

Spain

Country comments:

PPS data from 16/04/2012 to 05/07/2012

Number of hospitals	59
Standard protocol	59
Light protocol	0
Number of patients	13520

I. Hospital characteristics

Table 1. Hospital type

Hospital type	N	%
Primary	12	20,3
Secondary	22	37,3
Tertiary	20	33,9
Specialised	3	5,1
Unknown	2	3,4

Table 2. Hospital size and length of stay

	Median	[IQR]
Hospital size (number of beds)	265	[149- 518]
Hospital length of stay (days)*	6,3	[5.4-7.3]

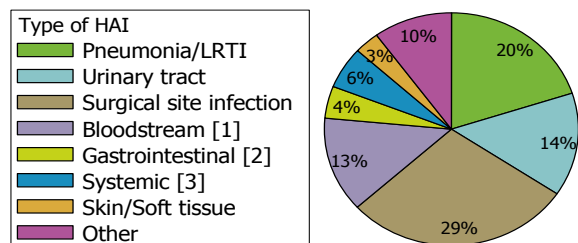
*hospital statistics of year preceding PPS

II. Healthcare-associated infections

Table 3. HAI prevalence and key results

Number of patients with HAI	1115
HAI prevalence % (95%CI)	8.2 (7.5-9.1)
Number of HAIs	1257
N of HAIs per infected patient	1,13
N(%) HAIs with microorganism	796 (63.3)
Total number of reported isolates	1024

Figure 1. Distribution of HAI types



[1] incl. catheter-related BSI (5.3%)

[2] incl. C. difficile infections (0.7%)

[3] incl. clinical sepsis (4.9%)

Figure 2. Top ten microorganisms in HAIs

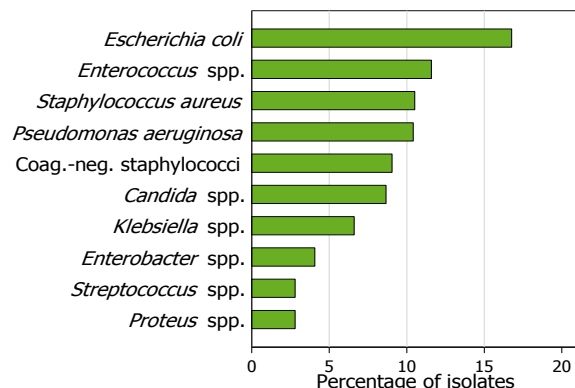


Table 4. HAI origin

	N HAI	Rel%	N [2]	Pr.%
HAI present at admission	266	21,2	247	1,8
Origin of HAI at admission:				
Same hospital	188	70,7	177	1,3
Other hospital	67	25,2	59	0,4
Other origin/unknown	11	4,1	11	0,1
HAI during current hospitalisation	970	77,2	848	6,3
Missing HAI origin	21	1,7		

Rel%=% of HAIs, N [2]=N of patients with HAI, Pr.=%=Prevalence %

Table 5. HAI prevalence by patient/consultant specialty

Specialty	N pts	% [1]	N pts w.HAI	HAI Pr % [2]
Surgery	4416	32,7	466	10,6
Medicine	6103	45,1	398	6,5
Paediatrics	704	5,2	16	2,3
ICU[3]	745	5,5	201	27,0
Gynaeco/obstetrics	955	7,1	20	2,1
Geriatrics	82	0,6	3	3,7
Psychiatrics	463	3,4	7	1,5
Rehabilitation/Other	52	0,4	4	7,7
Total	13520	100	1115	8,2

N=number, pts=patients, N pts w.HAI=N of patients with >=1 HAI

[1] percentage of total, [2] HAI prevalence % within category

[3] includes non-ICU patient/consultant specialties in ICU ward

Table 6. Selected markers of antimicrobial resistance

	N isol.	N [2]	N NS	% NS
Gram-positive cocci				
<i>Staphylococcus aureus</i> (MRSA)	108	105	46	43,8
Enterococci (VRE)	119	111	5	4,5
<i>Enterococcus faecalis</i>	75	71	3	4,2
<i>Enterococcus faecium</i>	37	35	1	2,9
Enterobacteriaceae, C3G-NS	346	329	83	25,2
<i>Escherichia coli</i>	172	165	35	21,2
<i>Klebsiella</i> spp.	68	63	24	38,1
<i>Enterobacter</i> spp.	42	40	14	35,0
Enterobacteriaceae, CAR-NS	346	329	14	4,3
<i>Escherichia coli</i>	172	165	5	3,0
<i>Klebsiella</i> spp.	68	63	6	9,5
<i>Enterobacter</i> spp.	42	40	1	2,5
Non-fermenting gram-negatives, CAR-NS				
<i>Pseudomonas aeruginosa</i>	107	103	27	26,2
<i>Acinetobacter baumannii</i>	20	19	17	89,5

N isol.=Total number of isolates, N [2]= N of isolates with known susceptibility results, NS=non susceptible, % NS=I+R/(I+R+S), not shown if less than 10 isolates in N[2], S=sensitive, I=intermediate, R=resistant, C3G: 3rd generation cephalosporins, CAR: carbapenems

Spain (cnt'd)

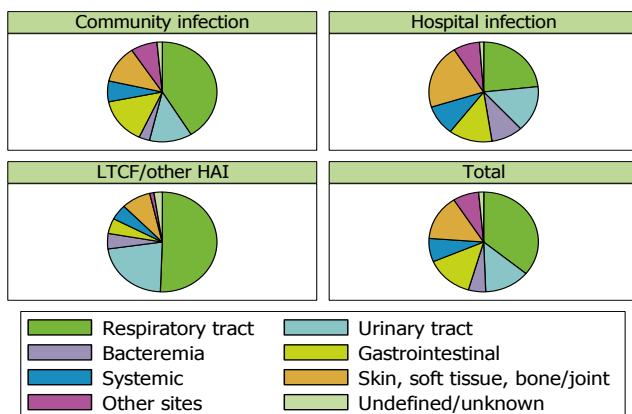
III. Antimicrobial use (AU)

Table 7. Prevalence of antimicrobial use

Number of patients with antimicrobials	6101	
Antimicrobial use prevalence % (95%CI)	45.1 (43.7-46.6)	
Number of antimicrobials	8436	
N of antimicrobials per patient	1,38	
Reason in notes	N	%
Yes	6473	76,7
No	1612	19,1
Unknown	351	4,2
Route of administration	N	%
Parenteral	6492	77
Oral	1886	22,4
Other/unknown	58	0,7

N=Number, %=percentage of total N of antimicrobials

Figure 3. Diagnosis site in treatment of infections



LTCF=long-term care facility

Figure 4. Distribution of antibacterials for systemic use (J01)

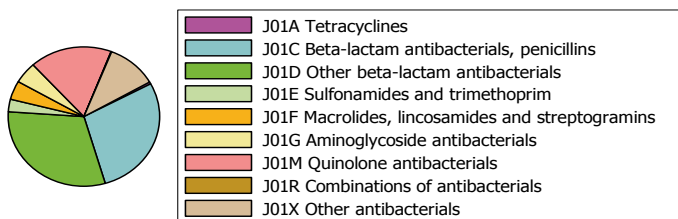


Table 10. Prevalence of HAI and antimicrobial use by patient risk factors (standard protocol)

	N	Rel%	Pts HAI	HAI %	Pts AU	AU %
Male gender	7176	53,1	663	9,2	3504	48,8
Age, <1y	674	5,0	32	4,7	128	19,0
1-44y	2682	19,8	146	5,4	1011	37,7
>=45y	10164	75,2	937	9,2	4962	48,8
Length of stay, 1-3d	4094	30,3	89	2,2	1651	40,3
4-7d	3957	29,3	271	6,8	1858	47,0
8-14d	2981	22,0	317	10,6	1441	48,3
>=15d	2473	18,3	436	17,6	1143	46,2
Missing/Unk	15	0,1	2	13,3	8	53,3
McCabe score, Non fatal	9685	71,6	608	6,3	3945	40,7
Ultimately fatal disease	2743	20,3	359	13,1	1538	56,1
Rapidly fatal disease	1023	7,6	144	14,1	583	57,0
Missing/Unk	69	0,5	4	5,8	35	50,7
Surgery since admission	3926	29,0	530	13,5	2166	55,2
Central vascular catheter	1816	13,4	463	25,5	1229	67,7
Peripheral vascular catheter	8980	66,4	706	7,9	4800	53,5
Urinary catheter	2662	19,7	452	17,0	1781	66,9
Intubation	375	2,8	146	38,9	296	78,9
Total	13520	100,0	1115	8,2	6101	45,1

Rel%=relative frequency (% of total), % HAI/AU: % patients with HAI/AU within category

Table 8. AU prevalence by patient/consultant specialty

Specialty	N pts	Rel% [1]	N pts w.AU	AU Pr% [2]
Surgery	4416	32,7	2248	50,9
Medicine	6103	45,1	2939	48,2
Paediatrics	704	5,2	170	24,1
ICU[3]	745	5,5	480	64,4
Gynaeco/obstetrics	955	7,1	197	20,6
Geriatrics	82	0,6	39	47,6
Psychiatry	463	3,4	16	3,5
Rehabilitation/Other	52	0,4	12	23,1
Total	13520	100	6101	45,1

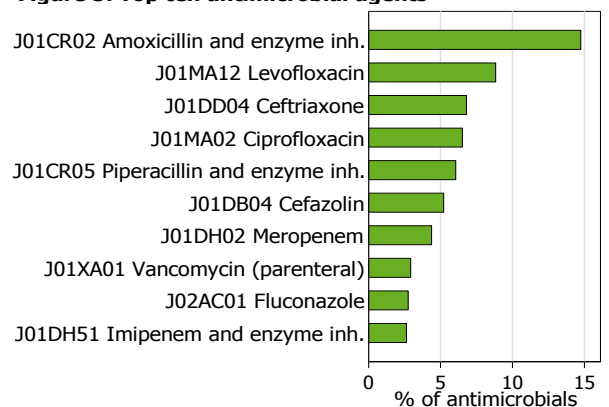
N=number, pts=patients, N pts w.AU=N of patients with >=1 antimicrobial, [1] % of total, [2] AU prevalence % within category [3] includes non-ICU patient/consultant specialties in ICU ward

Table 9. Indication for antimicrobial use

Indication	N pts	Pr %	N AM	Rel%
Treatment intention	3837	28,4	5491	65,1
Community infection	2673	19,8	3658	43,4
Hospital infection	1141	8,4	1729	20,5
Long-term care/other HAI	77	0,6	104	1,2
Surgical prophylaxis	1108	8,2	1234	14,6
Single dose	292	2,2	318	3,8
One day	245	1,8	258	3,1
>1 day	586	4,3	658	7,8
Medical prophylaxis	1122	8,3	1431	17,0
Other indication	75	0,6	88	1,0
Unknown	168	1,2	192	2,3

Pr %: Prevalence(%), AM: antimicrobials, Rel(ative) % of total AM

Figure 5. Top ten antimicrobial agents



France

Country comments:

PPS data from 21/05/2012 to 21/07/2012

Number of hospitals	54
Standard protocol	54
Light protocol	0
Number of patients	9670

I. Hospital characteristics

Table 1. Hospital type

Hospital type	N	%
Primary	0	0
Secondary	0	0
Tertiary	0	0
Specialised	0	0
Unknown	54	100

Table 2. Hospital size and length of stay

	Median	[IQR]
Hospital size (number of beds)	167	[90- 338]
Hospital length of stay (days)*	5,9	[4.6-8.0]

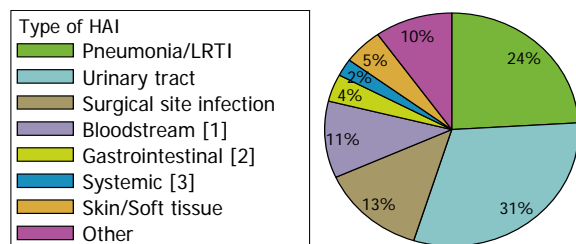
*hospital statistics of year preceding PPS

II. Healthcare-associated infections

Table 3. HAI prevalence and key results

Number of patients with HAI	475
HAI prevalence % (95%CI)	4.9 (4.3-5.6)
Number of HAIs	498
N of HAIs per infected patient	1,05
N(%) HAIs with microorganism	342 (68.7)
Total number of reported isolates	402

Figure 1. Distribution of HAI types



[1] incl. catheter-related BSI (3.8%)

[2] incl. C. difficile infections (1.4%)

[3] incl. clinical sepsis (2.2%)

Figure 2. Top ten microorganisms in HAIs

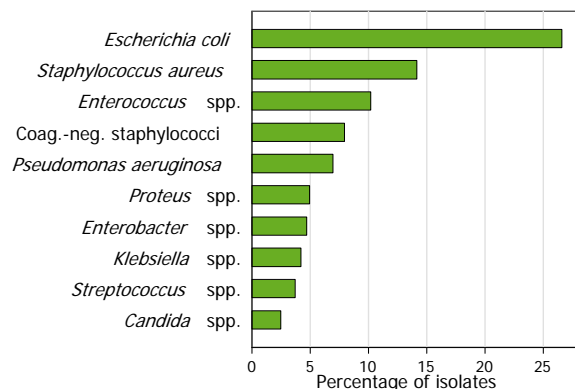


Table 4. HAI origin

	N HAI	Rel%	N [2]	Pr. %
HAI present at admission	146	29,3	141	1,5
Origin of HAI at admission:				
Same hospital	51	34,9	49	0,5
Other hospital	52	35,6	51	0,5
Other origin/unknown	43	29,5	41	0,4
HAI during current hospitalisation	308	61,8	295	3,1
Missing HAI origin	44	8,8		

Rel%= % of HAIs, N [2]=N of patients with HAI, Pr. %=Prevalence %

Table 5. HAI prevalence by patient/consultant specialty

Specialty	N pts	% [1]	N pts w.HAI	HAI Pr % [2]
Surgery	2153	22,3	96	4,5
Medicine	3357	34,7	179	5,3
Paediatrics	325	3,4	6	1,8
ICU[3]	223	2,3	48	21,5
Gynaeco/obstetrics	1085	11,2	3	0,3
Geriatrics	376	3,9	33	8,8
Psychiatrics	671	6,9	5	0,7
Rehabilitation/Other	1480	15,3	105	7,1
Total	9670	100	475	4,9

N=number, pts=patients, N pts w.HAI=N of patients with >=1 HAI

[1] percentage of total, [2] HAI prevalence % within category

[3] includes non-ICU patient/consultant specialties in ICU ward

Table 6. Selected markers of antimicrobial resistance

	N isol.	N [2]	N NS	% NS
Gram-positive cocci				
Staphylococcus aureus (MRSA)	57	57	17	29,8
Enterococci (VRE)	41	32	0	0,0
Enterococcus faecalis	26	24	0	0,0
Enterococcus faecium	9	8	0	.
Enterobacteriaceae, C3G-NS	174	161	31	19,3
Escherichia coli	107	102	17	16,7
Klebsiella spp.	17	16	4	25,0
Enterobacter spp.	19	17	7	41,2
Enterobacteriaceae, CAR-NS	174	161	2	1,2
Escherichia coli	107	102	2	2,0
Klebsiella spp.	17	16	0	0,0
Enterobacter spp.	19	17	0	0,0
Non-fermenting gram-negatives, CAR-NS				
Pseudomonas aeruginosa	28	26	3	11,5
Acinetobacter baumannii	7	6	1	.

N isol.=Total number of isolates, N [2]= N of isolates with known susceptibility results, NS=non susceptible, % NS=I+R/(I+R+S), not shown if less than 10 isolates in N[2], S=sensitive, I=intermediate, R=resistant, C3G: 3rd generation cephalosporins, CAR: carbapenems

France (cnt'd)

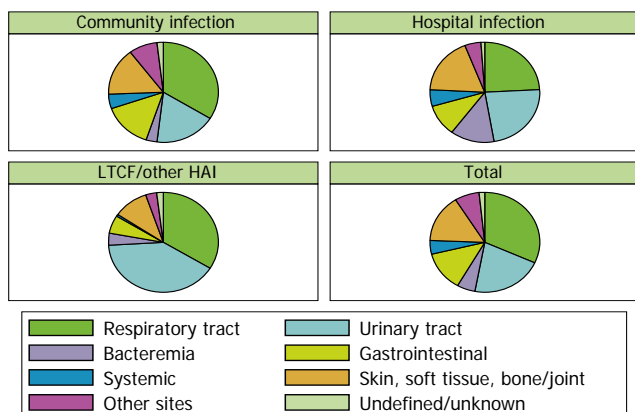
III. Antimicrobial use (AU)

Table 7. Prevalence of antimicrobial use

Number of patients with antimicrobials	2069	
Antimicrobial use prevalence % (95%CI)	21.4 (19.8-23.1)	
Number of antimicrobials	2738	
N of antimicrobials per patient	1,32	
Reason in notes	N	%
Yes	2379	86,9
No	346	12,6
Unknown	13	0,5
Route of administration	N	%
Parenteral	1575	57,5
Oral	1159	42,3
Other/unknown	4	0,1

N=Number, %=percentage of total N of antimicrobials

Figure 3. Diagnosis site in treatment of infections



LTCF=long-term care facility

Figure 4. Distribution of antibacterials for systemic use (J01)

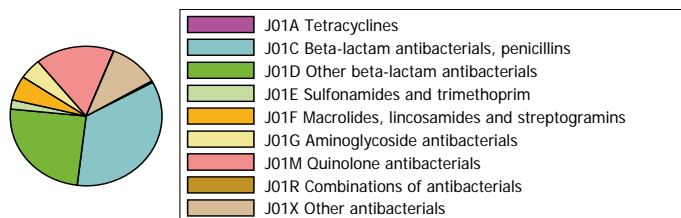


Table 10. Prevalence of HAI and antimicrobial use by patient risk factors (standard protocol)

	N	Rel%	Pts HAI	HAI %	Pts AU	AU %
Male gender	4373	45,2	261	6,0	1069	24,4
Age, <1y	553	5,7	8	1,4	46	8,3
1-44y	1928	19,9	31	1,6	262	13,6
>=45y	7189	74,3	436	6,1	1761	24,5
Length of stay, 1-3d	2937	30,4	102	3,5	567	19,3
4-7d	2431	25,1	107	4,4	613	25,2
8-14d	1700	17,6	99	5,8	458	26,9
>=15d	2471	25,6	165	6,7	426	17,2
Missing/Unk	131	1,4	2	1,5	5	3,8
McCabe score, Non fatal	5787	59,8	165	2,9	994	17,2
Ultimately fatal disease	1790	18,5	155	8,7	522	29,2
Rapidly fatal disease	895	9,3	108	12,1	321	35,9
Missing/Unk	1198	12,4	47	3,9	232	19,4
Surgery since admission	2236	23,1	130	5,8	513	22,9
Central vascular catheter	691	7,1	120	17,4	318	46,0
Peripheral vascular catheter	2959	30,6	197	6,7	1157	39,1
Urinary catheter	985	10,2	146	14,8	394	40,0
Intubation	130	1,3	36	27,7	73	56,2
Total	9670	100,0	475	4,9	2069	21,4

Rel%=relative frequency (% of total), % HAI/AU: % patients with HAI/AU within category

Table 8. AU prevalence by patient/consultant specialty

Specialty	N pts	Rel% [1]	N pts w.AU	AU Pr% [2]
Surgery	2153	22,3	525	24,4
Medicine	3357	34,7	973	29,0
Paediatrics	325	3,4	71	21,8
ICU[3]	223	2,3	118	52,9
Gynaeco/obstetrics	1085	11,2	55	5,1
Geriatrics	376	3,9	120	31,9
Psychiatry	671	6,9	15	2,2
Rehabilitation/Other	1480	15,3	192	13,0
Total	9670	100	2069	21,4

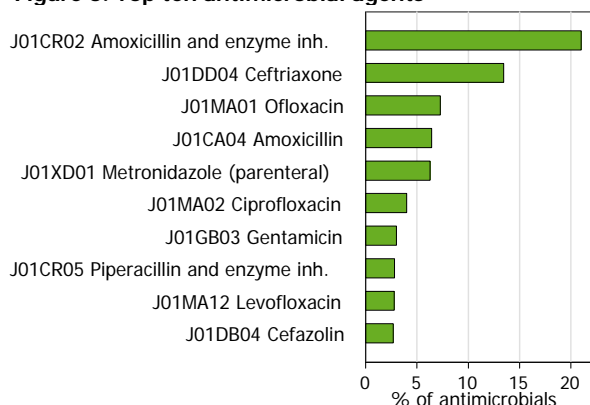
N=number, pts=patients, N pts w.AU=N of patients with >=1 antimicrobial, [1] % of total, [2] AU prevalence % within category [3] includes non-ICU patient/consultant specialties in ICU ward

Table 9. Indication for antimicrobial use

Indication	N pts	Pr %	N AM	Rel%
Treatment intention	1663	17,2	2232	81,5
Community infection	1175	12,2	1565	57,2
Hospital infection	347	3,6	478	17,5
Long-term care/other HAI	152	1,6	189	6,9
Surgical prophylaxis	227	2,3	250	9,1
Single dose	47	0,5	47	1,7
One day	31	0,3	32	1,2
>1 day	149	1,5	171	6,2
Medical prophylaxis	115	1,2	146	5,3
Other indication	47	0,5	56	2,0
Unknown	45	0,5	54	2,0

Pr %: Prevalence(%), AM: antimicrobials, Rel(ative) % of total AM

Figure 5. Top ten antimicrobial agents



Italy

Country comments:

PPS data from 06/09/2011 to 25/11/2011

Number of hospitals	49
Standard protocol	49
Light protocol	0
Number of patients	14784

I. Hospital characteristics

Table 1. Hospital type

Hospital type	N	%
Primary	8	16,3
Secondary	22	44,9
Tertiary	17	34,7
Specialised	2	4,1
Unknown	0	0

Table 2. Hospital size and length of stay

	Median	[IQR]
Hospital size (number of beds)	393	[210- 575]
Hospital length of stay (days)*	6,3	[5.2-7.3]

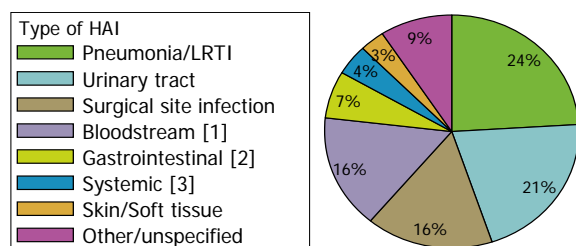
*hospital statistics of year preceding PPS

II. Healthcare-associated infections

Table 3. HAI prevalence and key results

Number of patients with HAI	938
HAI prevalence % (95%CI)	6.3 (5.4-7.4)
Number of HAIs	1068
N of HAIs per infected patient	1,14
N(%) HAIs with microorganism	652 (61.0)
Total number of reported isolates	841

Figure 1. Distribution of HAI types



[1] incl. catheter-related BSI (8.9%)

[2] incl. C. difficile infections (2.8%)

[3] incl. clinical sepsis (3.9%)

Figure 2. Top ten microorganisms in HAIs

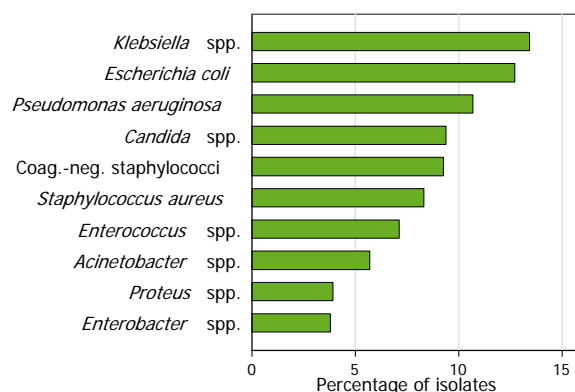


Table 4. HAI origin

	N HAI	Rel%	N [2]	Pr. %
HAI present at admission	249	23,3	223	1,5
Origin of HAI at admission:				
Same hospital	148	59,4	131	0,9
Other hospital	73	29,3	68	0,5
Other origin/unknown	28	11,2	24	0,2
HAI during current hospitalisation	814	76,2	710	4,8
Missing HAI origin	5	0,5		

Rel%= % of HAIs, N [2]=N of patients with HAI, Pr. %=Prevalence %

Table 5. HAI prevalence by patient/consultant specialty

Specialty	N pts	% [1]	N pts w.HAI	HAI Pr % [2]
Surgery	4807	32,5	302	6,3
Medicine	5887	39,8	410	7,0
Paediatrics	784	5,3	9	1,1
ICU[3]	1047	7,1	155	14,8
Gynaeco/obstetrics	1146	7,8	14	1,2
Geriatrics	333	2,3	18	5,4
Psychiatrics	378	2,6	6	1,6
Rehabilitation/Other	402	2,7	24	6,0
Total	14784	100	938	6,3

N=number, pts=patients, N pts w.HAI=N of patients with >=1 HAI

[1] percentage of total, [2] HAI prevalence % within category

[3] includes non-ICU patient/consultant specialties in ICU ward

Table 6. Selected markers of antimicrobial resistance

	N isol.	N [2]	N NS	% NS
Gram-positive cocci				
<i>Staphylococcus aureus</i> (MRSA)	70	66	41	62,1
Enterococci (VRE)	60	53	6	11,3
<i>Enterococcus faecalis</i>	57	50	6	12,0
<i>Enterococcus faecium</i>	1	1	0	.
Enterobacteriaceae, C3G-NS	314	276	133	48,2
<i>Escherichia coli</i>	107	103	36	35,0
<i>Klebsiella</i> spp.	113	100	65	65,0
<i>Enterobacter</i> spp.	32	26	11	42,3
Enterobacteriaceae, CAR-NS	314	276	61	22,1
<i>Escherichia coli</i>	107	103	9	8,7
<i>Klebsiella</i> spp.	113	100	46	46,0
<i>Enterobacter</i> spp.	32	26	1	3,8
Non-fermenting gram-negatives, CAR-NS				
<i>Pseudomonas aeruginosa</i>	90	78	35	44,9
<i>Acinetobacter baumannii</i>	47	41	39	95,1

N isol.=Total number of isolates, N [2]= N of isolates with known susceptibility results, NS=non susceptible, % NS=I+R/(I+R+S), not shown if less than 10 isolates in N[2], S=susceptible, I=intermediate, R=resistant, C3G: 3rd generation cephalosporins, CAR: carbapenems

Italy (cnt'd)

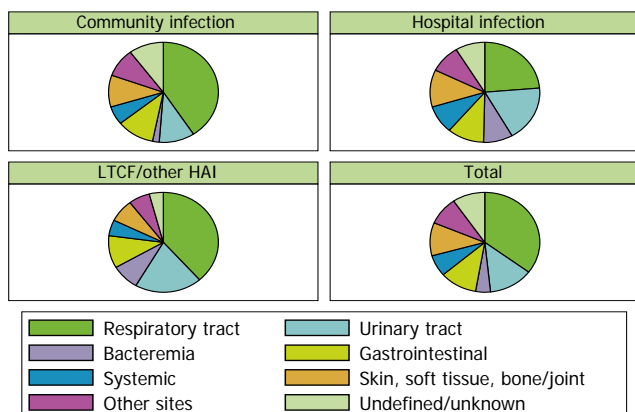
III. Antimicrobial use (AU)

Table 7. Prevalence of antimicrobial use

Number of patients with antimicrobials	6509	
Antimicrobial use prevalence % (95%CI)	44.0 (42.1-46.0)	
Number of antimicrobials	9052	
N of antimicrobials per patient	1,39	
Reason in notes	N	%
Yes	6066	67
No	2439	26,9
Unknown	547	6
Route of administration	N	%
Parenteral	6875	76
Oral	2135	23,6
Other/unknown	42	0,5

N=Number, %=percentage of total N of antimicrobials

Figure 3. Diagnosis site in treatment of infections



LTCF=long-term care facility

Figure 4. Distribution of antibacterials for systemic use (J01)

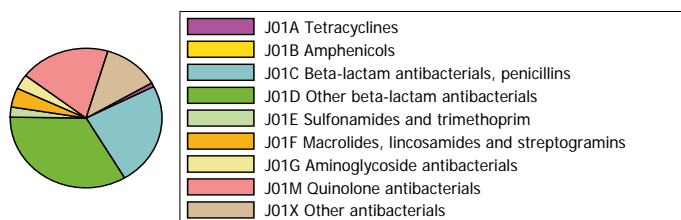


Table 10. Prevalence of HAI and antimicrobial use by patient risk factors (standard protocol)

	N	Rel%	Pts HAI	HAI %	Pts AU	AU %
Male gender	7247	49,0	534	7,4	3487	48,1
Age, <1y	904	6,1	32	3,5	216	23,9
1-44y	3214	21,7	113	3,5	1345	41,8
>=45y	10562	71,4	785	7,4	4909	46,5
Length of stay, 1-3d	4528	30,6	115	2,5	1719	38,0
4-7d	4240	28,7	203	4,8	1933	45,6
8-14d	3230	21,8	256	7,9	1590	49,2
>=15d	2595	17,6	356	13,7	1205	46,4
Missing/Unk	191	1,3	8	4,2	62	32,5
McCabe score, Non fatal	10887	73,6	485	4,5	4353	40,0
Ultimately fatal disease	2022	13,7	238	11,8	1131	55,9
Rapidly fatal disease	1257	8,5	163	13,0	700	55,7
Missing/Unk	618	4,2	52	8,4	325	52,6
Surgery since admission	4670	31,6	432	9,3	2647	56,7
Central vascular catheter	1791	12,1	384	21,4	1294	72,3
Peripheral vascular catheter	8277	56,0	561	6,8	4587	55,4
Urinary catheter	3646	24,7	480	13,2	2391	65,6
Intubation	440	3,0	136	30,9	342	77,7
Total	14784	100,0	938	6,3	6509	44,0

Rel%=relative frequency (% of total), % HAI/AU: % patients with HAI/AU within category

Table 8. AU prevalence by patient/consultant specialty

Specialty	N pts	Rel% [1]	N pts w.AU	AU Pr% [2]
Surgery	4807	32,5	2386	49,6
Medicine	5887	39,8	2715	46,1
Paediatrics	784	5,3	198	25,3
ICU[3]	1047	7,1	578	55,2
Gynaeco/obstetrics	1146	7,8	332	29,0
Geriatrics	333	2,3	160	48,0
Psychiatry	378	2,6	15	4,0
Rehabilitation/Other	402	2,7	125	31,1
Total	14784	100	6509	44,0

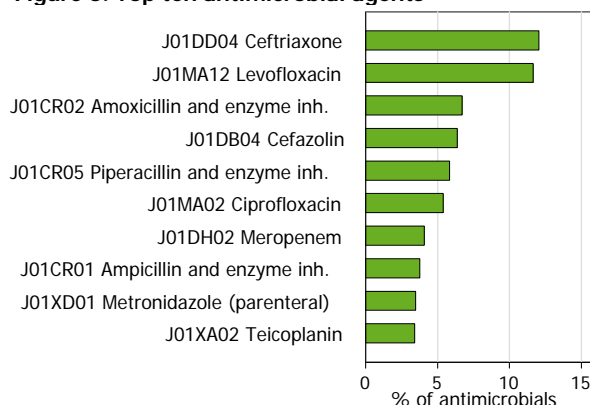
N=number, pts=patients, N pts w.AU=N of patients with >=1 antimicrobial, [1] % of total, [2] AU prevalence % within category [3] includes non-ICU patient/consultant specialties in ICU ward

Table 9. Indication for antimicrobial use

Indication	N pts	Pr %	N AM	Rel%
Treatment intention	3138	21,2	4822	53,3
Community infection	2106	14,2	3121	34,5
Hospital infection	983	6,6	1567	17,3
Long-term care/other HAI	92	0,6	134	1,5
Surgical prophylaxis	1524	10,3	1707	18,9
Single dose	431	2,9	447	4,9
One day	171	1,2	177	2,0
>1 day	940	6,4	1083	12,0
Medical prophylaxis	1752	11,9	2152	23,8
Other indication	123	0,8	155	1,7
Unknown	182	1,2	218	2,4

Pr %: Prevalence(%), AM: antimicrobials, Rel(ative) % of total AM

Figure 5. Top ten antimicrobial agents



Portugal

Country comments:

PPS data from 21/05/2012 to 30/06/2012

Number of hospitals	57
Standard protocol	56
Light protocol	1
Number of patients	10418

I. Hospital characteristics

Table 1. Hospital type

Hospital type	N	%
Primary	15	26,3
Secondary	19	33,3
Tertiary	15	26,3
Specialised	7	12,3
Unknown	1	1,8

Table 2. Hospital size and length of stay

	Median	[IQR]
Hospital size (number of beds)	200	[98- 377]
Hospital length of stay (days)*	7,6	[5.0-9.2]

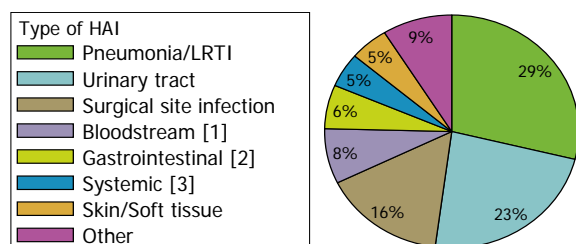
*hospital statistics of year preceding PPS

II. Healthcare-associated infections

Table 3. HAI prevalence and key results

Number of patients with HAI	1128
HAI prevalence % (95%CI)	10.8 (9.5-12.4)
Number of HAIs	1231
N of HAIs per infected patient	1,09
N(%) HAIs with microorganism	658 (53.5)
Total number of reported isolates	775

Figure 1. Distribution of HAI types



[1] incl. catheter-related BSI (3.2%)

[2] incl. C. difficile infections (2.3%)

[3] incl. clinical sepsis (4.2%)

Figure 2. Top ten microorganisms in HAIs

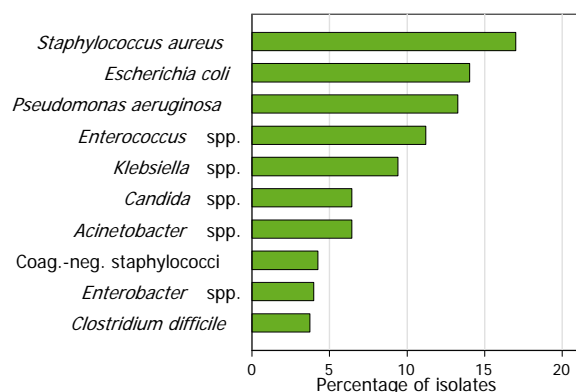


Table 4. HAI origin

	N HAI	Rel%	N [2]	Pr. %
HAI present at admission	282	22,9	265	2,5
Origin of HAI at admission:				
Same hospital	161	57,1	152	1,5
Other hospital	82	29,1	78	0,7
Other origin/unknown	39	13,8	35	0,3
HAI during current hospitalisation	948	77	862	8,3
Missing HAI origin	1	0,1		

Rel%= % of HAIs, N [2]=N of patients with HAI, Pr. %=Prevalence %

Table 5. HAI prevalence by patient/consultant specialty

Specialty	N pts	% [1]	N pts w.HAI	HAI Pr % [2]
Surgery	3839	36,8	395	10,3
Medicine	4206	40,4	542	12,9
Paediatrics	468	4,5	13	2,8
ICU[3]	601	5,8	137	22,8
Gynaeco/obstetrics	573	5,5	15	2,6
Geriatrics	0	0	0	
Psychiatrics	633	6,1	8	1,3
Rehabilitation/Other	98	0,9	18	18,4
Total	10418	100	1128	10,8

N=number, pts=patients, N pts w.HAI=N of patients with >=1 HAI

[1] percentage of total, [2] HAI prevalence % within category

[3] includes non-ICU patient/consultant specialties in ICU ward

Table 6. Selected markers of antimicrobial resistance

	N isol.	N [2]	N NS	% NS
Gram-positive cocci				
<i>Staphylococcus aureus</i> (MRSA)	132	126	101	80,2
Enterococci (VRE)	87	77	18	23,4
<i>Enterococcus faecalis</i>	50	45	8	17,8
<i>Enterococcus faecium</i>	31	30	8	26,7
Enterobacteriaceae, C3G-NS	260	226	86	38,1
<i>Escherichia coli</i>	109	97	26	26,8
<i>Klebsiella</i> spp.	73	63	36	57,1
<i>Enterobacter</i> spp.	31	30	13	43,3
Enterobacteriaceae, CAR-NS	260	226	13	5,8
<i>Escherichia coli</i>	109	97	2	2,1
<i>Klebsiella</i> spp.	73	63	6	9,5
<i>Enterobacter</i> spp.	31	30	2	6,7
Non-fermenting gram-negatives, CAR-NS				
<i>Pseudomonas aeruginosa</i>	103	94	31	33,0
<i>Acinetobacter baumannii</i>	48	45	45	100,0

N isol.=Total number of isolates, N [2]= N of isolates with known susceptibility results, NS=non susceptible, % NS=I+R/(I+R+S), not shown if less than 10 isolates in N[2], S=sensitive, I=intermediate, R=resistant, C3G: 3rd generation cephalosporins, CAR: carbapenems

Portugal (cnt'd)

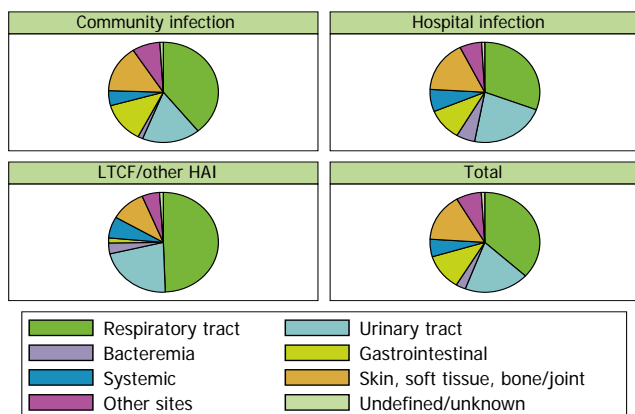
III. Antimicrobial use (AU)

Table 7. Prevalence of antimicrobial use

Number of patients with antimicrobials	4835	
Antimicrobial use prevalence % (95%CI)	46.4 (43.8-49.0)	
Number of antimicrobials	6453	
N of antimicrobials per patient	1,33	
Reason in notes	N	%
Yes	5206	80,7
No	1222	18,9
Unknown	25	0,4
Route of administration	N	%
Parenteral	5191	80,4
Oral	1225	19
Other/unknown	37	0,6

N=Number, %=percentage of total N of antimicrobials

Figure 3. Diagnosis site in treatment of infections



LTCF=long-term care facility

Figure 4. Distribution of antibacterials for systemic use (J01)

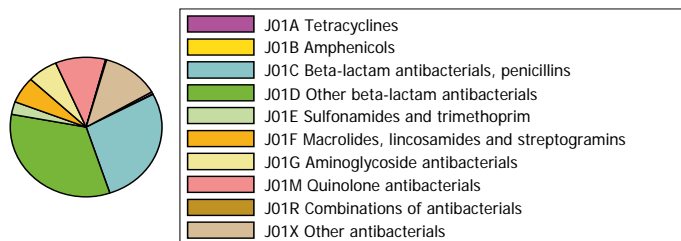


Table 10. Prevalence of HAI and antimicrobial use by patient risk factors (standard protocol)

	N	Rel%	Pts HAI	HAI %	Pts AU	AU %
Male gender	5202	50,2	656	12,6	2580	49,6
Age, <1y	521	5,0	21	4,0	114	21,9
1-44y	1988	19,2	125	6,3	815	41,0
>=45y	7850	75,8	978	12,5	3876	49,4
Length of stay, 1-3d	2667	25,7	113	4,2	1143	42,9
4-7d	2774	26,8	263	9,5	1462	52,7
8-14d	2227	21,5	287	12,9	1149	51,6
>=15d	2646	25,5	459	17,3	1043	39,4
Missing/Unk	45	0,4	2	4,4	8	17,8
McCabe score, Non fatal	6948	67,1	544	7,8	2939	42,3
Ultimately fatal disease	2382	23,0	390	16,4	1321	55,5
Rapidly fatal disease	728	7,0	153	21,0	395	54,3
Missing/Unk	301	2,9	37	12,3	150	49,8
Surgery since admission	3230	31,2	436	13,5	1842	57,0
Central vascular catheter	980	9,5	310	31,6	683	69,7
Peripheral vascular catheter	6906	66,7	825	11,9	3993	57,8
Urinary catheter	2484	24,0	527	21,2	1689	68,0
Intubation	419	4,0	134	32,0	301	71,8
Total	10359	100,0	1124	10,9	4805	46,4

Rel%=relative frequency (% of total), % HAI/AU: % patients with HAI/AU within category

Table 8. AU prevalence by patient/consultant specialty

Specialty	N pts	Rel% [1]	N pts w.AU	AU Pr% [2]
Surgery	3839	36,8	1957	51,0
Medicine	4206	40,4	2162	51,4
Paediatrics	468	4,5	141	30,1
ICU[3]	601	5,8	333	55,4
Gynaeco/obstetrics	573	5,5	183	31,9
Geriatrics	0	0,0	0	
Psychiatry	633	6,1	26	4,1
Rehabilitation/Other	98	0,9	33	33,7
Total	10418	100	4835	46,4

N=number, pts=patients, N pts w.AU=N of patients with >=1 antimicrobial, [1] % of total, [2] AU prevalence % within category [3] includes non-ICU patient/consultant specialties in ICU ward

Table 9. Indication for antimicrobial use

Indication	N pts	Pr %	N AM	Rel%
Treatment intention	3290	31,6	4548	70,5
Community infection	2059	19,8	2777	43,0
Hospital infection	1101	10,6	1539	23,8
Long-term care/other HAI	169	1,6	233	3,6
Surgical prophylaxis	1026	9,8	1149	17,8
Single dose	205	2,0	211	3,3
One day	170	1,6	174	2,7
>1 day	663	6,4	764	11,8
Medical prophylaxis	442	4,2	530	8,2
Other indication	63	0,6	89	1,4
Unknown	126	1,2	138	2,1

Pr %: Prevalence(%), AM: antimicrobials, Rel(ative) % of total AM

Figure 5. Top ten antimicrobial agents

