

Supporting information

LC-MS/MS-based multiplex antibacterial platform for therapeutic drug monitoring in intensive care unit patients

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Table 1S. Gradient of mobile phase.

Time (min)	Mobile Phase B (%)	Mobile Phase A (%)
0	5	95
0.5	5	95
3	10	90
4	50	50
8	100	0
9	5	95
10	5	95

Table 2S. Concentrations for calibration curves and QCs (µg/mL).

Compound	level 1	level 2	level 3	level 4	level 5	level 6	LLOQ	LQC	MQC	HQC
FLU	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
LIN	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
CAS	0.1	0.2	1	4	20	100	0.1	0.3	10	80
MER	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
TIG	0.1	0.2	1	4	20	100	0.1	0.3	10	80
PIP	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
CEF	0.1	0.2	1	4	20	100	0.1	0.3	10	80
TEI	0.3	0.5	1	4	20	100	0.3	0.9	10	80
POS	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
VOR	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
DAP	0.3	0.5	1	4	20	100	0.3	0.9	10	80
VAN	0.1	0.2	1	4	20	100	0.1	0.3	10	80
SUL	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40
TAZ	0.1	0.2	0.5	2	10	50	0.1	0.3	5	40

Table 3S. Stability of QC samples under different conditions, data are represented as mean (percentage).

Compound	Concentration (µg/mL)		Freshly prepared QC (µg/mL)		4°C for 48 h (µg/mL)		Four freeze-thraw cycles (µg/mL)		-80°C for 3 months (µg/mL)	
	LQC	HQC	LQC	HQC	LQC	HQC	LQC	HQC	LQC	HQC
FLU	0.30	40.00	0.31 (104.41)	42.57 (106.43)	0.28 (93.87)	40.22 (100.55)	0.28 (94.67)	39.63 (99.08)	0.31 (104.67)	40.81 (102.03)
LIN	0.30	40.00	0.30 (101.27)	37.98 (94.95)	0.27 (90.48)	38.77 (96.93)	0.28 (93.67)	36.83 (92.08)	0.29 (97.00)	37.25 (93.13)
CAS	0.30	80.00	0.32 (107.83)	81.47 (101.84)	0.29 (96.67)	78.48 (98.10)	0.29 (97.00)	76.54 (95.68)	0.28 (92.67)	83.36 (104.2)
MER	0.30	40.00	0.29 (96.14)	39.98 (99.95)	0.27 (91.33)	37.34 (93.35)	0.27 (91.23)	35.23 (88.08)	0.27 (91.00)	36.24 (90.60)
TIG	0.30	80.00	0.33 (109.25)	85.58 (106.98)	0.29 (97.24)	76.49 (95.61)	0.29 (97.23)	80.44 (100.55)	0.30 (100.33)	78.99 (98.74)
PIP	0.30	40.00	0.28 (94.16)	39.77 (99.43)	0.31 (103.79)	39.54 (98.85)	0.30 (99.28)	37.39 (93.48)	0.31 (104.17)	36.74 (91.85)
CEF	0.30	80.00	0.30 (99.23)	74.47 (93.09)	0.30 (99.53)	72.39 (95.83)	0.31 (103.33)	73.68 (92.10)	0.29 (97.97)	79.32 (99.15)
TEI	0.90	80.00	0.92 (103.24)	83.44 (104.30)	0.83 (92.22)	81.75 (102.19)	0.84 (92.00)	75.88 (94.85)	0.83 (92.33)	76.39 (95.49)
POS	0.30	40.00	0.29 (95.37)	38.24 (95.60)	0.31 (104.11)	38.93 (97.33)	0.31 (104.23)	39.03 (97.58)	0.30 (101.63)	38.61 (96.53)
VOR	0.30	40.00	0.31 (103.23)	42.87 (107.18)	0.29 (97.00)	40.93 (102.33)	0.28 (92.67)	39.47 (98.68)	0.28 (94.85)	38.55 (96.38)
DAP	0.90	80.00	0.89 (98.89)	82.42 (103.03)	0.88 (97.78)	78.44 (98.05)	0.85 (94.67)	80.46 (100.58)	0.82 (91.10)	78.26 (97.83)
VAN	0.30	80.00	0.29 (96.67)	78.31 (97.89)	0.29 (95.98)	76.28 (95.35)	0.31 (103.67)	77.98 (97.48)	0.32 (107.00)	76.38 (95.48)
SUL	0.30	40.00	0.30 (101.22)	40.32 (100.80)	0.30 (98.95)	39.88 (99.70)	0.28 (94.00)	38.24 (95.60)	0.33 (108.93)	37.25 (93.13)
TAZ	0.30	40.00	0.29 (96.34)	38.75 (96.88)	0.31 (103.45)	38.23 (95.58)	0.27 (91.33)	37.77 (94.43)	0.28 (93.84)	38.47 (96.18)