ERRATUM

Erratum to: Population pharmacokinetic modelling of doxorubicin and doxorubicinol in children with cancer: is there a relationship with cardiac troponin profiles?

Kuhan Kunarajah¹ · Stefanie Hennig² · Ross L. G. Norris^{2,3,4,7} · Michael Lobb³ · Bruce G. Charles² · Ross Pinkerton⁵ · Andrew S. Moore^{1,5,6}

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The author would like to correct the errors in the Appendix in the original publication of the article. The correct Appendix is given in the following page. The original article was corrected.

The online version of the original article can be found under doi:[10.1007/s00280-017-3309-6](https://doi.org/10.1007/s00280-017-3309-6).

✉ Andrew S. Moore
andrew.moore@uq.edu.au

- ¹ Translational Research Institute, The University of Queensland Diamantina Institute, Brisbane, Australia
- ² School of Pharmacy, Pharmacy Australia Centre of Excellence (PACE), The University of Queensland, Brisbane, Australia
- ³ Mater Medical Research Institute, The University of Queensland, Brisbane, Australia
- ⁴ School of Pharmacy, Griffith University, Gold Coast, Australia
- ⁵ Oncology Services Group, Children's Health Queensland Hospital and Health Service, Brisbane, Australia
- ⁶ UQ Child Health Research Centre, The University of Queensland, Brisbane, Australia
- ⁷ Present Address: Department of Clinical Pharmacology, St. Vincent's Hospital, Sydney, NSW, Australia

Appendix: NMTRAN control stream for the final model

```
$PROBLEM DOX PK
$INPUT COM ID DAT1=DROP TIME AMT RATE DV
MDV FLAG CMT BQL OCC WT AGE SEX HT BSA BSTM
PSTM INFRATE PCAMT CPCAMT
$DATA DoxData_SH14.csv IGNORE=#
$SUBROUTINE ADVAN13 TRANS1 TOL=3
$MODEL NCOMP = 5
      COMP(CENT)
      COMP(PER1)
      COMP(PER2)
      COMP(MET)
      COMP(TROP)
```

```
$PK
;----- COVARIATES -----
TBASEPCAMT=THETA(21)*(PCAMT-90)
FBSACL=(1+(BSA-1.8)*(THETA(10)))
FAGE=(1+(AGE/8.4)**THETA(9))
;----- PK parameters -----
TVCL = THETA(1)*FAGE*FBSACL
TVV1 = THETA(2)*FBSACL
TVQ2 = THETA(5)*FBSACL
TVV2 = THETA(6)*FBSACL
TVQ3 = THETA(7)*FBSACL
TVV3 = THETA(8)*FBSACL

TVCLM = THETA(11)*FBSACL
TVV4 = THETA(12)*FBSACL
TVQM = THETA(13)*FBSACL

;----- Trop model -----
TVKDEG = THETA(16)
TVTBASE = THETA(17)*(1+TBASEPCAMT)
TVEMAX = THETA(19)
TVEC50 = THETA(20)
```

```
;----- Between subject variability -----
IIVCL = ETA(1)
IIVCLM = ETA(2)
IIVQM = ETA(3)
IIVQ3 = ETA(4)
IIVV3 = ETA(5)
IIVTBASE = ETA(6)
```

```
;----- parameter estimates -----
CL = TVCL*EXP(IIVCL)
V1 = TVV1
Q2 = TVQ2
V2 = TVV2
Q3 = TVQ3*EXP(IIVQ3)
V3 = TVV3*EXP(IIVV3)
CLM = TVCLM*EXP(IIVCLM)
V4 = TVV4
QM = TVQM*EXP(IIVQM)
```

```
EC50 = TVEC50
EMAX = TVEMAX
KDEG = TVKDEG
TBASE = TVTBASE*EXP(IIVTBASE)
KSYN = TBASE*KDEG
```

```
;----- Rates -----
K12=Q2/V1
K21=Q2/V2
K13=Q3/V1
K31=Q3/V3
K10=CL/V1
K14=QM/V1
K41=0
K40=CLM/V4
```

```
S1= V1
S4= V4
S5 = 1
```

```
;----- DES -----
A_0(5) = TBASE ;KSYN/KDEG
```

```
$DES
CD = A(1) / V1 ; Dox
CM = A(4) / V4 ; Doxol

EFF = (EMAX*(CD+CM)) / (EC50 + (CD+CM))

DADT(1) = -K10*A(1)-K12*A(1)-K13*A(1)+K21*A(2)+K31*A(3)
DADT(2) = K12*A(1) - K21*A(2)
DADT(3) = K13*A(1) - K31*A(3)
DADT(4) = K14*A(1) - K40*A(4)
DADT(5) = KSYN*(1 + EFF)- KDEG*A(5)
```

```
;-----RUV -----
$ERROR (ONLY OBSERVATIONS)
DOX =A(1)/V1
MET =A(4)/V4
TROP = A(5)
```

```
IPRED=0

IF (CMT.EQ.1) THEN ;Dox
IPRED=DOX
W=SQRT((THETA(3)*IPRED)**2 + THETA(4)**2)
ENDIF
```

```
IF (CMT.EQ.4)THEN ;Doxol
IPRED=MET
W=SQRT((THETA(14)*IPRED)**2 + THETA(15)**2)
ENDIF
```

```
IF (CMT.EQ.5)THEN ;cTnI
IPRED=TROP
W=THETA(18)*IPRED
ENDIF
```

```
IRES=DV-IPRED
IF(W.EQ.0) W=1
IWRES=IRES/W
Y= IPRED+W*EPS(1)
```

```
;-----INITIALS -----
$THETA
(0, 58.7) ; 1 CL
(0, 32.2) ; 2 V1
(0, 0.203) ; 3 Prop.RE (sd) Dox
(0, 0.238) ; 4 Add.RE (sd) Dox
(0, 35.8) FIX ; 5 Q2
(0, 3810) FIX ; 6 V2
(0, 65.1) FIX ; 7 Q3
(0, 705) FIX ; 8 V3
(0, 0.736) FIX ; 9 CL age exp
(-5.55, 0.465,0.819) FIX ; 10 BSA COV
(0, 19.9) ; 11 CLM
(0, 508) ; 12 V4
(0, 32.1) FIX ; 13 Qm
(0, 0.229) ; 14 Prop.RE (sd) Doxol
(0, 0.954) ; 15 Add.RE (sd) Doxol
(0, 0.587) ; 16 Kdeg Trop k = 0.3 ~ t1/2 = 2 hours ~ steady state ~ 8-10h
(0, 20.5) ; 17 TBASE
(0, 0.582) ; 18 Prop.RE trop (sd) cTnI
(0, 0.154) ; 19 EMAX
(0, 11.8) ; 20 EC50 CD+CM
(0, 0.00308) ; 21 TBASEPCAMT
$OMEGA BLOCK(2)
0.0344 ;1 BSV CL
0.0523 0.116 ;2 BSV CLM
$OMEGA 0.11 ;3 BSV QM
$OMEGA 0.0497 ;4 BSV Q3
$OMEGA 0.0241 ;5 BSV V3
$OMEGA 0.0607 ;6 BSV TBASE
$SIGMA 1 FIX ; Residual error
```

```
$ESTIMATION METHOD=1 INTER MAXEVAL=9999 NOABORT SIG=3 PRINT=1
$COVARIANCE
```