

Table 2. Steady-state pharmacokinetic parameters for levofloxacin in patients with several physiopathology conditions after intravenous or oral administration (values expressed as mean (standard deviation) or mean (range) when standard deviation is not published).

Study characteristics with Levofloxacin	Vd (l)	Cl (l/h)	T $\frac{1}{2}$ (h)	Reference
Healthy young volunteers 500 mg oral 22–36 years Cl _{Cr} = 90-117 ml/min	90.6 (11.9) ¹	9.5 (1.7) ¹	7.0 (0.8)	Chien et al., 1997a ³⁶
Healthy elderly volunteers 500 mg oral 66–80 years Cl _{Cr} = 47-80 ml/min	70.8 (8.4) ¹	7.3 (1.9) ¹	7.6 (2.0)	Chien et al., 1997b ⁸²
Patients with respiratory, urinary and other infections 250-500 mg Infusion IV 47 ± 18 years Cl _{Cr} = 86.4 ± 31.3 ml/min	ND	9.3 (4.3)	ND	Preston et al., 1998 ⁶⁷
Patients adults with pulmonary tuberculosis 1000 mg oral 30- 54 years Cl _{Cr} = 51-125ml/min	(33.5-114.5) ¹	7.6 (1.5-19.2) ¹	ND	Peloquin et al., 2008 ⁷⁹
Patients hospitalized with bone and joint infection 750 mg oral 57 ± 20 years BW = 72 ± 16 Kg Cl _{Cr} = 120.0 ± 74.3 ml/min	90.6 ¹ (0.06)	6.10 (0.17) ¹	ND	Eloy et al., 2020 ⁶⁷
Ambulatory and hospitalized obese patients 18-55 years BMI (kg/m ²) = 49.3 ± 20.7 750 mg Infusion IV Cl _{Cr} = 140.7 ± 64.4 ml/min	83.8 (21.6)	9.8 (4.2)	5.9 (3.4)	Cook et al., 2011 ⁶⁹
Acutely hospitalized older patients with several degrees of renal function 125-750 mg Oral 81 ± 28 years Cl _{Cr} = 18.2–50.2 ml/min	ND	2.53 (1.46) ¹	ND	Cojutti et al., 2017 ⁸⁷

Intensive Care Unit

Intensive Care Unit Patients with acute renal failure 500 mg IV infusion 33-62 years	114.0 (74 -155)	3.1 (2.9 -3.2)	34.5 (21.2- 47.7)	Czock et al.,2006 ⁹³
Criticall ill patients receiving continuos hemodiafiltration 500 mg IV infusion 59 ± 6 years Cl _{Cr} =70 ± 67 ml/min	ND	3.6 (0.4)	ND	Wada et al.2015 ⁸⁸
Intensive care unit patients during continuous venovenous hemofiltration 250 mg IV infusion 23-70 years	ND	1.8-3.6	ND	Malone et al., 2001 ⁹⁰
Intensive care unit Patients with acute renal failure 33-62 years	82.8 (50.0)	2.5 (0.9)	21.8 (5.5)	Hansen et al., 2001 ⁹²
Intensive care unit patients during continuous venovenous hemofiltration 500 mg IV infusion 68 ± 5 years	105.7 (36.4)	3.26 (1.4)	28.0 (4.5)	Guenter et al., 2002 ⁹¹

Vd: volume of distribution in steady state, Cl: systemic clearance, BW: body weight (Kg), BMI: body weight [in kilograms]/ height² [in meters], Cl_{Cr}= creatinine clearance. ND: unpublished data.

¹value of apparent volume of distribution in steady state (Vd/F) and apparent clearance (Cl/F) respectively

