Abdulla et al. 2020: Failure of target attainment of beta-lactam antibiotics in critically ill patients and associated risk factors: a two-center prospective study (EXPAT study)

**Table S1.** Characteristics of pooled antibiotic dosing and pharmacokinetic/pharmacodynamic (PK/PD) data

| Dosing and PK/PD data | Amoxicillin* (n=9) | Cefotaxime (n=93) | Ceftazidime (n=5) | Ceftriaxone (n=17) | Cefuroxime (n=2) | Meropenem (n=21) | Total (n=147) |
|---|---|---|---|---|---|---|---|
| Dosage per 24h (g) | 6.0 [4.0-6.0] | 4.0 [4.0-4.0] | 3.0 [2.5-5.0] | 2.0 [2.0-2.0] | 4.5 [4.5-4.5] | 3.0 [2.0-3.0] | |
| DDD | 1.66 ±0.42 | 1.06 ±0.18 | 1.20 ±0.45 | 1.18 ±0.39 | 1.50 | 0.83 ±0.21 | |
| No. of samples | 4.89 ±0.33 | 4.94 ±0.25 | 4.80 ±0.45 | 4.65 ±0.61 | 4.50 ±0.71 | 4.67 ±0.80 | 4.85 ±0.44 |
| Mean[#] $C_{min}$ (mg/L) | 12 ±13 | 7.8 ±6.6 | 60 ±48 | 5.9 ±4.1 | 6.0 ±2.8 | 9.1 ±11 | |
| Median[#] $C_{min}$ (mg/L) | 6.0 [3.2-21] | 6.1 [2.0-12] | 52 [24-88] | 5.1 [2.2-9.0] | 6.6 [2.9-8.4] | 4.7 [1.8-14] | |
| Range[#] $C_{min}$ (mg/L) | 1.2-43 | 0.14-26 | 11-158 | 0.43-15 | 2.9-8.4 | 0.13-40 | |
| Mean[#] $C_{max}$ (mg/L) | 51 ± 41 | 42 ±23 | 173 ±116 | 17 ±4.7 | 5.5 ±3.6 | 53 ±45 | |
| Median[#] $C_{max}$ (mg/L) | 35 [27-51] | 38 [26-51] | 170 [70-278] | 18 [13-20] | 5.1 [2.3-8.3] | 7.9 [7.9-74] | |
| Range[#] $C_{max}$ (mg/L) | 11-136 | 3.1-106 | 65-286 | 9.6-16 | 1.2-11 | 2.4-149 | |
| %$f$T>MIC$_{ECOFF}$ | 69.8% | 81.4% | 100% | 99.7% | 44.3% | 90.5% | 84.2% |
| %$f$T>4xMIC$_{ECOFF}$ | 25.6% | 46.6% | 80.4% | 98.3% | 12.7% | 58.8% | 53.7% |
| 40%$f$T>MIC$_{ECOFF}$ | 77.8% | 91.4% | 100% | 100% | 50% | 95.2% | 91.8% |
| 50%$f$T>MIC$_{ECOFF}$ | 66.7% | 81.7% | 100% | 100% | 50% | 95.2% | 85.0% |
| 60%$f$T>MIC$_{ECOFF}$ | 55.6% | 75.3% | 100% | 100% | 0% | 90.5% | 78.9% |
| 70%$f$T>MIC$_{ECOFF}$ | 55.6% | 69.9% | 100% | 100% | 0% | 90.5% | 75.5% |
| 100%$f$T>MIC$_{ECOFF}$ | 44.4% | 57.0% | 100% | 94.1 | 0% | 71.4% | 63.3% |
| 100%$f$T>4xMIC$_{ECOFF}$ | 22.2% | 17.2% | 60% | 82.4% | 0% | 42.9% | 36.7% |

Values are presented as numbers (%), median [25%-75% interquartile range], or mean (± standard deviation).

\* Amoxicillin (n=7) and amoxicillin/clavulanic acid (n=2).

\# Outliers removed using ROUT method (Q = 0.5%).

Abbreviations: **DDD**: Defined Daily Dose; **ECOFF**: epidemiological cut-off breakpoint; $f\text{C}_{max}$: unbound peak plasma concentrations; $f\text{C}_{min}$: unbound trough plasma concentration; $f\text{T>MIC}$: the unbound concentrations above the minimum inhibitory concentration; **IQR**: interquartile range; **MIC**: Minimal Inhibitory Concentration