

Extensive Therapeutic Drug Monitoring Of Colistin In Critically Ill Patients Reveals Undetected Risks.

Supplemental material 1 – elimination half times of Colistin

Patient 1

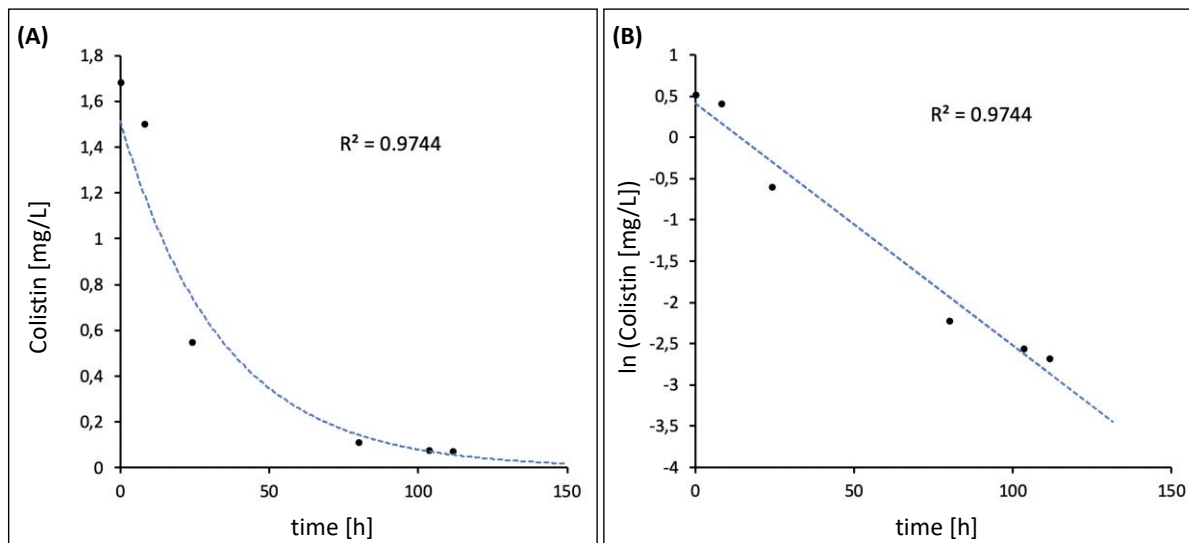


Figure S1: plasma levels of Colistin after cessation of CMS administration. (A) linear scaling of colistin plasma levels in [mg/L]; fit of an 1st decay elimination curve, $y = 1,5111e^{-0,029x}$, $R^2 = 0.97$, $p < 0.001$; (B) linear scaling colistin plasma levels in [mg/L] after logarithmic transformation; linear fit, $y = -0,0294x + 0,4129$, $R^2 = 0.97$, $p < 0.001$

Elimination half time: $t_{1/2} = \ln(0.5)/0.0294 = 23.6$ [h]

Patient 2

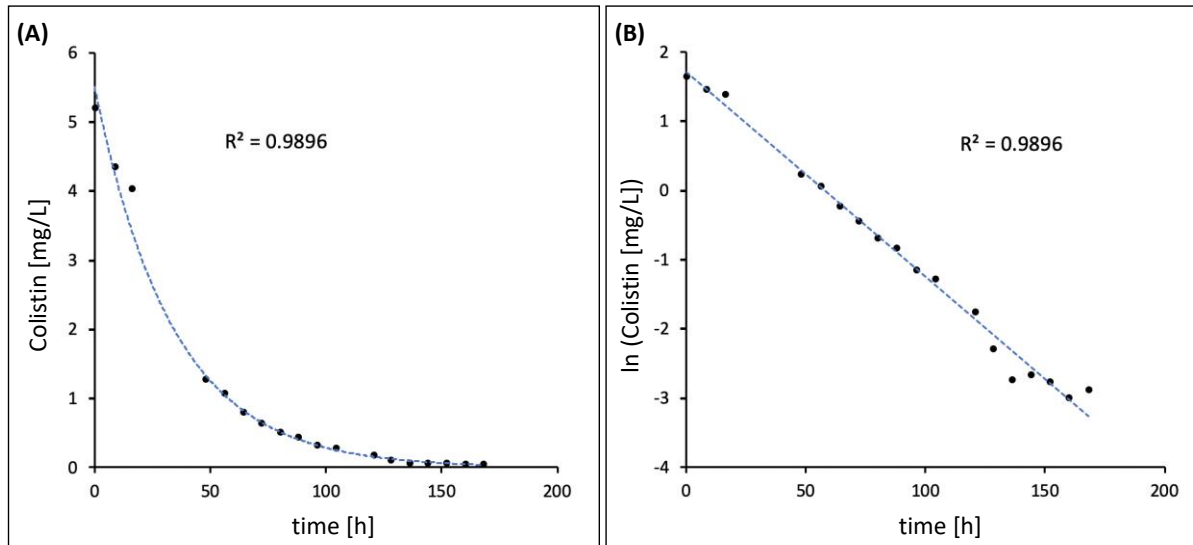


Figure S2: plasma levels of Colistin after cessation of CMS administration. (A) linear scaling of colistin plasma levels in [mg/L]; fit of an 1st decay elimination curve, $y = 5,5021e^{-0,03x}$, $R^2 = 0.99$, $p < 0.001$; (B) linear scaling colistin plasma levels in [mg/L] after logarithmic transformation; linear fit, $y = -0,0296x + 1,7051$, $R^2 = 0.99$, $p < 0.001$

Elimination half time: $t_{1/2} = \ln(0.5)/0.0296 = 23.43$ [h]

Patient 4

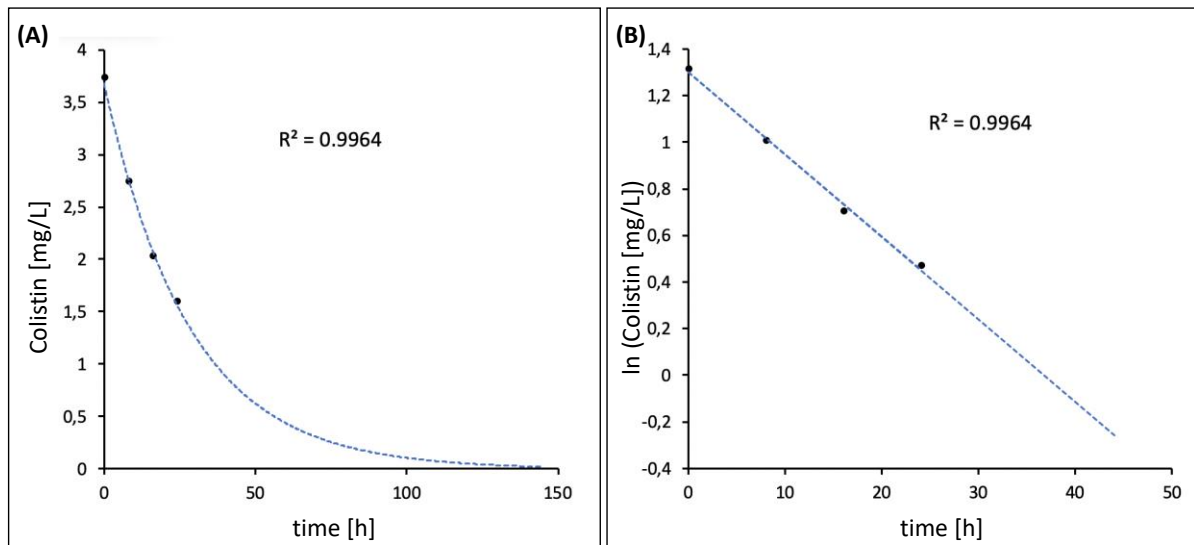


Figure S3: plasma levels of Colistin after cessation of CMS administration. (A) linear scaling of colistin plasma levels in [mg/L]; fit of an 1st decay elimination curve, $y = 3,73e^{-0,036x}$, $R^2 = 0.996$, $p < 0.001$; (B) linear scaling colistin plasma levels in [mg/L] after logarithmic transformation; linear fit, $y = -0,0355x + 1,3022$, $R^2 = 0.996$, $p < 0.001$

Elimination half time: $t_{1/2} = \ln(0.5)/0.0355 = 19.5$ [h]

Patient 5

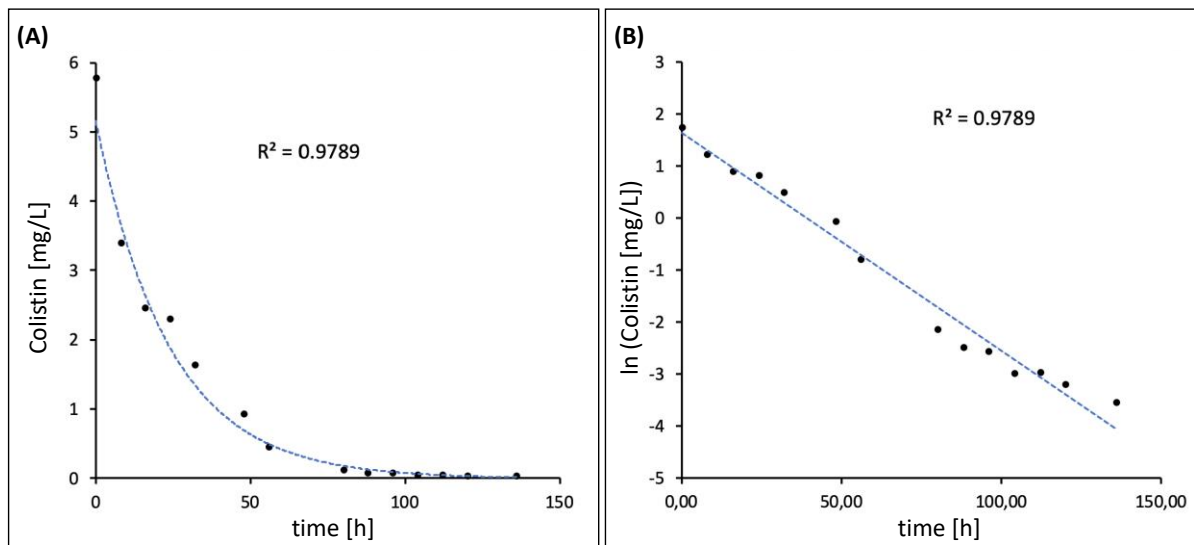


Figure S4: plasma levels of Colistin after cessation of CMS administration. (A) linear scaling of colistin plasma levels in [mg/L]; fit of an 1st decay elimination curve, $y = 5,1619e^{-0,042x}$, $R^2 = 0.98$, $p < 0.001$; (B) linear scaling colistin plasma levels in [mg/L] after logarithmic transformation; linear fit, $y = -0,0419x + 1,6413$, $R^2 = 0.98$, $p < 0.001$

Elimination half time: $t_{1/2} = \ln(0.5)/0.0419 = 16.5$ [h]

Patient 6

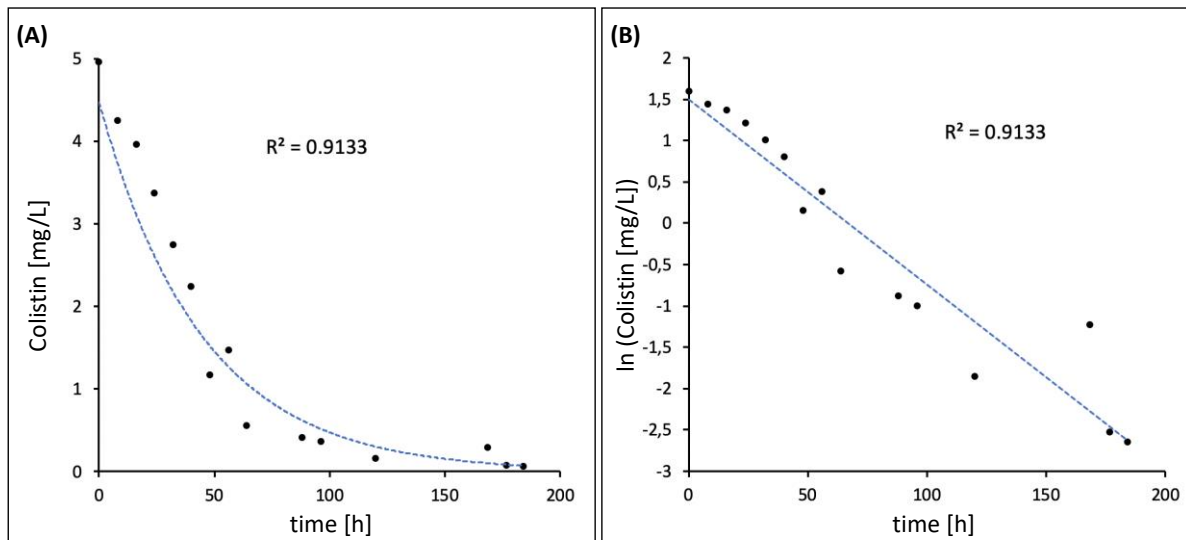


Figure S5: plasma levels of Colistin after cessation of CMS administration. (A) linear scaling of colistin plasma levels in [mg/L]; fit of an 1st decay elimination curve, $y = 4,96e^{-0,0223x}$, $R^2 = 0.91$, $p < 0.001$; (B) linear scaling colistin plasma levels in [mg/L] after logarithmic transformation; linear fit, $y = -0,0224x + 1,4961$, $R^2 = 0.91$, $p < 0.001$

Elimination half time: $t_{1/2} = \ln(0.5)/0.0224 = 30.9$ [h]

Patient 8

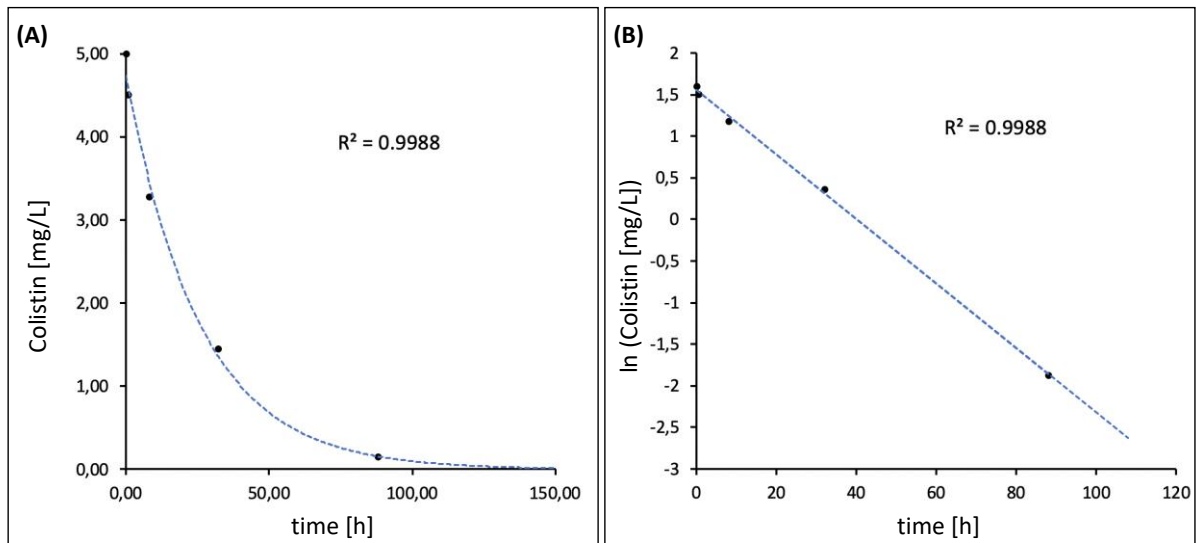


Figure S6: plasma levels of Colistin after cessation of CMS administration. (A) linear scaling of colistin plasma levels in [mg/L]; fit of an 1st decay elimination curve, $y = 4,735e^{-0,039x}$, $R^2 = 0.999$, $p < 0.001$; (B) linear scaling colistin plasma levels in [mg/L] after logarithmic transformation; linear fit, $y = -0,0387x + 1,555$, $R^2 = 0.999$, $p < 0.001$

Elimination half time: $t_{1/2} = \ln(0.5)/0.0387 = 17.9$ [h]