

Supplemental Table 2: Plasma pharmacokinetic parameters (median [range]) derived from a 1-or 2-compartmental model with first-order absorption for gabapentin in horses after oral administration at 40 and 120 mg/Kg of body weight q 12 h for 14 days.

PK parameter	Unit	40 mg/Kg first dose (n=6)	40 mg/Kg last dose (n=6)	120 mg/Kg first dose (n=5)	120 mg/Kg last dose (n=6)
K01	1/h	1.11 (0.73-2.98)	12.0 (4.89-18.1)	1.33 (0.78-1.43)	44 (18-68)
K01_HL	h	0.63 (0.23-0.95)	0.07 (0.04-0.14)	0.52 (0.49-0.88)	0.02 (0.01-0.04)
K10	1/h	0.08 (0.02-0.21)	0.06 (0.02-0.13)	0.08 (0.05-0.13)	0.05 (0.03-0.08)
K10_HL	h	11 (3.4-44)	11 (5.54-28.8)	9.16 (5.51-14.6)	15 (8.3-21)
k12	1/h	0.63 (0.38-0.9)	0.51 (0.03-4.11)	0.19 (0.08-0.83)	0.06 (0.01-0.08)
k21	1/h	0.12 (0.09-0.27)	0.79 (0.15-3.19)	0.16 (0.04-0.29)	0.24 (0.04-0.43)
Tmax	h	1.3 (1.00-2.56)	0.34 (0.23-0.5)	1.89 (1.1-2.7)	0.15 (0.09-0.29)
Cmax	ug/mL	6.5 (5.1-8.2)	7.8 (6.5-10)	9.4 (5.0-2.3)	22 (13-28)
AUC _{0-∞}	ug*h/mL	200 (55-840)	140 ^a (99-400)	130 (78-860)	500 ^b (250-620)
AUC _{0-12h}	ug*h/mL	39 ^a (25-72)	62 ^b (48-98)	63 ^b (45-162)	180 ^c (120-220)

AUC_{0-∞}= area under the plasma concentration-time curve from 0 hours to infinity after dosing; AUC_{0-12h} = area under the plasma concentration-time curve from 0 hours to infinity after dosing Cmax = maximum concentration; Tmax = time to maximum concentration, K01 = Absorption rate constant. K01_HL: half-life of absorption. K10 = terminal rate constant. K10_HL = Half-life of the terminal portion of the curve after oral administration. k12 and k21 = Microdistribution rate constants from the central compartment (1) to peripheral compartment (2) and from the peripheral (2) to central compartment (1), respectively. For the 40 mg/Kg dosage regimen, data from 3 and 5 horses were modeled using a 2-compartmental approach after the first and last dose, respectively. For the 120 mg/Kg dosage regimen, data from 3 were modeled using a 2-compartmental approach. The median AUC_{0-∞} for each dose level was compared statistically using the Mann-Whitney U test. The % extrapolated ranged between 3 and 22% and from 2.4 to 11% for the 40 and 120 mg/Kg, respectively. The different superscripts indicate p<0.05. AUC_{0-12h} was only compared within each dose level. AUC_{0-∞} was only compared between each dose level after the last treatment.