Parke, J. and B. G. Charles (1998). NONMEM population pharmacokinetic modeling of orally administered cyclosporine from routine drug monitoring data after heart transplantation. Ther Drug Monit 20(3): 284-93.

 Cyc.more

Function for individual dosage adjustment of cyclosporine

Description

Function to predict individual concentrations of cyclosporine or to calculate their suggested doses after predicting individual PK parameters with single concentration.

 Cyc.sm

Algorithm to estimate individual PK parameters of cyclosporine-A with each multiple concentrations

Description

Algorithm to estimate individual PK parameters of cyclosporine-A with each multiple concentrations at steady-state.

References

Parke, J. and B. G. Charles (1998). NONMEM population pharmacokinetic modeling of orally administered cyclosporine from routine drug monitoring data after heart transplantation. Ther Drug Monit 20(3): 284-93.

Cyc.ss	<i>Algorithm to estimate individual PK parameters of cyclosporine-A by each one concentration</i>
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Description

Algorithm to estimate individual PK parameters of cyclosporine-A by each one sampling at steady-state.

References

Parke, J. and B. G. Charles (1998). NONMEM population pharmacokinetic modeling of orally administered cyclosporine from routine drug monitoring data after heart transplantation. *Ther Drug Monit* 20(3): 284-93.

Cycspr	<i>Equation for the calculated conc. of cyclosporine at steady-state</i>
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Description

Equation for the calculated conc. of cyclosporine at steady-state

Dig.model	<i>Algorithm to estimate individual PK parameters of digoxin</i>
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Description

Algorithm to estimate individual PK parameters of digoxin by Bayesian technique(JAGS).

References

Yukawa, E., H. Mine, et al. (1992). Digoxin population pharmacokinetics from routine clinical data: role of patient characteristics for estimating dosing regimens. *J Pharm Pharmacol* 44(9): 761-5.

Dig.more	<i>Function for individual dosage adjustment of digoxin</i>
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Description

Function to predict individual concentrations of digoxin or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Dig.ss	<i>Algorithm to estimate individual PK parameters of digoxin with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of digoxin with one concentration at steady-state.

References

Yukawa, E., H. Mine, et al. (1992). Digoxin population pharmacokinetics from routine clinical data: role of patient characteristics for estimating dosing regimens. *J Pharm Pharmacol* 44(9): 761-5.

Digcpr	<i>Equation for the calculated conc. of digoxin at steady-state</i>
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Description

Equation for the calculated conc. of digoxin at steady-state

Enf.model	<i>Algorithm to estimate individual PK parameters of enfuvirtide</i>
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Description

Algorithm to estimate individual PK parameters of enfuvirtide by Bayesian technique(JAGS).

References

Mould, D. R., X. Zhang, et al. (2005). Population pharmacokinetics and exposure-response relationship of enfuvirtide in treatment-experienced human immunodeficiency virus type 1-infected patients. *Clin Pharmacol Ther* 77(6): 515-28.

Enf.more	<i>Function for individual dosage adjustment of enfuvirtide</i>
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Description

Function to predict individual concentrations of enfuvirtide or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Enf . sm	<i>Algorithm to estimate individual PK parameters of enfuvirtide with each multiple concentrations</i>
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Description

Algorithm to estimate individual PK parameters of enfuvirtide with each multiple concentrations at steady-state.

References

Mould, D. R., X. Zhang, et al. (2005). Population pharmacokinetics and exposure-response relationship of enfuvirtide in treatment-experienced human immunodeficiency virus type 1-infected patients. Clin Pharmacol Ther 77(6): 515-28.

Enf . ss	<i>Algorithm to estimate individual PK parameters of enfuvirtide with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of enfuvirtide with one concentration at steady-state.

References

Mould, D. R., X. Zhang, et al. (2005). Population pharmacokinetics and exposure-response relationship of enfuvirtide in treatment-experienced human immunodeficiency virus type 1-infected patients. Clin Pharmacol Ther 77(6): 515-28.

enfcp	<i>Equation of Enfuvirtide PK at steady-state</i>
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Description

Equation of Enfuvirtide PK at steady-state

 Eno.model

Algorithm to estimate individual PK parameters of enoxaparin

Description

Algorithm to estimate individual PK parameters of enoxaparin by Bayesian technique(JAGS).

References

Hulot, J. S., G. Montalescot, et al. (2005). Dosing strategy in patients with renal failure receiving enoxaparin for the treatment of non-ST-segment elevation acute coronary syndrome. *Clin Pharmacol Ther* 77(6): 542-52.

 Eno.more

Function for individual dosage adjustment of enoxaparin

Description

Function to predict individual anti-Xa maximal activit of enoxaparin or to calculate their suggested doses after perdicting individual PK parameters with single anti-Xa maximal activit.

 Eno.ss

Algorithm to estimate individual PK parameters of enoxaparin with one concentration

Description

Algorithm to estimate individual PK parameters of enoxaparin with one concentration at steady-state.

References

Hulot, J. S., G. Montalescot, et al. (2005). Dosing strategy in patients with renal failure receiving enoxaparin for the treatment of non-ST-segment elevation acute coronary syndrome. *Clin Pharmacol Ther* 77(6): 542-52.

 Enocpr

Equation for the calculated anti-Xa maximal activity of enoxaparin at steady-state

Description

Equation for the calculated anti-Xa maximal activity of enoxaparin at steady-state

Eve.model

Algorithm to estimate individual PK parameters of everolimus

Description

Algorithm to estimate individual PK parameters of everolimus by Bayesian technique(JAGS).

References

Kovarik, J. M., C. H. Hsu, et al. (2001). Population pharmacokinetics of everolimus in de novo renal transplant patients: impact of ethnicity and comedications. Clin Pharmacol Ther 70(3): 247-54. $Cl=Cl/F$ $Vd=Vd/F$

Eve.more

Function for individual dosage adjustment of everolimus

Description

Function to predict individual concentrations of everolimus or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Eve.sm

Algorithm to estimate individual PK parameters of everolimus with each multiple concentrations

Description

Algorithm to estimate individual PK parameters of everolimus with each multiple concentrations at steady-state.

References

Kovarik, J. M., C. H. Hsu, et al. (2001). Population pharmacokinetics of everolimus in de novo renal transplant patients: impact of ethnicity and comedications. Clin Pharmacol Ther 70(3): 247-54.

Eve.ss	<i>Algorithm to estimate individual PK parameters of everolimus with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of everolimus with one concentration at steady-state.

References

Kovarik, J. M., C. H. Hsu, et al. (2001). Population pharmacokinetics of everolimus in de novo renal transplant patients: impact of ethnicity and comedications. *Clin Pharmacol Ther* 70(3): 247-54.

Evecpr	<i>Equation for the calculated conc. of everolimus at steady-state</i>
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Description

Equation for the calculated conc. of everolimus at steady-state

go2menu	<i>display menu list</i>
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Description

Display menu list.

Ima.model	<i>Algorithm to estimate individual PK parameters of imatinib mesylate</i>
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Description

Algorithm to estimate individual PK parameters of imatinib mesylate by Bayesian technique(JAGS).

References

Schmidli, H., B. Peng, et al. (2005). Population pharmacokinetics of imatinib mesylate in patients with chronic-phase chronic myeloid leukaemia: results of a phase III study. *Br J Clin Pharmacol* 60(1): 35-44

Ima.more

Function for individual dosage adjustment of imatinib mesylate

Description

Function to predict individual concentrations of imatinib mesylate or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Ima.sm

Algorithm to estimate individual PK parameters of imatinib mesylate with each multiple concentrations

Description

Algorithm to estimate individual PK parameters of imatinib mesylate with each multiple samplings and t_s must $>1.5\text{hr}$ (absorption time).

References

Schmidli, H., B. Peng, et al. (2005). Population pharmacokinetics of imatinib mesylate in patients with chronic-phase chronic myeloid leukaemia: results of a phase III study. *Br J Clin Pharmacol* 60(1): 35-44

Ima.ss

Algorithm to estimate individual PK parameters of imatinib mesylate with one concentration

Description

Algorithm to estimate individual PK parameters of imatinib mesylate with one concentration and t_s must $>1.5\text{hr}$ (absorption time).

References

Schmidli, H., B. Peng, et al. (2005). Population pharmacokinetics of imatinib mesylate in patients with chronic-phase chronic myeloid leukaemia: results of a phase III study. *Br J Clin Pharmacol* 60(1): 35-44

Imacpr *Equation for the calculated conc. of imatinib mesylate*

Description

Equation for the calculated conc. of imatinib mesylate

Imasscpr *Equation for the calculated conc. of imatinib mesylate at steady-state*

Description

Equation for the calculated conc. of imatinib mesylate at steady-state

Immunosuppressants.menu
Main immunosuppressants menu

Description

Main immunosuppressants menu including cyclosporine-A, everolimus and tacrolimus.

Ind.model *Algorithm to estimate individual PK parameters of indinavir*

Description

Algorithm to estimate individual PK parameters of indinavir by Bayesian technique(JAGS).

References

Csajka, C., C. Marzolini, et al. (2004). Population pharmacokinetics of indinavir in patients infected with human immunodeficiency virus. *Antimicrob Agents Chemother* 48(9): 3226-32.

Ind.more *Function for individual dosage adjustment of indinavir*

Description

Function to predict individual concentrations of indinavir or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Ind. sm	<i>Algorithm to estimate individual PK parameters of indinavir with each multiple concentrations</i>
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Description

Algorithm to estimate individual PK parameters of indinavir with each multiple concentrations at steady-state.

References

Csajka, C., C. Marzolini, et al. (2004). Population pharmacokinetics of indinavir in patients infected with human immunodeficiency virus. *Antimicrob Agents Chemother* 48(9): 3226-32.

Ind. ss	<i>Algorithm to estimate individual PK parameters of indinavir with one concentration</i>
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Description

Algorithm to estimate individual PK parameters of indinavir with one concentration at steady-state.

References

Csajka, C., C. Marzolini, et al. (2004). Population pharmacokinetics of indinavir in patients infected with human immunodeficiency virus. *Antimicrob Agents Chemother* 48(9): 3226-32.

Indcpr	<i>Equation for the calculated conc. of indinavir at steady-state</i>
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Description

Equation for the calculated conc. of indinavir at steady-state

infcp	<i>Equation of intermediate iv infusion conc. at steady-state</i>
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Description

Equation of intermediate iv infusion conc. at steady-state

Lit.menu *Lithium salt form menu*

Description

Lithium salt form menu including lithium carbonate and lithium citrate.

Lit.model *Algorithm to estimate individual PK parameters of lithium carbonate*

Description

Algorithm to estimate individual PK parameters of lithium carbonate by Bayesian technique(JAGS).

References

Yukawa, E., N. Nomiya, et al. (1993). Lithium population pharmacokinetics from routine clinical data: role of patient characteristics for estimating dosing regimens. *Ther Drug Monit* 15(2): 75-82.

Lit.more *Function for individual dosage adjustment of lithium carbonate*

Description

Function to predict individual concentrations of lithium carbonate or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Lit.ss *Algorithm to estimate individual PK parameters of lithium carbonate with one concentration*

Description

Algorithm to estimate individual PK parameters of lithium carbonate with one sampling at steady-state.

References

Yukawa, E., N. Nomiya, et al. (1993). Lithium population pharmacokinetics from routine clinical data: role of patient characteristics for estimating dosing regimens. *Ther Drug Monit* 15(2): 75-82.

`Litcit.model`*Algorithm to estimate individual PK parameter of lithium citrate*

Description

Algorithm to estimate individual PK parameters of lithium citrate by Bayesian technique(JAGS).

References

Yukawa, E., N. Nomiya, et al. (1993). Lithium population pharmacokinetics from routine clinical data: role of patient characteristics for estimating dosing regimens. *Ther Drug Monit* 15(2): 75-82.

`Litcit.more`*Function for individual dosage adjustment of lithium citrate*

Description

Function to predict individual concentrations of lithium citrate or to calculate their suggested doses after predicting individual PK parameters with single concentration.

`Litcit.ss`*Algorithm to estimate individual PK parameters of lithium citrate with one concentration*

Description

Algorithm to estimate individual PK parameters of lithium citrate with one sampling at steady-state.

References

Yukawa, E., N. Nomiya, et al. (1993). Lithium population pharmacokinetics from routine clinical data: role of patient characteristics for estimating dosing regimens. *Ther Drug Monit* 15(2): 75-82.

`Litcitcpr`*Equation for the calculated conc. of lithium citrate at steady-state*

Description

Equation for the calculated conc. of lithium citrate at steady-state

Litcpr *Equation for the calculated conc. of lithium carbonate at steady-state*

Description

Equation for the calculated conc. of lithium carbonate at steady-state

note_for_Amism_conc_input *Note for aminoglycoside sampling history*

Description

Input information of aminoglycoside including sampling history.

note_for_Amism_input *Note for aminoglycoside input information*

Description

Input information of aminoglycoside including individual information and dosing history.

note_for_Amism_output *Note for aminoglycoside output information*

Description

Output information of aminoglycoside including estimated PK parameters and predicted steady-state conc.

note_for_Amiss_input *Note for aminoglycoside input information*

Description

Input information of aminoglycoside including individual information, dosing history and sampling history.

note_for_Amiss_output *Note for aminoglycoside output information*

Description

Output information of aminoglycoside including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_CBZsm_conc_input
Note for carbamazepine sampling history

Description

Input information of carbamazepine including sampling history.

note_for_CBZsm_input *Note for carbamazepine input information*

Description

Input information of carbamazepine including individual information and dosing history.

note_for_CBZsm_output *Note for carbamazepine output information*

Description

Output information of carbamazepine including estimated PK parameters and predicted steady-state conc.

note_for_CBZss_input *Note for carbamazepine input information*

Description

Input information of carbamazepine including individual information, dosing history and sampling history.

note_for_CBZss_output *Note for carbamazepine output information*

Description

Output information of carbamazepine including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_ChiValsm_conc_input
Note for child valproate sampling history

Description

Input information of child valproate including sampling history.

note_for_ChiValsm_input
Note for child valproate input information

Description

Input information of child valproate including individual information and dosing history.

note_for_ChiValsm_output
Note for child valproate output information

Description

Output information of child valproate including estimated PK parameters and predicted steady-state conc.

note_for_ChiValss_input
Note for child valproate input information

Description

Input information of child valproate including individual information, dosing history and sampling history.

note_for_ChiValss_output

Note for child valproate output information

Description

Output information of child valproate including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_close_window *Note for close window*

Description

Note for close window

note_for_convergence_plots

Declaration of convergence plots

Description

Declaration of convergence plots

note_for_Cycsm_conc_input

Note for cyclosporine A sampling history

Description

Input information of cyclosporine A including sampling history.

note_for_Cycsm_input *Note for cyclosporine A input information*

Description

Input information of cyclosporine A including individual information and dosing history.

note_for_Cycsm_output *Note for cyclosporine A output information*

Description

Output information of cyclosporine A including estimated PK parameters and predicted steady-state conc.

note_for_Cycss_input *Note for cyclosporine A input information*

Description

Input information of cyclosporine A including individual information, dosing history and sampling history.

note_for_Cycss_output *Note for cyclosporine A output information*

Description

Output information of cyclosporine A including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_c_to_d *Note for dose adjustment (C->D)*

Description

Note for dose adjustment includes concentration (mg/L), dose(mg) and dosing interval(hr).

note_for_c_to_d_eno *Note for dose adjustment (C->D) for enoxaparin*

Description

Note for dose adjustment especially for enoxaparin includes anti-Xa maximal activity at steady state (IU/mL), dose(IU) and dosing interval(hr).

note_for_c_to_d_mcg *Note for dose adjustment (C->D)*

Description

Note for dose adjustment includes concentration (mcg/mL), dose(mg) and dosing interval(hr).

note_for_c_to_d_meq *Note for dose adjustment (C->D)*

Description

Note for dose adjustment includes concentration (mEq/L), dose(mg) and dosing interval(hr).

note_for_c_to_d_ng *Note for dose adjustment (C->D)*

Description

Note for dose adjustment includes concentration (ng/mL), dose(mg) and dosing interval(hr).

note_for_c_to_d_00 *Note for dose adjustment (C->D)*

Description

Note for dose adjustment includes concentration (ng/L), dose (mg or mcg) and dosing interval (hr).

note_for_Dig_input *Note for digoxin input information*

Description

Input information of digoxin including individual information, dosing history and sampling history.

note_for_Dig_output *Note for digoxin output information*

Description

Output information of digoxin including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_d_to_c *Note for dose adjustment (D->C)*

Description

Note for dose adjustment includes concentration (mg/L), dose(mg) and dosing interval(hr).

note_for_d_to_c_eno *Note for dose adjustment (D->C) for enoxaparin*

Description

Note for dose adjustment especially for enoxaparin includes anti-Xa maximal activity at steady state (IU/mL), dose(IU) and dosing interval(hr).

note_for_d_to_c_mcg *Note for dose adjustment (D->C)*

Description

Note for dose adjustment includes concentration (mcg/mL), dose(mg) and dosing interval(hr).

note_for_d_to_c_meq *Note for dose adjustment (D->C)*

Description

Note for dose adjustment includes concentration (mEq/L), dose(mg) and dosing interval(hr).

note_for_d_to_c_ng *Note for dose adjustment (D->C)*

Description

Note for dose adjustment includes concentration (ng/mL), dose(mg) and dosing interval(hr).

note_for_d_to_c_00 *Note for dose adjustment (D->C)*

Description

Note for dose adjustment includes concentration (ng/L), dose (mg or mcg) and dosing interval (hr).

note_for_Enfsm_conc_input
 Note for enfuvirtide sampling history

Description

Input information of enfuvirtide including sampling history.

note_for_Enfsm_input *Note for enfuvirtide input information*

Description

Input information of enfuvirtide including individual information and dosing history.

note_for_Enfsm_output *Note for enfuvirtide output information*

Description

Output information of enfuvirtide including estimated PK parameters and predicted steady-state conc.

note_for_Enfss_input *Note for enfuvirtide input information*

Description

Input information of enfuvirtide including individual information, dosing history and sampling history.

note_for_Enfss_output *Note for enfuvirtide output information*

Description

Output information of enfuvirtide including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Eno_input *Note for enoxaparin input information*

Description

Input information of enoxaparin including individual information, dosing history and sampling history.

note_for_Eno_output *Note for enoxaparin output information*

Description

Output information of enoxaparin including estimated PK/PD parameters, predicted INR.

note_for_Evesm_conc_input
Note for everolimus sampling history

Description

Input information of everolimus including sampling history.

note_for_Evesm_input *Note for everolimus input information*

Description

Input information of everolimus including individual information and dosing history.

note_for_Evesm_output *Note for everolimus output information*

Description

Output information of everolimus including estimated PK parameters and predicted steady-state conc.

note_for_Evess_input *Note for everolimus input information*

Description

Input information of everolimus including individual information, dosing history and sampling history.

note_for_Evess_output *Note for everolimus output information*

Description

Output information of everolimus including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Iasm_conc_input
Note for imatinib mesylate sampling history

Description

Input information of imatinib mesylate including sampling history.

note_for_Iasm_input *Note for imatinib mesylate input information*

Description

Input information of imatinib mesylate including individual information and dosing history.

note_for_Iasm_output *Note for imatinib mesylate output information*

Description

Output information of imatinib mesylate including estimated PK parameters and predicted steady-state conc.

note_for_Iasm_input *Note for imatinib mesylate input information*

Description

Input information of imatinib mesylate including individual information, dosing history and sampling history.

note_for_Iasm_output *Note for imatinib mesylate output information*

Description

Output information of imatinib mesylate including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Indsm_conc_input
Note for indinavir sampling history

Description

Input information of indinavir including sampling history.

note_for_Indsm_input *Note for indinavir input information*

Description

Input information of indinavir including individual information and dosing history.

note_for_Indsm_output *Note for indinavir output information*

Description

Output information of indinavir including estimated PK parameters and predicted steady-state conc.

note_for_Indss_input *Note for indinavir input information*

Description

Input information of indinavir including individual information, dosing history and sampling history.

note_for_Indss_output *Note for indinavir output information*

Description

Output information of indinavir including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_infusionR_c_to_d
Note for dose adjustment (C->D)

Description

Note for dose adjustment includes intravenous infusion rate (mg/hr) and concentration (mg/L).

note_for_infusionR_d_to_c

Note for dose adjustment (D->C)

Description

Note for dose adjustment includes intravenous infusion rate (mg/hr) and concentration (mg/L).

note_for_infusion_c_to_d

Note for dose adjustment (C->D)

Description

Note for dose adjustment includes concentration (mg/L), dose(mg), dosing interval(hr) and infusion time(hr).

note_for_infusion_d_to_c

Note for dose adjustment (D->C)

Description

Note for dose adjustment includes concentration (mg/L), dose(mg), dosing interval(hr) and infusion time(hr).

note_for_Litcit_input *Note for lithium citrate input information*

Description

Input information of lithium citrate including individual information, dosing history and sampling history.

note_for_Litcit_output

Note for lithium citrate output information

Description

Output information of lithium citrate including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Lit_input *Note for lithium carbonate input information*

Description

Input information of lithium carbonate including individual information, dosing history and sampling history.

note_for_Lit_output *Note for lithium carbonate output information*

Description

Output information of lithium carbonate including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_ocIR_input *Display notes for oxycodone IR tdm - data input*

Description

Display notes for oxycodone IR tdm - data input

note_for_00_conc_input
Display notes for opioid tdm - data input

Description

Display notes for opioid tdm - conc. data input

note_for_00_input *Display notes for opioid tdm - data input*

Description

Display notes for opioid tdm - data input

note_for_00_output *Display notes for opioid tdm - output*

Description

Display notes for opioid tdm - output

note_for_Phe_input *Note for phenytoin input information*

Description

Input information of phenytoin including individual information, dosing history and sampling history.

note_for_Phe_output *Note for phenytoin output information*

Description

Output information of phenytoin including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_plot *Note for screen convergence plots by enter button of PgUp/PgDown in keyboard*

Description

Note for screen convergence plots by enter button of PgUp/PgDown in keyboard

note_for_Ritsm_conc_input
Note for ritonavir sampling history

Description

Input information of ritonavir including sampling history.

note_for_Ritism_input *Note for ritonavir input information*

Description

Input information of ritonavir including individual information and dosing history.

note_for_Ritism_output *Note for ritonavir output information*

Description

Output information of ritonavir including estimated PK parameters and predicted steady-state conc.

note_for_Ritss_input *Note for ritonavir input information*

Description

Input information of ritonavir including individual information, dosing history and sampling history.

note_for_Ritss_output *Note for ritonavir output information*

Description

Output information of ritonavir including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Tacsm_conc_input
Note for tacrolimus sampling history

Description

Input information of tacrolimus including sampling history.

note_for_Tacsm_input *Note for tacrolimus input information*

Description

Input information of tacrolimus including individual information and dosing history.

note_for_Tacsm_output *Note for tacrolimus output information*

Description

Output information of tacrolimus including estimated PK parameters and predicted steady-state conc.

note_for_Tacss_input *Note for tacrolimus input information*

Description

Input information of tacrolimus including individual information, dosing history and sampling history.

note_for_Tacss_output *Note for tacrolimus output information*

Description

Output information of tacrolimus including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Thecrss_input
Note for theophylline salt form CR tablet input information

Description

Input information of theophylline salt form CR tablet including individual information, dosing history and sampling history.

note_for_Thecr_output *Note for theophylline salt form CR tablet output information*

Description

Output information of theophylline salt form CR tablet including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Theinfusionsm_input
Note for theophylline salt form iv infusion input information

Description

Input information of theophylline salt form iv infusion including individual information and dosing history.

note_for_Theinfusionsm_output
Note for theophylline salt form iv infusion output information

Description

Output information of theophylline salt form iv infusion including estimated PK parameters and predicted steady-state conc.

note_for_Theinfusionss_input
Note for theophylline salt form iv infusion input information

Description

Input information of theophylline salt form iv infusion including individual information, dosing history and sampling history.

note_for_Theinfusionss_output

Note for theophylline salt form iv infusion output information

Description

Output information of theophylline salt form iv infusion including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Theirsm_input

Note for theophylline salt form IR tablet input information

Description

Input information of theophylline salt form IR tablet including individual information and dosing history.

note_for_Theirsm_output

Note for theophylline salt form IR tablet output information

Description

Output information of theophylline salt form IR tablet including estimated PK parameters and predicted steady-state conc.

note_for_Theirss_input

Note for theophylline salt form IR tablet input information

Description

Input information of theophylline salt form IR tablet including individual information, dosing history and sampling history.

note_for_Theirss_output

Note for theophylline salt form IR tablet output information

Description

Output information of theophylline salt form IR tablet including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Thesm_conc_input

Note for theophylline salt form sampling history

Description

Input information of theophylline salt form including sampling history.

note_for_Valism_conc_input

Note for valproate sampling history

Description

Input information of valproate including sampling history.

note_for_Valism_input *Note for valproate input information*

Description

Input information of valproate including individual information and dosing history.

note_for_Valism_output *Note for valproate output information*

Description

Output information of valproate including estimated PK parameters and predicted steady-state conc.

note_for_Valss_input *Note for valproate input information*

Description

Input information of valproate including individual information, dosing history and sampling history.

note_for_Valss_output *Note for valproate output information*

Description

Output information of valproate including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

note_for_Vansm_conc_input
Note for vancomycin sampling history

Description

Input information of vancomycin including sampling history.

note_for_Vansm_input *Note for vancomycin input information*

Description

Input information of vancomycin including individual information and dosing history.

note_for_Vansm_output *Note for vancomycin output information*

Description

Output information of vancomycin including estimated PK parameters and predicted steady-state conc.

note_for_Vanss_input *Note for vancomycin input information*

Description

Input information of vancomycin including individual information, dosing history and sampling history.

note_for_Vanss_output *Note for vancomycin output information*

Description

Output information of vancomycin including estimated PK parameters, predicted steady-state conc. and predicted steady state measured conc.

oc_IR.sm *Algorithm to estimate individual PK parameters of opioid tdm*

Description

Algorithm to estimate individual PK parameters of opioid tdm

ocIR.more *Function for individual dosage adjustment of opioids tdm*

Description

Function to predict individual concentrations of opioids tdm or to calculate their suggested doses after predicting individual PK parameters.

00sdcpr *Function to calculate predicted conc. for opioids tdm*

Description

Function to calculate predicted conc. for opioids tdm after the 1st dose based on the estimated PK parameters; PK model is a one-compartment, with 1st-ordered absorption and the 1st-ordered elimination rate constants.

00sscpr	<i>Function to calculate predicted conc. for opioids tdm at the steady-state</i>
---------	--

Description

Function to calculate predicted conc. at steady-state for opioids tdm based on the estimated PK parameters; PK model is a one-compartment, with 1st-ordered absorption and the 1st-ordered elimination rate constants.

oscar	<i>display menu list for opioid tdm</i>
-------	---

Description

display menu list for opioid tdm

Oxt.menu	<i>Oxtriphylline input form menu</i>
----------	--------------------------------------

Description

Oxtriphylline input form menu including IR tablet and CR tablet.

Oxtcr.model	<i>Algorithm to estimate individual PK parameters of oxtriphylline CR</i>
-------------	---

Description

Algorithm to estimate individual PK parameters oxtriphylline CR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Oxtcr.more

*Function for individual dosage adjustment of oxtriphylline CR***Description**

Function to predict individual concentrations of oxtriphylline CR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Oxtcr.ss

*Algorithm to estimate individual pharmacokinetics parameters of oxtriphylline CR with one concentration***Description**

Algorithm to estimate individual pharmacokinetics parameters of oxtriphylline CR with one concentration at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Oxtir.model

*Algorithm to estimate individual PK parameters of oxtriphylline IR***Description**

Algorithm to estimate individual PK parameters of oxtriphylline IR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther.* Apr 1996;21(2):113-125.

Oxtir.more

*Function for individual dosage adjustment of oxtriphylline IR***Description**

Function to predict individual concentrations of oxtriphylline IR to calculate their suggested doses after predicting individual PK parameters with single concentration.

Oxtir.sm	<i>Algorithm to estimate individual PK parameters of oxtriphylline IR with each multiple concentrations</i>
----------	---

Description

Algorithm to estimate individual PK parameters of oxtriphylline IR with each multiple concentrations at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Oxtir.ss	<i>Algorithm to estimate individual PK parameters of oxtriphylline IR with one concentration</i>
----------	--

Description

Algorithm to estimate individual PK parameters of oxtriphylline IR with one concentration at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Phe.more	<i>Function for individual dosage adjustment of phenytoin</i>
----------	---

Description

Function to predict individual concentrations of phenytoin or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Phe.ss	<i>Algorithm to estimate individual PK parameters of phenytoin with one concentration</i>
--------	---

Description

Algorithm to estimate individual PK parameters of phenytoin with one concentration at steady-state.

References

Vozeh, S., Muir, K.T., et al. (1981). Predicting individual phenytoin dosage. J Pharmacokinet Biopharm 9(2): 131-46.

Phecpr	<i>Equation for the calculated conc. of phenytoin at steady-state</i>
--------	---

Description

Equation for the calculated conc. of phenytoin at steady-state

PheDemo	<i>Function for the test runs to estimate individual PK parameters of phenytoin with one concentration</i>
---------	--

Description

Function for the test runs to estimate individual PK parameters of phenytoin with one concentration at steady-state including estimation of PK parameters

Phelimit	<i>Avoid Dose greater than Vmax when performing dosage adjustment for phenytoin</i>
----------	---

Description

Avoid Dose greater than Vmax when performing dosage adjustment for phenytoin.

phenytoin	<i>Demo for the test runs to estimate individual PK parameters of phenytoin with one concentration</i>
-----------	--

Description

Demo for the test runs to estimate individual PK parameters of phenytoin with one concentration at steady-state including estimation of PK parameters

plots_tdm	<i>to generate simulated data with deSolve and plot graphs</i>
-----------	--

Description

to generate simulated data with deSolve and plot graphs

plots_tdm.SD	<i>to generate simulated data with deSolve and plot graphs for single-dose</i>
--------------	--

Description

to generate simulated data with deSolve and plot graphs for single-dose

plotting_tdm.sim	<i>to generate simulated data with deSolve and plot graphs</i>
------------------	--

Description

to generate simulated data with deSolve and plot graphs

pocpr	<i>Equation of oral conc. at steady-state</i>
-------	---

Description

Equation of oral conc. at steady-state

Rit.model

Algorithm to estimate individual PK parameters of ritonavir

Description

Algorithm to estimate individual PK parameters of ritonavir by Bayesian technique(JAGS).

References

Kappelhoff, B. S., A. D. Huitema, et al. (2005). Development and validation of a population pharmacokinetic model for ritonavir used as a booster or as an antiviral agent in HIV-1-infected patients. Br J Clin Pharmacol 59(2): 174-82.

Rit.more

Function for individual dosage adjustment of ritonavire

Description

Function to predict individual concentrations of ritonavir or to calculate their suggested doses after perdicting individual PK parameters with single concentration.

Rit.sm

Algorithm to estimate individual PK parameters of ritonavir with each multiple concentrations

Description

Algorithm to estimate individual PK parameters of ritonavir with each multiple concentrations at steady-state.

References

Kappelhoff, B. S., A. D. Huitema, et al. (2005). Development and validation of a population pharmacokinetic model for ritonavir used as a booster or as an antiviral agent in HIV-1-infected patients. Br J Clin Pharmacol 59(2): 174-82.

Rit.ss	<i>Algorithm to estimate individual PK parameters of ritonavir with one concentration</i>
--------	---

Description

Algorithm to estimate individual PK parameters of ritonavir with one concentration at steady-state.

References

Kappelhoff, B. S., A. D. Huitema, et al. (2005). Development and validation of a population pharmacokinetic model for ritonavir used as a booster or as an antiviral agent in HIV-1-infected patients. *Br J Clin Pharmacol* 59(2): 174-82.

Ritcpr	<i>Equation for the calculated conc. of ritonavir at steady-state</i>
--------	---

Description

Equation for the calculated conc. of ritonavir at steady-state

Ritss_test	<i>Test file for ritonavir</i>
------------	--------------------------------

Description

Test file for ritonavir

run	<i>logo and disclaimer</i>
-----	----------------------------

Description

show logo and disclaimer for using this package.

sdToss	<i>Function to calculate predicted conc. for opioids tdm at the steady-state</i>
--------	--

Description

Function to call the function of calculating predicted conc. at steady-state for opioids tdm based on the estimated PK parameters; PK model is a one-compartment, with 1st-ordered absorption and the 1st-ordered elimination rate constants.

Tac.model	<i>Algorithm to estimate individual PK parameters of tacrolimus</i>
-----------	---

Description

Algorithm to estimate individual PK parameters of tacrolimus by Bayesian technique(JAGS).

References

Zahir, H., A. J. McLachlan, et al. (2005). Population pharmacokinetic estimation of tacrolimus apparent clearance in adult liver transplant recipients. Ther Drug Monit 27(4): 422-30.

Tac.more	<i>Function for individual dosage adjustment of tacrolimus</i>
----------	--

Description

Function to predict individual concentrations of tacrolimus or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Tac.sm	<i>Algorithm to estimate individual PK parameters of tacrolimus with each multiple concentrations</i>
--------	---

Description

Algorithm to estimate individual PK parameters of tacrolimus with each multiple concentrations at steady-state.

References

Zahir, H., A. J. McLachlan, et al. (2005). Population pharmacokinetic estimation of tacrolimus apparent clearance in adult liver transplant recipients. Ther Drug Monit 27(4): 422-30.

Tac.ss	<i>Algorithm to estimate individual PK parameters of tacrolimus with one concentration</i>
--------	--

Description

Algorithm to estimate individual PK parameters of tacrolimus with one concentration at steady-state.

References

Zahir, H., A. J. McLachlan, et al. (2005). Population pharmacokinetic estimation of tacrolimus apparent clearance in adult liver transplant recipients. *Ther Drug Monit* 27(4): 422-30.

Taccpr	<i>Equation for the calculated conc. of tacrolimus at steady-state</i>
--------	--

Description

Equation for the calculated conc. of tacrolimus at steady-state

tdm	<i>Function of Therapeutic drug monitoring</i>
-----	--

Description

tdm is designed to estimate individual PK parameters with one or more concentrations using JAGS (Just Another Gibbs Sampling) interfaced through the package - rjags. It also can calculate a suggested dose for a target drug conc. and vice versa.

The.menu	<i>Theophylline input form menu</i>
----------	-------------------------------------

Description

Theophylline input form menu including IR tablet, CR tablet and iv infusion.

Theall.menu	<i>Theophylline salt form menu</i>
-------------	------------------------------------

Description

Theophylline salt form menu including aminophylline anhydrous, aminophylline dihydrous, oxtriphylline and theophylline.

Thecr.model	<i>Algorithm to estimate individual PK parameters of theophylline CR</i>
-------------	--

Description

Algorithm to estimate individual PK parameters of theophylline CR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

Thecr.more	<i>Function for individual dosage adjustment of theophylline CR</i>
------------	---

Description

Function to predict individual concentrations of theophylline CR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Thecr.ss	<i>Algorithm to estimate individual PK parameters of theophylline CR with one concentration</i>
----------	---

Description

Algorithm to estimate individual PK parameters of theophylline CR with one concentration at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther 21(2): 113-25.

 TheCRcpr

Equation for the calculated conc. of theophylline CR at steady-state

Description

Equation for the calculated conc. of theophylline CR at steady-state

 Theinfusioncpr

Equation for the calculated conc. of iv infusion theophylline with loading dose at steady-state

Description

Equation for the calculated conc. of iv infusion theophylline with loading dose at steady-state

 Their.model

Algorithm to estimate individual PK parameters of theophylline IR

Description

Algorithm to estimate individual PK parameters of theophylline IR by Bayesian technique(JAGS).

References

Otero MJ, Buelga DS, Vazquez MA, et al. Application of population pharmacokinetics to the optimization of theophylline therapy. J Clin Pharm Ther. Apr 1996;21(2):113-125.

 Their.more

Function for individual dosage adjustment of theophylline IR

Description

Function to predict individual concentrations of theophylline IR or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Their.sm	<i>Algorithm to estimate individual PK parameters of theophylline IR with each multiple concentrations</i>
----------	--

Description

Algorithm to estimate individual PK parameters of theophylline IR with each multiple concentrations at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

Their.ss	<i>Algorithm to estimate individual PK parameters of theophylline IR with one concentration</i>
----------	---

Description

Algorithm to estimate individual PK parameters of theophylline IR with one concentration at steady-state.

References

Otero, M. J., D. S. Buelga, et al. (1996). Application of population pharmacokinetics to the optimization of theophylline therapy. *J Clin Pharm Ther* 21(2): 113-25.

TheIRsscpr	<i>Equation for the calculated conc. of theophylline IR at steady-state</i>
------------	---

Description

Equation for the calculated conc. of theophylline IR at steady-state

Val.menu	<i>Population of valproic acid menu</i>
----------	---

Description

Population of valproic acid menu including children and adults.

Val.model	<i>Algorithm to estimate individual PK parameters of valproate</i>
-----------	--

Description

Algorithm to estimate individual PK parameters of valproate by Bayesian technique(JAGS).

References

ES, E. L. D., E. Fuseau, et al. (2004). Pharmacokinetic modelling of valproic acid from routine clinical data in Egyptian epileptic patients. *Eur J Clin Pharmacol* 59(11): 783-90.

Val.more	<i>Function for individual dosage adjustment of valproic acid</i>
----------	---

Description

Function to predict individual concentrations of vaproic acid or to calculate their suggested doses after perdicting individual PK parameters with single concentration.

Val.sm	<i>Algorithm to estimate individual PK parameters of valproate with each multiple concentrations</i>
--------	--

Description

Algorithm to estimate individual PK parameters of valproate with each multiple concentrations at steady-state.

References

ES, E. L. D., E. Fuseau, et al. (2004). Pharmacokinetic modelling of valproic acid from routine clinical data in Egyptian epileptic patients. *Eur J Clin Pharmacol* 59(11): 783-90.

Val.ss	<i>Algorithm to estimate individual PK parameters of valproate with one concentration</i>
--------	---

Description

Algorithm to estimate individual PK parameters of valproate with one concentration at steady-state.

References

ES, E. L. D., E. Fuseau, et al. (2004). Pharmacokinetic modelling of valproic acid from routine clinical data in Egyptian epileptic patients. *Eur J Clin Pharmacol* 59(11): 783-90.

Valcpr	<i>Equation for the calculated conc. of valproate at steady-state</i>
--------	---

Description

Equation for the calculated conc. of valproate at steady-state

Van.model	<i>Algorithm to estimate individual PK parameters of vancomycin</i>
-----------	---

Description

Algorithm to estimate individual PK parameters of vancomycin by Bayesian technique(JAGS).

References

Buelga, D. S., M. del Mar Fernandez de Gatta, et al. (2005). Population pharmacokinetic analysis of vancomycin in patients with hematological malignancies. *Antimicrob Agents Chemother* 49(12): 4934-41.

Van.more	<i>Function for individual dosage adjustment of vancomycin</i>
----------	--

Description

Function to predict individual concentrations of vancomycin or to calculate their suggested doses after predicting individual PK parameters with single concentration.

Van.sm	<i>Algorithm to estimate individual PK parameters of vancomycin with each multiple concentrations</i>
--------	---

Description

Algorithm to estimate individual PK parameters of vancomycin with each multiple concentrations at steady-state.

References

Buelga, D. S., M. del Mar Fernandez de Gatta, et al. (2005). Population pharmacokinetic analysis of vancomycin in patients with hematological malignancies. *Antimicrob Agents Chemother* 49(12): 4934-41.

Van.ss

Algorithm to estimate individual PK parameters of vancomycin with one concentration

Description

Algorithm to estimate individual PK parameters of vancomycin with one concentration at steady-state.

References

Buelga, D. S., M. del Mar Fernandez de Gatta, et al. (2005). Population pharmacokinetic analysis of vancomycin in patients with hematological malignancies. *Antimicrob Agents Chemother* 49(12): 4934-41.

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