

Study	Patients/profiles included	Molecule	Dosing Regimen	Structural model	Co variates	Parameters	Interindividual variability
Facchin 2019	104 patients  175 profiles  Age 12.2 (2.1–20.5) y  Weight 30.35 (11.9–83.0) kg  CrCl: 94.0 (10.0–189.0) ml/min/1.73 m <sup>2</sup>  Kidney transplant	VGCV	> 12 years: 900 mg  < 12 years: 7 × BSA × CrCl mg	NONMEM®  two-compartment model  First-order absorption and elimination + lag time	SCr, BSA, sex on CL BSA, sex on Vc	ka: 6.96 (16.2) <sup>b</sup>  T <sub>lag</sub> : 0.86 (1.9)  CL: 9.07 (3.7)  Vc: 45.0 (3.3)  Vp: 18.5 (17.9)  Q: 1.46 (13.6)	exponential error on ka, CL, Vc, Vp  IOV: ka, CL, Vc
Franck 2021	50 patients 580 PK samples  Age : 7.5 (0.5–17.4) y  Weight: 26.7 (5.96–87) kg  CrCl: 150 (56–345) ml/min/1.73 m <sup>2</sup>  Transplant : Kidney+ Liver +Heart+ SCT	VGCV + IV GCV	GCV: 5 mg/kg q12h  VGCV: 10 mg/kg q12h	NONMEM®  two-compartment model  First-order absorption and elimination + lag time	CrCL and WT on CL  WT on Vc and Vp	ka: 0.73 (15.1) <sup>b</sup>  T <sub>lag</sub> : 0.33 fixed  F: 0.43 (9.3)  CL: 6.9 (8.8)  Vc: 9.7 (14.4)  Vp: 7.6 (15.6)  Q: 10.9 (13.6)	exponential error on ka, F, CL, and Vc

Nguyen 2021	105 patients  Age: 2.5 (0.01–17.3) y  WT: 11.7 (2.6–80) Kg  CrCL: 167 (43–425)	VGCV + IV GCV	Depending on local protocols and diseases  IV GCV: 10 (1.2–15.4) mg/kg/d  VGCV: 36 (14.6–83.8) mg/kg/d	Nonlinear mixed-effect modeling using Monolix  Simulations were performed using NONMEM®  Two-compartment model  First-order absorption and elimination	CrCLS, WT on CL  WT on Q, Vc and Vp	ka: 0.506 (12)  F: 0.438  CL: 2.55 (6)  Vc: 5.96 (8)  Vp: 1.29 (19)  Q: 0.222 (38)	exponential on CL and Vc
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CL, clearance (L/h); CrCL, creatinine clearance; F, bioavailability (%); GCV, ganciclovir; GFR, glomerular filtration rate; HT, height; IIV, interindividual variability; IOV, interoccasion variability; IV, intravenous; ka, absorption constant ( $\text{h}^{-1}$ ); PK, pharmacokinetics; Q, intercompartmental clearance (L/h);  $T_{lag}$ , lag time (h); Vc, central volume of distribution (L); VGCV, valganciclovir; Vp, peripheral volume of distribution; Vss, volume of distribution at steady state; WT, weight;

Data are shown as mean  $\pm$  sd, or median (range)