

CVVH Dose Adjustments

Drug	Vd (L/kg)	t1/2 (h)	fu	Sc	Cpss (mg/L, ave)	Anephric Dose	1 L/Hr CVVH	2 L/Hr CVVH	3 L/Hr CVVH	4 L/Hr CVVH
Acyclovir	0.6-0.8	3	0.70-0.85	0.95	6	2.5-5mg/kg q day	Anephric + 140mg /day	Anephric + 280mg/day	Anephric + 410mg/day	Anephric + 550 mg/day
Adefovir					10.3 mcg/L	undefined	10mg q 7 days	10mg q 7 days	10mg q 7 days	10mg q 7 days
Aminoglycosides	0.27	29.9	0.95	0.88 +/- 0.03		Monitor Levels				
Amphotericin B	0.76	28-29	0.1	0.4		No supplemental dosage necessary				
Ampicillin	0.28	1-1.8	0.8	0.69+/- 0.21	26	1gm q8h	1gm q8h	1gm q6h	2gm q8h	2gm q8h
Aztreonam	0.2	1.7-2.9	0.5		130 (2g)	500mg q8h	1gm q8h	2gm q12h	2gm q8h	2gm q8h
Cefazolin	0.13	1.5-2.5	0.2		95	1gm q day	1gm q day	1gm q12h	1gm q8h	1gm q8h
Cefepime		2	0.81-0.84	0.86	20	1gm q day	1gm q day	1gm q12h	1gm q12h	1gm q8h
Cefotaxime	0.15		0.62	0.51+/-0.01	100	2gm q day	1gm q8h	1gm q6h	2gm q8h	2gm q 6h
Ceftazidime	0.23	1.0-2.0	0.9	0.9	60	1gm q day	1gm q12h	2gm q12h	2gm q8h	2gm q 8h
Ceftriaxone	0.08-0.19	6.0-9.0	0.1		85	1gm q day	1gm q day	2gm q day	2gm q day	2gm q day
Cefuroxime	0.13-0.22		0.5-0.66	0.59	50	1.5gm q day	750mg q8h	1.5gm q12h	1.5gm q12h	1.5gm q 8h
Ciprofloxacin	136.5	3.9-8.9	0.7	0.86+/-0.16	2.25	400(iv) 500(po) q day	No supplemental dosage necessary			
Clindamycin	0.6-1.2	2.0-3.0	0.75	0.98		No renal adjustment	No supplemental dosage necessary			
Daptomycin						4-6 mg/kg q 48h	No supplemental dosage necessary			
Digoxin	7.5	38	0.75	0.96 +/- 0.06		Individual dosing	No supplemental dosage necessary			
Doxycycline		12.0-15.0	0.1	0.4-1.0		No renal adjustment	No supplemental dosage necessary			
Entecavir			0.87		4.25 mcg/L	0.05-0.1 mg/day	0.1mg/day	0.2mg/day	0.3mg/day	0.4mg/day
Erythromycin	0.78	1.5-2	0.25	0.37		No renal adjustment	No supplemental dosage necessary			
Famotidine	1.1-1.4	2.5-3.5	0.8	0.7	0.035	10-20 mg q day	No supplemental dosage necessary			
Fluconazole	0.77	33.8	0.88	1.04	12	Normal dose given post dialysis	200mg	400mg	800mg	800mg
Flucytosine	0.68	3.0-8.0	0.95			25 mg/kg q48h	25mg/kg q day	25 mg/kg q 12h	25mg/kg q6h	25mg/kg q6h
Foscarnet						0 mg/kg/day	20 mg/kg/day	45 mg/kg/day	70 mg/kg/day	90 mg/kg/day
Ganciclovir (induction)	0.58-0.78	16.7-21.1	0.98	0.84 +/- 0.08	4	1.25mg/kg q day	anephric + 90mg/day	anephric + 180mg/day	anephric + 270mg/day	anephric + 360mg/day
Ganciclovir (maintenance)	0.58-0.78	16.7-21.1	0.98	0.84 +/- 0.08	2	0.625mg/kg q day	anephric + 45mg /day	anephric + 90mg/day	anephric + 135mg/day	anephric + 180mg /day

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Glyburide		5.0-16	0.01	0.06			No supplemental dosage necessary			
Imipenem		1	0.8	1.2	20	500mg q 12h	500mg q8h	500mg q6h	1gm q8h	1gm q8h
Itraconazole	10	16-26	0.01			No renal adjustment	No supplemental dosage necessary			
Levofloxacin	1.6	7.5	0.7	0.7	4.1	250mg q 48 h	No supplemental dosage necessary	250mg/ day	250mg/day	500mg/day
Linezolid	0.57-0.85	5		0.72	8.6	600mg q 12h	600mg q 12h	600mg q 12h	600mg q 8h	600 mg q 8h
Meropenem	0.37	1	0.98	1.1	20	500mg q day	500mg q12h	500mg q8h	1g q12h	1g q12h
Metoclopramide	4.4	4.0-7.0	0.7-0.8		0.04	25% of normal dose	No supplemental dosage necessary			
Metronidazole	0.74	6.0-8.0	0.9	0.97	18	500mg q8h	500mg q6h	500mg q6h	500mg q6h	500 mg q6h
Olsetamivir			0.97		320 mcg/L	30 mg once weekly	Treatment: 75 mg BID; Prophylaxis: 75 mg Daily			
Oxacillin	0.33		0.05	0.02	40	1gm q4h	No supplemental dosage necessary			
Phenobarbital	0.7-1.0	53-140	0.6	0.86 +/- 0.01			Monitor Levels			
Phenytoin	0.64	Conc Dep	0.1	0.45 +/- 0.06			No supplemental dosage necessary			
Piperacillin	0.18-0.30		0.7	0.78	60	3gm q12h	4gm q12h	4gm q12h	3 gm q6h	3gm q6h
Trimethoprim	1-2.2		0.30-0.7		9	25% of dose (15mg/kg)	Anephric + 100mg/day	Anephric + 200mg/day	Anephric + 320mg/day	Anephric + 400 mg/day
Vancomycin	0.39	5.0-11.0	0.9	0.69 +/- 0.06	20	15mg/kg q 5 days	Anephric + 300mg/day	Anephric + 700mg/day	Anephric + 1 gm/day	Anephric + 1 .5gm/day
Voriconazole			0.42	0.53	1.7	normal dose for oral administration	Call ID pharmacist			

***Clinical judgment should supersede mathematical calculations when appropriate

Instructions for using the Table:

1. In patients with no drug in their system, give an initial dose equal to that of a patient with normal renal function.
2. Determine the CVVH flow rate (the rate of Ultrafiltrate Fluid).
3. Add the Dialysate Flow rate to the Ultrafiltrate Flow rate
4. Select the closest flow rate (e.g. 1 L/hr, 2 L/hr, etc).
5. Ensure that the patient's CVVH has not stopped unpredictably (e.g clotting, etc).
6. Administer the appropriate dose

*** If a drug is not listed in the table, appropriate doses can be calculated by obtaining the pharmacokinetic parameters above and using the following equation:

$$\text{Replacement dose in 24 hours} = \text{Cps (ave)} * \text{Ultrafiltration Rate} * [\text{Sc or fu}] * 24 \text{ hours}$$

*Questions regarding the table can be directed to the ID pharmacist at 5-5955

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