

Overall antimicrobials dispensed in various service types

Year	Service Type					
	Non-inpatient services			Inpatient Services		
	Service Volume*‡	Antimicrobial Dispensed‡‡	DDD per 1,000 attendances§¶	Service Volume‡**	Antimicrobial Dispensed‡‡	DDD per 1,000 patient-days§¶
2016	16,095,000	4,286,000	266.27	6,967,000	6,245,000	896.42
2017	16,292,000	4,173,000	256.16	7,214,000	6,531,000	905.34
2018	16,416,000	4,253,000	259.05	7,390,000	6,620,000	895.88
2019	16,533,000	4,537,000	274.41	7,557,000	6,848,000	906.10
2020	14,539,000	4,085,000	280.98	6,542,000	5,893,000	900.82

[Report Footnote]:

* In terms of attendances

‡ Rounded to the nearest thousand

† In DDD

§ Rounded to two decimal places

¶ Due to rounding, figures may not precisely reflect the absolute figures

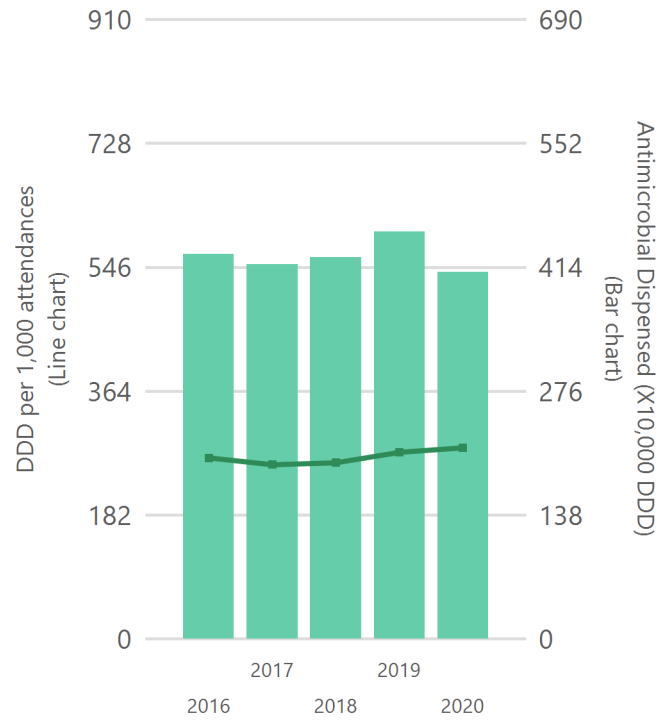
** In terms of patient-days

Note:

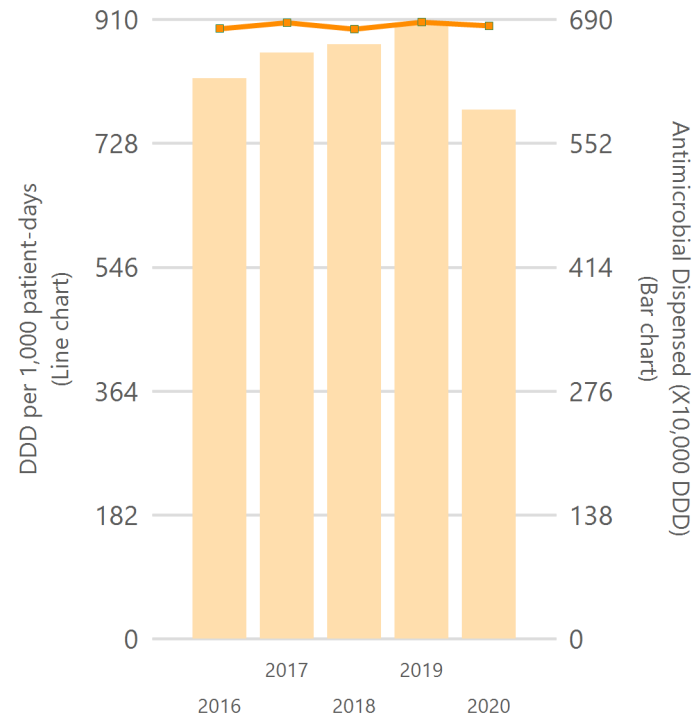
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Non-inpatient Services



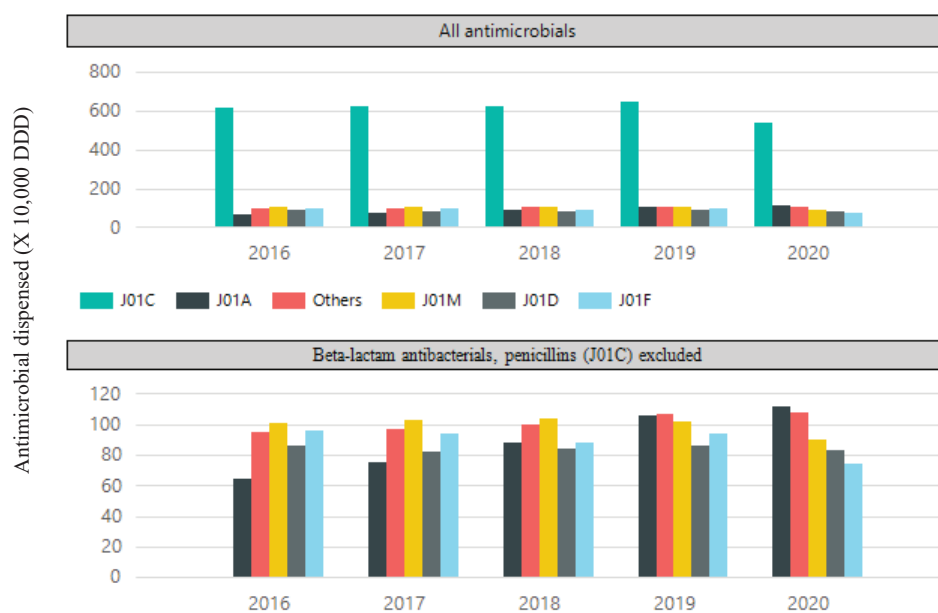
Inpatient Services



The 5 most dispensed ATC pharmacological subgroups in year 2018 in all HA services
(by WHO ATC classification)

ATC Pharmacological Subgroup		Antimicrobial dispensed in DDD					Percentage Change (2020 over 2016) ^{†‡}
Code	Description	Year 2016*	Year 2017*	Year 2018*	Year 2019*	Year 2020*	
J01C	Beta-Lactam Antibacterials, Penicillins	6,128,000	6,223,000	6,236,000	6,451,000	5,333,000	-12.98%
J01A	Tetracyclines	643,000	747,000	873,000	1,060,000	1,112,000	72.81%
J01M	Quinolone Antibacterials	1,006,000	1,022,000	1,040,000	1,019,000	896,000	-10.94%
J01D	Other Beta-Lactam Antibacterials	856,000	814,000	840,000	858,000	824,000	-3.74%
J01F	Macrolides, Lincosamides and Streptogramins	955,000	933,000	882,000	934,000	744,000	-22.12%
	Others	942,000	965,000	1,000,000	1,062,000	1,071,000	13.62%
Total		10,531,000	10,704,000	10,873,000	11,385,000	9,979,000	-5.24%

Antimicrobials dispensed in all HA services grouped by WHO ATC classification



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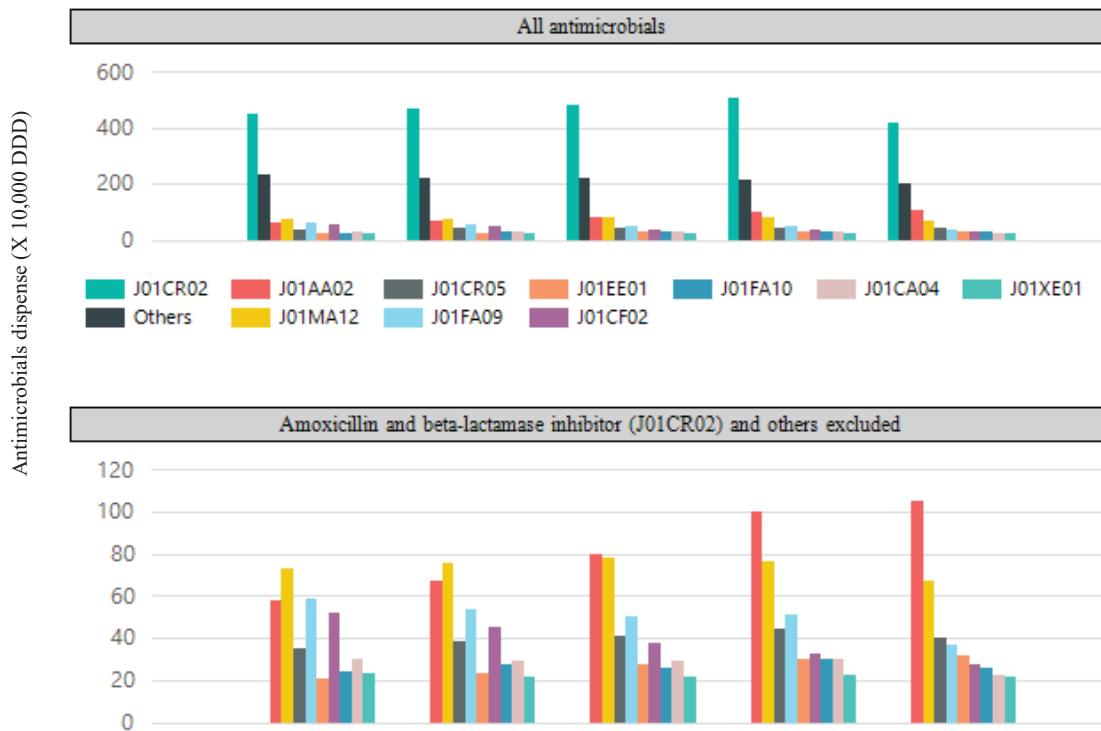
Note:

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The 10 most dispensed antimicrobials in all HA services

ATC Pharmacological Subgroup		Antimicrobial dispensed in DDD					Percentage Change (2020 over 2016)†‡
Code	Description	Year 2016*	Year 2017*	Year 2018*	Year 2019*	Year 2020*	
J01CR02	Amoxicillin and Beta-Lactamase Inhibitor	4,493,000	4,664,000	4,807,000	5,087,000	4,203,000	-6.45%
J01AA02	Doxycycline	575,000	671,000	801,000	996,000	1,048,000	82.34%
J01MA12	Levofloxacin	734,000	758,000	779,000	767,000	671,000	-8.48%
J01CR05	Piperacillin and Beta-Lactamase Inhibitor	347,000	385,000	409,000	439,000	405,000	16.50%
J01FA09	Clarithromycin	583,000	540,000	500,000	509,000	368,000	-36.83%
J01EE01	Sulfamethoxazole and Trimethoprim	208,000	234,000	271,000	300,000	317,000	52.21%
J01CF02	Cloxacillin	515,000	455,000	372,000	324,000	272,000	-47.17%
J01FA10	Azithromycin	240,000	270,000	260,000	300,000	261,000	8.48%
J01CA04	Amoxicillin	299,000	294,000	290,000	297,000	223,000	-25.57%
J01XE01	Nitrofurantoin	230,000	219,000	212,000	224,000	217,000	-5.69%
	Others	2,306,000	2,215,000	2,172,000	2,140,000	1,993,000	-13.57%
Total		10,531,000	10,704,000	10,873,000	11,385,000	9,979,000	-5.24%

The 10 most dispensed Antimicrobials in all HA services



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Summary on number of patient-days and antimicrobial dispensed in HA Inpatient Services,
stratified by specialty

		Medicine	Surgery	O&T	ICU/HDU	Others	All Inpatient Services
Year 2016	Total DDD of antimicrobials dispensed*	3,211,000	1,117,000	672,000	119,000	1,125,000	6,245,000
	Total number of patient-days*	3,308,000	916,000	785,000	71,000	1,887,000	6,967,000
	DDD per 1,000 patient-days†	970.57	1,220.13	856.13	1,687.98	596.41	896.42
Year 2017	Total DDD of antimicrobials dispensed*	3,399,000	1,179,000	687,000	116,000	1,150,000	6,531,000
	Total number of patient-days*	3,464,000	962,000	813,000	70,000	1,905,000	7,214,000
	DDD per 1,000 patient-days†	981.24	1,225.26	845.75	1,651.98	603.56	905.34
Year 2018	Total DDD of antimicrobials dispensed*	3,432,000	1,241,000	695,000	119,000	1,134,000	6,620,000
	Total number of patient-days*	3,560,000	992,000	855,000	72,000	1,910,000	7,390,000
	DDD per 1,000 patient-days†	963.87	1,250.22	812.56	1,658.41	593.71	895.88
Year 2019	Total DDD of antimicrobials dispensed*	3,557,000	1,270,000	693,000	119,000	1,208,000	6,848,000
	Total number of patient-days*	3,699,000	1,007,000	866,000	71,000	1,914,000	7,557,000
	DDD per 1,000 patient-days†	961.52	1,261.29	800.37	1,678.31	631.31	906.10
Year 2020	Total DDD of antimicrobials dispensed*	3,126,000	1,148,000	601,000	111,000	907,000	5,893,000
	Total number of patient-days*	3,385,000	853,000	661,000	67,000	1,577,000	6,542,000
	DDD per 1,000 patient-days†	923.38	1,346.71	910.33	1,662.92	575.03	900.82
Percentage change (2020 over 2016)†^	Total DDD of antimicrobials dispensed	-2.65%	2.78%	-10.58%	-6.65%	-19.41%	-5.63%
	Total number of patient-days	2.32%	-6.88%	-15.90%	-5.24%	-16.41%	-6.09%
	DDD per 1,000 patient-days	-4.86%	10.37%	6.33%	-1.48%	-3.59%	0.49%

Note:

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Note:

Comparisons with estimates from other publications on antimicrobial consumption should be interpreted with caution, due to continuous revisions of the ATC/DDD system and possible difference between consumption/dispensed quantity data.

Overall antimicrobials dispensed in HA Inpatient Services,
stratified by specialty

Specialty	DDD per 1,000 patient-days					Percentage Change (2020 over 2016) *†
	Year 2016 *	Year 2017 *	Year 2018 *	Year 2019 *	Year 2020 *	
Medicine	970.57	981.24	963.87	961.52	923.38	-4.86%
Surgery	1,220.13	1,225.26	1,250.22	1,261.29	1,346.71	10.37%
Orthopaedics & Traumatology	856.13	845.75	812.56	800.37	910.33	6.33%
ICU/HDU	1,687.98	1,651.98	1,658.41	1,678.31	1,662.92	-1.48%
Others	596.41	603.56	593.71	631.31	575.03	-3.59%
All Inpatient Services	896.42	905.34	895.88	906.10	900.82	0.49%

Note:

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Note:

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Broad-spectrum Antimicrobials Dispensed in HA Inpatient Services

	ATC Chemical Substance		DDD per 1,000 patient-days					Percentage Change (2020 over 2016)*†
	Code	Description	Year 2016*	Year 2017*	Year 2018*	Year 2019*	Year 2020*	
Beta-lactam Antibacterials, Penicillins	J01CR05	Piperacillin and Beta-Lactamase Inhibitor	49.85	53.31	55.38	58.13	61.83	24.03%
Other Beta-lactam Antibacterials (Cephalosporins)‡	J01DD02	Ceftazidime	3.31	3.27	3.65	4.08	4.47	35.19%
	J01DD62	Cefoperazone and Beta-Lactamase Inhibitor	4.47	3.88	3.85	3.65	3.40	-23.87%
	J01DE01	Cefepime	1.65	1.84	2.35	2.69	3.29	100.22%
	J01DI02	Ceftaroline Fosamil	0.18	0.31	0.30	0.34	0.39	112.85%
	J01DD52	Ceftazidime and Beta-Lactamase Inhibitor	-	-	<0.005	0.10	0.30	-
	J01DI54	Ceftolozane and Beta-Lactamase Inhibitor	<0.005	0.03	0.11	0.14	0.23	9,541.34%
Other Beta-lactam Antibacterials (Carbapenems)‡	J01DH02	Meropenem	17.36	18.77	22.99	23.21	29.36	69.14%
	J01DH03	Ertapenem	5.97	6.26	6.74	6.98	8.04	34.76%
	J01DH51	Imipenem and Cilastatin	1.29	1.07	0.92	0.86	0.90	-30.31%

Other Antibacterials	J01XA01	Vancomycin	13.26	13.84	15.12	15.46	18.53	39.75%
	J01XX08	Linezolid	1.71	1.63	1.64	1.89	1.91	11.68%
	J01XX09	Daptomycin	0.84	1.13	1.17	1.33	1.59	88.73%
	J01XB01	Colistin	0.69	0.60	0.54	0.62	0.66	-5.10%
	J01XA02	Teicoplanin	0.07	<0.005	0.01	<0.005	<0.005	-99.31%
Total			100.64	105.97	114.76	119.48	134.90	34.03%

* Rounded to two decimal places

† Due to rounding, percentages may not precisely reflect the absolute figures

‡ ATC pharmacological subgroup “other betalactam antibacterials (J01D)” is further categorised into cephalosporins and carbapenems groups

Note:

Broad-spectrum antimicrobials not categorised as antimicrobials for systemic use (J01) under WHO ATC were excluded from analysis.

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