

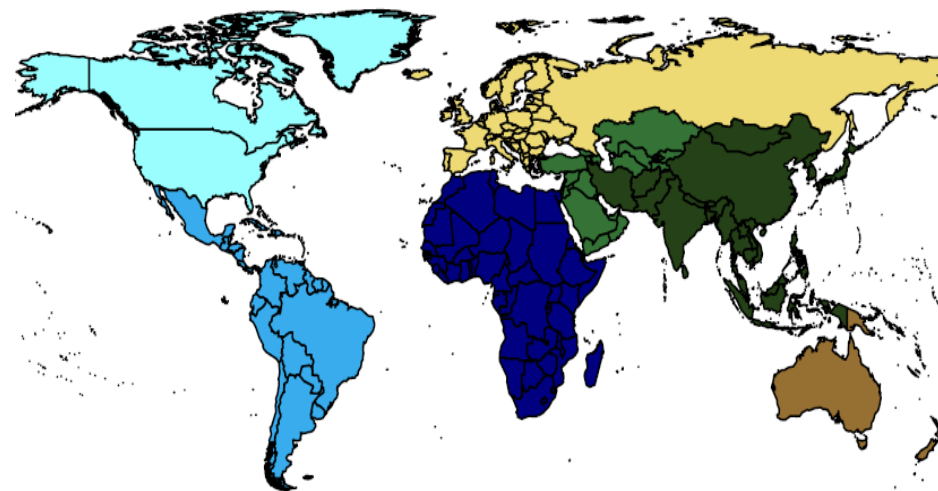
# Global Point Prevalence Survey of Antimicrobial Consumption and Resistance



Hospital ID: unknown  
Survey: 2021–P3

## Participation to Global-PPS by UN macro-geographical regions, year 2021

	Number of countries	Number of hospitals
North America	1	14
South America	4	7
Africa	7	30
Europe	6	33
West & Central Asia	2	5
East & South Asia	7	58
Australia & New Zealand	0	0



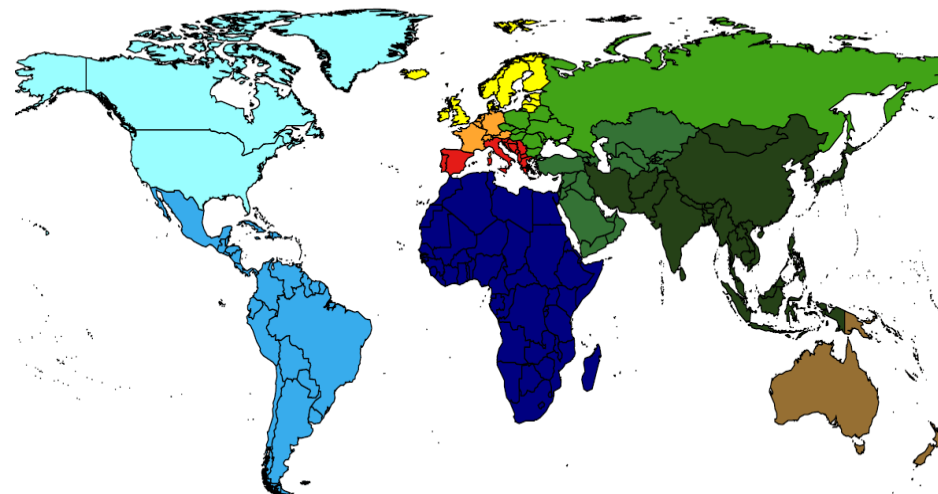
North America  
Latin America  
Africa

West & Central Asia  
East & South Asia

Europe  
Australia & New Zealand

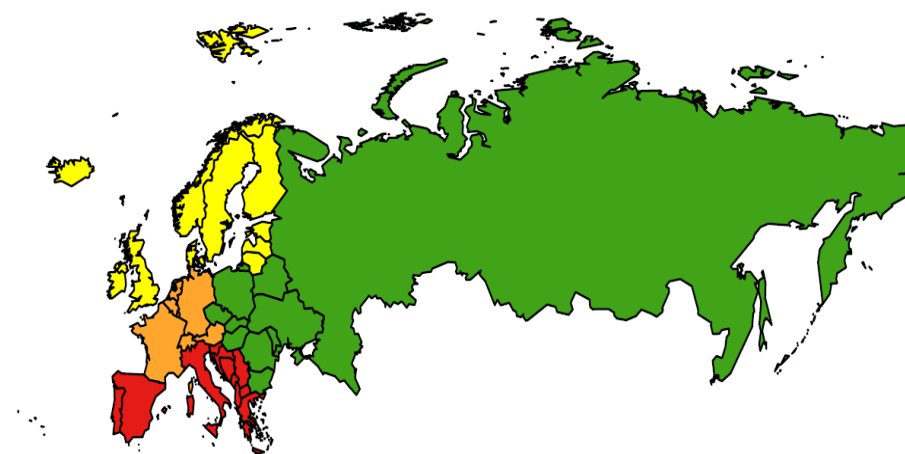
# Participation to Global-PPS by UN macro-geographical subregion, year 2021

	Number of countries	Number of hospitals
North America	1	14
South America	4	7
Africa	7	30
North Europe	2	5
West Europe	1	15
South Europe	2	12
East Europe	1	1
West & Central Asia	2	5
East & South Asia	7	58
Australia & New Zealand	0	0



■ North America  
■ Latin America  
■ Africa  
■ North Europe  
■ West Europe

■ South Europe  
■ East Europe  
■ West & Central Asia  
■ East & South Asia  
■ Australia & New Zealand



## **Explanatory notes for this feedback report**

**Below each slide extra information is provided to help you to correctly interpret the results.**

**The slides present the results for your hospital, your country, your region according to the UN classification, merged results on the hospital type for your region and Europe.**

**Below each slide you find the designation of your own country, your region and hospital type displayed.**

**Reference data include validated data from the current or most recent year with a minimum number of 4 hospitals for country and hospital type, and at least 25 hospitals for continent.**

**Reference data: country – 2019 (N = 4), continent – 2021 (N = 58), hospital type – 2021 (N = 38), EU – 2021 (N = 33).**

**Results at country level are not displayed if there are less than 4 hospitals participating during the current or any of the previous years.**

## Overall antimicrobial prevalence by region and type of adult ward

	<b>Total</b>	<b>AMW</b>	<b>HO-AMW</b>	<b>T-AMW</b>	<b>P-AMW</b>	<b>ASW</b>	<b>AICU</b>
<b>North America</b>	32.3	26.0	41.4	90.6	63.2	40.4	51.3
<b>South America</b>	42.6	35.9	0.0	21.7	0.0	50.2	63.4
<b>Africa</b>	55.2	53.3	40.0	0.0	0.0	57.4	80.4
<b>North Europe</b>	36.9	33.3	61.5	0.0	48.0	42.8	51.7
<b>West Europe</b>	26.6	21.0	37.9	0.0	40.0	35.0	65.5
<b>South Europe</b>	50.2	44.4	27.0	0.0	83.0	51.8	87.1
<b>East Europe</b>	25.8	22.3	0.0	0.0	37.1	27.1	100.0
<b>West &amp; Central Asia</b>	57.5	51.6	0.0	0.0	50.0	57.5	69.9
<b>East &amp; South Asia</b>	58.0	55.7	49.7	87.3	53.7	57.3	76.7
<b>Australia &amp; New Zealand</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Our hospital 2021-P3</b>	51.3	44.8	54.5	95.2	72.7	51.3	62.1
<b>Country</b>	46.7	44.3	53.7	89.5	44.2	48.6	66.9

Antimicrobial prevalence (%):  $100 \times (\text{number of treated patients} / \text{number of registered patients according to UN macro-geographical subregions})$ .

Total = Overall antimicrobial prevalence in adult wards; AMW = Adult Medical Ward; HO-AMW = Haematology-Oncology AMW; T-AMW = Transplant (BMT/solid) AMW; P-AMW = Pneumology AMW; ASW = Adult Surgical Ward; AICU = Adult Intensive Care Unit.

## Overall antimicrobial prevalence by region and type of child or neonatal ward

	<b>Total</b>	<b>PMW</b>	<b>HO-PMW</b>	<b>T-PMW</b>	<b>PSW</b>	<b>PICU</b>	<b>NMW</b>	<b>NICU</b>
<b>North America</b>	16.9	31.9	0.0	0.0	0.0	100.0	0.0	7.2
<b>South America</b>	62.1	38.1	64.8	0.0	40.0	74.0	45.5	85.7
<b>Africa</b>	71.6	76.0	0.0	0.0	65.6	65.0	61.9	80.9
<b>North Europe</b>	24.7	35.0	0.0	0.0	37.3	29.4	4.7	19.0
<b>West Europe</b>	16.0	25.4	0.0	0.0	0.0	0.0	4.7	0.0
<b>South Europe</b>	34.4	40.9	71.4	0.0	25.8	37.5	8.2	51.3
<b>East Europe</b>	33.9	0.0	0.0	0.0	34.0	100.0	0.0	0.0
<b>West &amp; Central Asia</b>	43.9	58.6	0.0	0.0	16.0	60.0	0.0	28.6
<b>East &amp; South Asia</b>	62.6	61.6	62.6	66.7	68.2	71.7	47.3	66.7
<b>Australia &amp; New Zealand</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Our hospital 2021-P3</b>	29.5	46.9	75.0	0.0	0.0	100.0	0.0	28.6
<b>Country</b>	32.6	36.9	77.8	100.0	0.0	62.5	4.4	33.3

Antimicrobial prevalence (%):  $100 \times (\text{number of treated patients} / \text{number of registered patients according to UN macro-geographical subregions})$ .

Total = Overall antimicrobial prevalence in wards admitting children and neonates; PMW = Paediatric Medical Ward;  
 HO-PMW = Haematology-Oncology PMW; T-PMW = Transplant (BMT/solid) PMW; PSW = Paediatric Surgical Ward;  
 PICU = Paediatric Intensive Care Unit; NMW = Neonatal Medical Ward; NICU = Neonatal Intensive Care Unit.

## Antimicrobial prevalence in adult wards

	Total	AMW	HO-AMW	T-AMW	P-AMW	ASW	AICU
<b>Our hospital 2021-P3</b>							
patients (N)	784	317	77	21	11	300	58
treated patients (%)	51.3	44.8	54.5	95.2	72.7	51.3	62.1
<b>Country</b>							
patients (N)	3972	2681	123	19	104	888	157
treated patients (%)	46.7	44.3	53.7	89.5	44.2	48.6	66.9
<b>Continent</b>							
patients (N)	9743	6371	380	102	95	1915	880
treated patients (%)	58	55.7	49.7	87.3	53.7	57.3	76.7
<b>Hospital type</b>							
patients (N)	7735	4844	380	102	95	1521	793
treated patients (%)	58.7	56.2	49.7	87.3	53.7	58.5	76
<b>Europe</b>							
patients (N)	6301	3951	158	0	218	1760	214
treated patients (%)	33.8	27.9	39.2	0	52.8	39.6	71

Patients (N) = number of admitted adults.

Treated patients (%) = 100\*(number of adults treated with at least one antimicrobial/number of admitted adults).

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Antimicrobial prevalence in paediatric wards

	Total	PMW	HO-PMW	T-PMW	PSW	PICU
<b>Our hospital 2021-P3</b>						
patients (N)	54	49	4	0	0	1
treated patients (%)	50	46.9	75	0	0	100
<b>Country</b>						
patients (N)	87	65	9	5	0	8
treated patients (%)	47.1	36.9	77.8	100	0	62.5
<b>Continent</b>						
patients (N)	1820	1288	147	9	157	219
treated patients (%)	63.5	61.6	62.6	66.7	68.2	71.7
<b>Hospital type</b>						
patients (N)	996	724	66	7	68	131
treated patients (%)	64.9	62.3	59.1	85.7	77.9	74
<b>Europe</b>						
patients (N)	525	360	7	0	129	29
treated patients (%)	33.3	31.9	71.4	0	33.3	41.4

Patients (N) = Number of admitted children in the hospital, country, UN macro-geographical region to which the hospital belongs; and the continental results for the hospital type to which the hospital belongs (possible types are primary + secondary level, tertiary level, paediatric and infectious diseases + specialized hospital).

Treated patients (%) = 100\*(number of children treated with at least one antimicrobial/number of admitted children).

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital



## Antimicrobial prevalence in neonatal wards

	Total	NMW	NICU
<b>Our hospital 2021–P3</b>			
patients (N)	51	37	14
treated patients (%)	7.8	0	28.6
<b>Country</b>			
patients (N)	57	45	12
treated patients (%)	10.5	4.4	33.3
<b>Continent</b>			
patients (N)	980	292	688
treated patients (%)	60.9	47.3	66.7
<b>Hospital type</b>			
patients (N)	538	160	378
treated patients (%)	55.2	25.6	67.7
<b>Europe</b>			
patients (N)	323	219	104
treated patients (%)	12.4	5.5	26.9

Patients (N) = Number of admitted neonates in the hospital, country, UN macro–geographical region to which the hospital belongs; and the continental results for the hospital type to which the hospital belongs (possible types are primary + secondary level, tertiary level, paediatric and infectious diseases + specialized hospital).

Treated patients (%) =  $100 \times (\text{number of neonates treated with at least one antimicrobial} / \text{number of admitted neonates})$ .

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Antimicrobial prevalence (%) by activity

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Adults</b>					
Medical	49.5	46.3	55.7	55.6	29.4
Surgical	51.7	44.6	56.9	59.4	38.9
ICU	62.1	68.4	76.7	75.9	73.3
<b>Children</b>					
Medical	38.5	42.7	62.1	61.5	31.5
Surgical	78.6	100.0	61.5	78.2	36.8
ICU	100.0	62.5	73.8	75.0	41.4
<b>Neonates</b>					
GNMW	0.0	4.4	47.3	25.6	5.5
NICU	28.6	33.3	66.7	67.7	26.9

Antimicrobial prevalence = 100\*(number of treated patients/number of admitted patients)  
 Antimicrobial prevalence by activity for adults, children and neonates separately for the hospital, country, continent to which the hospital belongs; and the continental results for the hospital type to which the hospital belongs (possible types are primary + secondary level, tertiary level, paediatric and infectious diseases + specialized hospital).

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

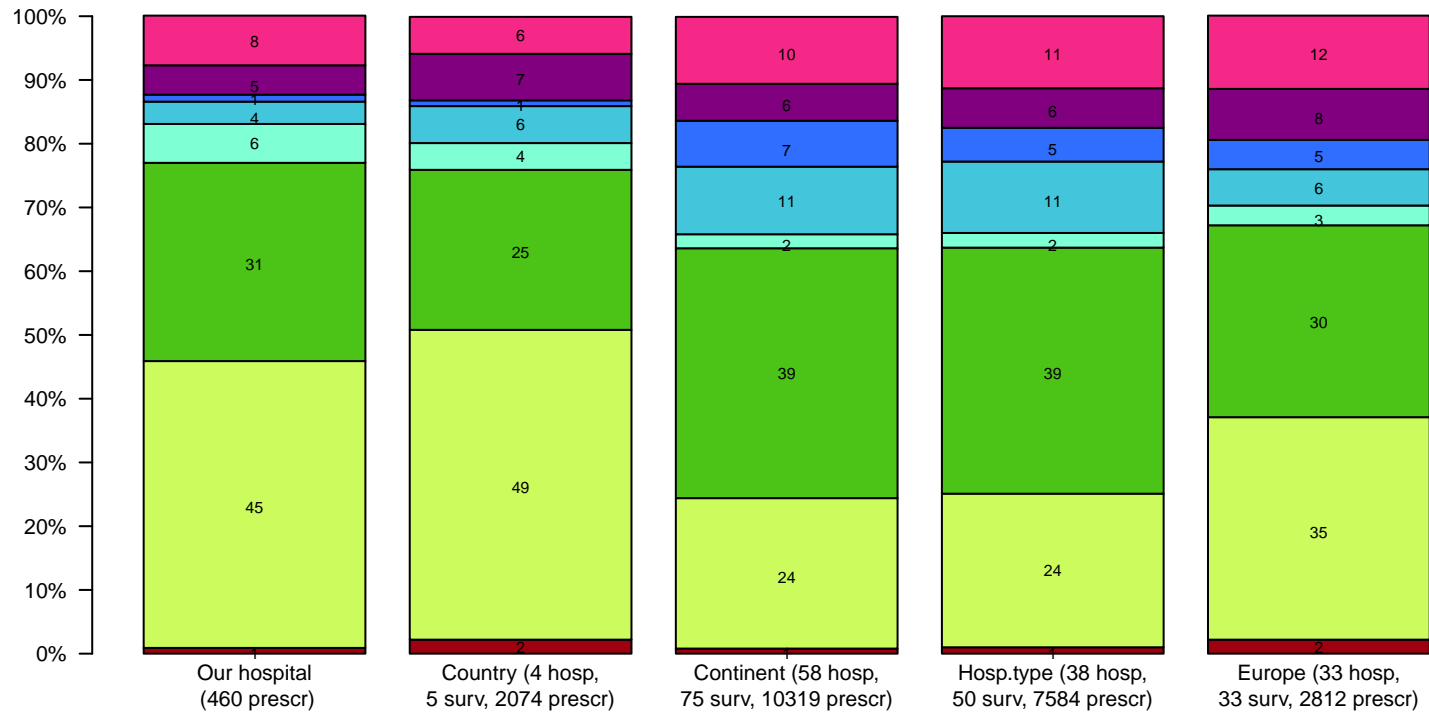
## Prevalence of patients prescribed at least one antimicrobial on day of survey

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>N admitted patients (=denominator)</b>	889		4116		12543		9269		7149	
<b>N patients on antimicrobials</b>	433	48.7	1902	46.2	7403	59.0	5485	59.2	2343	32.8
<b>N patients with antibacterials for systemic use</b>	396	44.5	1779	43.2	7111	56.7	5256	56.7	2237	31.3
<b>N patients with antimycotics or antifungals for systemic use</b>	45	5.1	66	1.6	466	3.7	376	4.1	65	0.9
<b>N patients with drugs for treatment of tuberculosis</b>	9	1.0	43	1.0	141	1.1	119	1.3	33	0.5
<b>N patients with antivirals for systemic use</b>	60	6.7	163	4.0	695	5.5	604	6.5	110	1.5
<b>N patients with antibiotics used as intestinal anti–infectives</b>	16	1.8	56	1.4	94	0.7	85	0.9	40	0.6
<b>N patients with nitroimidazole derivatives</b>	0	0.0	40	1.0	100	0.8	77	0.8	58	0.8
<b>N patients with antimalarials</b>	11	1.2	13	0.3	16	0.1	14	0.2	0	0.0

N = number. ATC codes used : antibacterials for systemic use = J01; antimycotics = D01BA; antifungals for systemic use = J02; drug for the treatment of tuberculosis = J04A; antivirals for systemic use = J05; antibiotics used as intestinal anti–infectives = A07A; nitroimidazole derivatives = P01AB; antimalarials = P01B.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

# Overall proportional antibiotic use



- Tetracyclines
- Macrolides, Lincosamides and Streptogramins
- Penicillins
- Aminoglycosides
- Other beta-lactams
- Quinolones
- Sulfonamides and Trimethoprim
- Other antibacterials

Percentage of antibacterials for systemic use (ATC J01) at ATC3 level (pharmacological subgroup). Proportional antibiotic use below 0.5% is not reported.

hosp = hospitals, surv = surveys, prescr = prescriptions.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Proportional antibiotic use (% of prescriptions)

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01AA	Tetracyclines	0.9	2.2	0.8	1.0	2.2
J01CA	Penicillins with extended spectrum	2.2	1.2	8.5	7.2	5.9
J01CE	Beta-lactamase sensitive penicillins	1.3	1.4	0.6	0.7	0.9
J01CF	Beta-lactamase resistant penicillins	1.3	1.1	0.6	0.7	2.0
J01CR	Penicillins incl. beta-lactam. inh.	40.2	45.0	13.7	15.4	26.1
J01DB	First-generation cephalosporins	7.6	8.3	3.1	2.4	5.6
J01DD	Third-generation cephalosporins	14.3	8.5	17.9	17.6	16.6
J01DE	Fourth-generation cephalosporins	2.2	0.8	1.6	2.0	0.6
J01DH	Carbapenems	7.0	6.8	8.1	9.0	5.1
J01EE	Comb. Sulfonamides/trimethoprim	6.1	4.2	2.2	2.3	2.4
J01FA	Macrolides	1.5	4.1	6.7	6.9	4.2
J01FF	Lincosamides	2.0	1.7	3.9	4.2	1.5
J01MA	Fluoroquinolones	4.6	7.3	5.8	6.2	8.0
J01XA	Glycopeptide antibacterials	2.0	2.9	5.0	5.1	3.8
J01XD	Imidazole derivatives	5.7	2.6	4.1	4.4	6.2

Our hospital: 460 prescriptions, 396 treated patients; Country: 2074 prescriptions, 4 hospitals, 5 surveys  
 Continent: 10319 prescriptions, 58 hospitals, 75 surveys; Type: 7584 prescriptions, 38 hospitals, 50 surveys  
 Europe: 2812 prescriptions, 33 hospitals, 33 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

## Proportional antibiotic use (% of prescriptions) – Adult Medical Ward

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01AA	Tetracyclines	2.1	2.5	1.1	1.2	3.4
J01CA	Penicillins with extended spectrum	3.6	1.0	6.2	6.2	6.8
J01CE	Beta-lactamase sensitive penicillins	0.7	0.9	0.2	0.2	0.8
J01CF	Beta-lactamase resistant penicillins	2.1	1.3	0.4	0.3	2.5
J01CR	Penicillins incl. beta-lactam. inh.	47.1	47.8	18.5	19.3	31.9
J01DB	First-generation cephalosporins	6.4	8.3	3.0	2.4	2.1
J01DD	Third-generation cephalosporins	12.1	8.4	20.0	20.4	12.1
J01DE	Fourth-generation cephalosporins	1.4	0.9	1.5	1.6	0.8
J01DH	Carbapenems	6.4	5.4	7.2	7.9	4.5
J01EE	Comb. Sulfonamides/trimethoprim	5.0	2.7	0.9	1.1	2.5
J01FA	Macrolides	2.1	4.4	11.5	11.6	5.7
J01FF	Lincosamides	2.1	1.9	4.2	4.5	1.3
J01MA	Fluoroquinolones	3.6	8.5	6.6	6.2	10.5
J01XA	Glycopeptide antibacterials	2.1	2.7	2.9	3.1	2.7
J01XD	Imidazole derivatives	2.1	2.1	3.3	3.3	4.9

Our hospital: 140 prescriptions, 128 treated patients; Country: 1264 prescriptions, 4 hospitals, 5 surveys  
 Continent: 4598 prescriptions, 54 hospitals, 69 surveys; Type: 3488 prescriptions, 36 hospitals, 48 surveys  
 Europe: 1260 prescriptions, 30 hospitals, 30 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

## Proportional antibiotic use (% of prescriptions) – Adult Surgical Ward

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01CA	Penicillins with extended spectrum	1.2	1.7	4.4	5.2	2.1
J01CE	Beta-lactamase sensitive penicillins	0.6	1.5	1.0	0.5	0.5
J01CR	Penicillins incl. beta-lactam. inh.	37.4	45.9	14.0	15.6	23.2
J01DB	First-generation cephalosporins	11.7	11.6	7.9	6.1	13.8
J01DD	Third-generation cephalosporins	21.6	8.9	15.6	16.6	21.1
J01DE	Fourth-generation cephalosporins	1.2	0.4	0.7	0.9	0.2
J01DH	Carbapenems	2.3	5.0	3.2	3.4	3.8
J01EE	Comb. Sulfonamides/trimethoprim	1.2	1.9	0.8	0.7	1.5
J01FA	Macrolides		2.3	3.3	2.7	0.9
J01FF	Lincosamides	2.9	2.3	5.6	5.8	1.7
J01MA	Fluoroquinolones	6.4	7.1	6.4	6.5	6.7
J01XA	Glycopeptide antibacterials	2.9	2.9	2.8	2.9	5.1
J01XD	Imidazole derivatives	10.5	4.6	9.2	9.8	8.3

Our hospital: 171 prescriptions, 144 treated patients; Country: 482 prescriptions, 4 hospitals, 5 surveys  
 Continent: 1446 prescriptions, 37 hospitals, 46 surveys; Type: 1163 prescriptions, 27 hospitals, 34 surveys  
 Europe: 867 prescriptions, 28 hospitals, 28 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

# Proportional antibiotic use (% of prescriptions) – [Adult] Intensive Care Unit

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01AA	Tetracyclines	2.3	2.3	2.3	2.6	1.4
J01CA	Penicillins with extended spectrum	2.3	0.8	4.2	4.0	1.9
J01CE	Beta-lactamase sensitive penicillins	2.3	3.1	0.1	0.1	
J01CF	Beta-lactamase resistant penicillins	2.3		0.4	0.4	1.4
J01CR	Penicillins incl. beta-lactam. inh.	14.0	38.9	11.9	11.8	24.2
J01DB	First-generation cephalosporins	9.3	4.6	1.8	1.6	1.9
J01DD	Third-generation cephalosporins	16.3	8.4	14.7	14.2	17.5
J01DE	Fourth-generation cephalosporins	7.0	0.8	3.0	3.1	0.9
J01DH	Carbapenems	30.2	20.6	18.7	19.4	14.2
J01EE	Comb. Sulfonamides/trimethoprim	7.0	3.1	2.3	2.5	1.4
J01FA	Macrolides	4.7	6.1	5.4	4.8	1.9
J01FF	Lincosamides	2.3		3.3	3.2	0.9
J01MA	Fluoroquinolones		2.3	7.9	7.9	4.3
J01XA	Glycopeptide antibacterials		6.1	8.5	9.3	9.0

Our hospital: 43 prescriptions, 34 treated patients; Country: 131 prescriptions, 4 hospitals, 5 surveys  
 Continent: 1083 prescriptions, 46 hospitals, 60 surveys; Type: 956 prescriptions, 33 hospitals, 44 surveys  
 Europe: 211 prescriptions, 22 hospitals, 22 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level



## Proportional antibiotic use (% of prescriptions) – Paediatric Medical Ward

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01CA	Penicillins with extended spectrum	3.8		11.4	9.8	15.3
J01CF	Beta-lactamase resistant penicillins	7.7		1.9	1.9	2.3
J01CR	Penicillins incl. beta-lactam. inh.	34.6		7.6	10.3	16.0
J01DB	First-generation cephalosporins	3.8		1.4	0.9	3.8
J01DC	Second-generation cephalosporins			6.5	5.3	0.8
J01DD	Third-generation cephalosporins	15.4		25.9	22.0	26.0
J01DE	Fourth-generation cephalosporins	3.8		1.2	1.7	
J01DH	Carbapenems	3.8		6.2	8.3	1.5
J01EE	Comb. Sulfonamides/trimethoprim	11.5		2.6	3.3	5.3
J01FA	Macrolides	3.8		1.9	2.6	12.2
J01XA	Glycopeptide antibacterials	3.8		8.8	8.7	1.5
J01XD	Imidazole derivatives	7.7		3.2	3.4	

Our hospital: 26 prescriptions, 23 treated patients; Country: 29 prescriptions, 1 hospitals, 1 surveys  
 Continent: 1078 prescriptions, 46 hospitals, 56 surveys; Type: 642 prescriptions, 28 hospitals, 33 surveys  
 Europe: 131 prescriptions, 20 hospitals, 20 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

# Proportional antibiotic use (% of prescriptions) – Community Acquired Infections

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01AA	Tetracyclines	0.9	2.4	0.7	0.9	2.8
J01CA	Penicillins with extended spectrum	1.8	1.4	7.7	6.6	8.0
J01CE	Beta-lactamase sensitive penicillins	0.9	1.4	0.7	0.7	0.6
J01CF	Beta-lactamase resistant penicillins	1.8	1.3	0.8	0.7	1.7
J01CR	Penicillins incl. beta-lactam. inh.	47.0	48.2	16.1	18.8	28.4
J01DB	First-generation cephalosporins	2.8	8.0	0.6	0.4	0.9
J01DD	Third-generation cephalosporins	18.4	10.3	22.7	21.6	17.2
J01DE	Fourth-generation cephalosporins	2.8	0.4	1.7	2.0	0.4
J01DH	Carbapenems	3.2	4.1	7.2	8.0	5.5
J01EE	Comb. Sulfonamides/trimethoprim	0.5	1.2	0.7	0.8	1.0
J01FA	Macrolides	1.8	5.7	10.8	11.4	4.9
J01FF	Lincosamides	3.7	2.4	4.6	4.8	1.7
J01MA	Fluoroquinolones	5.1	7.3	6.0	5.9	9.1
J01XA	Glycopeptide antibacterials	0.9	1.6	4.5	4.1	3.7
J01XD	Imidazole derivatives	7.4	3.1	3.4	3.7	6.5

Our hospital: 217 prescriptions, 187 treated patients; Country: 1271 prescriptions, 4 hospitals, 5 surveys  
 Continent: 5351 prescriptions, 58 hospitals, 75 surveys; Type: 3970 prescriptions, 38 hospitals, 50 surveys  
 Europe: 1631 prescriptions, 32 hospitals, 32 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

## Proportional antibiotic use (% of prescriptions) – Healthcare Associated Infections

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01CA	Penicillins with extended spectrum	0.8	0.9	6.1	5.6	3.5
J01CF	Beta-lactamase resistant penicillins	1.5	1.3	0.5	0.5	3.0
J01CR	Penicillins incl. beta-lactam. inh.	47.3	47.5	12.8	13.3	31.2
J01DB	First-generation cephalosporins	2.3	2.8	0.7	0.7	0.7
J01DD	Third-generation cephalosporins	10.7	4.9	12.6	12.2	13.3
J01DE	Fourth-generation cephalosporins	3.1	2.3	2.8	3.1	1.7
J01DH	Carbapenems	19.1	16.2	18.4	18.3	8.1
J01EE	Comb. Sulfonamides/trimethoprim	1.5	2.1	1.6	1.8	4.0
J01FA	Macrolides	0.8	0.4	2.4	2.4	1.0
J01FF	Lincosamides	0.8	0.6	3.1	3.3	1.0
J01GB	Other aminoglycosides		1.1	7.9	6.8	3.0
J01MA	Fluoroquinolones	4.6	9.6	8.4	8.7	9.6
J01XA	Glycopeptide antibacterials	3.8	6.2	10.2	9.7	6.9
J01XD	Imidazole derivatives	3.1	0.9	2.8	3.1	4.6
J01XE	Nitrofurans derivatives	0.8		0.1	0.1	1.5

Our hospital: 131 prescriptions, 122 treated patients; Country: 531 prescriptions, 4 hospitals, 5 surveys  
 Continent: 2006 prescriptions, 56 hospitals, 71 surveys; Type: 1667 prescriptions, 36 hospitals, 47 surveys  
 Europe: 593 prescriptions, 29 hospitals, 29 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

# Proportional antibiotic use (% of prescriptions) – Surgical Prophylaxis

ATC4	Antibiotics Subgroup	Our Hospital	Country	Continent	Type	Europe
J01CR	Penicillins incl. beta-lactam. inh.	27.0	22.0	12.9	11.4	12.4
J01DB	First-generation cephalosporins	41.3	45.5	14.0	12.5	35.8
J01DC	Second-generation cephalosporins		1.6	30.0	29.9	3.3
J01DD	Third-generation cephalosporins	19.0	11.4	12.4	14.0	23.1
J01DH	Carbapenems		1.6	1.3	1.2	0.6
J01FF	Lincosamides		2.4	4.2	4.5	1.7
J01GB	Other aminoglycosides		1.6	3.6	3.1	6.3
J01MA	Fluoroquinolones		1.6	2.7	3.2	1.7
J01XA	Glycopeptide antibacterials	3.2	4.9	1.9	2.4	1.4
J01XD	Imidazole derivatives	9.5	6.5	8.6	9.2	9.4

Our hospital: 63 prescriptions, 57 treated patients; Country: 123 prescriptions, 4 hospitals, 5 surveys  
 Continent: 1499 prescriptions, 54 hospitals, 68 surveys; Type: 1062 prescriptions, 37 hospitals, 47 surveys  
 Europe: 363 prescriptions, 28 hospitals, 28 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

10 most prescribed ATC4 at country level plus 5 extra ATC4 at hospital level which do not fall within top 10 at country level

# Proportional antimicrobial use (% of prescriptions) – Medical Prophylaxis

ATC4	Antimicrobials Subgroup	Our Hospital	Country	Continent	Type	Europe
J01	Antibacterials for systemic use					
J01CA	Penicillins–extended spectrum	1.6	1.0	7.3	6.1	5.9
J01CR	Comb penicillins incl. B–lact.Inh	29.6	36.7	11.8	13.0	26.1
J01DB	First–gen. cephalosporins	5.6	6.8	2.7	2.0	5.6
J01DC	Second–gen. cephalosporins		0.4	7.2	6.2	1.8
J01DD	Third–gen. cephalosporins	10.6	7.0	15.4	14.9	16.6
J01DH	Carbapenems	5.1	5.6	7.0	7.6	5.1
J01FA	Macrolides	1.1	3.3	5.8	5.9	4.2
J01GB	Other aminoglycosides	0.6	0.7	6.2	4.5	4.6
J02	Antimycotics and antifungals for systemic use					
J02AC	Triazole derivatives	5.4	1.9	2.9	3.2	
J05	Antivirals for systemic use					
J05AB	Nucleosides/nucleotides excl RTI	6.7	3.3	1.4	1.7	

Our hospital: 636 prescriptions, 434 treated patients; Country: 2559 prescriptions, 4 hospitals, 5 surveys  
 Continent: 12073 prescriptions, 58 hospitals, 75 surveys; Type: 9065 prescriptions, 38 hospitals, 50 surveys  
 Europe: 3252 prescriptions, 33 hospitals, 33 surveys

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

5 most prescribed at hospital level plus 5 extra ATC4 at continental level which do not fall within top 5 at hospital level

## Therapeutic antimicrobial use for community acquired and healthcare associated infections by type of treatment

	CAI Empiric		CAI Targeted		CAI Total	
	N	%	N	%	N	%
<b>Our hospital 2021–P3</b>	174	69.3	77	30.7	251	60.8
<b>Country</b>	1083	71.6	430	28.4	1513	71.2
<b>Continent</b>	5568	88.0	760	12.0	6328	73.6
<b>Hospital type</b>	4156	86.4	652	13.6	4808	71.8

	HAI Empiric		HAI Targeted		HAI Total	
	N	%	N	%	N	%
<b>Our hospital 2021–P3</b>	112	69.1	50	30.9	162	39.2
<b>Country</b>	392	64.1	220	35.9	612	28.8
<b>Continent</b>	1587	70.1	678	29.9	2265	26.4
<b>Hospital type</b>	1311	69.4	577	30.6	1888	28.2

CAI= Community Acquired Infections; HAI=Healthcare Associated Infections

Type of treatment= empiric versus targeted treatment.

For each subgroup of therapeutic use (CAI or HAI) the number of antimicrobials and proportion (%) for empiric versus targeted prescribing is reported.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Prophylactic antimicrobial use by indication

	Medical		Surgical	
	N	%	N	%
<b>Our hospital 2021–P3</b>	130	67.4	63	32.6
<b>Country</b>	197	61.2	125	38.8
<b>Continent</b>	1514	49.9	1521	50.1
<b>Hospital type</b>	926	46.2	1077	53.8

Percentage of antimicrobials prescribed for medical or surgical prophylaxis. Antimicrobials include the antibacterials, antifungals and antivirals for systemic use as well as antibiotics used as intestinal anti-infectives and drugs to treat tuberculosis.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Ten most common diagnoses treated with therapeutic antimicrobials

Diagnosis	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
Pneu	61	17.6	470	26.9	2076	36.6	1656	36.4	474	25.0
SST	51	14.7	278	15.9	391	6.9	328	7.2	181	9.6
IA	50	14.5	172	9.8	250	4.4	221	4.9	203	10.7
Cys	31	9.0	125	7.1	237	4.2	173	3.8	163	8.6
Pye	24	6.9	119	6.8	205	3.6	171	3.8	113	6.0
BJ	19	5.5	78	4.5	107	1.9	67	1.5	51	2.7
SEPSIS	13	3.8	44	2.5	290	5.1	226	5.0	111	5.9
PUO	11	3.2	28	1.6	29	0.5	27	0.6	12	0.6
FN	10	2.9	17	1.0	79	1.4	61	1.3	8	0.4
LUNG	9	2.6	13	0.7	25	0.4	22	0.5	8	0.4

Top ten diagnoses in our hospital. Count on the number of diagnoses treated with at least one antimicrobial. This implies that a patient with multiple diagnoses can be counted several times. Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis.

Country: Country Continent: East & South Asia Hospital type: Tertiary hospital

CNS=infection of central nervous system; Eye=eye infections; ENT=ear, nose and throat infections; URTI=upper respiratory tract infection; Bron=bronchitis; Pneu=Pneumonia or lower respiratory tract infection; TB=tuberculosis; CVS=cardiovascular system infections; GI=gastro-intestinal infections; IA=intra-abdominal sepsis; SST=skin and soft tissue; BJ=bone/joint infections; Cys=lower urinary tract infection; Pye=Upper urinary tract infection; OBGY=obstetric/gynaecological infections; GUM=genito-urinary males; BAC=bacteraemia; PUO=pyrexia of unknown origin; PUO-HO=fever syndrome in non-neutropaenic haematology-oncology patient; FN=fever neutropaenic patient; LYMPH=infection lymphatics



## Summary of quality indicators for antibiotic use

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>Medical</b>										
Reason in notes	193	87.3	1353	94.7	4514	75.2	3400	77.2	1374	86.8
Guidelines missing	38	17.2	239	16.7	343	5.7	320	7.3	136	8.6
Guideline compliant	143	82.2	782	74.9	3447	84.8	2598	88.5	744	73.0
Stop/review date documented	137	62.0	832	58.3	2820	47.0	2171	49.3	654	41.3
<b>Surgical</b>										
Reason in notes	143	76.1	416	83.2	1327	63.4	998	66.3	773	83.0
Guidelines missing	22	11.7	83	16.6	215	10.3	197	13.1	50	5.4
Guideline compliant	101	72.7	255	72.6	835	56.6	658	64.8	414	75.3
Stop/review date documented	114	60.6	261	52.2	911	43.5	649	43.1	386	41.5
<b>ICU</b>										
Reason in notes	39	76.5	138	94.5	1740	78.3	1301	77.7	259	86.9
Guidelines missing	3	5.9	18	12.3	110	5.0	100	6.0	39	13.1
Guideline compliant	33	86.8	89	84.0	1123	85.9	883	90.1	142	77.2
Stop/review date	36	70.6	78	53.4	1095	49.3	874	52.2	97	32.6

Antibiotic quality indicators by activity (medical, surgery, ICU) for all patients receiving antibacterials for systemic use (ATC J01).

– For reason in notes and stop/review date documented: Count at antibacterial level.

– For guidelines missing: Count on NA (= no guideline for an indication) at patient level and diagnosis over total scores for this indicator.

– For guideline compliance: Count at patient level and diagnosis for compliance= yes or no only. For combination therapy with >1 antibiotic: if 1 antibiotic by diagnosis is not compliant, this combination therapy as a whole for this diagnosis will be counted as non-compliant.

## Antibiotic quality indicators – adult wards

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>Medical</b>										
Reason in notes	179	88.2	1317	94.8	3423	75.9	2866	79.0	1235	86.2
Guidelines missing	29	14.3	239	17.2	277	6.1	266	7.3	124	8.7
Guideline compliant	136	82.4	750	74.3	2709	86.7	2197	88.4	666	72.2
Stop/review date documented	128	63.1	818	58.9	2268	50.3	1865	51.4	602	42.0
<b>Surgical</b>										
Reason in notes	135	77.1	410	83.0	1218	63.5	957	67.4	727	82.8
Guidelines missing	18	10.3	83	16.8	198	10.3	182	12.8	50	5.7
Guideline compliant	98	73.7	251	72.5	783	58.1	618	64.2	378	74.3
Stop/review date documented	109	62.3	261	52.8	816	42.5	610	43.0	362	41.2
<b>ICU</b>										
Reason in notes	31	72.1	123	94.6	858	76.5	760	76.9	216	93.1
Guidelines missing	3	7.0	18	13.8	62	5.5	62	6.3	39	16.8
Guideline compliant	28	84.8	77	81.9	617	88.5	550	89.6	106	72.1
Stop/review date documented	30	69.8	65	50.0	613	54.6	553	56.0	76	32.8

Antibiotic quality indicators by activity (medical, surgical, ICU) for patients admitted on adult wards receiving antibacterials for systemic use (ATC J01).

– For reason in notes and stop/review date documented: Count at antibacterial level.

– For guidelines missing: Count on NA (= no guideline for an indication) at patient level and diagnosis over total scores for this indicator.

– For guideline compliance: Count at patient level and diagnosis for compliance = yes or no only. For combination therapy with >1 antibiotic: if 1 antibiotic by diagnosis is not compliant, this combination therapy as a whole for this diagnosis will be counted as non-compliant.

## Antibiotic quality indicators – paediatric and neonatal wards

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>Medical</b>										
Reason in notes	14	77.8			1091	73.1	534	68.5	139	92.1
Guidelines missing	9	50.0			66	4.4	54	6.9	12	7.9
Guideline compliant	7	77.8			738	78.3	401	88.7	78	81.2
Stop/review date documented	9	50.0			552	37.0	306	39.3	52	34.4
<b>Surgical</b>										
Reason in notes	8	61.5			109	63.0	41	47.7	46	86.8
Guidelines missing	4	30.8			17	9.8	15	17.4	0	0.0
Guideline compliant	3	50.0			52	40.6	40	75.5	36	87.8
Stop/review date documented	5	38.5			95	54.9	39	45.3	24	45.3
<b>ICU</b>										
Reason in notes	8	100.0			882	80.2	541	78.9	43	65.2
Guidelines missing	0	0.0			48	4.4	38	5.5	0	0.0
Guideline compliant	5	100.0			506	82.8	333	91.0	36	97.3
Stop/review date documented	6	75.0			482	43.8	321	46.8	21	31.8

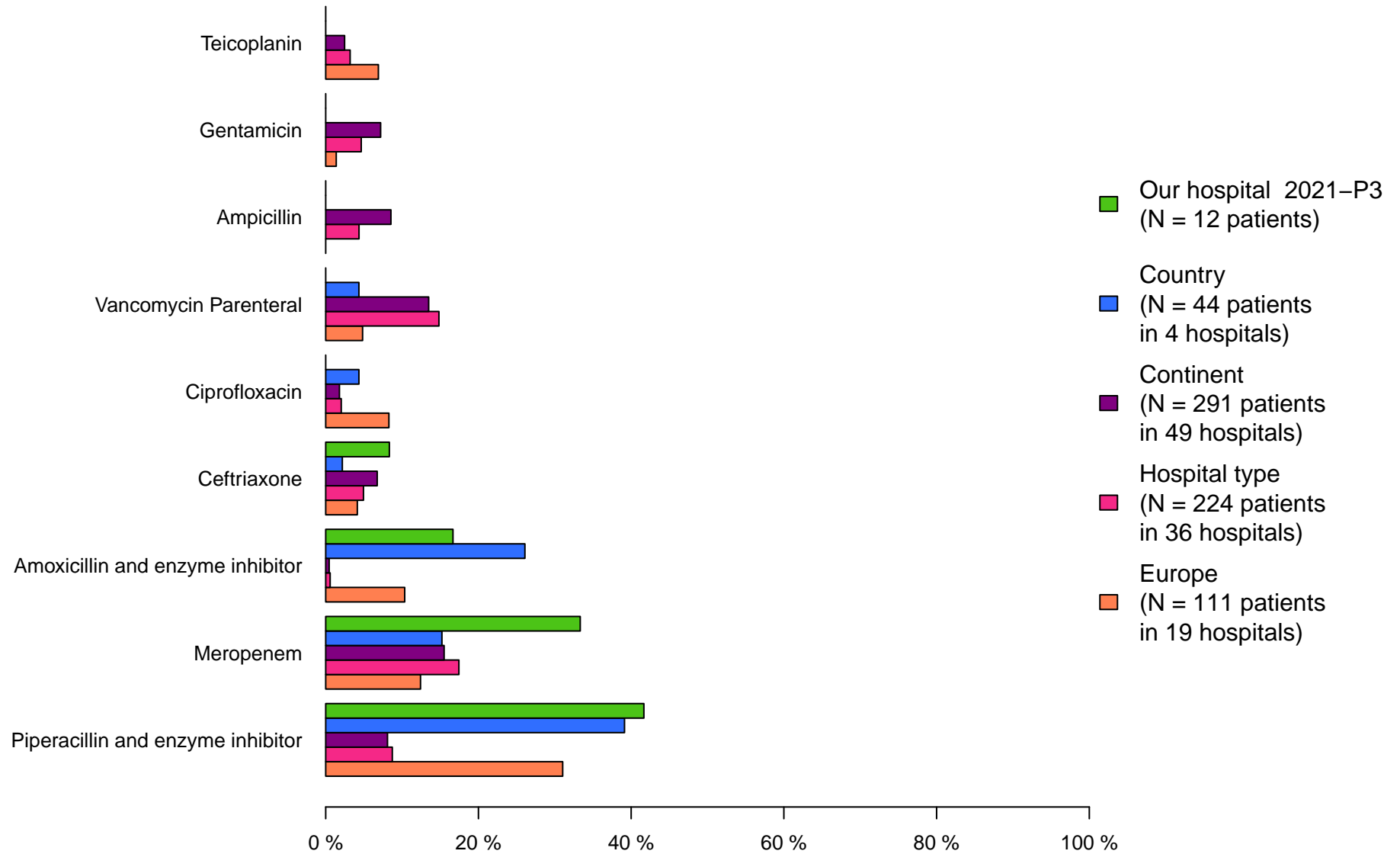
Antibiotic quality indicators by activity (medical, surgical, ICU) for patients admitted on paediatric and neonatal wards receiving antibacterials for systemic use (ATC J01).

– For reason in notes and stop/review date documented: Count at antibacterial level.

– For guidelines missing: Count on NA (= no guideline for an indication) at patient level and diagnosis over total scores for this indicator.

– For guideline compliance: Count at patient level and diagnosis for compliance = yes or no only. For combination therapy with >1 antibiotic: if 1 antibiotic by diagnosis is not compliant, this combination therapy as a whole for this diagnosis will be counted as non-compliant.

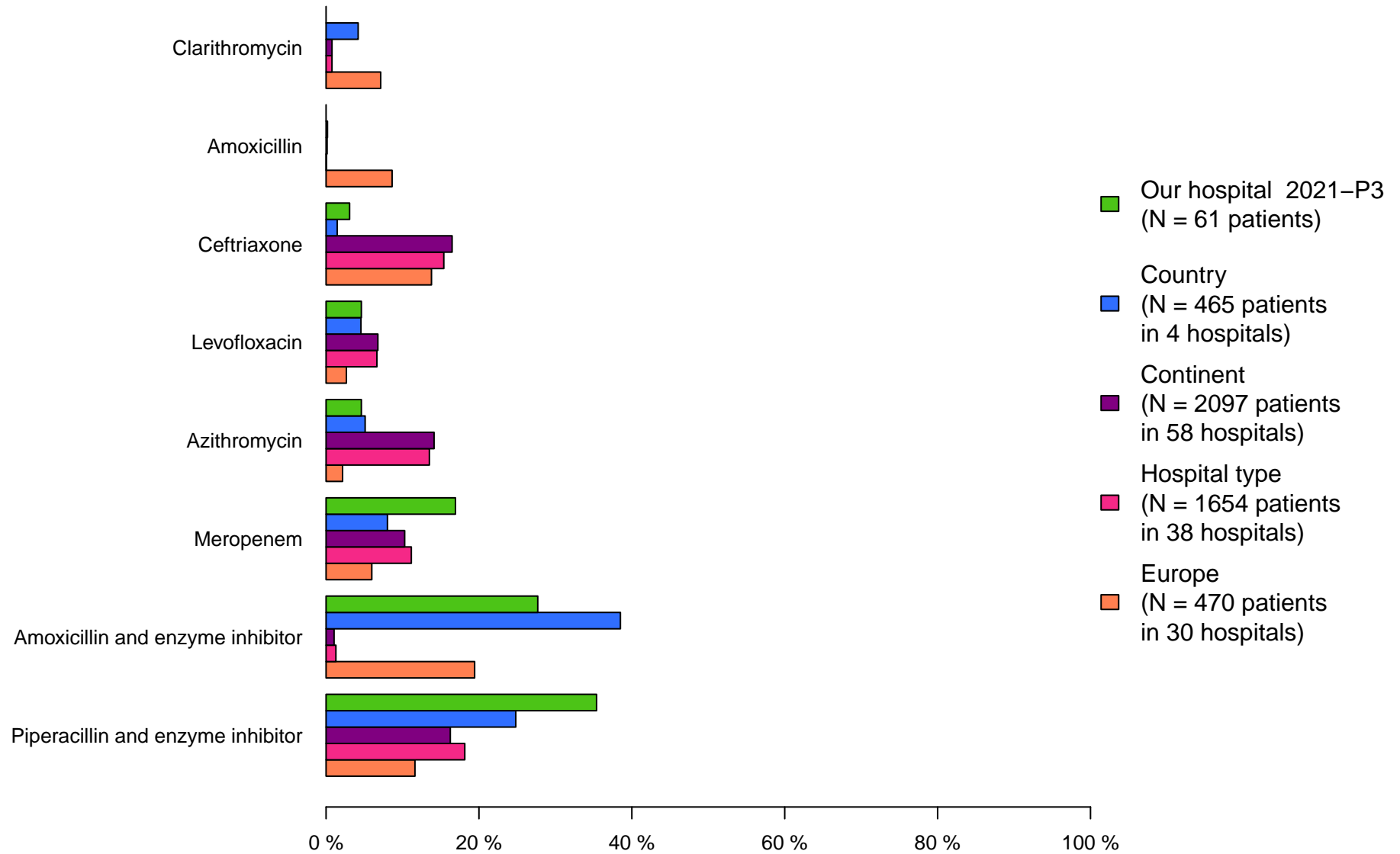
## Top 5 most frequently used antibiotics for sepsis in adults and children



Selection on antibacterials for systemic use (J01). Top 5 most prescribed antibiotics (ATC5, substance level) for sepsis at hospital level, supplemented with the most prescribed antibiotics at country, continental and hospital type level if they do not fall within top 5 of the hospital. Selection on diagnostic code = sepsis; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

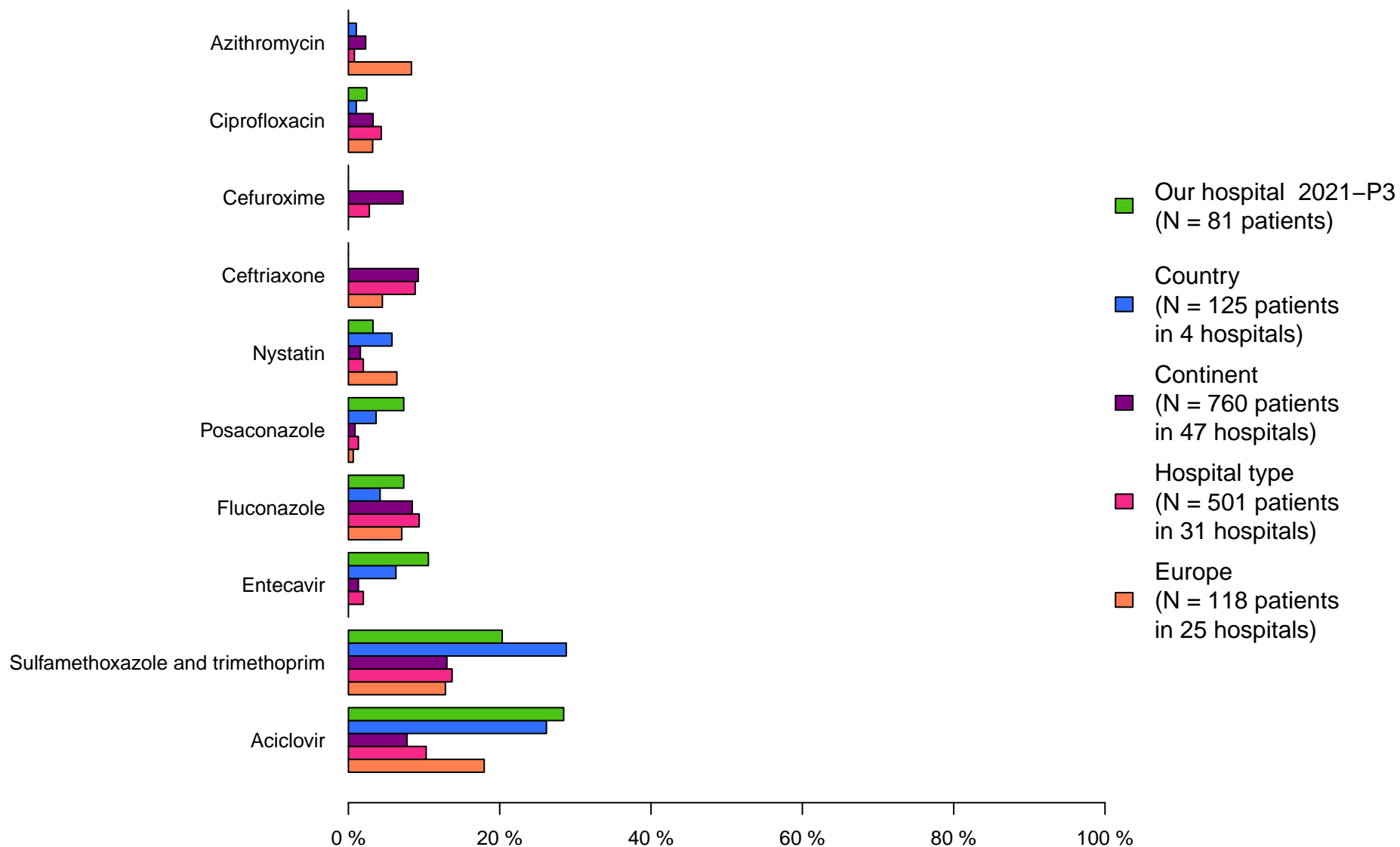
# Top 5 most frequently used antibiotics for pneumonia in adults and children



Selection on antibacterials for systemic use (J01). Top 5 most prescribed antibiotics (ATC5, substance level) for pneumonia at hospital level, supplemented with the most prescribed antibiotics at country, continent and hospital type level if they do not fall within top 5 of the hospital. Selection on diagnostic code = pneu; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

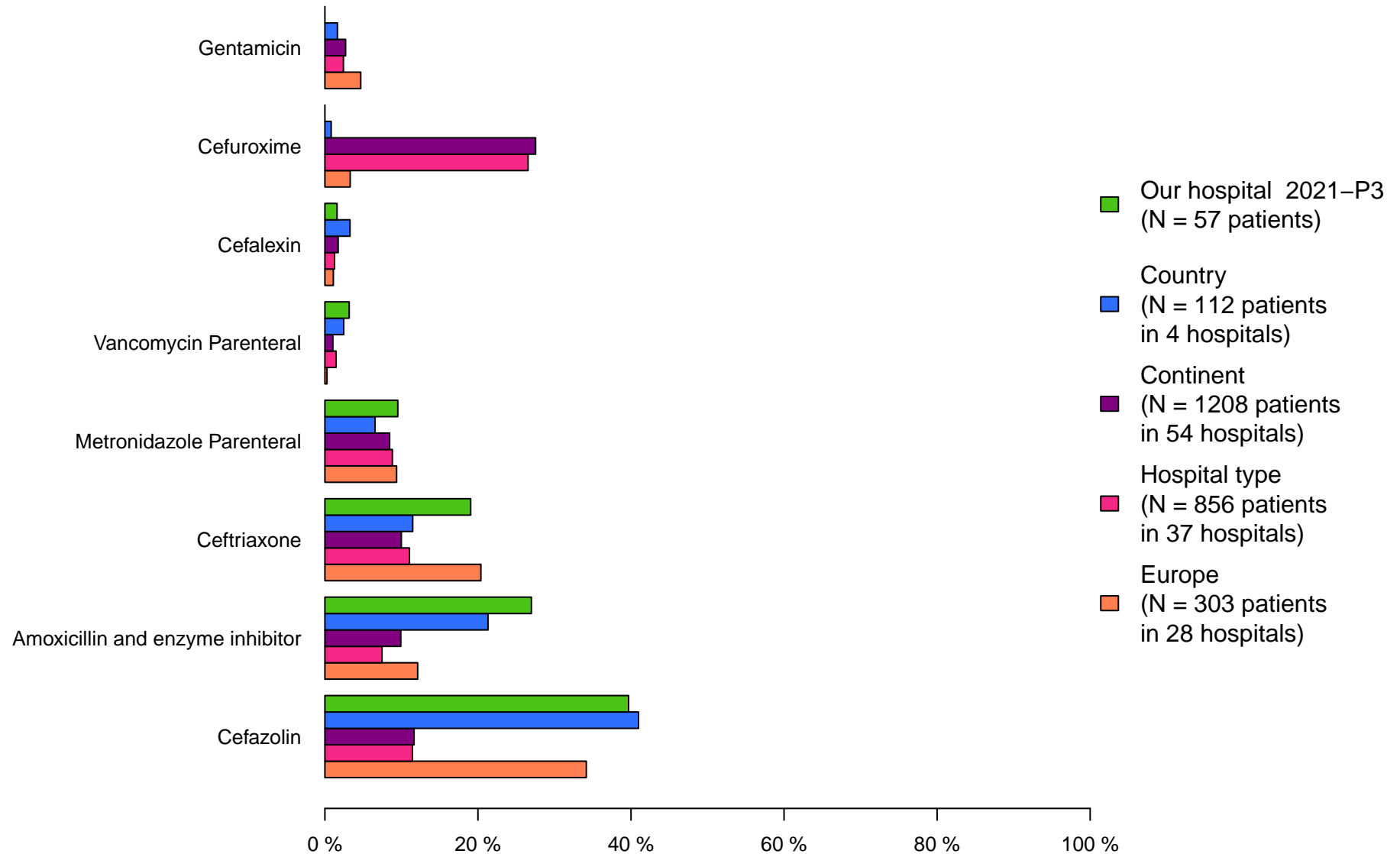
## Top 5 most frequently used antimicrobials for medical prophylaxis in adults and children



Top 5 most prescribed antimicrobials (ATC5, substance level) for medical prophylaxis at hospital level, supplemented with the most prescribed antimicrobials at country, continent and hospital type level if they do not fall within top 5 of the hospital. Selection on indication = MP; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

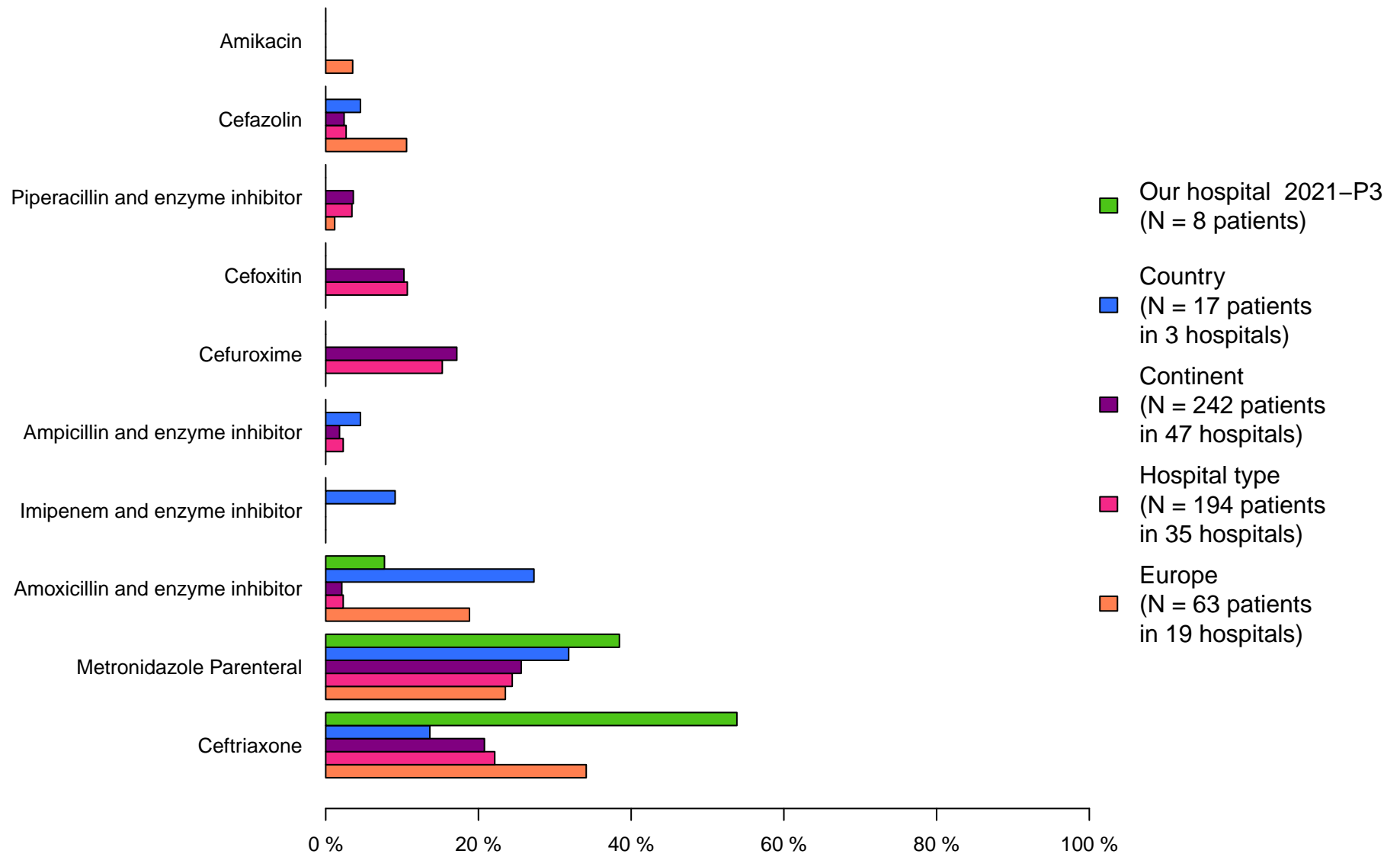
## Top 5 most frequently used antibiotics for surgical prophylaxis in adults and children



Top 5 most prescribed antibacterials for systemic use (ATC code J01) for surgical prophylaxis use at hospital level, supplemented with the most prescribed antibiotics at country, continent and hospital type level if they do not fall within the top 5 of the hospital. Selection on indication = SP; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

# Top 5 most frequently used antibiotics for surgical prophylaxis of the gastro-intestinal tract in adults and children

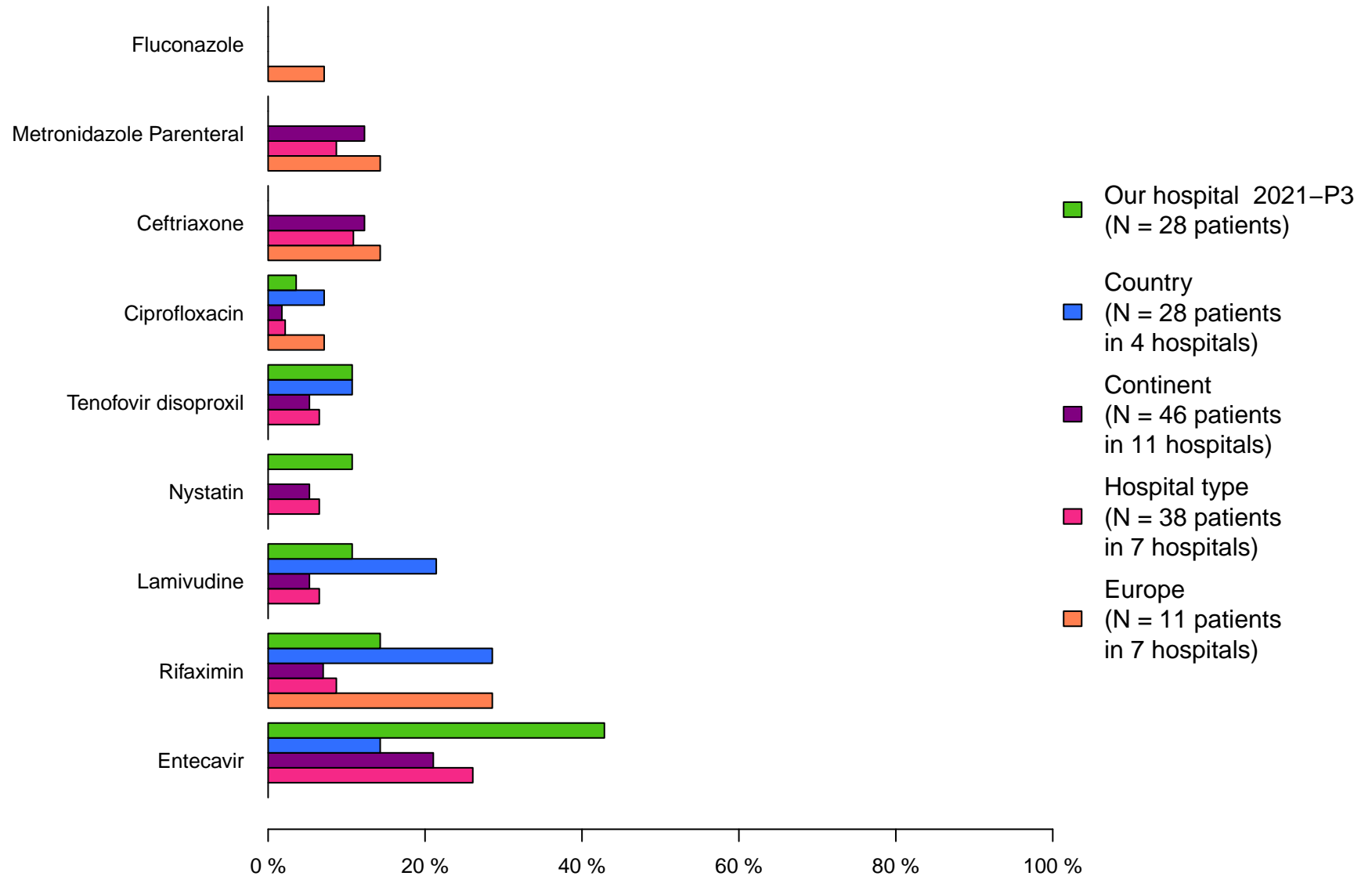


Selection on antibacterials for systemic use (J01). Top 5 antibiotics (ATC5, substance level) prescribed for surgical prophylaxis of the gastro-intestinal tract at hospital level, supplemented with the most prescribed antibiotics at country, continent and hospital type level if they do not fall within top 5 of the hospital. Selection on diagnostic code = Proph GI and indication = SP; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital



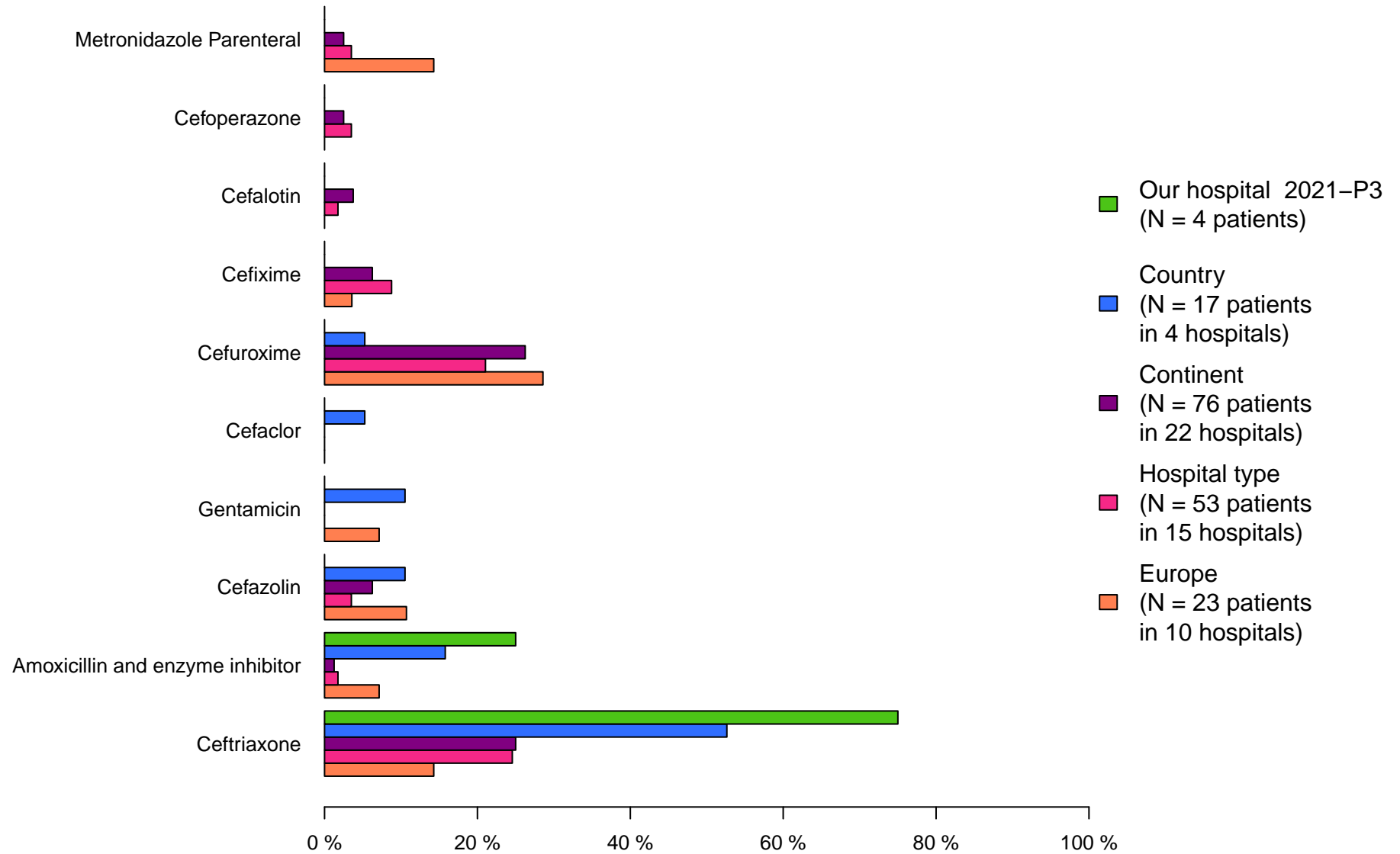
## Top 5 most frequently used antimicrobials for medical prophylaxis of the gastro–intestinal tract



Top 5 antimicrobials (ATC5, substance level) prescribed for medical prophylaxis of the gastro–intestinal tract at hospital level, supplemented with the most prescribed antimicrobials at country, continent and hospital type level if they do not fall within top 5 of the hospital. Selection on diagnostic code = Proph GI and indication = MP; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

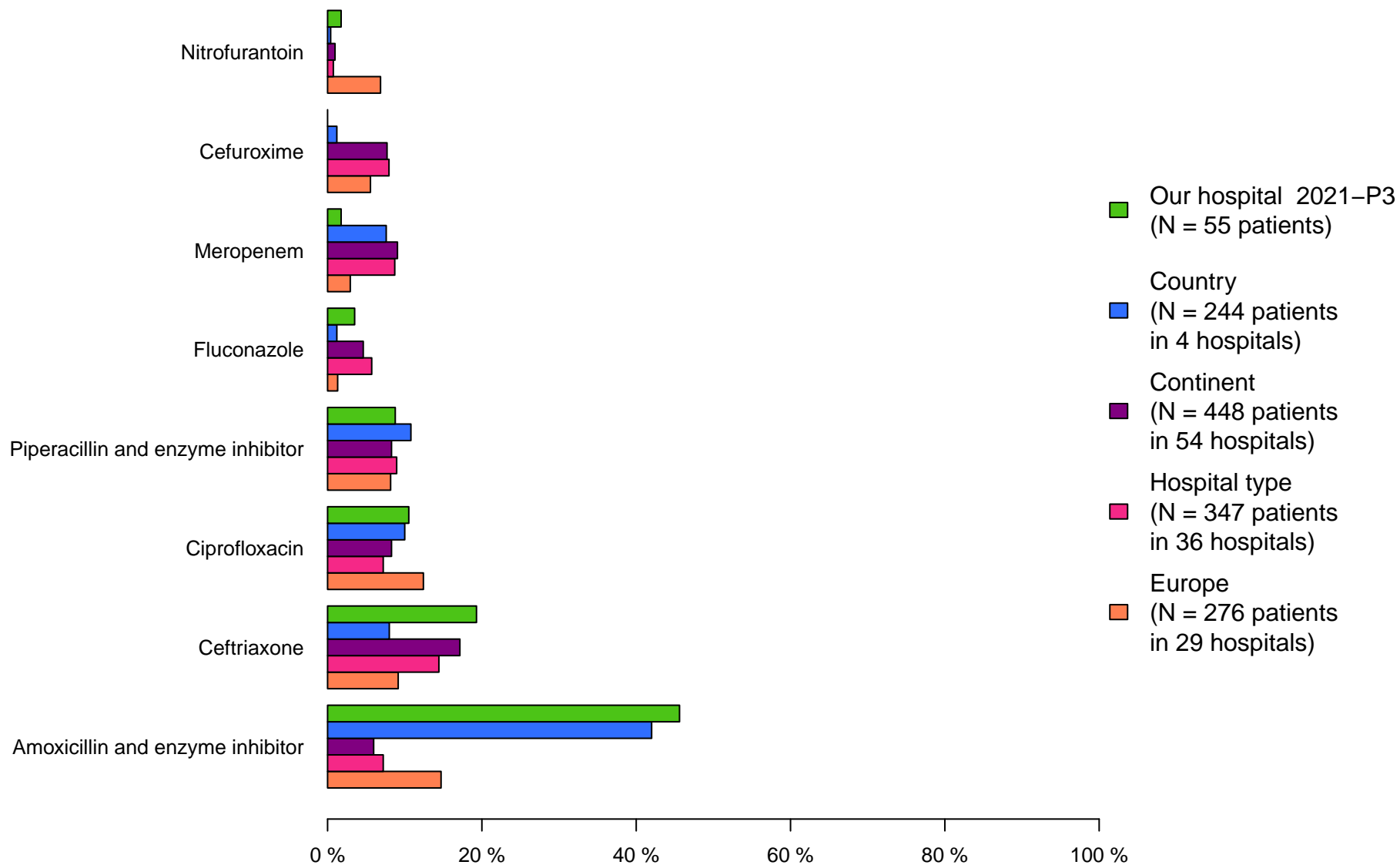
## Top 5 most frequently used antibiotics for surgical UTI prophylaxis



Selection on antibacterials for systemic use (J01). Top 5 antibiotics (ATC5, substance level) prescribed for surgical prophylaxis of the urinary tract at hospital level, supplemented with the most prescribed antibiotics at country, continent and hospital type level if they do not fall within top 5 of the hospital. Selection on diagnostic code = Proph UTI and indication = SP;  
All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

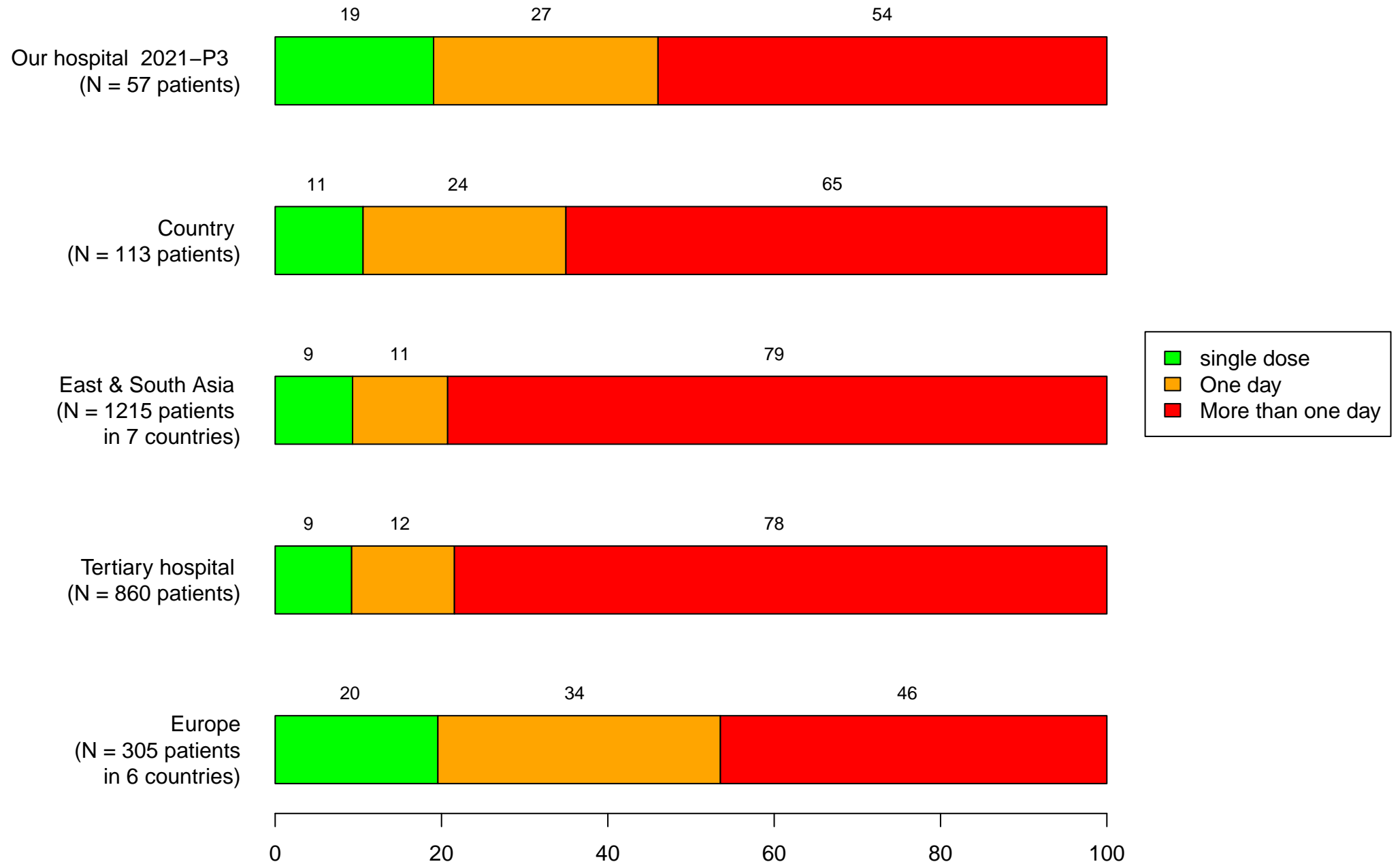
## Top 5 most frequently used antibiotics for lower (Cys) and upper (Pye) Urinary Tract Infections



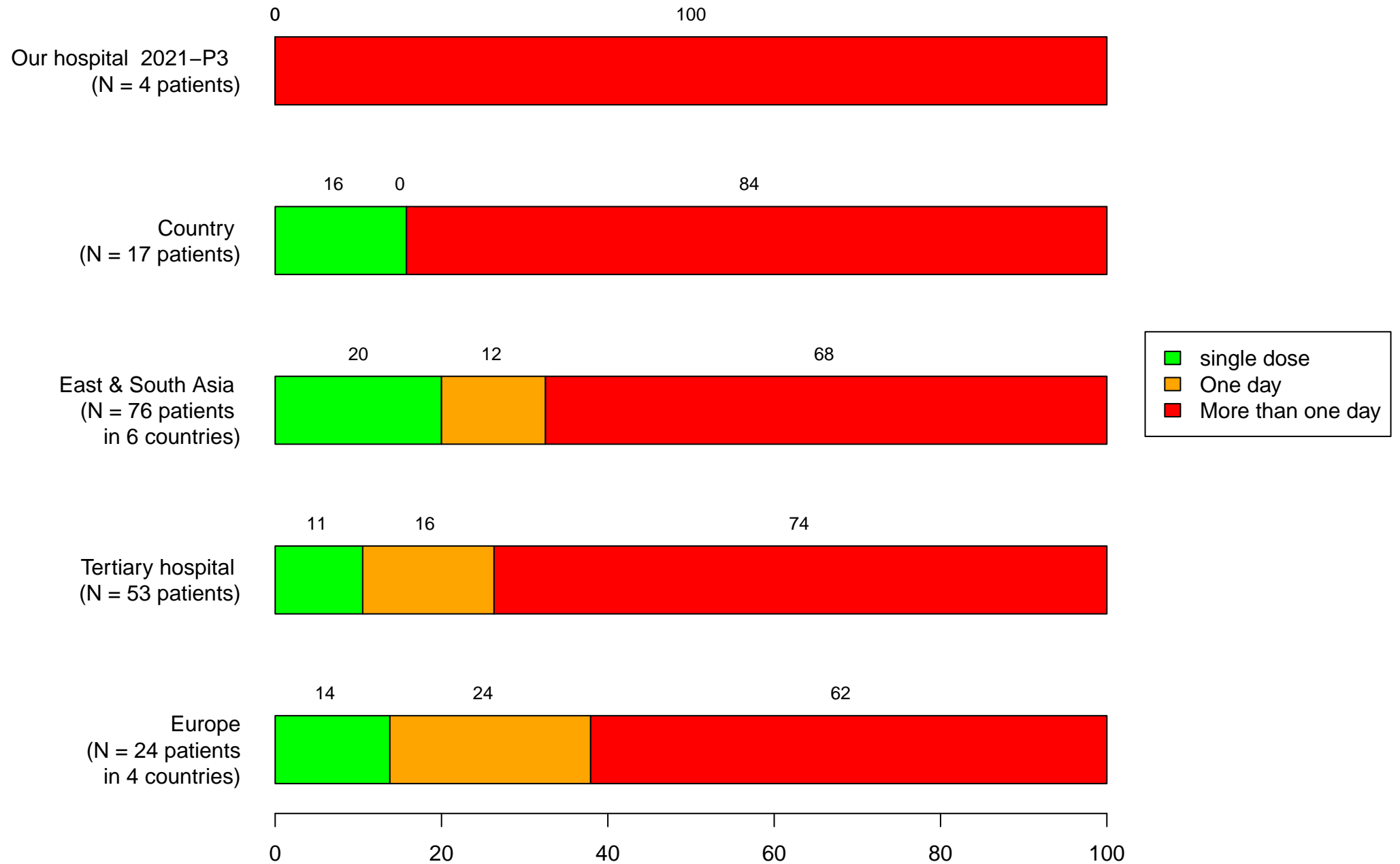
Selection on antibacterials for systemic use (J01). Top 5 most prescribed antibiotics (ATC5, substance level) for lower and upper urinary tract infections at hospital level, supplemented with the most prescribed antibiotics at country, continent and hospital type level if they do not fall within top 5 of the hospital. Selection on diagnostic code = Cys or Pye; All patients are included with exception of patients admitted on NMW and NICU.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

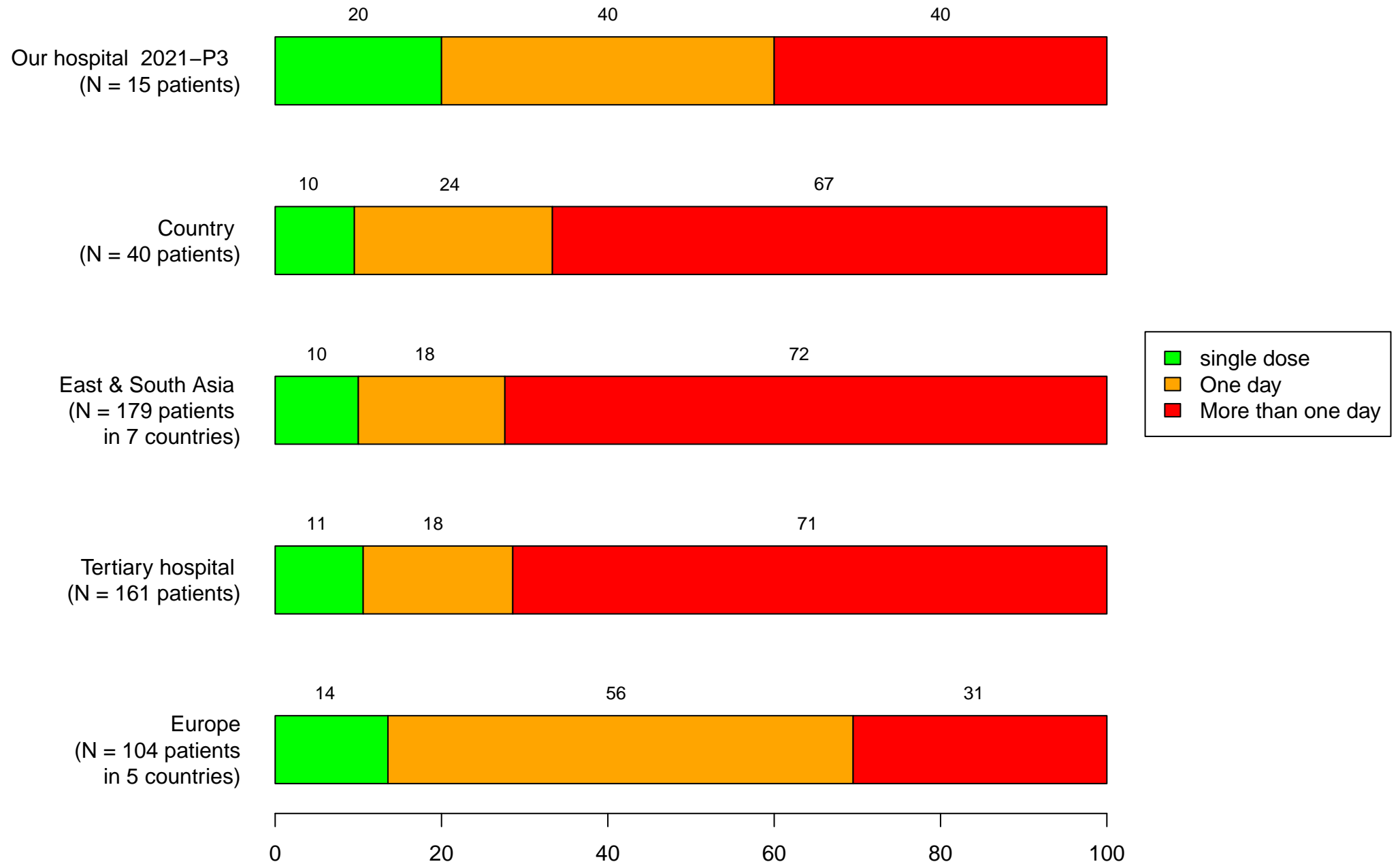
# Duration of surgical prophylaxis in adults and children



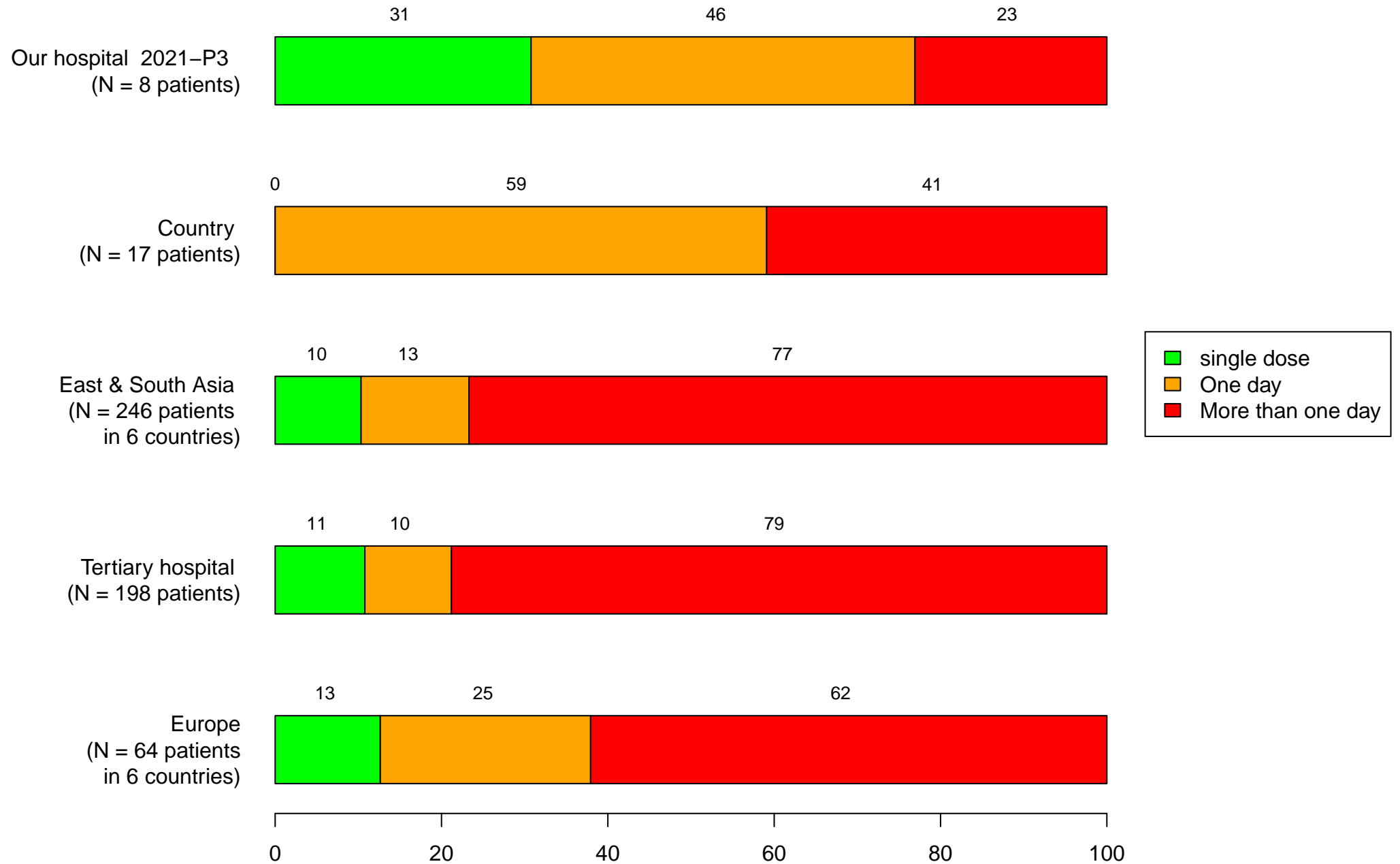
# Duration of UTI prophylaxis in adults and children



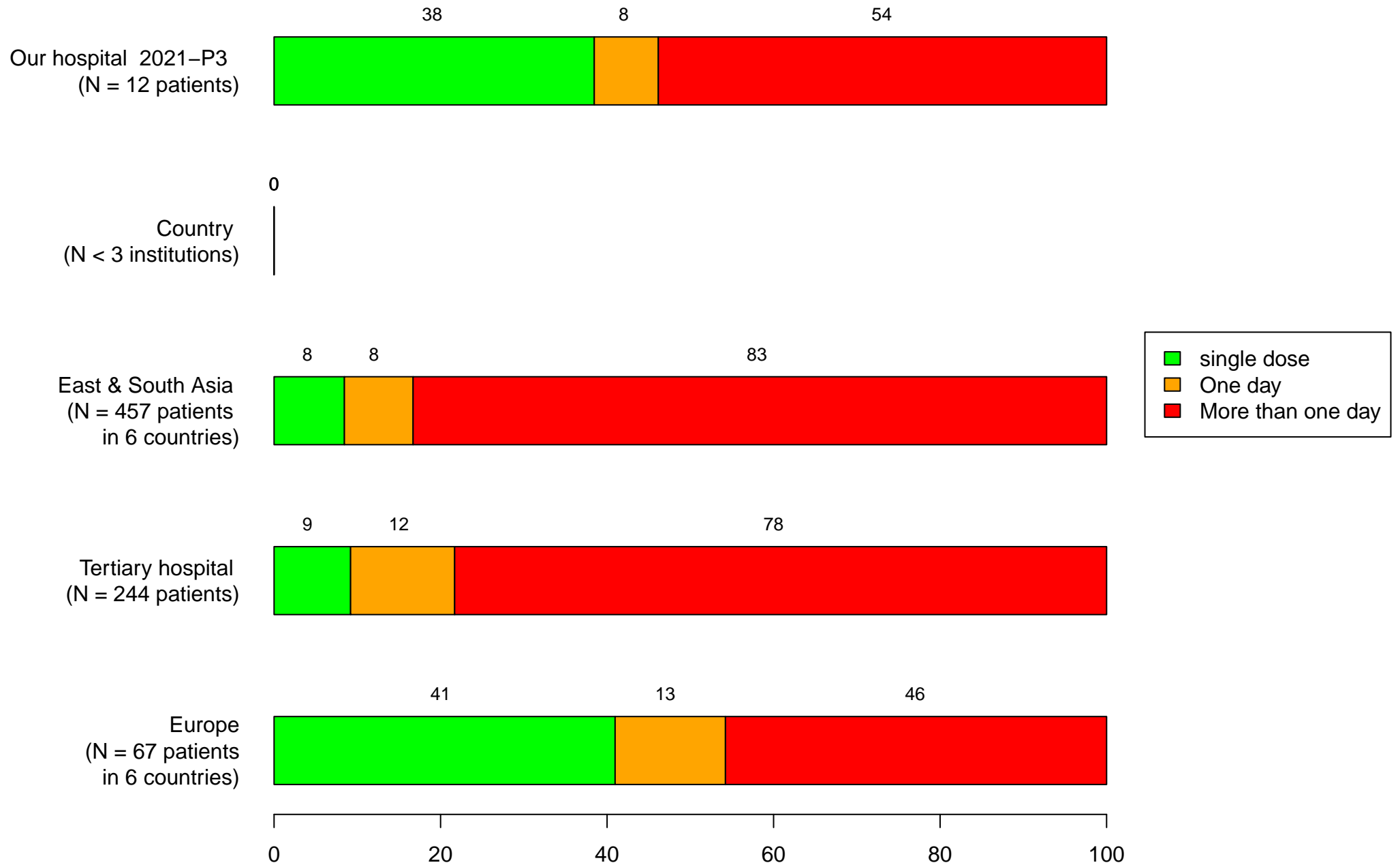
# Duration of prophylaxis for plastic and orthopedic surgery in adults and children



# Duration of GI prophylaxis in adults and children

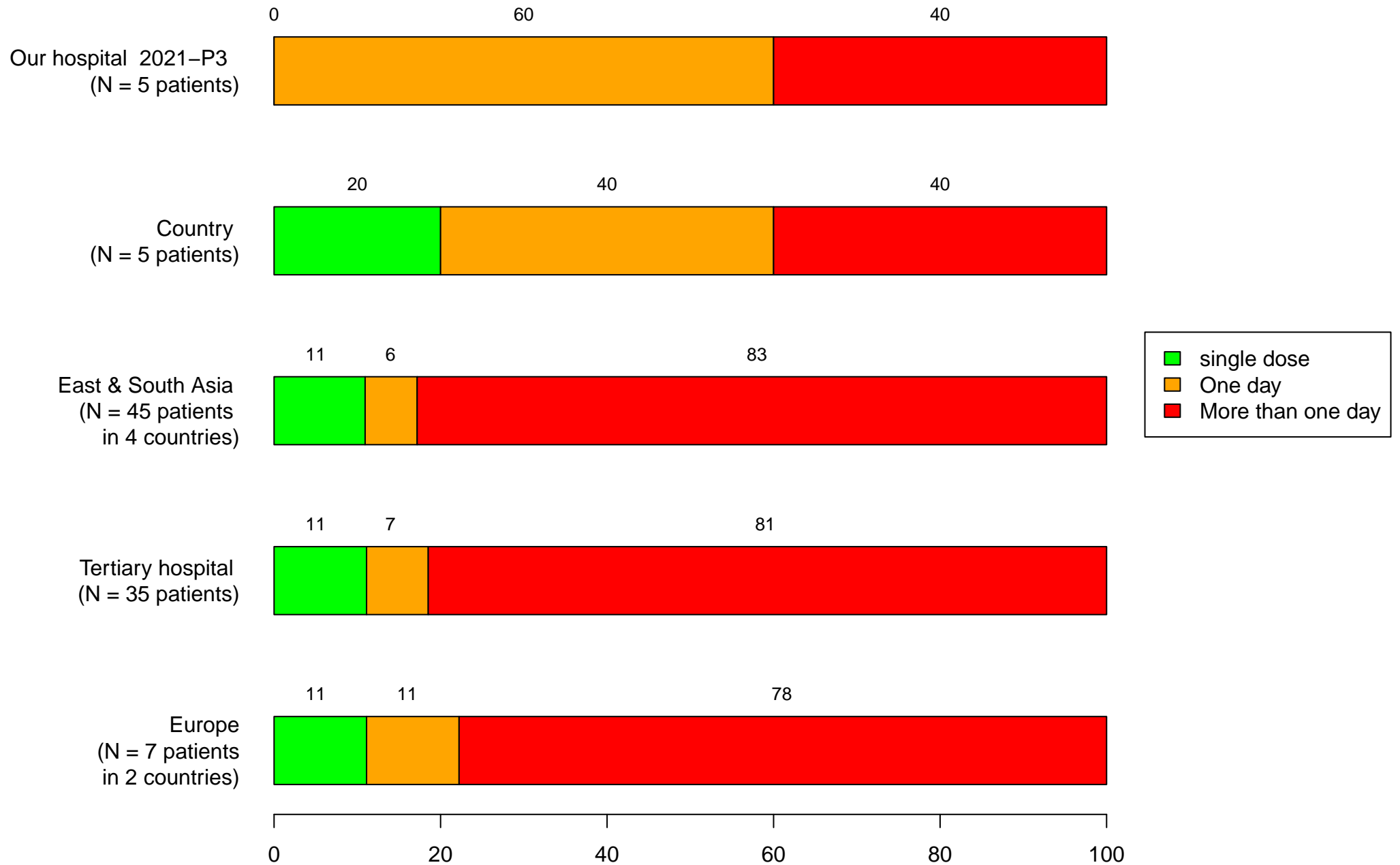


# Duration of obstetric or gynaecological prophylaxis in adult wards





## Duration of CNS prophylaxis in adults and children



## Key prescription patterns (adults and children)

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>All patients</b>										
IV therapy	268	68.4	1160	65.4	5285	80.9	4102	82.6	1649	75.0
Multiple ATB diagnosis	44	10.8	223	12.2	2005	28.8	1541	29.0	448	20.0
Multiple ATB patient	59	15.1	271	15.3	2300	35.2	1769	35.6	477	21.7
<b>Medical</b>										
IV therapy	120	58.5	730	56.4	3307	70.5	2529	70.6	851	62.7
Multiple ATB diagnosis	11	5.2	149	11.7	1287	29.8	969	29.6	230	17.6
Multiple ATB patient	23	11.6	183	14.9	1467	36.0	1119	36.4	251	19.6
<b>Surgical</b>										
IV therapy	114	70.8	335	73.8	1154	68.8	879	72.8	626	82.6
Multiple ATB diagnosis	27	16.8	54	12.2	348	20.7	265	21.8	163	21.7
Multiple ATB patient	29	18.2	63	14.5	406	25.2	293	24.9	166	22.4
<b>ICU</b>										
IV therapy	34	87.2	95	82.6	824	85.7	694	85.7	172	95.6
Multiple ATB diagnosis	6	16.2	20	17.4	370	38.4	307	37.5	55	29.7
Multiple ATB patient	7	20.0	25	23.4	427	50.1	357	49.6	60	33.7

Analyses at patient level. Patients admitted on a NMW and NICU are excluded.

Multiple ATB diagnosis is defined as receiving > 1 antibiotic (J01) for a single identified reason to treat (=diagnose code) at patient level.

Multiple ATB patient is defined as receiving > 1 antibiotic (J01) at patient level.

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Type of antibiotic treatment – Summary

	Our hospital		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>All patients</b>										
Empiric	363	79.1	1599	78.0	8811	88.1	6395	86.3	2349	84.3
Targeted	96	20.9	452	22.0	1190	11.9	1016	13.7	439	15.7
<b>Adults (&gt;= 18 years)</b>										
Empiric	334	78.6	1541	77.4	6206	86.8	4961	85.4	2099	83.8
Targeted	91	21.4	449	22.6	946	13.2	846	14.6	407	16.2
<b>Children (&lt; 18 years)</b>										
Empiric	23	85.2	53	98.1	1850	90.8	998	88.0	203	87.1
Targeted	4	14.8	1	1.9	188	9.2	136	12.0	30	12.9
<b>Neonates (NICU)</b>										
Empiric	6	85.7	5	71.4	755	93.1	436	92.8	47	95.9
Targeted	1	14.3	2	28.6	56	6.9	34	7.2	2	4.1

Selection on antibiotic treatments.

N = number of antibiotics (J01) included per type of treatment and subgroup (all patients, adults, children and neonates).

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Type of antibiotic treatment by activity

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>All patients</b>										
Empiric	254	73.0	1353	75.1	6217	84.5	4661	82.7	1790	80.5
Targeted	94	27.0	449	24.9	1140	15.5	976	17.3	434	19.5
<b>Medical</b>										
Empiric	142	77.2	997	76.9	4221	86.6	3159	85.3	1117	79.9
Targeted	42	22.8	300	23.1	651	13.4	546	14.7	281	20.1
<b>Surgical</b>										
Empiric	83	66.4	270	70.3	735	83.1	557	80.0	468	83.1
Targeted	42	33.6	114	29.7	150	16.9	139	20.0	95	16.9
<b>ICU</b>										
Empiric	29	74.4	86	71.1	1261	78.8	945	76.5	205	77.9
Targeted	10	25.6	35	28.9	339	21.2	291	23.5	58	22.1

Selection on antibiotic treatments (prophylactic and unknown prescribing are excluded) by activity.  
 N = number of antibiotics (J01) included per type of treatment and activity (medical, surgical, ICU).

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Treatment based on microbiology data

	Our hospital 2021–P3		Country		Continent		Hospital type		Europe	
	N	%	N	%	N	%	N	%	N	%
<b>MRSA</b>	4	1.3	11	0.7	30	0.6	25	0.6	21	1.2
<b>MRCoNS</b>	0	0.0	3	0.2	52	1.0	32	0.8	9	0.5
<b>VRE</b>	1	0.3	2	0.1	18	0.4	17	0.4	7	0.4
<b>ESBL</b>	0	0.0	6	0.4	129	2.6	116	3.0	28	1.6
<b>3GCREB</b>	23	7.5	19	1.2	85	1.7	71	1.8	22	1.2
<b>CRE</b>	0	0.0	2	0.1	34	0.7	33	0.9	8	0.5
<b>ESBL–NF</b>	0	0.0	6	0.4	47	0.9	41	1.1	11	0.6
<b>CR–NF</b>	5	1.6	13	0.8	76	1.5	67	1.7	5	0.3
<b>Other MDR</b>	0	0.0	21	1.3	0	0.0	0	0.0	0	0.0
<b>PNSP</b>	0	0.0	0	0.0	2	0.0	0	0.0	0	0.0
<b>MLS</b>	0	0.0	0	0.0	7	0.1	6	0.2	0	0.0
<b>Any of the above</b>	<b>31</b>	<b>10.1</b>	<b>74</b>	<b>4.7</b>	<b>421</b>	<b>8.4</b>	<b>354</b>	<b>9.2</b>	<b>97</b>	<b>5.5</b>

N = the number of patients reported to have received a microbiology–based treatment.

% = 100\*(the number of patients reported to have received a microbiology–based treatment/total number of patients receiving a therapeutic treatment (CAI or HAI) with at least one antibacterial for systemic use (J01)).

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Prevalence (%) of Healthcare Associated Infections: Hospital-wide

	<b>Hospital 2021–P3</b>	<b>Country</b>	<b>Continent</b>	<b>Hospital type</b>	<b>Europe</b>
<b>Numerator (N patients)</b>	135	504	1440	1194	516
<b>Denominator (N admitted patients)</b>	889	4116	12543	9269	7149
<b>HAI rate (%)</b>	15.2	12.2	11.5	12.9	7.2
<b>Post-operative surgical site infection (%)</b>	1.7	1.2	1.4	1.7	1.2
<b>Intervention related infection (%)</b>	3.8	2.2	3.1	3.8	1.4
<b>CDAD (%)</b>	0.7	0.2	0.2	0.2	0.2
<b>Other HAI (%)</b>	7.8	6.4	6.8	7.1	4.1
<b>HAI from another hospital (%)</b>	1.6	0.5	0.4	0.5	0.0
<b>HAI from LTCF or nursing home (%)</b>	0.3	2.1	0.1	0.2	0.4

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Prevalence (%) of Intervention–related versus Other Hospital–Associated Infections Hospital–wide

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	135	504	1440	1194	516
<b>Denominator (N admitted patients)</b>	889	4116	12543	9269	7149
<b>HAI rate (%)</b>	15.2	12.2	11.5	12.9	7.2
<b>Intervention–related infections (%)</b>					
<b>Mixed origin</b>	1.6	2.1	1.3	1.7	0.4
<b>CVC–BSI</b>	0.2	0.0	0.3	0.3	0.2
<b>PVC–BSI</b>	0.0	0.0	0.2	0.3	0.0
<b>Ventilator–Associated Pneumonia (VAP)</b>	0.6	0.0	1.0	1.2	0.3
<b>CAUTI</b>	1.5	0.1	0.5	0.6	0.5
<b>Other Hospital–Associated Infections (%)</b>					
<b>HAI of mixed or undefined origin</b>	4.6	4.8	3.6	3.6	2.4
<b>Blood Stream Infection (BSI)</b>	0.3	0.1	0.9	0.9	0.2
<b>Hospital–Acquired Pneumonia (not VAP)</b>	2.2	1.2	2.0	2.3	1.0
<b>Urinary Tract Infection (UTI)</b>	0.7	0.2	0.6	0.6	0.4

CVC–BSI = Central Venous Catheter–related Blood Stream Infection

PVC–BSI = Peripheral Vascular Catheter–related Blood Stream Infection

CAUTI = Catheter–Associated Urinary Tract Infection

Intervention–related infections are scored by code HAI2 and Other Hospital–Associated Infections by HAI4 of the variable Indication

## Prevalence (%) of Healthcare Associated Infections: Adult wards

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	129	499	1063	955	491
<b>Denominator (N admitted patients)</b>	784	3972	9743	7735	6301
<b>HAI rate (%)</b>	16.5	12.6	10.9	12.3	7.8
<b>Post-operative surgical site infection (%)</b>	1.7	1.3	1.5	1.8	1.3
<b>Intervention related infection (%)</b>	4.1	2.3	2.8	3.2	1.4
<b>CDAD (%)</b>	0.8	0.2	0.2	0.2	0.2
<b>Other HAI (%)</b>	8.5	6.5	6.4	7.0	4.5
<b>HAI from another hospital (%)</b>	1.8	0.5	0.4	0.5	0.0
<b>HAI from LTCF or nursing home (%)</b>	0.4	2.1	0.1	0.2	0.5

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital



## Prevalence (%) of Intervention–related versus Other Hospital–Associated Infections Adult Wards

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	129	499	1063	955	491
<b>Denominator (N admitted patients)</b>	784	3972	9743	7735	6301
<b>HAI rate (%)</b>	16.5	12.6	10.9	12.3	7.8
<b>Intervention–related infections (%)</b>					
<b>Mixed origin</b>	1.8	2.1	1.0	1.2	0.3
<b>CVC–BSI</b>	0.3	0.1	0.3	0.3	0.2
<b>PVC–BSI</b>	0.0	0.0	0.2	0.2	0.0
<b>Ventilator–Associated Pneumonia (VAP)</b>	0.6	0.0	1.0	1.1	0.3
<b>CAUTI</b>	1.4	0.1	0.5	0.6	0.6
<b>Other Hospital–Associated Infections (%)</b>					
<b>HAI of mixed or undefined origin</b>	5.0	4.9	3.3	3.7	2.6
<b>Blood Stream Infection (BSI)</b>	0.4	0.1	0.5	0.6	0.2
<b>Hospital–Acquired Pneumonia (not VAP)</b>	2.6	1.3	2.1	2.3	1.1
<b>Urinary Tract Infection (UTI)</b>	0.8	0.3	0.6	0.7	0.5

CVC–BSI = Central Venous Catheter–related Blood Stream Infection

PVC–BSI = Peripheral Vascular Catheter–related Blood Stream Infection

CAUTI = Catheter–Associated Urinary Tract Infection

Intervention–related infections are scored by code HAI2 and Other Hospital–Associated Infections by HAI4 of the variable Indication

## Prevalence (%) of Healthcare Associated Infections: Child and Neonatal Wards

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	6		377	239	25
<b>Denominator (N admitted patients)</b>	105		2800	1534	848
<b>HAI rate (%)</b>	5.7		13.5	15.6	2.9
<b>Post-operative surgical site infection (%)</b>	1.9		1.2	1.3	0.5
<b>Intervention related infection (%)</b>	1.9		4.1	6.8	1.2
<b>CDAD (%)</b>	0.0		0.1	0.1	0.0
<b>Other HAI (%)</b>	1.9		8.3	7.8	1.3
<b>HAI from another hospital (%)</b>	0.0		0.4	0.7	0.0
<b>HAI from LTCF or nursing home (%)</b>	0.0		0.1	0.1	0.0

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Prevalence (%) of Intervention–related versus Other Hospital–Associated Infections Child and Neonatal Wards

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	6		377	239	25
<b>Denominator (N admitted patients)</b>	105		2800	1534	848
<b>HAI rate (%)</b>	5.7		13.5	15.6	2.9
<b>Intervention–related infections (%)</b>					
<b>Mixed origin</b>	0.0		2.4	4.2	1.1
<b>CVC–BSI</b>	0.0		0.2	0.3	0.0
<b>PVC–BSI</b>	0.0		0.4	0.8	0.0
<b>Ventilator–Associated Pneumonia (VAP)</b>	0.0		1.0	1.6	0.1
<b>CAUTI</b>	1.9		0.4	0.6	0.0
<b>Other Hospital–Associated Infections (%)</b>					
<b>HAI of mixed or undefined origin</b>	1.9		4.6	3.5	0.9
<b>Blood Stream Infection (BSI)</b>	0.0		2.1	2.3	0.1
<b>Hospital–Acquired Pneumonia (not VAP)</b>	0.0		1.6	2.1	0.1
<b>Urinary Tract Infection (UTI)</b>	0.0		0.4	0.3	0.1

CVC–BSI = Central Venous Catheter–related Blood Stream Infection

PVC–BSI = Peripheral Vascular Catheter–related Blood Stream Infection

CAUTI = Catheter–Associated Urinary Tract Infection

Intervention–related infections are scored by code HAI2 and Other Hospital–Associated Infections by HAI4 of the variable Indication

## Prevalence (%) of Healthcare Associated Infections: Adult – ICU

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	24	40	244	223	67
<b>Denominator (N admitted patients)</b>	58	157	880	793	214
<b>HAI rate (%)</b>	41.4	25.5	27.7	28.1	31.3
<b>Post-operative surgical site infection (%)</b>	0.0	1.3	1.7	1.8	2.8
<b>Intervention related infection (%)</b>	22.4	7.0	11.2	11.3	10.3
<b>CDAD (%)</b>	1.7	0.6	0.5	0.5	1.4
<b>Other HAI (%)</b>	20.7	16.6	14.8	14.9	16.8
<b>HAI from another hospital (%)</b>	5.2	1.3	1.6	1.8	0.0
<b>HAI from LTCF or nursing home (%)</b>	0.0	0.0	0.5	0.5	0.5

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Prevalence (%) of Intervention–related versus Other Hospital–Associated Infections Adult – ICU

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	24	40	244	223	67
<b>Denominator (N admitted patients)</b>	58	157	880	793	214
<b>HAI rate (%)</b>	41.4	25.5	27.7	28.1	31.3
<b>Intervention–related infections (%)</b>					
<b>Mixed origin</b>	10.3	7.0	1.6	1.8	0.5
<b>CVC–BSI</b>	1.7	0.0	1.4	1.4	0.5
<b>PVC–BSI</b>	0.0	0.0	0.1	0.1	0.0
<b>Ventilator–Associated Pneumonia (VAP)</b>	8.6	0.0	7.4	7.3	9.3
<b>CAUTI</b>	1.7	0.0	1.9	1.9	0.0
<b>Other Hospital–Associated Infections (%)</b>					
<b>HAI of mixed or undefined origin</b>	12.1	15.9	6.0	6.1	9.8
<b>Blood Stream Infection (BSI)</b>	1.7	0.0	2.3	2.1	0.5
<b>Hospital–Acquired Pneumonia (not VAP)</b>	6.9	0.6	6.6	6.8	6.5
<b>Urinary Tract Infection (UTI)</b>	0.0	0.0	0.7	0.6	0.5

CVC–BSI = Central Venous Catheter–related Blood Stream Infection

PVC–BSI = Peripheral Vascular Catheter–related Blood Stream Infection

CAUTI = Catheter–Associated Urinary Tract Infection

Intervention–related infections are scored by code HAI2 and Other Hospital–Associated Infections by HAI4 of the variable Indication

## Prevalence (%) of Healthcare Associated Infections: Adult Medical Wards

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	69	364	636	565	301
<b>Denominator (N admitted patients)</b>	426	2927	6948	5421	4327
<b>HAI rate (%)</b>	16.2	12.4	9.2	10.4	7.0
<b>Post-operative surgical site infection (%)</b>	1.2	0.8	0.7	0.9	0.5
<b>Intervention related infection (%)</b>	1.6	2.4	1.9	2.2	1.2
<b>CDAD (%)</b>	1.2	0.3	0.2	0.2	0.1
<b>Other HAI (%)</b>	9.6	6.3	6.2	6.9	4.6
<b>HAI from another hospital (%)</b>	2.1	0.4	0.3	0.4	0.1
<b>HAI from LTCF or nursing home (%)</b>	0.7	2.7	0.1	0.1	0.6

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Prevalence (%) of Intervention–related versus Other Hospital–Associated Infections Adult Medical Wards

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	69	364	636	565	301
<b>Denominator (N admitted patients)</b>	426	2927	6948	5421	4327
<b>HAI rate (%)</b>	16.2	12.4	9.2	10.4	7.0
<b>Intervention–related infections (%)</b>					
<b>Mixed origin</b>	0.7	2.2	0.8	1.0	0.2
<b>CVC–BSI</b>	0.2	0.0	0.2	0.2	0.2
<b>PVC–BSI</b>	0.0	0.0	0.2	0.2	0.0
<b>Ventilator–Associated Pneumonia (VAP)</b>	0.0	0.0	0.4	0.5	0.0
<b>CAUTI</b>	0.7	0.1	0.3	0.3	0.7
<b>Other Hospital–Associated Infections (%)</b>					
<b>HAI of mixed or undefined origin</b>	5.6	4.4	3.5	4.0	2.7
<b>Blood Stream Infection (BSI)</b>	0.5	0.1	0.4	0.5	0.3
<b>Hospital–Acquired Pneumonia (not VAP)</b>	2.8	1.5	1.8	2.0	1.1
<b>Urinary Tract Infection (UTI)</b>	0.9	0.3	0.6	0.7	0.6

CVC–BSI = Central Venous Catheter–related Blood Stream Infection

PVC–BSI = Peripheral Vascular Catheter–related Blood Stream Infection

CAUTI = Catheter–Associated Urinary Tract Infection

Intervention–related infections are scored by code HAI2 and Other Hospital–Associated Infections by HAI4 of the variable Indication

## Prevalence (%) of Healthcare Associated Infections: Adult Surgical Ward

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	36	95	183	167	123
<b>Denominator (N admitted patients)</b>	300	888	1915	1521	1760
<b>HAI rate (%)</b>	12.0	10.7	9.6	11.0	7.0
<b>Post-operative surgical site infection (%)</b>	2.7	2.9	4.3	5.1	3.1
<b>Intervention related infection (%)</b>	4.0	1.1	2.1	2.6	1.0
<b>CDAD (%)</b>	0.0	0.0	0.0	0.0	0.2
<b>Other HAI (%)</b>	4.7	5.7	3.2	3.4	2.6
<b>HAI from another hospital (%)</b>	0.7	0.6	0.1	0.1	0.0
<b>HAI from LTCF or nursing home (%)</b>	0.0	0.6	0.1	0.1	0.3

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital



## Prevalence (%) of Intervention–related versus Other Hospital–Associated Infections Adult Surgical Ward

	Hospital 2021–P3	Country	Continent	Hospital type	Europe
<b>Numerator (N patients)</b>	36	95	183	167	123
<b>Denominator (N admitted patients)</b>	300	888	1915	1521	1760
<b>HAI rate (%)</b>	12.0	10.7	9.6	11.0	7.0
<b>Intervention–related infections (%)</b>					
<b>Mixed origin</b>	1.7	0.9	1.4	1.7	0.6
<b>CVC–BSI</b>	0.0	0.1	0.2	0.2	0.1
<b>PVC–BSI</b>	0.0	0.0	0.1	0.1	0.0
<b>Ventilator–Associated Pneumonia (VAP)</b>	0.0	0.0	0.0	0.0	0.0
<b>CAUTI</b>	2.3	0.1	0.6	0.7	0.4
<b>Other Hospital–Associated Infections (%)</b>					
<b>HAI of mixed or undefined origin</b>	2.7	4.8	1.3	1.3	1.6
<b>Blood Stream Infection (BSI)</b>	0.0	0.1	0.2	0.1	0.2
<b>Hospital–Acquired Pneumonia (not VAP)</b>	1.3	0.7	1.3	1.2	0.6
<b>Urinary Tract Infection (UTI)</b>	0.7	0.2	0.6	0.7	0.2

CVC–BSI = Central Venous Catheter–related Blood Stream Infection

PVC–BSI = Peripheral Vascular Catheter–related Blood Stream Infection

CAUTI = Catheter–Associated Urinary Tract Infection

Intervention–related infections are scored by code HAI2 and Other Hospital–Associated Infections by HAI4 of the variable Indication

## Invasive device use hospital-wide

	Our hospital		Country		Continent		Hospital type		Europe	
	2021–P3		N	%	N	%	N	%	N	%
<b>N total admitted patients</b>	889				9298		6586		3919	
<b>N admitted patients with:</b>										
<b>PVC</b>	531	59.7			5744	61.8	3946	59.9	1544	39.4
<b>CVC</b>	115	12.9			756	8.1	588	8.9	169	4.3
<b>Indwelling UC</b>	136	15.3			1233	13.3	976	14.8	646	16.5
<b>Tubes/Drains</b>	93	10.5			1028	11.1	851	12.9	168	4.3
<b>IRI</b>	46	5.2			445	4.8	341	5.2	59	1.5
<b>CiPAP–BiPAP</b>	27	3.0			532	5.7	429	6.5	95	2.4

CVC = Central Venous Catheter; PVC = Peripheral Vascular Catheter;  
 UC = Urinary Catheter; IRI = Invasive endotracheal Respiratory Intubation;  
 CiPAP, BiPAP = Non-invasive mechanical ventilation

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Invasive device use – Adult wards

	Our hospital		Country		Continent		Hospital type		Europe			
	2021–P3		N	%	N	%	N	%	N	%		
	N	%										
<b>N total admitted patients</b>	784				7340				5524		3546	
<b>N admitted patients with:</b>												
<b>PVC</b>	490	62.5			4364	59.5			3309	59.9	1366	38.5
<b>CVC</b>	108	13.8			637	8.7			509	9.2	163	4.6
<b>Indwelling UC</b>	129	16.5			1125	15.3			912	16.5	634	17.9
<b>Tubes/Drains</b>	86	11.0			856	11.7			724	13.1	163	4.6
<b>IRI</b>	43	5.5			340	4.6			277	5.0	55	1.6
<b>CiPAP–BiPAP</b>	20	2.6			427	5.8			370	6.7	60	1.7

CVC = Central Venous Catheter; PVC = Peripheral Vascular Catheter;  
 UC = Urinary Catheter; IRI = Invasive endotracheal Respiratory Intubation;  
 CiPAP, BiPAP = Non–invasive mechanical ventilation

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Invasive device use – Adult ICU

	Our hospital		Country		Continent		Hospital type		Europe		
	2021–P3		N	%	N	%	N	%	N	%	
	N	%									
<b>N total admitted patients</b>	58				525			447		126	
<b>N admitted patients with:</b>											
<b>PVC</b>	52	89.7			361	68.8		306	68.5	81	64.3
<b>CVC</b>	35	60.3			166	31.6		150	33.6	70	55.6
<b>Indwelling UC</b>	40	69.0			310	59.0		280	62.6	94	74.6
<b>Tubes/Drains</b>	10	17.2			226	43.0		197	44.1	37	29.4
<b>IRI</b>	26	44.8			191	36.4		164	36.7	44	34.9
<b>CiPAP–BiPAP</b>	3	5.2			127	24.2		105	23.5	21	16.7

CVC = Central Venous Catheter; PVC = Peripheral Vascular Catheter;  
 UC = Urinary Catheter; IRI = Invasive endotracheal Respiratory Intubation;  
 CiPAP, BiPAP = Non–invasive mechanical ventilation

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Invasive device use – Adult medical wards

	Our hospital		Country		Continent		Hospital type		Europe	
	2021–P3									
	N	%	N	%	N	%	N	%	N	%
<b>N total admitted patients</b>	426				5291		3884		2288	
<b>N admitted patients with:</b>										
<b>PVC</b>	230	54.0			3030	57.3	2213	57.0	786	34.4
<b>CVC</b>	56	13.1			405	7.7	298	7.7	56	2.4
<b>Indwelling UC</b>	47	11.0			604	11.4	461	11.9	320	14.0
<b>Tubes/Drains</b>	40	9.4			471	8.9	388	10.0	38	1.7
<b>IRI</b>	12	2.8			117	2.2	93	2.4	11	0.5
<b>CiPAP–BiPAP</b>	15	3.5			266	5.0	236	6.1	37	1.6

CVC = Central Venous Catheter; PVC = Peripheral Vascular Catheter;  
 UC = Urinary Catheter; IRI = Invasive endotracheal Respiratory Intubation;  
 CiPAP, BiPAP = Non–invasive mechanical ventilation

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Invasive device use – Adult surgical ward

	Our hospital		Country		Continent		Hospital type		Europe	
	2021–P3		N	%	N	%	N	%	N	%
<b>N total admitted patients</b>	300				1524		1193		1132	
<b>N admitted patients with:</b>										
<b>PVC</b>	208	69.3			973	63.8	790	66.2	499	44.1
<b>CVC</b>	17	5.7			66	4.3	61	5.1	37	3.3
<b>Indwelling UC</b>	42	14.0			211	13.8	171	14.3	220	19.4
<b>Tubes/Drains</b>	36	12.0			159	10.4	139	11.7	88	7.8
<b>IRI</b>	5	1.7			32	2.1	20	1.7	0	0.0
<b>CiPAP–BiPAP</b>	2	0.7			34	2.2	29	2.4	2	0.2

CVC = Central Venous Catheter; PVC = Peripheral Vascular Catheter;  
 UC = Urinary Catheter; IRI = Invasive endotracheal Respiratory Intubation;  
 CiPAP, BiPAP = Non–invasive mechanical ventilation

Country: Country ; Continent: East & South Asia ; Hospital type: Tertiary hospital

## Explanatory notes for the slides on AWaRe antibiotic use

The following slides present antibiotic prescribing patterns according to the WHO Access, Watch, Reserve (AWaRe) classification. Antibiotic prescriptions for systemic use (ATC J01) are classified into 4 categories:

### Access

1st or 2nd choice for empiric treatment of the most common infections

Lower risk of resistance selection

Amoxicillin, cefazolin, cloxacillin, clindamycin...

### Watch

1st or 2nd choice for limited indications only

Higher risk of resistance selection

Quinolones, carbapenems, cephalosporins 2nd / 3rd gen...

### Reserve

To be used only as a last resort, when no other alternatives are available

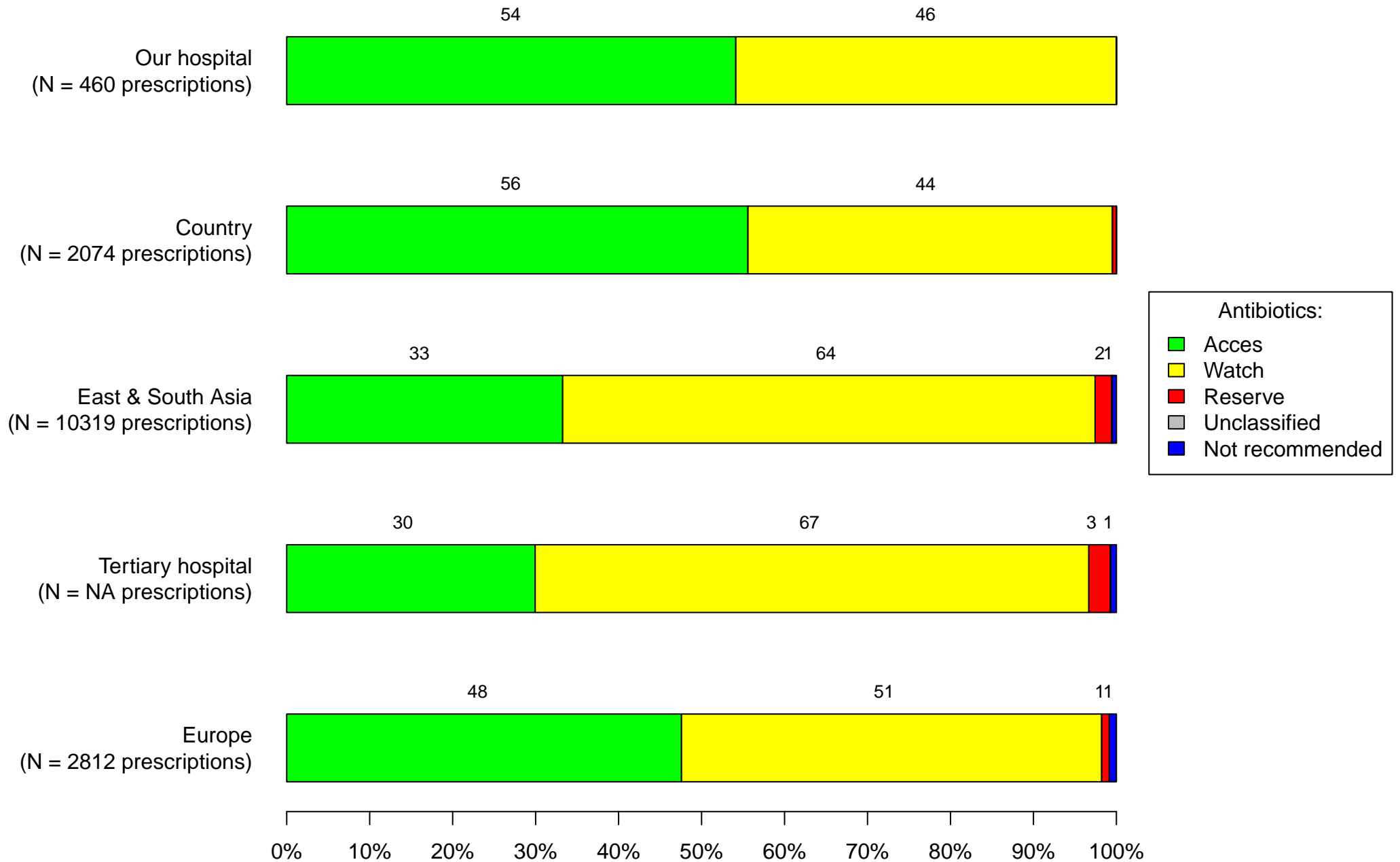
Colistin, linezolid, tigecyclin...

### Not recommended (new category 2019)

Mainly fixed-dose combinations of broad-spectrum antibiotics

More info on the WHO AWaRe classification:  
<https://adoptaware.org/>

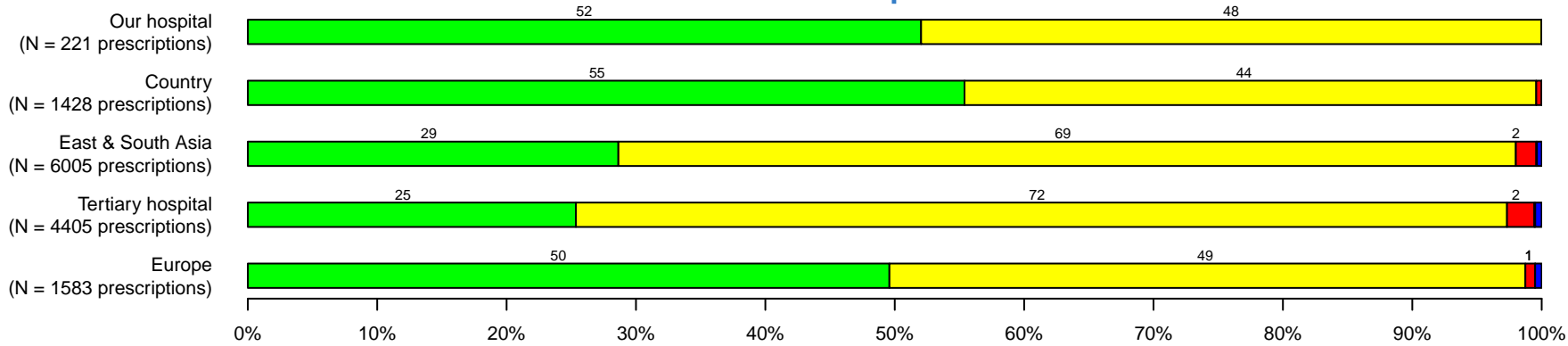
## Overall antibiotic use (ATC J01) according to the WHO AWaRe classification



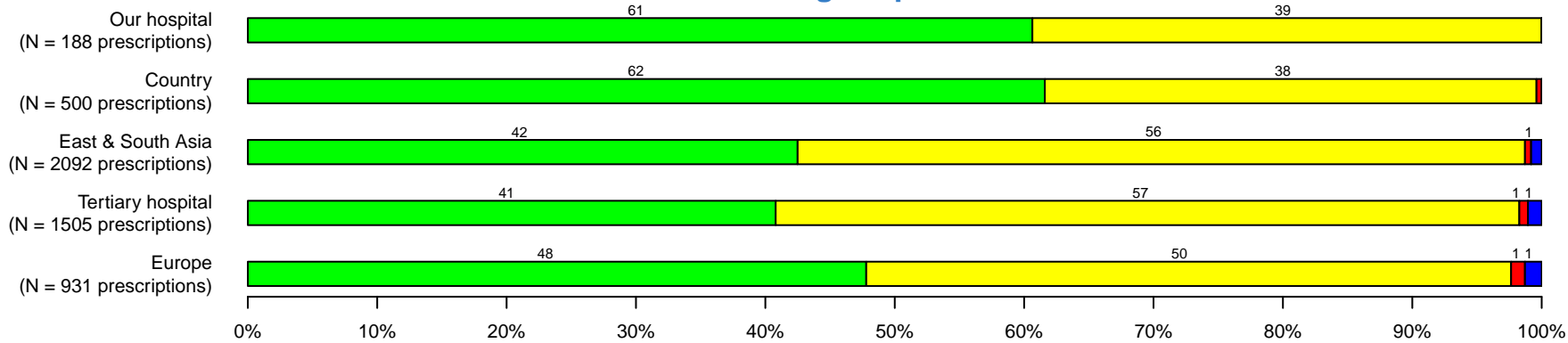


# Antibiotic use (ATC J01) by activity according to the WHO AWaRe classification

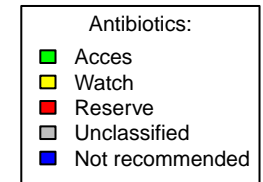
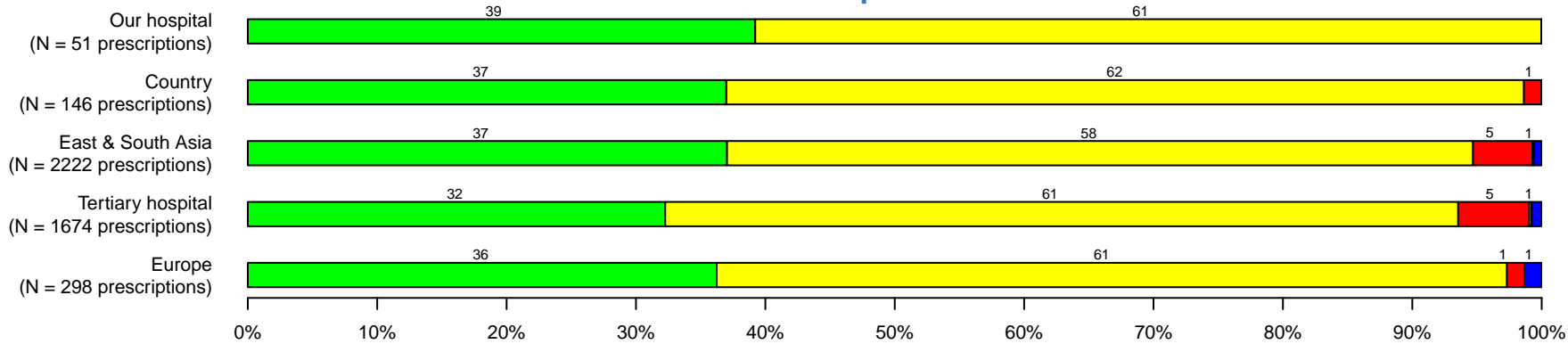
## Medical patients



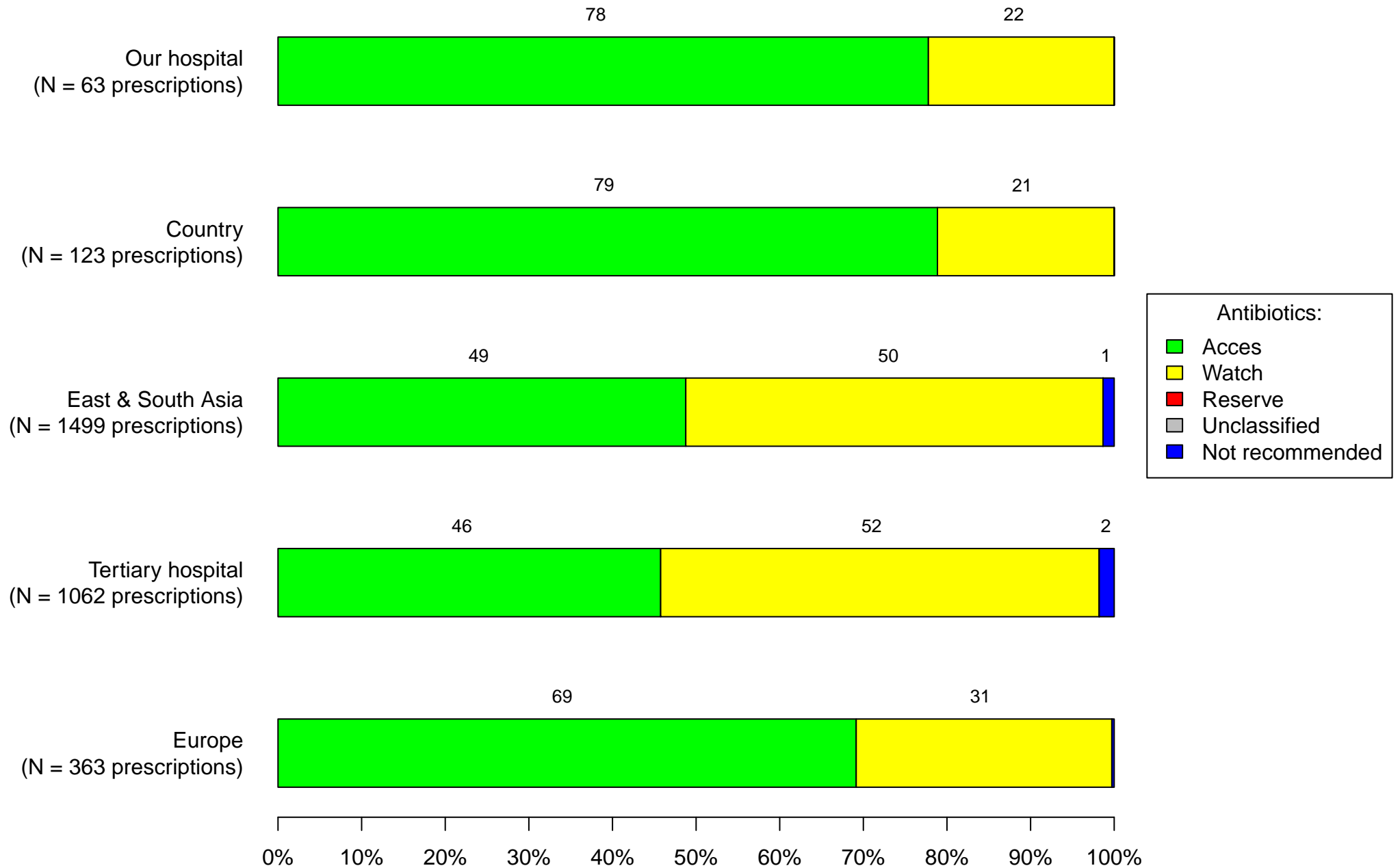
## Surgical patients



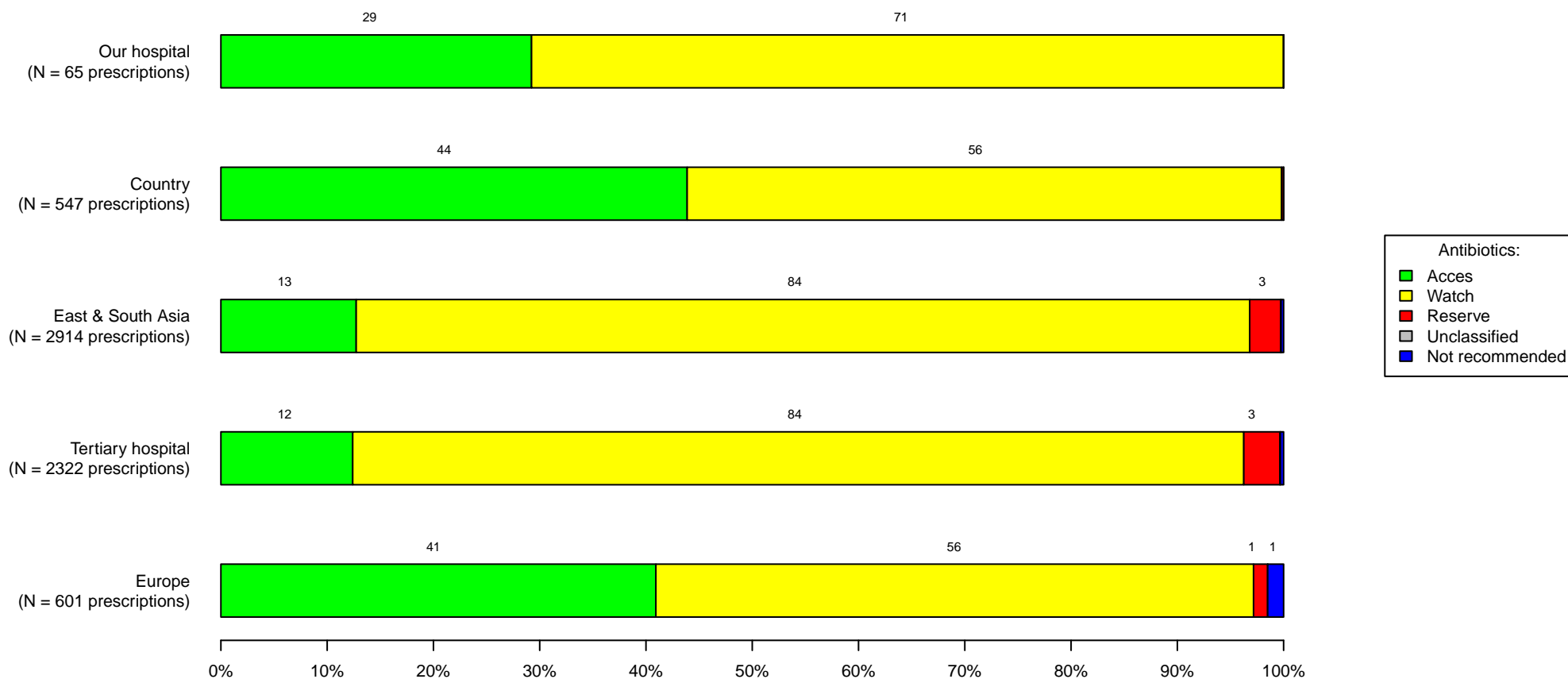
## ICU patients



## Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – Patients receiving surgical prophylaxis

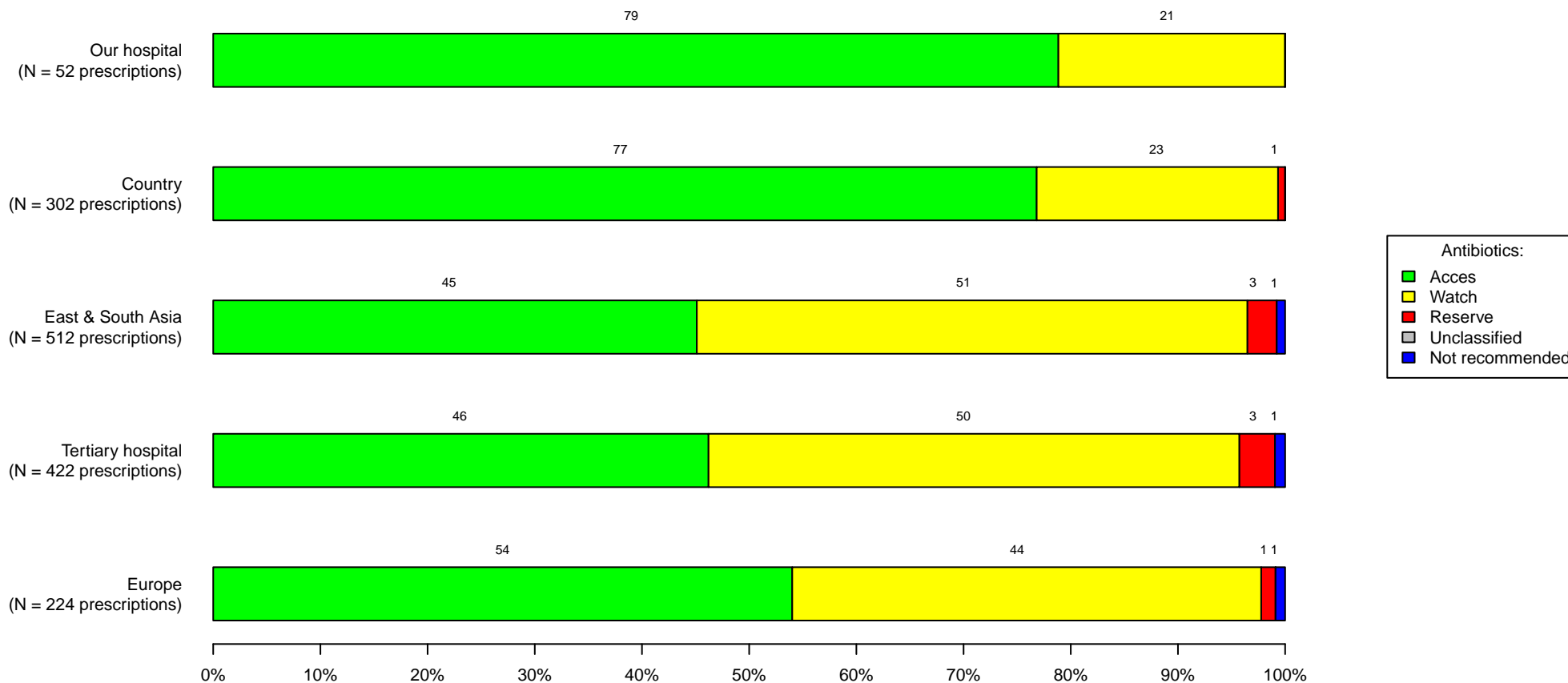


# Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – pneumonia



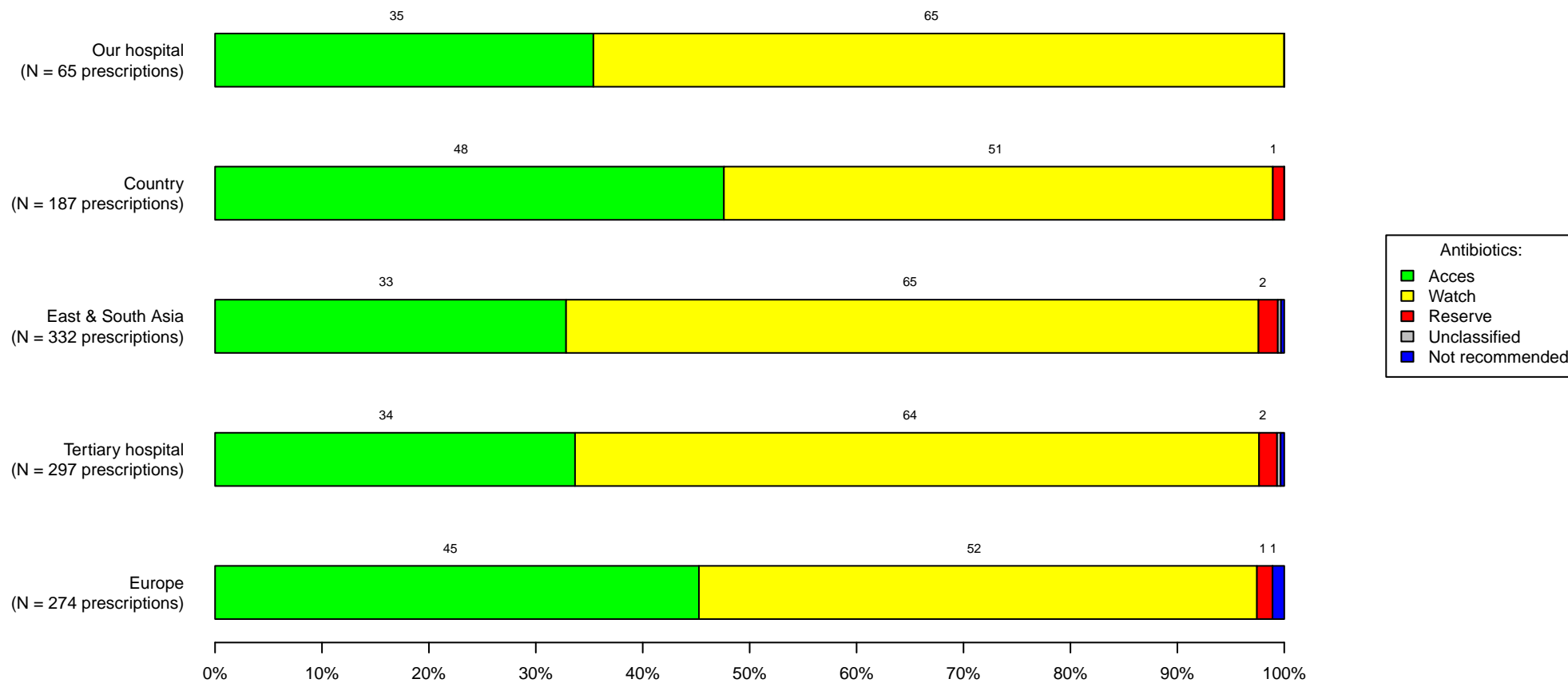
Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis

# Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – skin and soft tissue infections



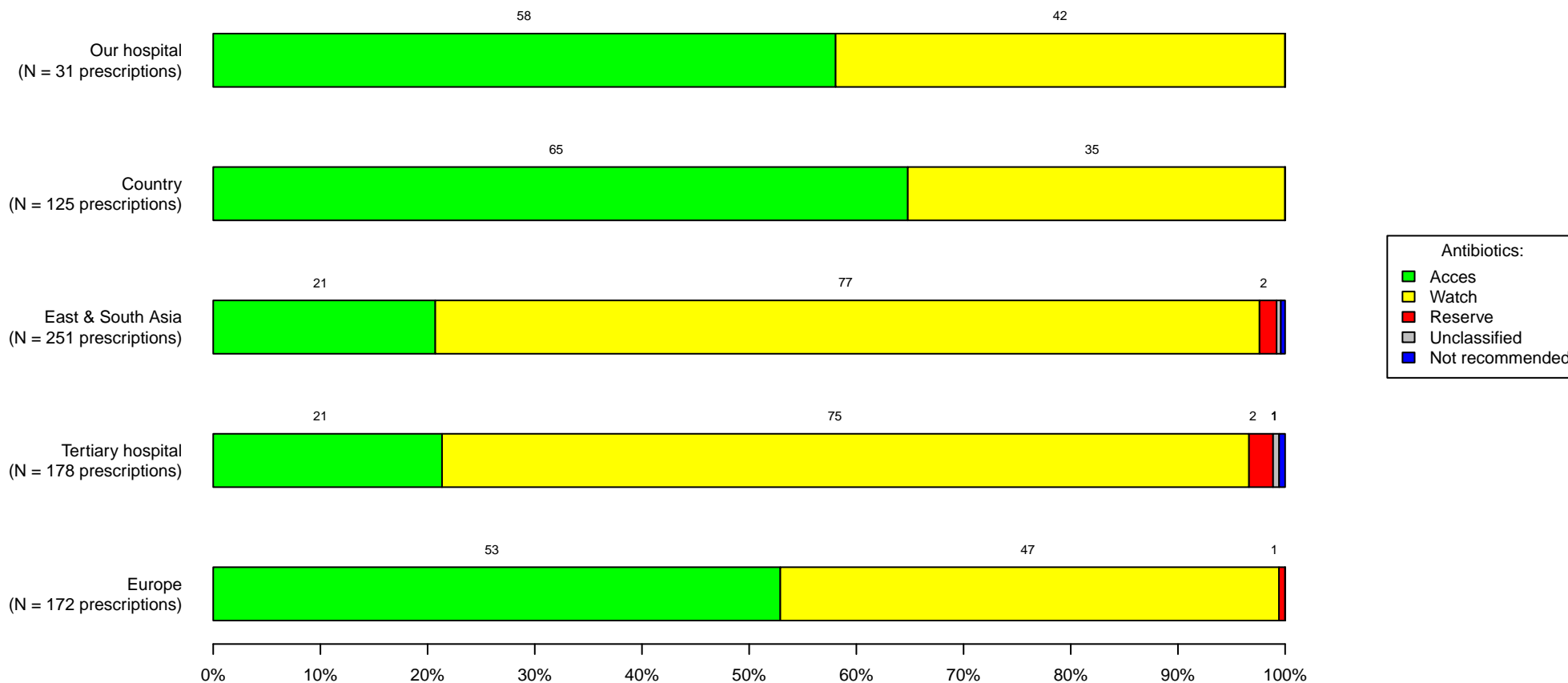
Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis

# Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – intra-abdominal sepsis



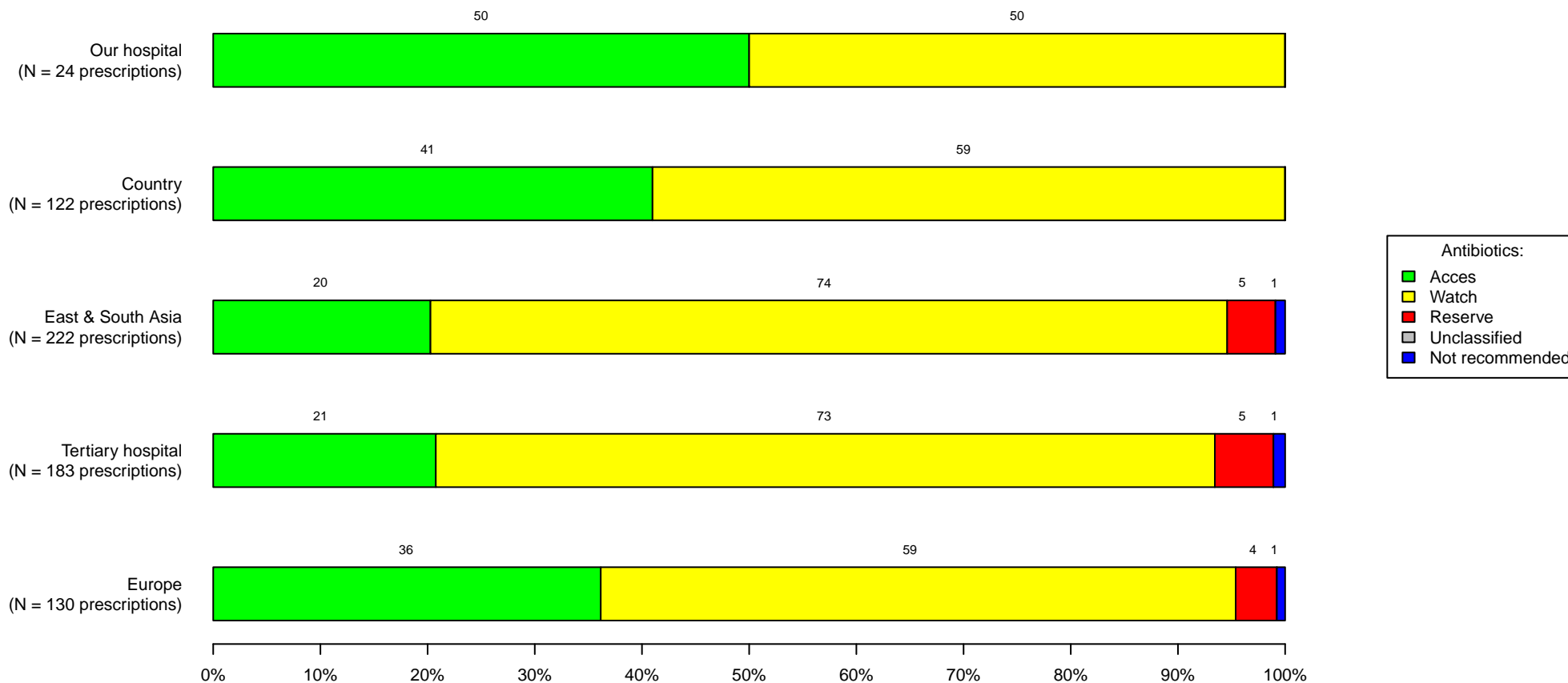
Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis

# Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – lower urinary tract infections



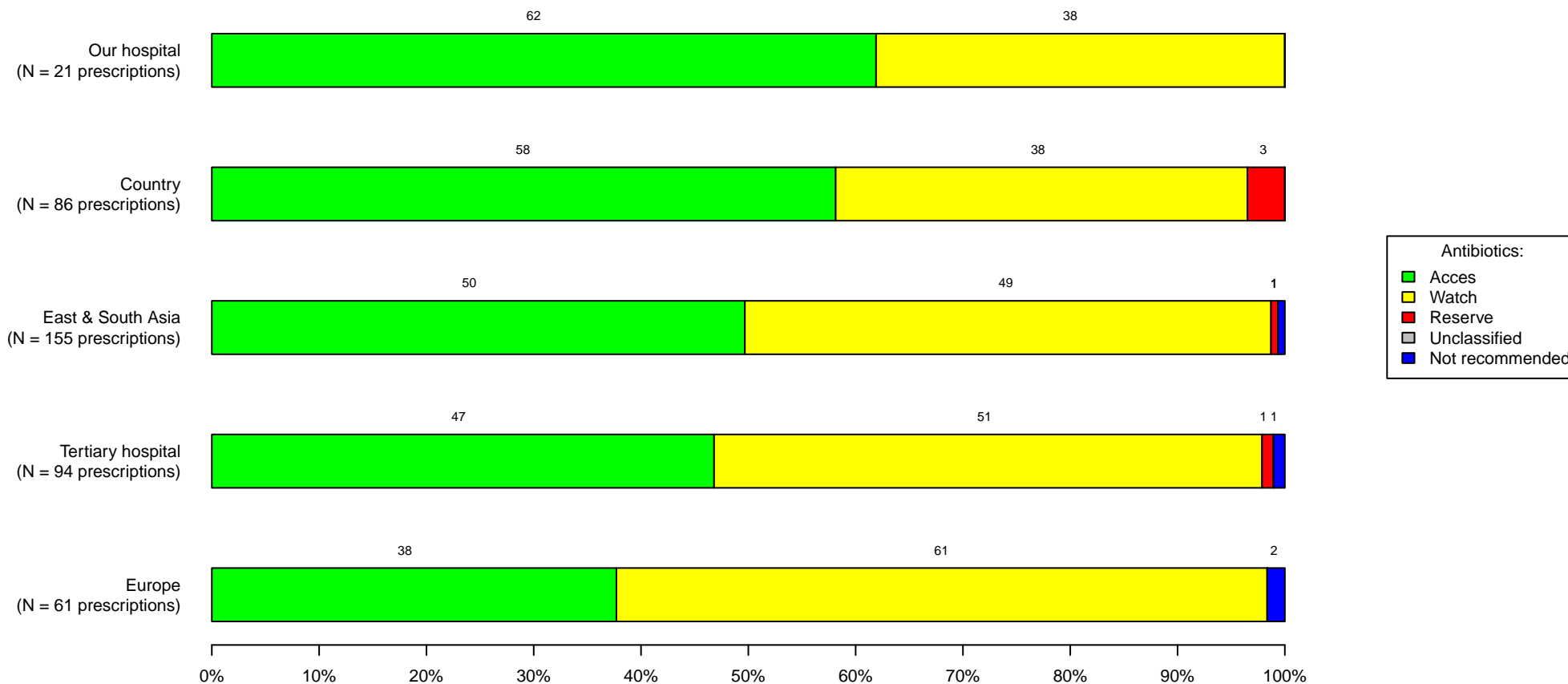
Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis

# Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – upper urinary tract infections



Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis

# Overall antibiotic use (ATC J01) according to the WHO AWaRe classification – bone and joint infections



Prophylactic prescribing and patients admitted on NICU or NMW are excluded from this analysis



## Overall antibiotic use (ATC J01) according to the WHO AWaRe classification

Access		Watch		Reserve	
Our Hospital	Country	Our Hospital	Country	Our Hospital	Country
AMC 26.5%	AMC 32%	TZP 13.5%	TZP 12.8%		Polymyxin b P 0.2%
Cefazolin 6.7%	Cefazolin 7.2%	Ceftriaxone 11.7%	Ceftriaxone 7%		Aztreonam 0.1%
SXT 6.1%	SXT 4.1%	Meropenem 6.1%	Meropenem 5.8%		Daptomycin 0.1%
Metronidazole P 5.7%	Metronidazole P 2.6%	Ciprofloxacin 3%	Ciprofloxacin 5.2%		
Clindamycin 2%	Doxycycline 1.9%	Ceftazidime 2.4%	Vancomycin P 2.8%		

Top 5 antibiotics by AWaRe classification and percentage of all prescriptions. Only antibacterials for systemic use (ATC J01) are included.

P=Parenteral, O=Oral, I=Inhalation, R=Rectal.

TZP=Piperacillin and enzyme inhibitor, AMC=Amoxicillin and enzyme inhibitor, SXT=Sulfamethoxazole and trimethoprim, SAM=Ampicillin and enzyme inhibitor, I-R=Imipenem and enzyme inhibitor, Cefo-Sul=Cefoperazone and beta-lactamase inhibitor, TMP/SDZ=Sulfadiazine and trimethoprim, Pen-G=Benzathine benzylpenicillin, AMP-Com=Ampicillin, combinations, Pen-Com=Penicillins, combinations with other antibacterials, Chl=Chloramphenicol, Pen V=Phenoxymethylpenicillin, Ceftr-com=Ceftriaxone, combinations, Ceftr-BLI=Ceftriaxone and beta-lactamase inhibitor, Cefu-Com=Cefuroxime, combinations with other antibacterials, Sulfam-TMP=Sulfamoxole and trimethoprim, Sulfad-TMP=Sulfadimidine and trimethoprim, Ben-Pen-V=Benzathine phenoxymethylpenicillin, CIP-Met=Ciprofloxacin and metronidazol, CZA=ceftazidime and beta-lactamase inhibitor, TIM=Ticarcillin and enzyme inhibitor, Pani-Bet=Panipenem and betamipron.