## Recommended Nucleoside and Nucleotide Reverse Transcriptase Inhibitor Dosing During Continuous Veno-Venous Hemofiltration[1]

| Drug | Pharmacokinetic Parameters | | Anephric Dose | Flow Rate | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 1L/h | 2L/h | 3L/h | 4L/h | 5L/h |
| Abacavir (ABC, Ziagen®) | N/A | | | No adjustment recommended in renal dysfunction or during continuous veno-venous hemofiltration | | | | |
| Didanosine (ddI, Videx®) | $F_u$ (%)[2] | 95 | < 60 kg: Suspension: 75 mg daily[2]<br>≥ 60 kg: Capsule DR: 125 mg daily[2]<br>Suspension: 100 mg daily[2] | < 60 kg: Suspension: 120 mg daily<br>≥ 60 kg: Capsule DR: 125 mg daily<br>Suspension: 140 mg daily | < 60 kg: Suspension: 160 mg daily<br>≥ 60 kg: Capsule DR: 200 mg daily<br>Suspension: 180 mg daily | < 60 kg: Suspension: 200 mg daily<br>≥ 60 kg: Capsule DR: 250 mg daily<br>Suspension: 220 mg daily | < 60 kg: Suspension: 230 mg daily<br>≥ 60 kg: Capsule DR: 250 mg daily<br>Suspension: 260 mg daily | < 60 kg: Suspension: 280 mg daily<br>≥ 60 kg: Capsule DR: 375 mg daily (200 mg + 125 mg capsules)<br>Suspension: 300 mg daily |
| | $C_{pss}$ (mg/L)[3] | 3.54 | | | | | | |
| | $C_{ssavg}$ (mg/L) | 1.77 | | | | | | |
| | $t_{1/2}$ (h)[3] | 1.19 ± 0.21 | | | | | | |
| Emtricitabine (FTC, Emtriva®) | $F_u$ (%)[4] | 96 | Capsule, 200 mg every 96 hours[4]<br>Oral solution, 60 mg daily[4] | Capsule: 200 mg every 72 hours<br>Oral solution: 80 mg daily | Capsule: 200 mg every 48 hours<br>Oral solution: 110 mg daily | Capsule: 200 mg every 48 hours<br>Oral solution: 140 mg daily | Capsule: 200 mg every 48 hours<br>Oral solution: 160 mg daily | Capsule: 200 mg every 24 hours<br>Oral solution: 180 mg daily |
| | $C_{pss}$ (mg/L)[4] | 1.8 | | | | | | |
| | $C_{tss}$ (mg/L)[4] | 0.40 | | | | | | |
| | $C_{ssavg}$ (mg/L) | 1.10 | | | | | | |
| | $t_{1/2}$ (h)[4] | 10 | | | | | | |
| Lamivudine (3TC, Epivir®) | $F_u$ (%)[5] | 64 | Oral solution, 25 mg daily[5, 6] | Tablet (Epivir®): ½ tablet (75mg) daily<br>Oral solution: 50 mg daily | Tablet (Epivir®): ½ tablet (75mg) daily<br>Oral solution: 75 mg daily | Tablet (Epivir HBV®): 100 mg daily<br>Oral solution: 100 mg daily | Tablet (Epivir HBV®): 100 mg daily<br>Oral solution: 120 mg daily | Tablet (Epivir®): 150 mg daily<br>Oral solution: 150 mg daily |
| | $C_{pss}$ (mg/L)[7] | 3.05 | | | | | | |
| | $C_{ssavg}$ (mg/L) | 1.52 | | | | | | |
| | $t_{1/2}$ (h)[5] | 2.6 ± 0.5 | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| Stavudine (d4T, Zerit®) | $F_u$ (%)[8] | 99 | < 60 kg: 15 mg daily[8]<br><br>≥ 60 kg: 20 mg daily[8] | < 60 kg: Capsule, 15 mg twice daily Oral solution, 10 mg twice daily<br><br>≥ 60 kg: Capsule, 15 mg twice daily Oral solution, 13 mg twice daily | < 60 kg: Capsule, 15 mg twice daily Oral solution, 15 mg twice daily<br><br>≥ 60 kg: Capsule, 15 mg twice daily Oral solution, 16 mg twice daily | < 60 kg: Capsule, 15 mg twice daily Oral solution, 17 mg twice daily<br><br>≥ 60 kg: Capsule, 20 mg twice daily Oral solution, 20 mg twice daily | < 60 kg: Capsule, 20 mg twice daily Oral solution, 20 mg twice daily<br><br>≥ 60 kg: Capsule, 20 mg twice daily Oral solution, 23 mg twice daily | < 60 kg: Capsule, 20 mg twice daily Oral solution, 24 mg twice daily<br><br>≥ 60 kg: Capsule, 20 mg twice daily Oral solution, 26 mg twice daily |
| | $C_{pss}$ (mg/L)[8] | 0.536 | | | | | | |
| | $C_{ssavg}$ (mg/L) | 0.27 | | | | | | |
| | $t_{1/2}$ (h)[8] | 1.6 ± 0.23 | | | | | | |
| Tenofovir (TDF, Viread®) | $F_u$ (%)[9] | 92.8 | 300 mg every 7 days[9] | 300 mg every 7 days | 300 mg every 7 days | 300 mg every 7 days | 250 mg every 96 hours** | 250 mg every 96 hours** |
| | $C_{pss}$ (mg/L)[9] | 0.3 | | | | | | |
| | $C_{tss}$ (mg/L)[9] | 0.11 | | | | | | |
| | $C_{ssavg}$ (mg/L) | 0.21 | | | | | | |
| | $t_{1/2}$ (h)[9] | 17 | | | | | | |
| Zidovudine (AZT, Retrovir®) | $F_u$ (%)[10] | 62 | 100 mg every 8 hours[10-12] | 100 mg every 8 hours | 100 mg every 8 hours | 100 mg every 8 hours | 100 mg every 8 hours | 100 mg every 8 hours |
| | $C_{pss}$ (mg/L)[12] | 0.48 | | | | | | |
| | $C_{ssavg}$ (mg/L) | 0.24 | | | | | | |
| | $t_{1/2}$ (h)[13] | 1 | | | | | | |

$F_u$: Fraction of unbound drug, $C_{pss}$: Peak concentration at steady state; $C_{ssavg}$: Average concentration at steady state; $C_{trss}$: Trough concentration at steady state.

$C_{trss}$ is negligible for all NRTIs, unless indicated in the table. **Note: 250 mg is a pediatric formulation, 300 mg may be used as available on formulary.


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