

Supplementary Table 3. Annual consumption of antimicrobial agents for systemic use at surgical departments (unit: DDD/1,000 patient-days)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total	Coefficient for time	p value
Broad-spectrum antibiotics													
3rd CEPs	244.60	298.60	281.41	269.37	262.91	266.42	256.29	213.70	207.33	208.46	253.04	-0.685	< 0.001
4th CEPs	6.92	5.23	1.45	2.54	4.71	5.98	7.26	6.75	12.34	8.21	5.97	0.053	< 0.001
BL/BLIs	117.02	109.34	106.38	92.66	118.11	121.39	103.15	121.66	107.25	120.80	111.47	0.057	0.246
FQs	135.66	102.20	97.95	81.26	72.50	83.96	69.71	79.70	76.21	87.92	89.73	-0.364	< 0.001
Subtotal	504.20	515.36	487.18	445.83	458.23	477.75	436.41	421.80	403.13	425.39	460.21	-0.939	< 0.001
Antibiotics against MDR pathogens													
Carbapenems	0.79	3.69	7.79	4.92	5.76	5.89	5.30	5.63	5.08	8.64	5.27	0.037	< 0.001
Glycopeptides	23.25	20.92	24.60	18.47	22.97	23.27	27.55	21.71	25.50	31.88	23.83	0.069	0.001
Oxazolidinone	0.00	0.40	0.11	0.47	0.49	0.86	1.66	1.33	2.24	2.34	0.92	0.022	< 0.001
Polymyxin	0	0.04	0	3.88	3.60	0.70	1.37	1.81	0.67	0.92	1.28	0.005	0.407
Tigecycline	0	0	0	0	0	0.65	0.98	0.01	0.91	2.33	0.45	0.015	< 0.001
Subtotal	24.04	25.05	32.50	27.74	32.82	31.37	36.86	30.49	34.39	46.11	31.75	0.149	< 0.001
Nonbroad-spectrum antibiotics													
1st CEPs	261.60	208.76	248.00	335.40	277.11	259.23	251.23	259.30	240.44	202.87	255.23	-0.298	0.015
2nd CEPs	271.32	306.30	255.95	219.02	185.53	167.19	169.46	156.00	161.91	172.48	210.54	-1.287	< 0.001
AGs	266.55	242.53	225.34	201.33	133.30	96.02	68.49	51.71	47.39	37.98	144.44	-2.386	< 0.001
Lincosamides	2.65	2.76	4.76	3.99	4.16	4.50	3.51	4.72	4.64	6.88	4.19	0.027	< 0.001
Macrolides	13.34	15.95	16.10	9.33	15.54	13.58	12.13	28.15	11.45	11.07	14.57	0.005	0.833
Metronidazole	49.39	60.27	62.42	56.65	56.15	42.11	39.65	39.24	37.93	29.57	48.19	-0.256	< 0.001
Monobactam	3.46	2.35	1.23	1.31	1.56	0.17	0	0	0	0	1.09	-0.030	< 0.001
Penicillins	22.78	18.01	14.88	13.80	12.18	6.76	11.17	16.58	20.71	20.93	15.79	-0.003	0.890
Tetracyclines	4.15	8.98	2.95	2.69	1.05	0.00	0.37	0.57	3.54	5.58	3.07	-0.024	0.028
SXT	12.71	7.56	9.73	18.15	30.35	13.24	17.56	19.20	20.18	18.93	16.48	0.090	0.002
Subtotal	907.97	873.47	841.37	861.67	716.92	602.80	573.56	575.47	548.20	506.29	713.60	-4.163	< 0.001
Total	1,436.20	1,413.88	1,361.05	1,335.24	1,207.97	1,111.93	1,046.84	1,027.76	985.73	977.78	1,205.57	-4.953	< 0.001

Coefficient for time and p value were extracted from a linear regression model using measures on a monthly basis.

DDD, defined daily dose; CEP, cephalosporin; BL, β -lactam; BLI, β -lactamase inhibitor; FQ, fluoroquinolone; MDR, multidrug-resistant; AG, aminoglycoside; SXT, trimethoprim/sulfamethoxazole.