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Surveillance of ICU - Acquired Infections

National Feedback Report

Infection Indicators

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Table 1: Participation

	#
unit quarters	20
hospital quarters	17
unit years	9
hospital years	8
level 1	5
level 2 basic	15
level 2a (risk factors / invasive devices)	15
level 2b (cvc utilization)	4
level 2c (antibiotic utilization)	12

^a unit quarters = number of IC units that participated during a particular 3-month quarter; hospital quarters = number of hospitals that participated during a particular 3-month quarter; unit years = number of IC units that participated during at least one 3-month quarter ; hospital years = number of hospitals that participated during at least one 3-month quarter

^b level = number of IC units that participated during a particular 3-month quarter; level 1 = unit-based surveillance; level 2 = patient-based surveillance

Table 2: General Indicators

	#					
	agg	p10	p25	p50	p75	p90
admissions, total	1490	35	80.5	165.5	306	351
patientdays, total	11207	386	671.5	1103.5	2122	3027
patientdays, mean	7.5	5.5	6.8	7.8	9.2	11
patientdays, median	6	4	5	5.5	6	7



Table 3: Pneumonia

	# ^a		rate ^a						
	agg.	agg.	p10	p25	p50	p75	p90		
patients with P (all)	66	4.43	1.15	3.02	4.85	7.36	11.43	/100 admissions	
patients with P ≥ D3 ^b (NP ^b)	55	3.69	1.15	2.21	4.24	6.86	11.43	/100 admissions	
patients with NP, ID2 ^b	42	2.82	0.00	1.69	3.47	4.76	5.71	/100 admissions	
P (all)	74	6.60	1.28	4.49	7.17	11.23	15.54	/1000 patientdays	
P ≥ D3 (NP)	62	5.53	1.28	3.32	6.35	10.43	15.54	/1000 patientdays	
NP, 1st ^b	55	4.91	1.28	3.17	5.48	9.64	11.16	/1000 patientdays	
NP, ID2	43	8.91	0.00	4.52	9.66	15.46	24.77	/1000 IDdays ^b	
NP, ID2, 1st	33	13.51	0.00	9.58	13.26	17.54	31.25	/1000 IDdays bef 1st NP	

^a # = total; rate = # divided by indicated denominator; agg. = aggregated over all participating units; p10-90 = percentiles for distribution of participating units

^b P = pneumonia, NP(s) = Nosocomial P, ≥ D3 = occurring after D2 (nosocomial), IDdays = Invasive Device (intubation for P) exposure days, ID2 = Invasive Device (intubation for P) exposure in 2 days before onset of NP, 1st = only 1st infection per patient



Table 4: Bloodstream Infections

	# ^a		rate ^a						
	agg.	agg.	p10	p25	p50	p75	p90		
patients with B (all)	29	1.95	0.50	1.05	1.92	2.78	4.86	/100 admissions	
patients with B \geq D3 ^b (NB ^b)	27	1.81	0.50	0.75	1.92	2.78	4.86	/100 admissions	
patients with NB, ID2 ^b	24	1.61	0.50	0.75	1.34	2.78	4.17	/100 admissions	
B (all)	31	2.77	0.80	1.34	2.33	3.08	6.95	/1000 patientdays	
B \geq D3 (NBs)	29	2.59	0.80	1.01	2.33	3.08	6.95	/1000 patientdays	
NB, 1st ^b	27	2.41	0.80	1.01	2.33	3.08	6.08	/1000 patientdays	
NB, ID2	24	2.91	0.91	1.09	1.95	4.73	8.93	/1000 IDdays ^b	
NB, ID2, 1st	21	4.15	1.14	1.82	3.07	5.41	9.85	/1000 IDdays bef 1st NB	
NB, ori=cat/unk ^{b,c}	18	1.61	0.00	0.40	1.01	2.35	3.91	/1000 patientdays	
NB, (ori=cat/unk, ID2)/(ori=cat) ^d	16	1.94	0.00	0.00	1.09	2.44	5.49	/1000 IDdays	
NB, ori=cat ^e	10	1.21	0.00	0.00	0.00	1.22	4.81	/1000 IDdays	
NB, ori=unk	8	0.71	0.00	0.00	0.83	1.02	2.59	/1000 patientdays	
NB, ori=cat or unk, 1st	17	1.52	0.00	0.40	1.01	2.35	3.47	/1000 patientdays	
NB, (ori=cat or unk, ID2)/(ori=cat), 1st	13	2.57	0.00	0.00	1.48	3.45	5.75	/1000 IDdays bef 1st NB	
NB, ori=cat, 1st	7	1.38	0.00	0.00	0.00	1.73	4.93	/1000 IDdays bef 1st NB	
NB, ori=unk, 1st	8	0.71	0.00	0.00	0.83	1.02	2.59	/1000 patientdays	
NBs, ID2, \geq 1HC path or \geq 2HCs with sc ^b	18	3.56	1.14	1.82	3.07	5.41	7.39	/1000 IDdays bef 1st NB	
NBs, ID2, \geq 1HC path or \geq 2HCs with sc, ori=cat	5	0.99	0.00	0.00	0.00	1.73	3.28	/1000 IDdays bef 1st NB	
NBs, ID2, \geq 1HC path or \geq 2HCs with sc, ori=cat, 1st	4	0.79	0.00	0.00	0.00	1.73	2.46	/1000 IDdays bef 1st NB	

^a #=total; rate=# divided by indicated denominator; agg.=aggregated over all participating units; p10-90=percentiles for distribution of participating units

^b B=Bloodstream Infection episodes; NB(s)=Nosocomial B; \geq D3=occurring after D2 (nosocomial); IDdays=Invasive Device (central vascular catheter for B) days; ID2=Invasive Device (central vascular catheter for B) in 2 days before onset of B; 1st=only 1st infection per patient; ori=cat/unk=NB origin is either catheter or unknown; ori=cat=NB origin is catheter; \geq 1HC path=at least one hemoculture from a pathogen; \geq 2HCs with sc=at least 2 hemocultures from a skincontaminant

^c Primary BSI

^d Catheter Associated Primary BSI

^e Definite Catheter Associated Primary BSI



Table 5: Urinary Tract Infections

	# ^a		rate ^a						
	agg.	agg.	p10	p25	p50	p75	p90		
patients with U (all)	13	1.77	0.00	0.17	1.10	4.37	6.90	/100 admissions	
patients with U \geq D3 (NU) ^b	12	1.63	0.00	0.17	0.95	4.22	6.90	/100 admissions	
patients with NU, ID2 ^b	11	1.50	0.00	0.17	0.79	4.07	6.90	/100 admissions	
U (all)	16	2.46	0.00	0.22	1.21	6.75	11.51	/1000 patientdays	
U \geq D3 (NU)	15	2.31	0.00	0.22	1.04	6.58	11.51	/1000 patientdays	
NU, 1st ^b	12	1.85	0.00	0.22	1.04	4.66	7.67	/1000 patientdays	
NU, ID2	14	2.79	0.59	0.59	1.49	13.95	13.95	/1000 ID days before 1st NU	
NU, ID2, 1st	11	2.17	0.77	0.77	1.78	10.89	10.89	/1000 ID days before 1st NU	

^a #=total; rate=# divided by indicated denominator; agg.=aggregated over all participating units; p10-90=percentiles for distribution of participating units

^b U=Urinary Tract Infection; NU=Nosocomial U; \geq D3=occurring after D2 (nosocomial); IDdays=Invasive Device (urinary catheter for U) days; ID2=Invasive Device (urinary catheter for U) in 2 days before onset of U; 1st=only 1st infection per patient



Table 6: Catheter Related Infections

	# ^a		rate ^a					
	agg.	agg.	p10	p25	p50	p75	p90	
patients with CRI (all)	7	1.04	0.31	0.31	0.72	1.14	1.14	/100 admissions
patients with CRI \geq D3 (NCRI) ^b	6	0.89	0.31	0.31	0.58	0.85	0.85	/100 admissions
CRI (all)	7	1.41	0.33	0.33	1.20	2.06	2.06	/1000 patientdays
CRI \geq D3 (NCRI)	6	1.21	0.33	0.33	0.94	1.55	1.55	/1000 patientdays
NCRI, 1st ^b	6	1.21	0.33	0.33	0.94	1.55	1.55	/1000 patientdays

^a # =total; rate=# divided by indicated denominator; agg.=aggregated over all participating units; p10-90=percentiles for distribution of participating units

^b U=Catheter Related Infection; NCRI=Nosocomial CRI; \geq D3=occurring after D2 (nosocomial); 1st=only 1st infection per patient



Table 7: Case Definitions: Nosocomial Pneumonia

	# ^a		% ^a				
	agg.	agg.	p10	p25	p50	p75	p90
PN1	8	12.9	0.0	0.0	0.0	0.0	61.5
PN2	5	8.1	0.0	0.0	0.0	0.0	38.5
PN3	0	0.0	0.0	0.0	0.0	0.0	0.0
PN4	43	69.4	0.0	82.9	86.6	100.0	100.0
PN5	6	9.7	0.0	0.0	6.3	14.3	20.0

^a#=crude number; %=percentage; agg.=aggregated, treating national sample as one unit; p10-90=percentiles for national distribution

^bPN=clinical definition for Nosocomial Pneumonia; PN1=PN and positive quantitative culture from minimally contaminated lower respiratory tract specimen; PN2=PN and positive quantitative culture from possibly contaminated lower respiratory tract specimen; PN3=PN and alternative microbiology methods; PN4=PN and positive sputum culture or non-quantitative LRT specimen culture; PN5=PN with no positive microbiology

Table 8: Case Definitions: Nosocomial Bloodstream Infections

	# ^a		% ^a				
	agg.	agg.	p10	p25	p50	p75	p90
BSI-A	25	86.2	75.0	100.0	100.0	100.0	100.0
BSI-B	4	13.8	0.0	0.0	0.0	0.0	25.0

^a#=crude number; %=percentage; agg.=aggregated, treating national sample as one unit; p10-90=percentiles for national distribution

^bBSI-A=positive blood culture for a recognised pathogen or clinical signs with 2 positive blood cultures for a common skin contaminant; BSI-B=clinical signs and positive blood culture with a skin contaminant or positive blood antigen test

Table 9: Case Definitions: Nosocomial Urinary Tract Infections

	# ^a		% ^a				
	aggregated	aggregated	p10	p25	p50	p75	p90
UTI-A	15	100.0	100.0	100.0	100.0	100.0	100.0
UTI-B	0	0.0	0.0	0.0	0.0	0.0	0.0
UTI-C	0	0.0	0.0	0.0	0.0	0.0	0.0

^a#=crude number; %=percentage; agg.=aggregated, treating national sample as one unit; p10-90=percentiles for national distribution

^bUTI-A=microbiologically confirmed symptomatic UTI; UTI-B=not microbiologically confirmed symptomatic UTI; UTI-C=asymptomatic bacteriuria

Table 10: Case Definitions: Nosocomial Catheter Related Infections

	# ^a		% ^a				
	aggregated	aggregated	p10	p25	p50	p75	p90
CRI1	2	33.3	0.0	0.0	50.0	100.0	100.0
CRI2	1	16.7	0.0	0.0	0.0	0.0	0.0
CRI3	3	50.0	0.0	0.0	50.0	100.0	100.0

^a#=crude number; %=percentage; agg.=aggregated, treating national sample as one unit; p10-90=percentiles for national distribution

^bCRI1=local CVC-related infection; CRI2=general CVC-related infection; CRI3=CVC-related BSI



Table 11: All reported micro-organisms (nosocomial infections) (a)

microorganism - family	code	NP ^a		NB ^a		NU ^a		tot ^a	
		# ^b	% ^b	#	%	#	%	#	%
Gram-positive cocci		11	14.3	16	55.2	2	11.8	32	24.1
<i>Coagulase-negative staphylococci, not specified</i>	STACNS	0	0.0	0	0.0	0	0.0	1	0.8
<i>Enterococcus faecalis</i>	ENCFAE	0	0.0	1	3.4	0	0.0	2	1.5
<i>Enterococcus faecium</i>	ENCFAI	0	0.0	3	10.3	1	5.9	4	3.0
<i>Enterococcus sp., not specified</i>	ENCNSP	0	0.0	0	0.0	1	5.9	1	0.8
<i>Other coagulase-negative staphylococci (cns)</i>	STAOTH	2	2.6	1	3.4	0	0.0	3	2.3
<i>Staphylococcus aureus</i>	STAAUR	4	5.2	6	20.7	0	0.0	10	7.5
<i>Staphylococcus epidermidis</i>	STAEPI	0	0.0	1	3.4	0	0.0	2	1.5
<i>Staphylococcus haemolyticus</i>	STAHAE	1	1.3	3	10.3	0	0.0	4	3.0
<i>Streptococcus pneumoniae</i>	STRPNE	4	5.2	1	3.4	0	0.0	5	3.8
<i>Streptococcus sp., not specified</i>	STRNSP	0	0.0	0	0.0	0	0.0	0	0.0
Gram negative cocci		1	1.3	0	0.0	0	0.0	1	0.8
<i>Moraxella catharralis</i>	MORCAT	1	1.3	0	0.0	0	0.0	1	0.8
Gram-negative bacilli, enterobacteriaceae		38	49.4	9	31.0	12	70.6	66	49.6
<i>Citrobacter freundii</i>	CITFRE	2	2.6	0	0.0	1	5.9	4	3.0
<i>Citrobacter koseri (ex. diversus)</i>	CITDIV	1	1.3	0	0.0	0	0.0	1	0.8
<i>Citrobacter sp., other</i>	CITOTH	1	1.3	0	0.0	0	0.0	1	0.8
<i>Enterobacter aerogenes</i>	ENBAER	2	2.6	0	0.0	1	5.9	3	2.3
<i>Enterobacter cloacae</i>	ENBCLO	5	6.5	0	0.0	0	0.0	5	3.8
<i>Escherichia coli</i>	ESCCOL	11	14.3	4	13.8	6	35.3	23	17.3
<i>Hafnia species</i>	HAFSPP	2	2.6	0	0.0	0	0.0	2	1.5
<i>Klebsiella oxytoca</i>	KLEOXY	2	2.6	1	3.4	0	0.0	4	3.0
<i>Klebsiella pneumoniae</i>	KLEPNE	4	5.2	0	0.0	2	11.8	7	5.3
<i>Morganella species</i>	MOGSPP	1	1.3	0	0.0	1	5.9	3	2.3
<i>Proteus mirabilis</i>	PRTMIR	2	2.6	1	3.4	1	5.9	5	3.8
<i>Proteus vulgaris</i>	PRTVUL	2	2.6	0	0.0	0	0.0	2	1.5
<i>Serratia marcescens</i>	SERMAR	3	3.9	3	10.3	0	0.0	6	4.5

^a NP=Nosocomial Pneumonia, NB=Nosocomial Bloodstream Infection, NU=Nosocomial Urinary Tract Infection, tot=all Nosocomial Infections

^b #=number of micro-organisms, %=percentage of total micro-organisms

Table 12: All reported micro-organisms (nosocomial infections) (b)

microorganism - family	code	NP ^a		NB ^a		NU ^a		tot ^a	
		# ^b	% ^b	#	%	#	%	#	%
Gram-negative bacilli, other		23	29.9	1	3.4	1	5.9	25	18.8
<i>Acinetobacter baumannii</i>	ACIBAU	2	2.6	0	0.0	0	0.0	2	1.5
<i>Aeromonas species</i>	AEMSPP	1	1.3	0	0.0	0	0.0	1	0.8
<i>Haemophilus influenzae</i>	HAEINF	4	5.2	0	0.0	0	0.0	4	3.0
<i>Pseudomonas aeruginosa</i>	PSEAER	12	15.6	1	3.4	0	0.0	13	9.8
<i>Stenotrophomonas maltophilia</i>	STEMAL	4	5.2	0	0.0	1	5.9	5	3.8
Anaerobes		0	0.0	1	3.4	0	0.0	1	0.8
<i>Bacteroides fragilis</i>	BATFRA	0	0.0	1	3.4	0	0.0	1	0.8
Parasites		0	0.0	2	6.9	2	11.8	4	3.0
<i>Candida albicans</i>	CANALB	0	0.0	1	3.4	2	11.8	3	2.3
<i>Candida glabrata</i>	CANGLA	0	0.0	1	3.4	0	0.0	1	0.8

^a NP=Nosocomial Pneumonia, NB=Nosocomial Bloodstream Infection, NU=Nosocomial Urinary Tract Infection, tot=all Nosocomial Infections

^b #=number of micro-organisms, %=percentage of total micro-organisms



Table 13: Anti Microbial Resistance Indicators I: Gram Positive Cocci

	SIR ^a					IR ^a								
	# ^a	% ^a	p10	p25	p50	p75	p90	# ^a	% ^a	p10	p25	p50	p75	p90
<i>Staphylococcus aureus</i> cultures	10													
Fluoroquinolones: Ciprofloxacin/ofloxacin	3	30.0	0.0	0.0	50.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Macrolides/sim.: Clindamycin (lincosamides)	1	10.0	0.0	0.0	0.0	0.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Macrolides/sim.: Erythromycin (macrolides)	1	10.0	0.0	0.0	0.0	0.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Other antibiotics: Fosfomycin	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Other antibiotics: Fusidic acid	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aminoglycosides: Gentamycin	1	10.0	0.0	0.0	0.0	0.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Glycopeptides: Vancomycin/teicoplanin (Glycopeptides)	8	80.0	0.0	50.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Methicillin/Oxacillin (beta-lact.res.penic.)	9	90.0	50.0	100.0	100.0	100.0	100.0	1	11.1	0.0	0.0	0.0	0.0	100.0
Penicillins: Penicillin	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Streptococcus pneumoniae</i> cultures	5													
Penicillins: Ampicillin	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.)	3	60.0	0.0	0.0	50.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Macrolides/sim.: Clindamycin (lincosamides)	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Macrolides/sim.: Erythromycin (macrolides)	3	60.0	0.0	0.0	50.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Methicillin/Oxacillin (beta-lact.res.penic.)	3	60.0	0.0	0.0	50.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Penicillin	1	20.0	0.0	0.0	0.0	50.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Tetracyclines: Tetra-/doxy-/minocycline (tetracyclines)	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Enterococcus faecalis</i> cultures	2													
Penicillins: Ampicillin	2	100.0	100.0	100.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Amoxicillin/clavulanate	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aminoglycosides: Gentamycin	1	50.0	0.0	0.0	50.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Glycopeptides: Vancomycin/teicoplanin (Glycopeptides)	2	100.0	100.0	100.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0

^a SIR=all Sensitive/Intermediate/Resistant antibiogram results, IR=all Intermediate/Resistant antibiogram results, #=#/100 cultures, %=#/100 cultures (SIR) or #/100 SIR results (IR).



Table 14: Anti Microbial Resistance Indicators II: Enterobacteriaceae (a)

	SIR ^a										IR ^a												
	# ^a	% ^a	p10	p25	p50	p75	p90	# ^a	% ^a	p10	p25	p50	p75	p90	# ^a	% ^a	p10	p25	p50	p75	p90		
<i>Escherichia coli</i>																							
cultures	23																						
Penicillins: Amoxicillin/clavulanate	18	78.3	0.0	100.0	100.0	100.0	100.0	7	38.9	0.0	0.0	40.0	50.0	50.0									
Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.)	17	73.9	0.0	80.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0									
Carbapenems: Meropenem/impipenem (carbapenems)	17	73.9	0.0	80.0	100.0	100.0	100.0	1	5.9	0.0	0.0	0.0	0.0	20.0									
ESBL: Extended Spectrum Beta Lactamase	16	69.6	0.0	20.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0									
<i>Enterobacter aerogenes</i>																							
cultures	3																						
Penicillins: Amoxicillin/clavulanate	3	100.0	100.0	100.0	100.0	100.0	100.0	3	100.0	100.0	100.0	100.0	100.0	100.0									
Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.)	3	100.0	100.0	100.0	100.0	100.0	100.0	1	33.3	0.0	0.0	0.0	0.0	100.0									
Carbapenems: Meropenem/impipenem (carbapenems)	3	100.0	100.0	100.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0									
ESBL: Extended Spectrum Beta Lactamase	2	66.7	0.0	0.0	100.0	100.0	100.0	1	50.0	0.0	0.0	50.0	100.0	100.0									
<i>Enterobacter cloacae</i>																							
cultures	5																						
Penicillins: Amoxicillin/clavulanate	4	80.0	0.0	50.0	100.0	100.0	100.0	4	100.0	100.0	100.0	100.0	100.0	100.0									
Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.)	4	80.0	0.0	50.0	100.0	100.0	100.0	3	75.0	50.0	50.0	50.0	100.0	100.0									
Carbapenems: Meropenem/impipenem (carbapenems)	4	80.0	0.0	50.0	100.0	100.0	100.0	1	25.0	0.0	0.0	0.0	0.0	100.0									
ESBL: Extended Spectrum Beta Lactamase	4	80.0	0.0	50.0	100.0	100.0	100.0	1	25.0	0.0	0.0	0.0	0.0	100.0									

^a SIR=all Sensitive/Intermediate/Resistant antibiogram results, IR=all Intermediate/Resistant antibiogram results, #=aggregated total, %=#/100 cultures (SIR) or #/100 SIR results (IR),



Table 15: Anti Microbial Resistance Indicators III: Enterobacteriaceae (b)

	SIR ^a										IR ^a									
	# ^a	% ^a	p10	p25	p50	p75	p90	# ^a	% ^a	p10	p25	p50	p75	p90						
<i>Klebsiella pneumoniae</i>																				
cultures	7																			
Penicillins: Amoxicillin/clavulanate	7	100.0	100.0	100.0	100.0	100.0	100.0	5	71.4	0.0	0.0	100.0	100.0	100.0						
Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.)	6	85.7	50.0	50.0	100.0	100.0	100.0	3	50.0	0.0	0.0	0.0	100.0	100.0						
Carbapenems: Meropenem/imipenem (carbapenems)	6	85.7	50.0	50.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0						
ESBL: Extended Spectrum Beta Lactamase	5	71.4	0.0	0.0	100.0	100.0	100.0	3	60.0	0.0	0.0	50.0	100.0	100.0						
<i>Klebsiella oxytoca</i>																				
cultures	4																			
Penicillins: Amoxicillin/clavulanate	4	100.0	100.0	100.0	100.0	100.0	100.0	2	50.0	0.0	0.0	100.0	100.0	100.0						
Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.)	4	100.0	100.0	100.0	100.0	100.0	100.0	1	25.0	0.0	0.0	0.0	100.0	100.0						
Carbapenems: Meropenem/imipenem (carbapenems)	4	100.0	100.0	100.0	100.0	100.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0						
ESBL: Extended Spectrum Beta Lactamase	3	75.0	0.0	0.0	100.0	100.0	100.0	1	33.3	0.0	0.0	50.0	100.0	100.0						

^a SIR=all Sensitive/Intermediate/Resistant antibiogram results, IR=all Intermediate/Resistant antibiogram results, #=#/100 cultures (SIR) or #/100 SIR results (IR),



Table 16: Anti Microbial Resistance Indicators IV: Nonfermentative Bacilli

	SIR ^a										IR ^a			
	# ^a	% ^a	p10	p25	p50	p75	p90	# ^a	% ^a	p10	p25	p50	p75	p90
<i>Pseudomonas aeruginosa</i>														
cultures	13													
Carbapenems: Meropenem/imipenem (carbapenems)	11	84.6	66.7	100.0	100.0	100.0	100.0	2	18.2	0.0	0.0	0.0	0.0	100.0
Cephalosporins: Ceftazidim (anti-pseudom 3G ceph)	10	76.9	50.0	100.0	100.0	100.0	100.0	2	20.0	0.0	0.0	0.0	0.0	100.0
Polymyx.: Colistin (polymixins)	1	7.7	0.0	0.0	0.0	0.0	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Piperacillin/ticarcillin (anti-pseudom. penic.)	5	38.5	0.0	50.0	50.0	100.0	100.0	1	20.0	0.0	0.0	0.0	50.0	100.0
Penicillins: Piperacillin/ticarcillin + enzyme inhibitor	3	23.1	0.0	0.0	50.0	50.0	100.0	1	33.3	0.0	0.0	0.0	100.0	100.0
<i>Acinetobacter baumannii</i>														
cultures	2													
Carbapenems: Meropenem/imipenem (carbapenems)	2	100.0	100.0	100.0	100.0	100.0	100.0	1	50.0	50.0	50.0	50.0	50.0	50.0
Cephalosporins: Ceftazidim (anti-pseudom 3G ceph)	1	50.0	50.0	50.0	50.0	50.0	50.0	1	100.0	100.0	100.0	100.0	100.0	100.0
Polymyx.: Colistin (polymixins)	1	50.0	50.0	50.0	50.0	50.0	50.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Piperacillin/ticarcillin (anti-pseudom. penic.)	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Penicillins: Piperacillin/ticarcillin + enzyme inhibitor	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0

^a SIR=all Sensitive/Intermediate/Resistant antibiotic results, IR=all Intermediate/Resistant antibiotic results, #=aggregated total, %=#/100 cultures (SIR) or #/100 SIR results (IR),



Table 17: Missing Infection variables

variable	L1 ^a	L2 ^a	Ls ^a	Req ^a	# ^a	% ^a	p10	p25	p50	p75	p90
invasive device in 48 hours preceding infection	V	V	0	R	13	11.3	0.0	0.0	2.1	20.8	60.0
origin of bloodstream infection	V	V	0	O	8	25.8	0.0	0.0	3.1	100.0	100.0
antimicrobial treatment	V	V	0	O	7	6.1	0.0	0.0	0.0	6.4	50.0
Microorganism indicator	V	V	0	M	0	0.0	0.0	0.0	0.0	0.0	0.0
total infection variables	V	V	0	O	28	5.3	0.0	0.0	3.4	6.6	30.0

^a L1= level 1 variable (denominator-based surveillance) ; L2= level 2 variable (patient-based surveillance) ; L2s= level 2 suboption (0=basic level 2 variables a=extra patient admission and day by day variables, b=central vascular catheter follow-up, c=antimicrobial treatment follow-up); Req: M=mandatory, R=Required, O=Optional #=number of missing variables; %=# / 100 eligible records



Hospital (all) :
1490 patients

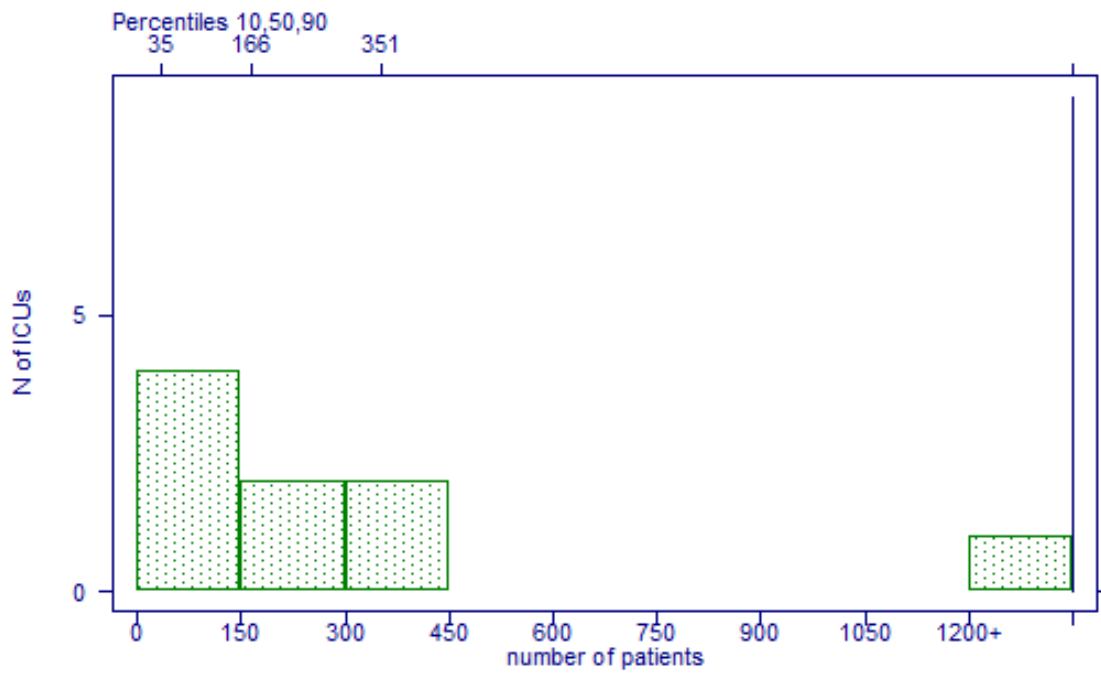


Figure 1: Distribution: number of patients

Hospital (all) :
7.5 days

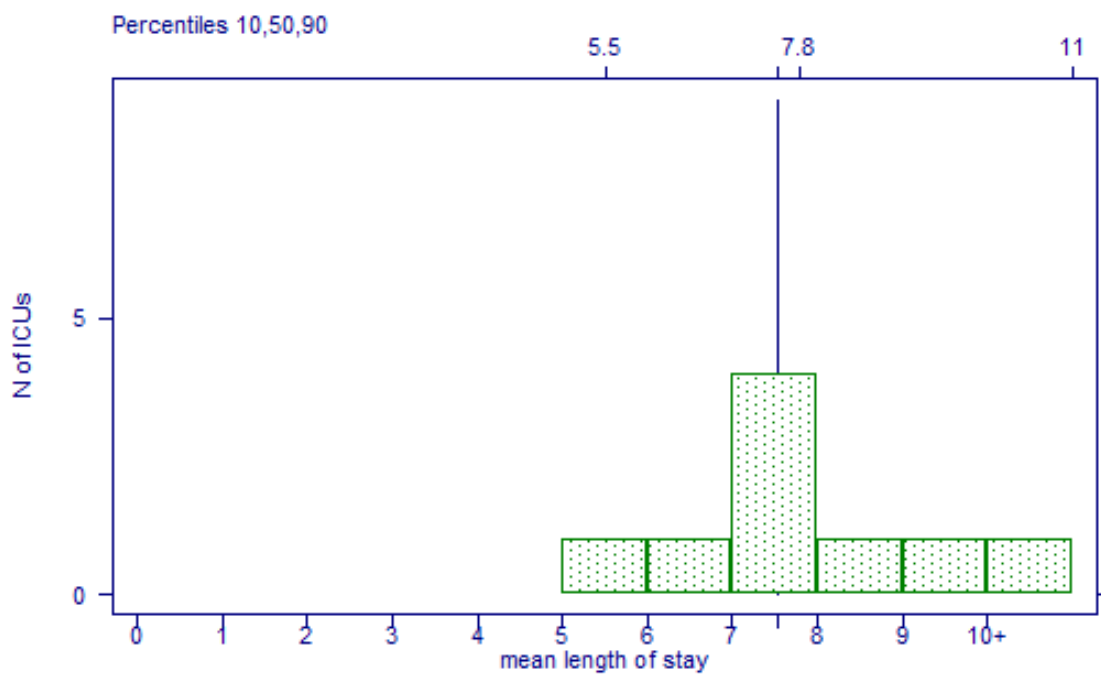


Figure 2: Distribution: mean length of stay



Hospital (all) :
5.5 NP/1000 patientdays (95% CI 4.2 - 7.1)

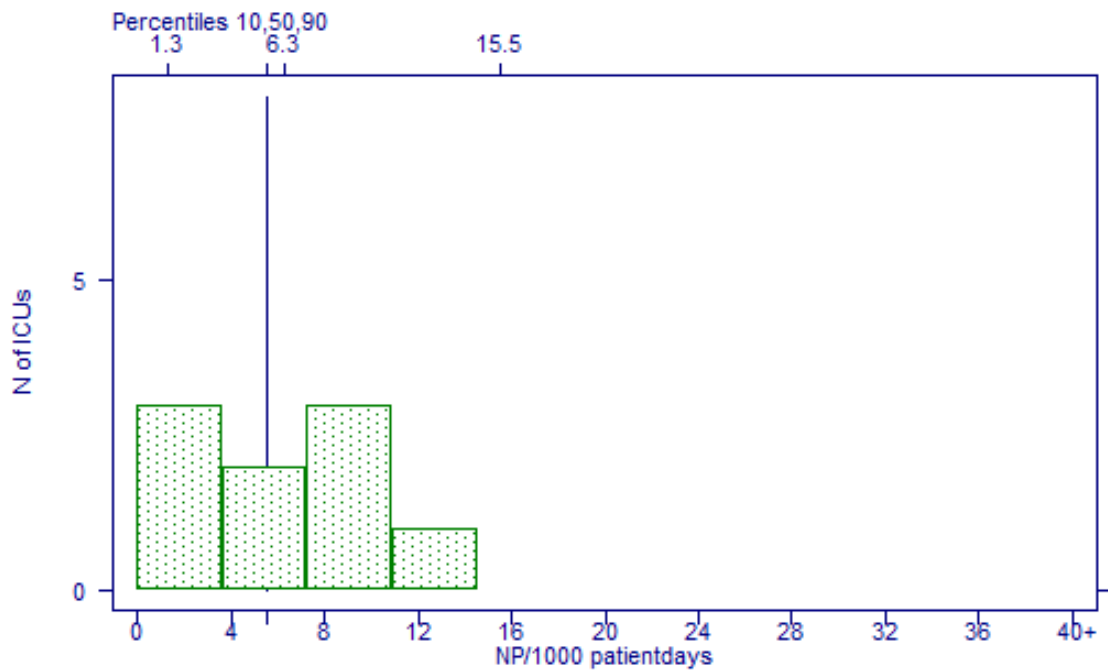


Figure 3: Distribution: $P \geq D3$ (NP) / 1000 patientdays

Hospital (all) :
8.9 NPs, ID2, all / 1000 IDdays (95% CI 6.5 - 12)

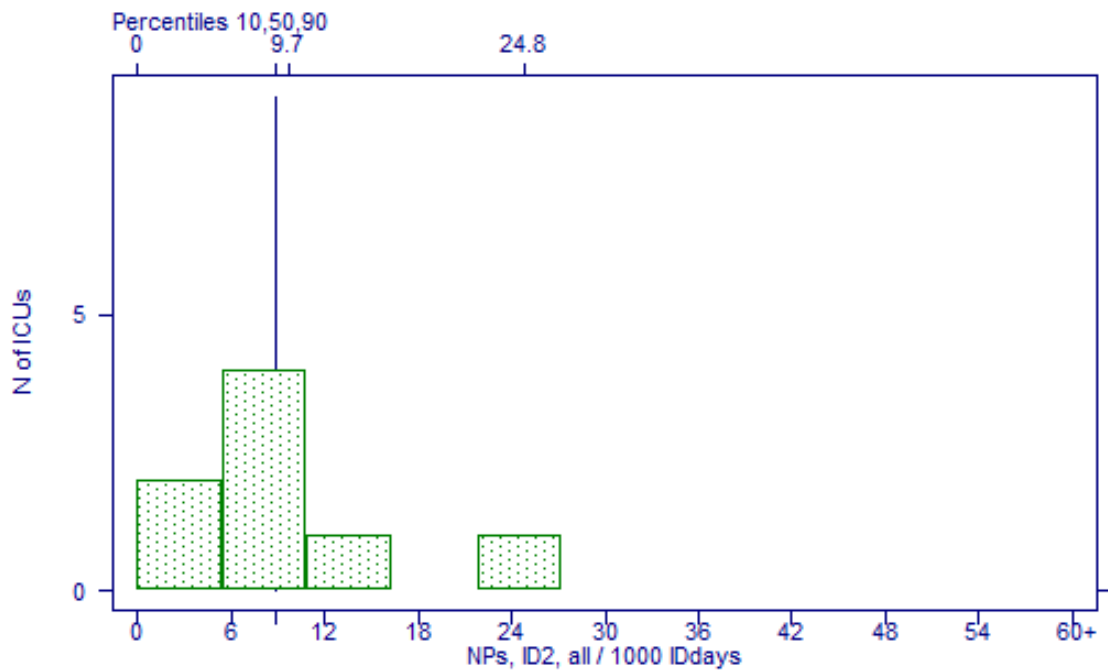


Figure 4: Distribution: NPs, ID2, all / 1000 IDdays ; NPs, with intubation in 2 days before onset of NP, all episodes / 1000 intubation days



Hospital (all) :
13.5 NPs, ID2, 1st / 1000 IDdays bef 1st NP (95% CI 9.3 - 19)

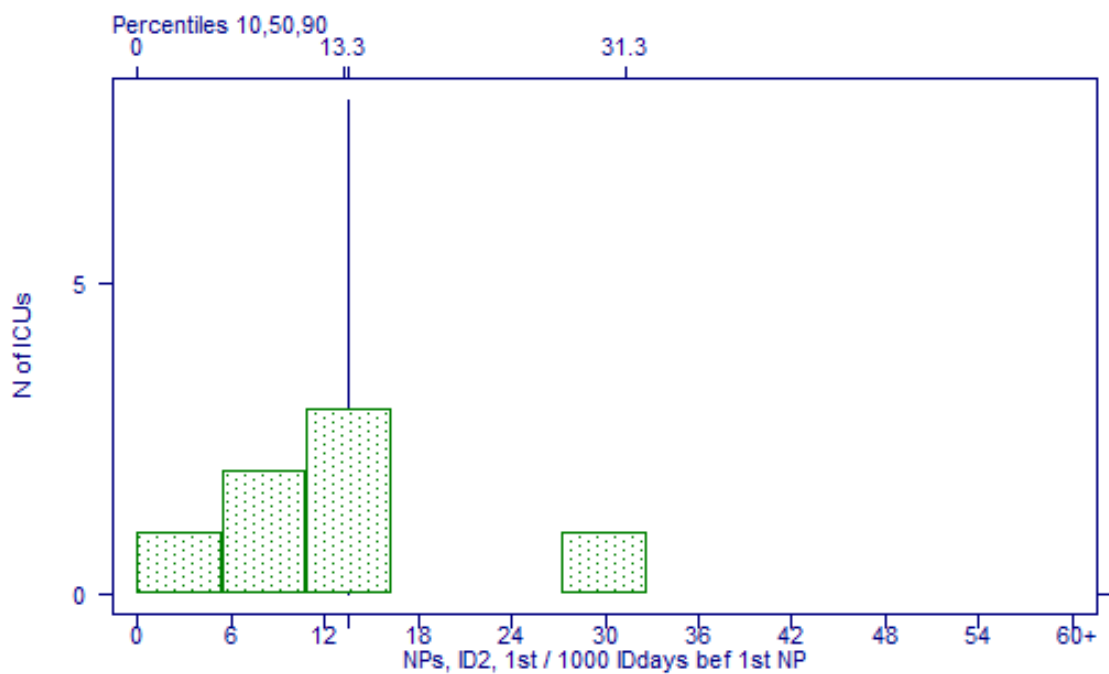


Figure 5: Distribution: NPs, ID2, 1st / 1000 IDdays bef 1st NP ; NPs, 1st episode only, with intubation in 2 days before onset of NP / 1000 intubation days



Hospital (all) :
2.6 $Bs \geq D3$ (NBs) / 1000 patientdays (95% CI 1.7 - 3.7)

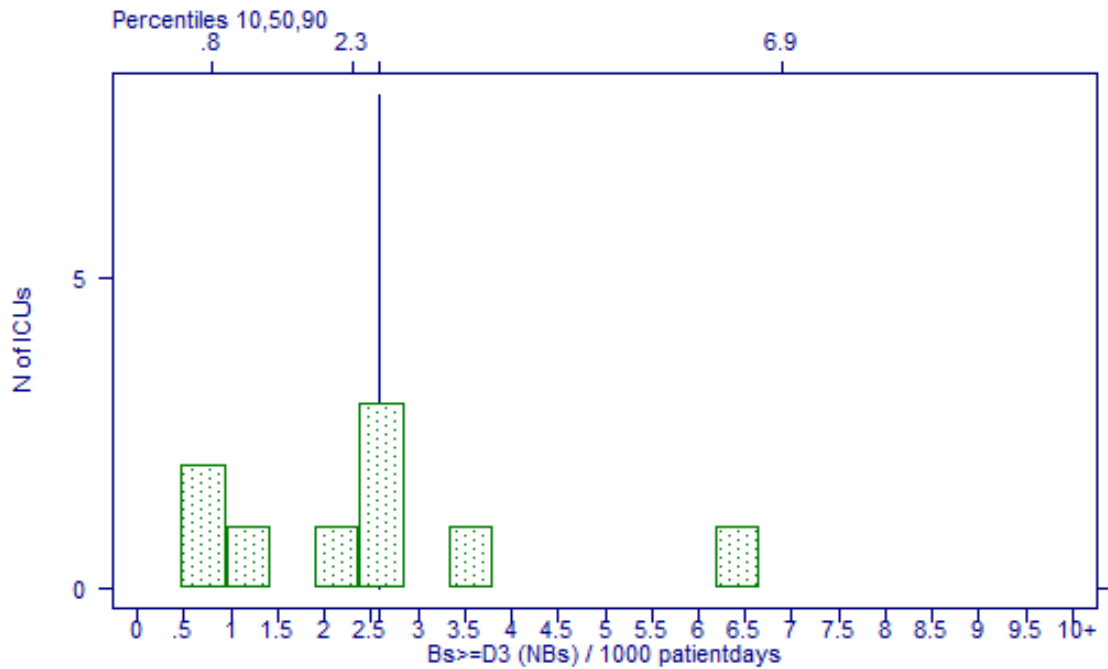


Figure 6: Distribution: $Bs \geq D3$ (NBs) / 1000 patientdays

Hospital (all) :
2.9 NBs, ID2, all / 1000 IDdays (95% CI 1.9 - 4.3)

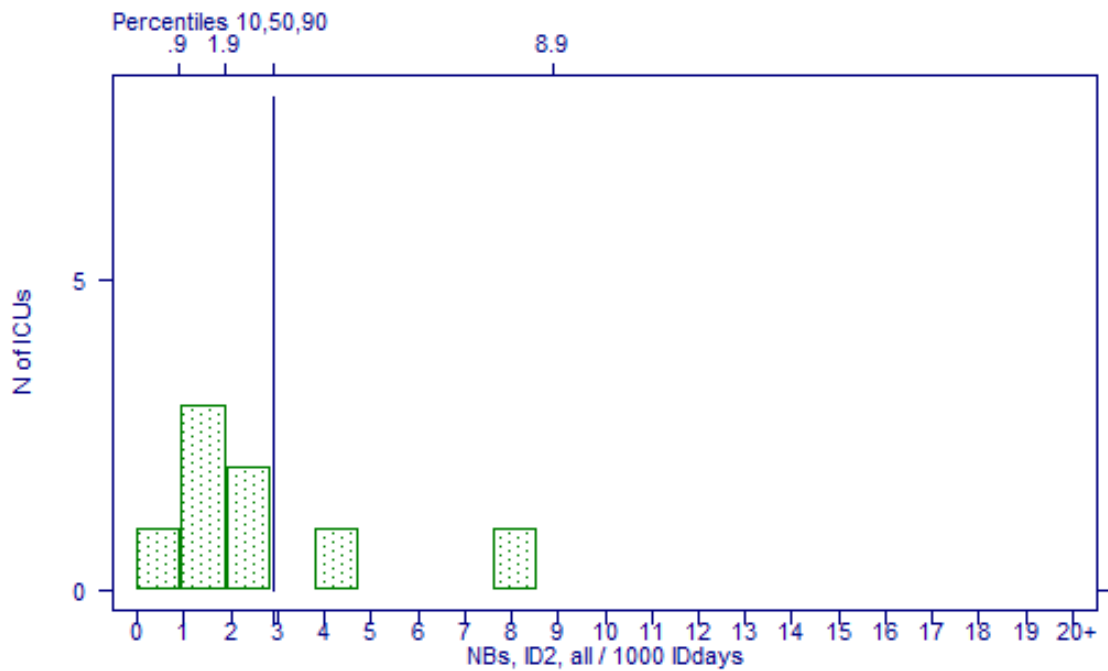


Figure 7: Distribution: NBs, with catheter use in 2days preceding onset of infection, all / 1000 IDdays ; NBs, with catheter use in 2days preceding onset of infection, all episodes / 1000 catheterdays



Hospital (all) :
1.6 NBs, ori=(cat/un) / 1000 patientdays (95% CI 1 - 2.5)

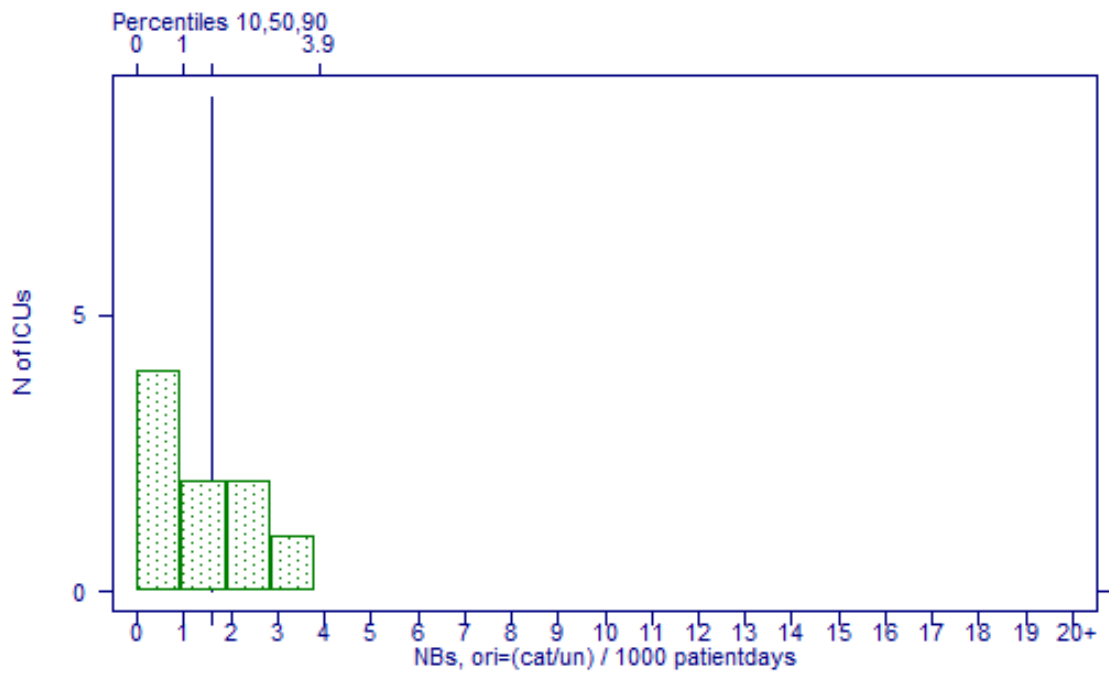


Figure 8: Distribution: NBs, ori=cat/un / 1000 patientdays ; primary NBs / 1000 patientdays

Hospital (all) :
1.9 NBs, (ori=cat/un,ID2) / 1000 IDdays (95% CI 1.1 - 3.1)

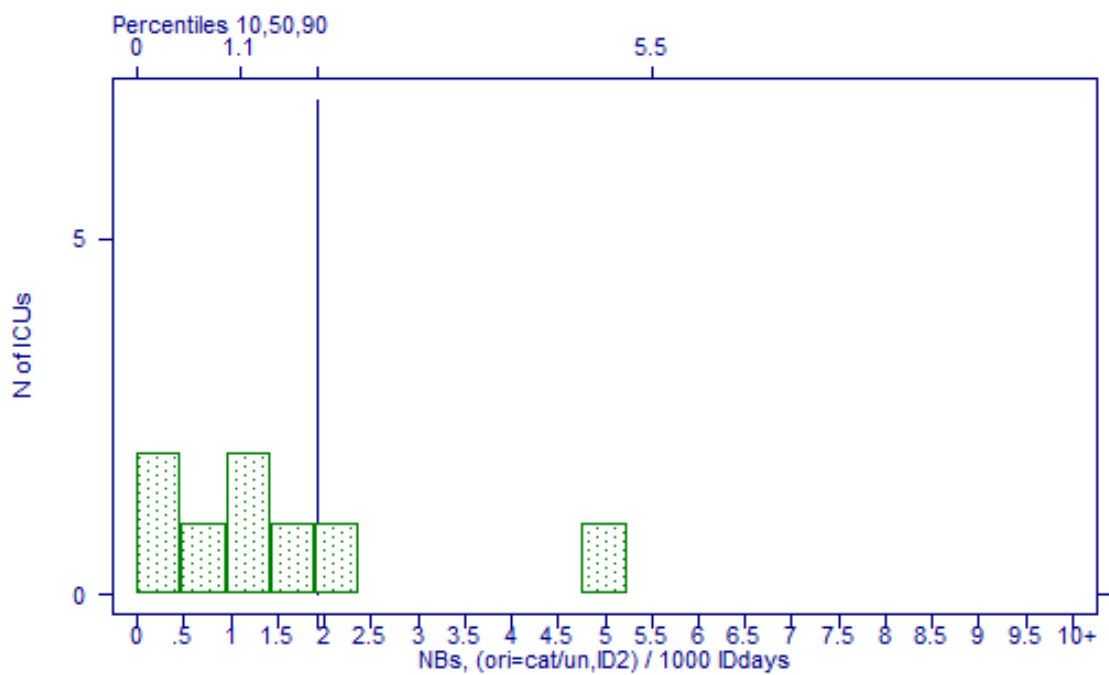


Figure 9: Distribution: NBs, (ori=cat/un,ID2) OR (ori=cat) / 1000 IDdays ; catheter associated NBs / 1000 catheterdays (CDC)



Hospital (all) :
1.4 NBs, ori=cat, 1st / 1000 IDdays bef 1st NB (95% CI .6 - 2.8)

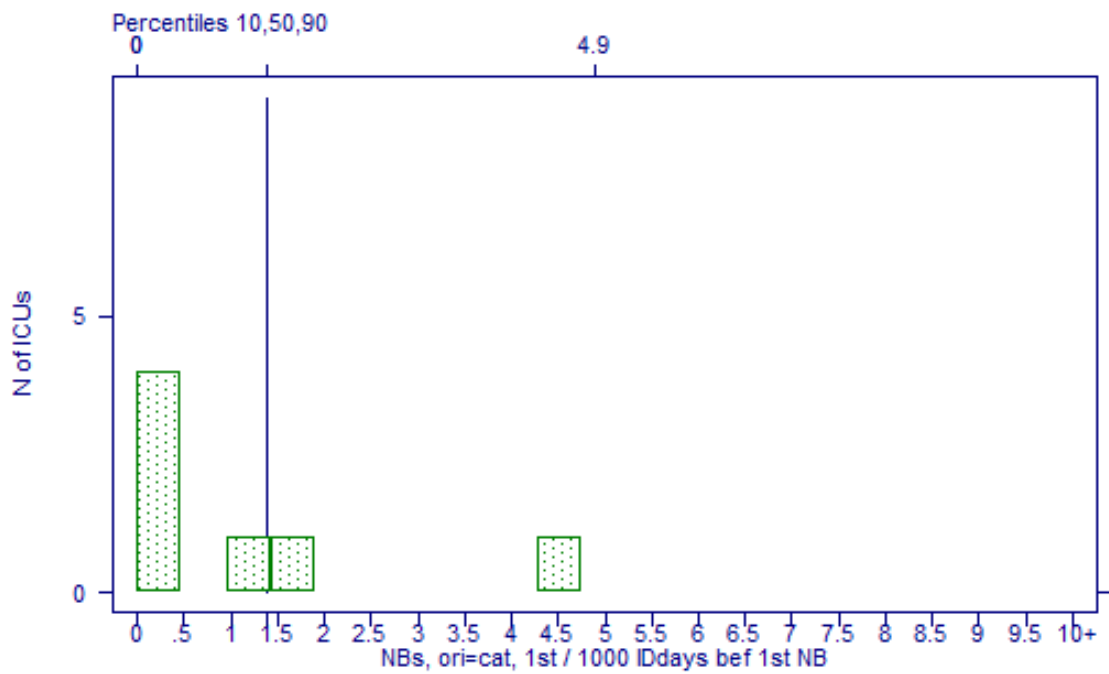


Figure 10: Distribution: NBs, ori=cat, 1st / 1000 IDdays bef 1st NB ; definite catheter associated NBs, 1st episodes only / 1000 catheterdays



Hospital (all) :
1.3 NUs / 1000 patientdays (95% CI .7 - 2.2)

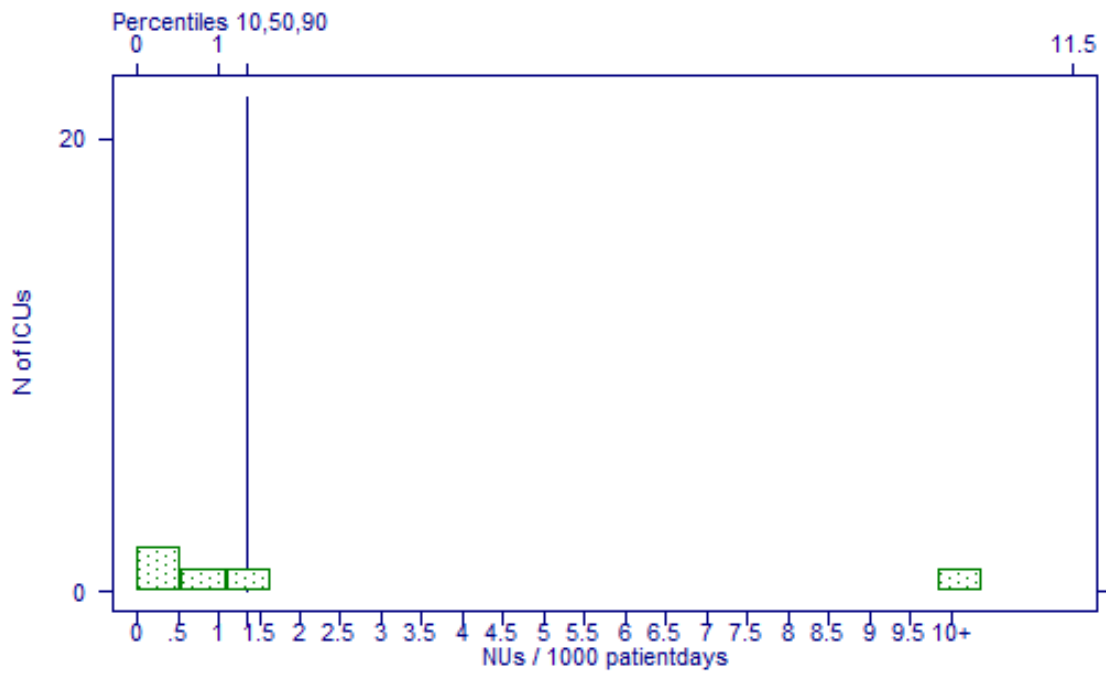


Figure 11: Distribution: $Us_{\geq D3}$ (NU) / 1000 patientdays ; NUs / 1000 patientdays

Hospital (all) :
2.2 NUs, ID2 / 1000 ID days (95% CI 1.2 - 3.7)

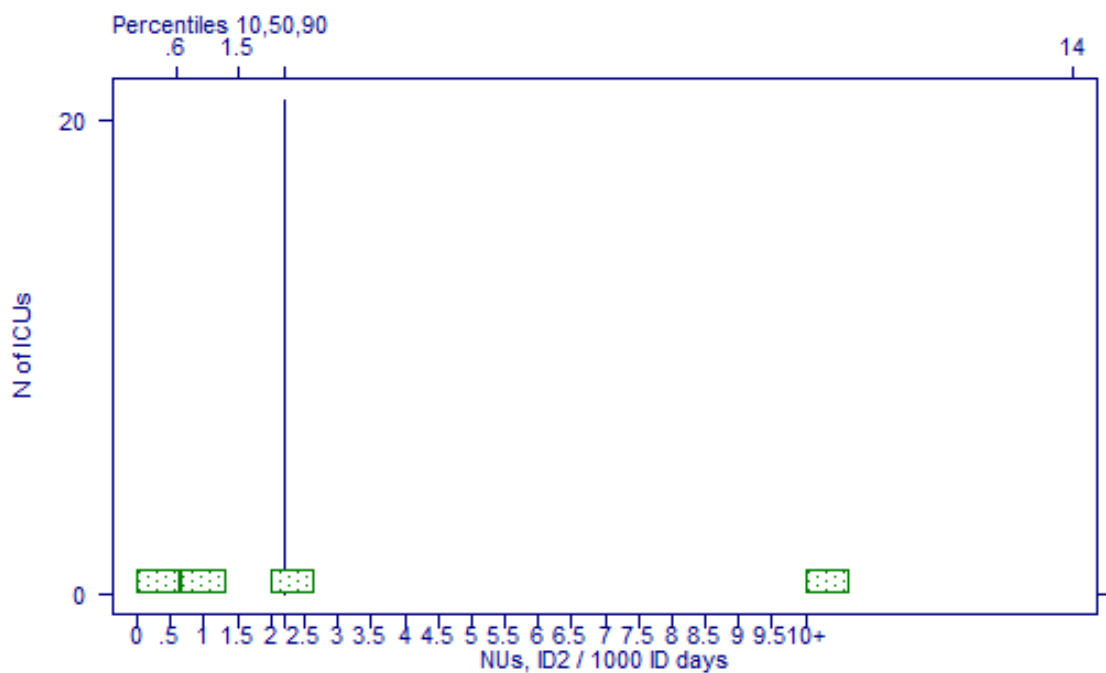


Figure 12: Distribution: NUs, ID2 / 1000 ID days ; catheter associated NUs / 1000 urinary catheterdays

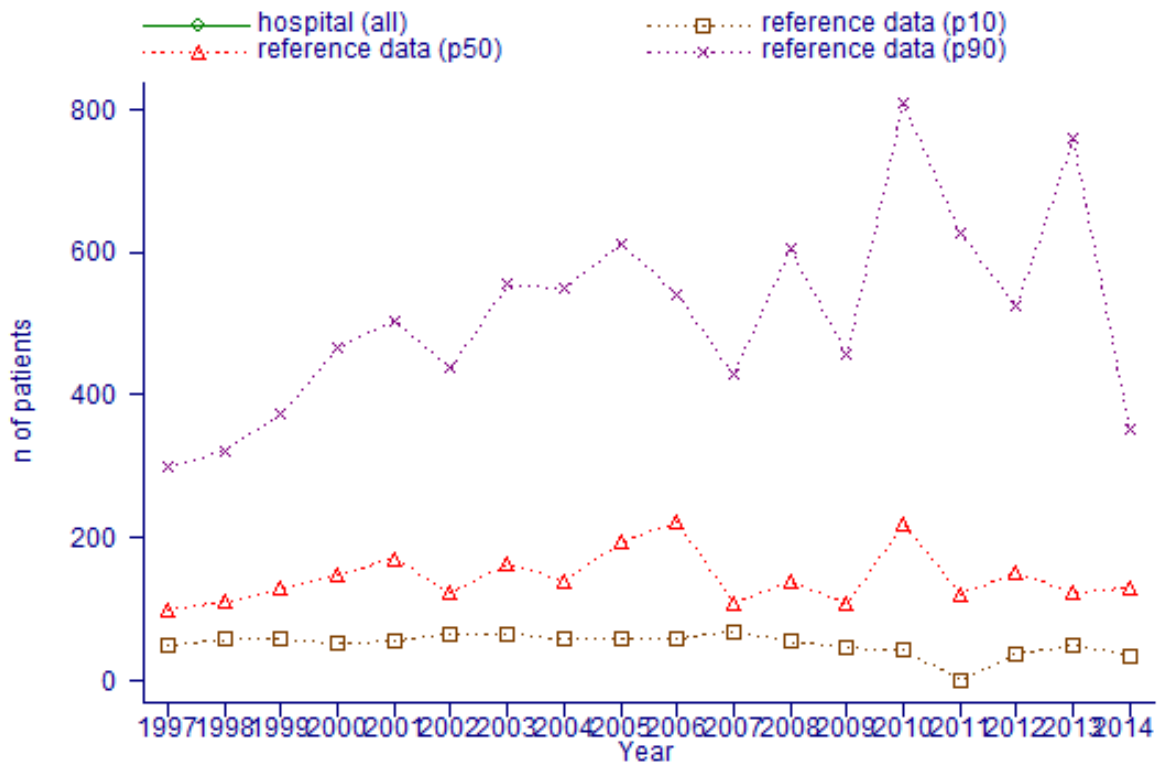


Figure 13: Evolution: Number of patients

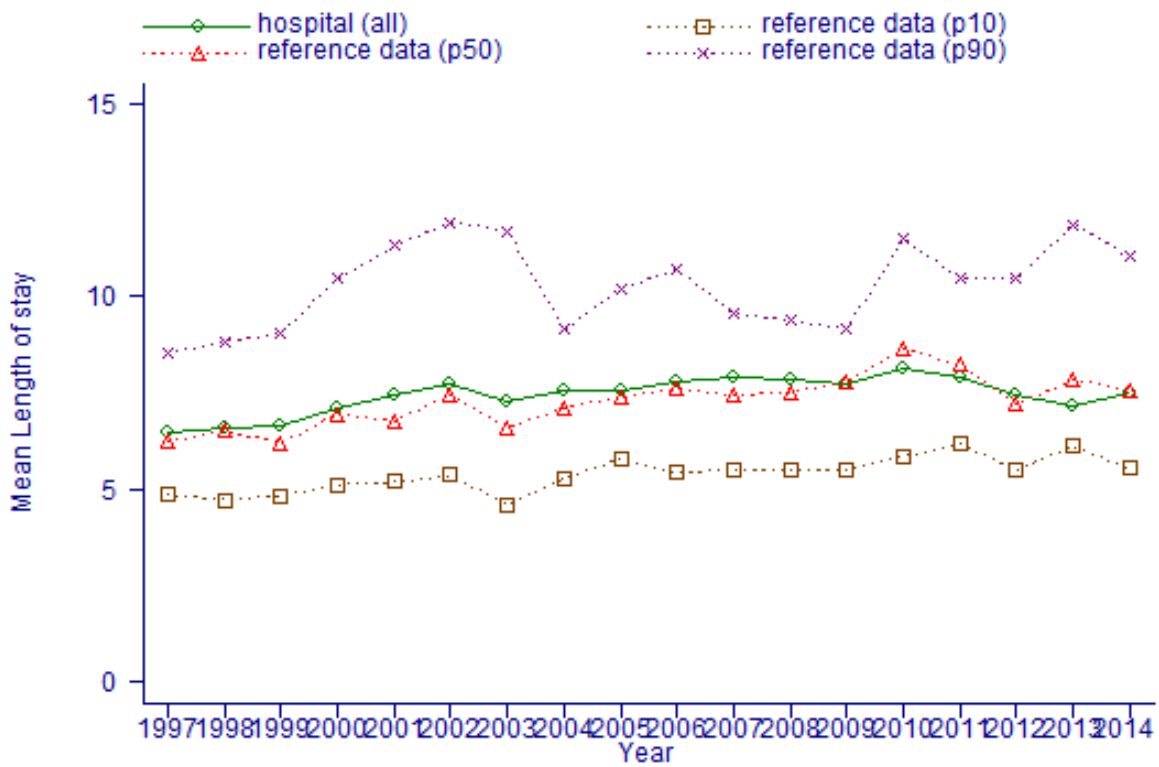


Figure 14: Evolution: Mean Length of stay

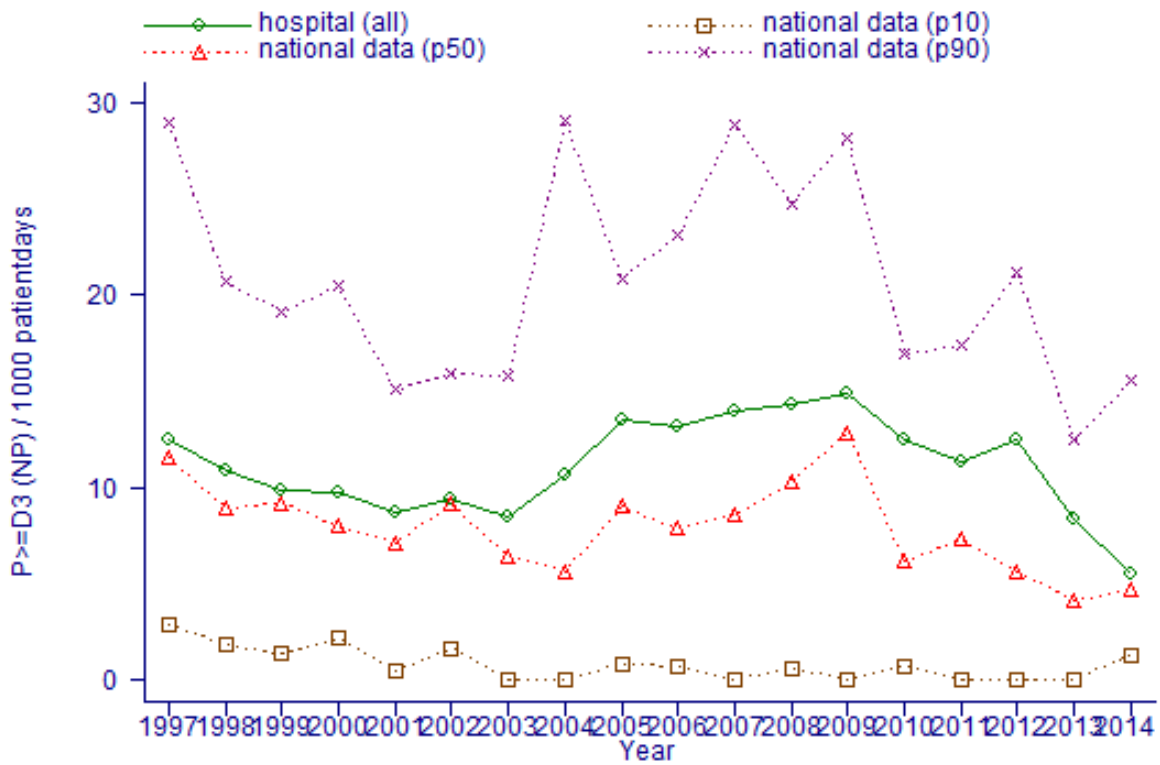


Figure 15: Evolution: P_≥D3 (NP) / 1000 patientdays

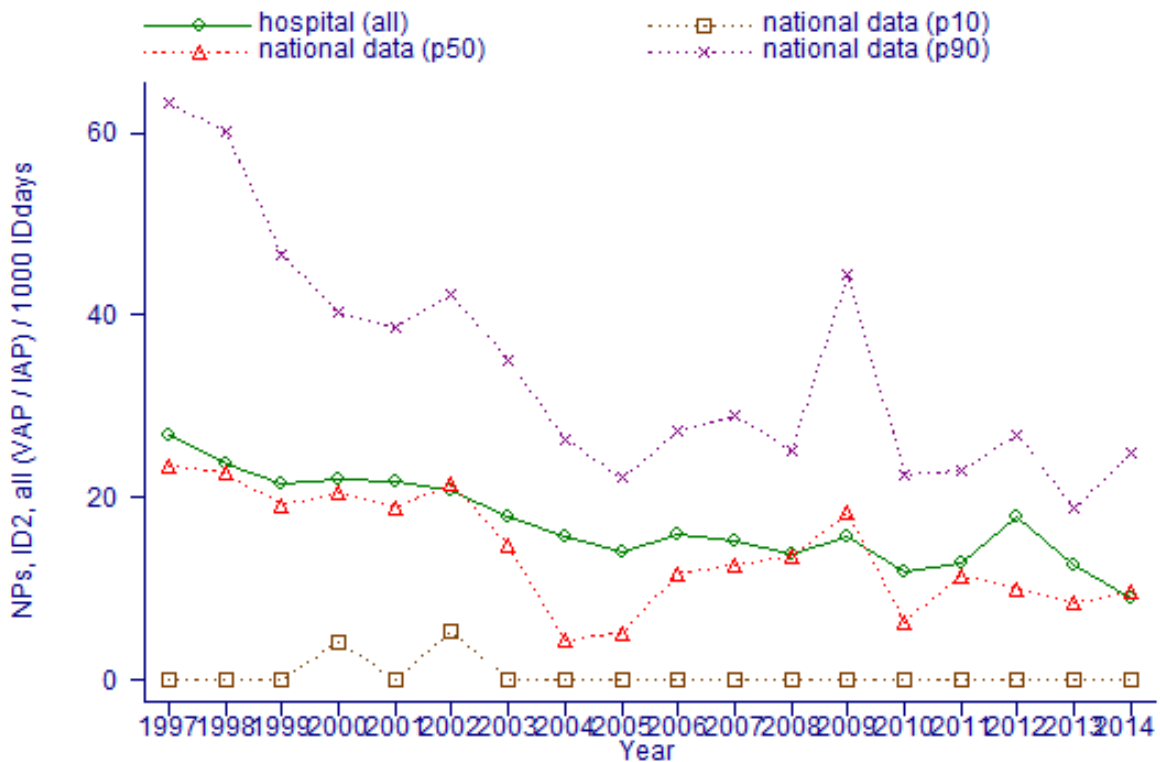


Figure 16: Evolution: NPs, ID2, all / 1000 IDdays ; NPs, with intubation in 2 days before onset of NP, all episodes / 1000 intubation days

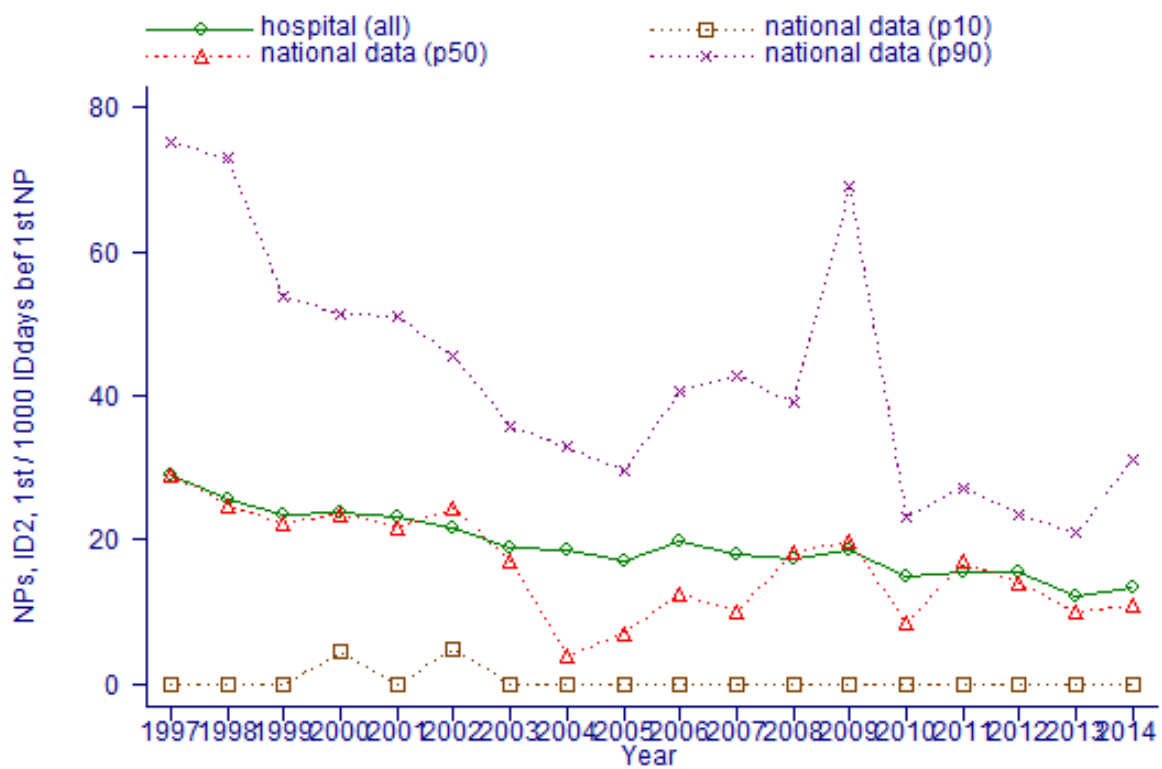


Figure 17: Evolution: NPs, ID2, 1st / 1000 IDdays bef 1st NP ; NPs, with intubation in 2 days before onset of NP, 1st episode only / 1000 intubation days

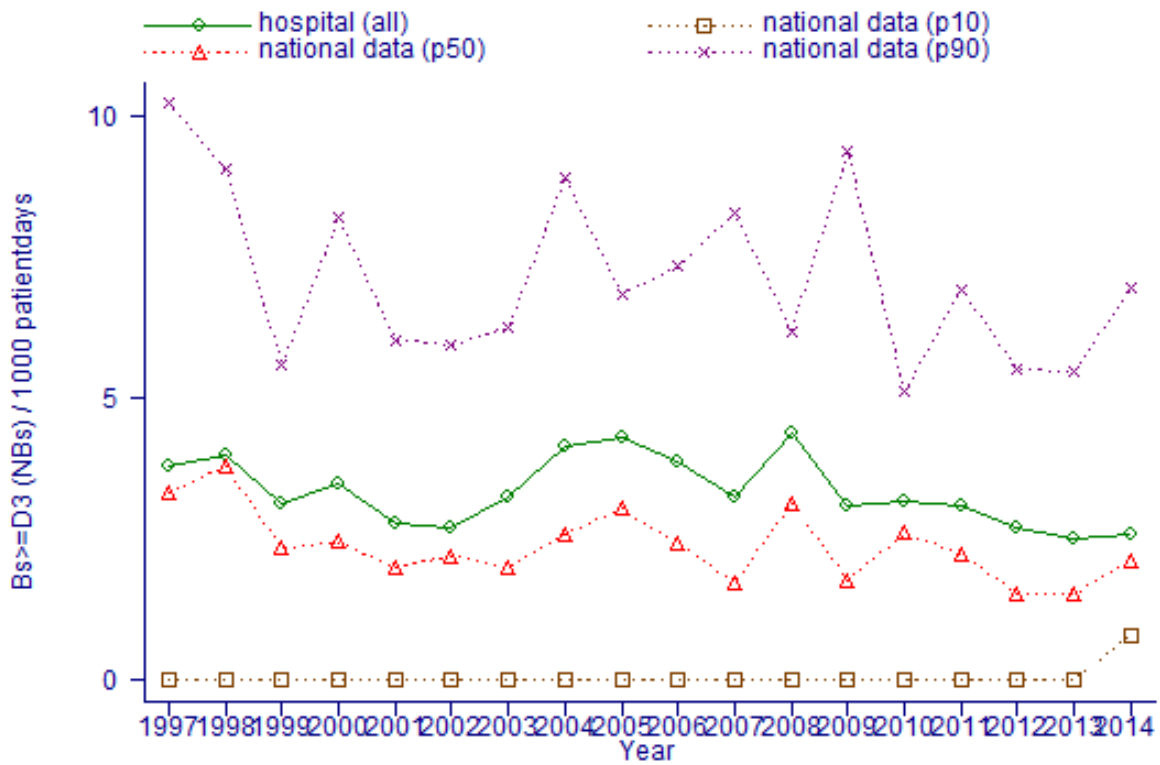


Figure 18: Evolution: $Bs \geq D3$ (NBs) / 1000 patientdays

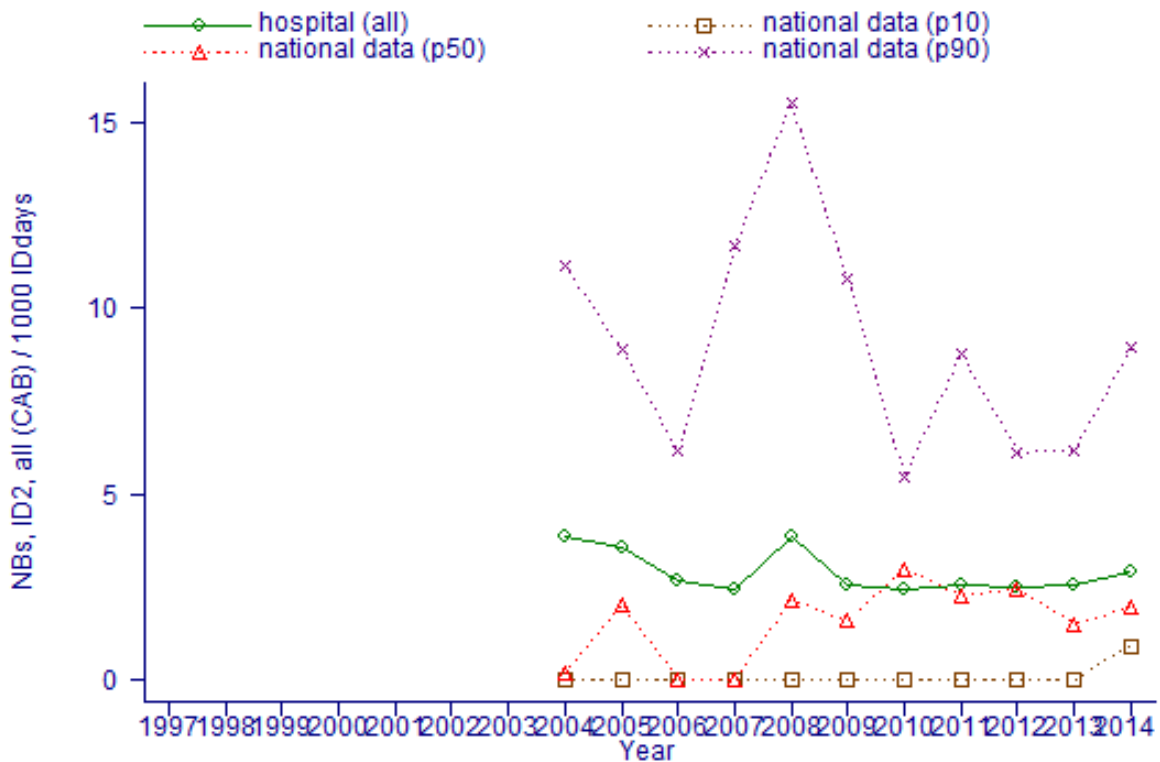


Figure 19: Evolution: NBs, ID2, all / 1000 IDdays ; NBs, with catheter use in 2days preceding onset of infection, all episodes / 1000 catheterdays

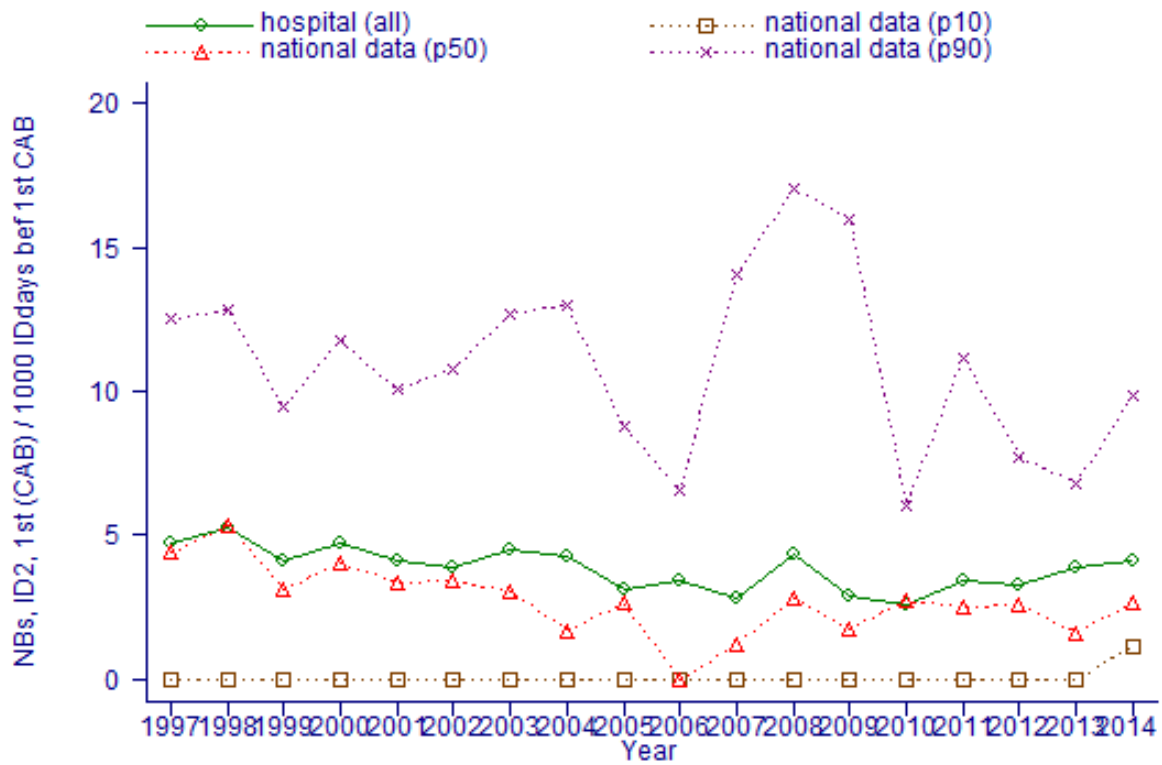


Figure 20: Evolution: NBs, ID2, 1st / 1000 IDdays bef 1st CAB; NBs, with catheter use in 2days preceding onset of infection, 1st episodes only / 1000 catheterdays

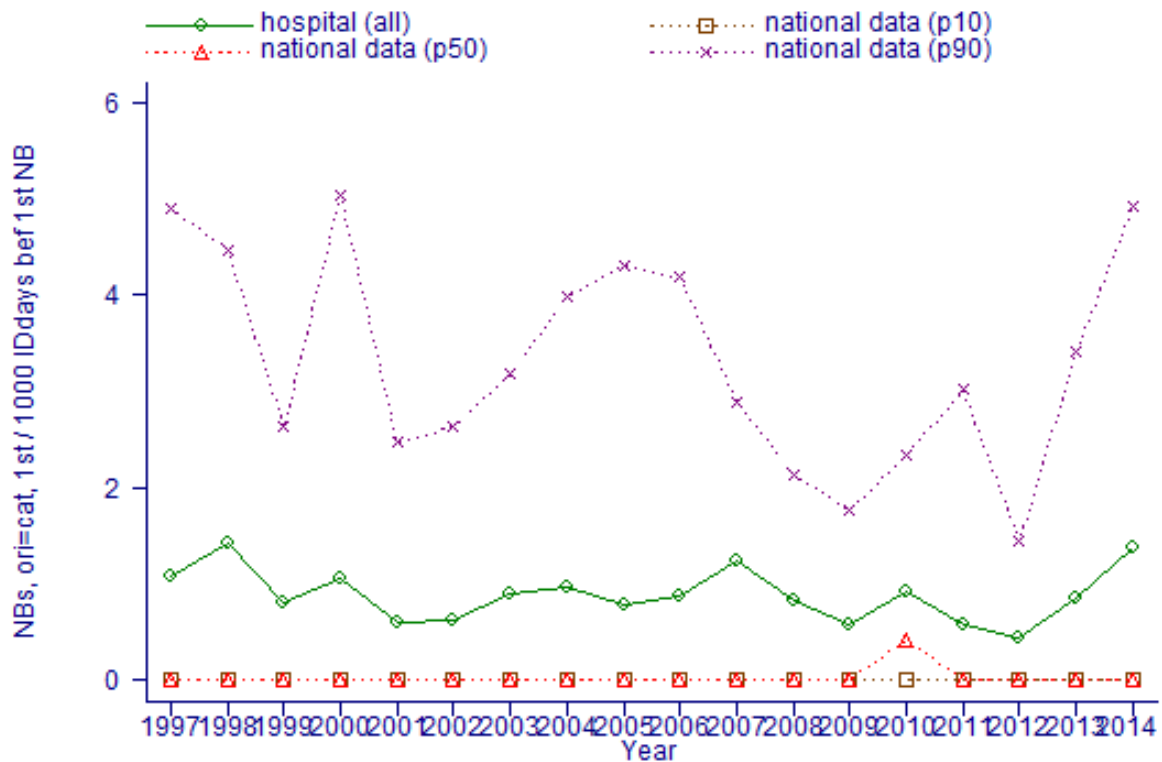


Figure 21: Evolution: NBs, ori=cat, 1st / 1000 IDdays bef 1st NB ; definite catheter associated NBs, 1st episodes only / 1000 catheterdays

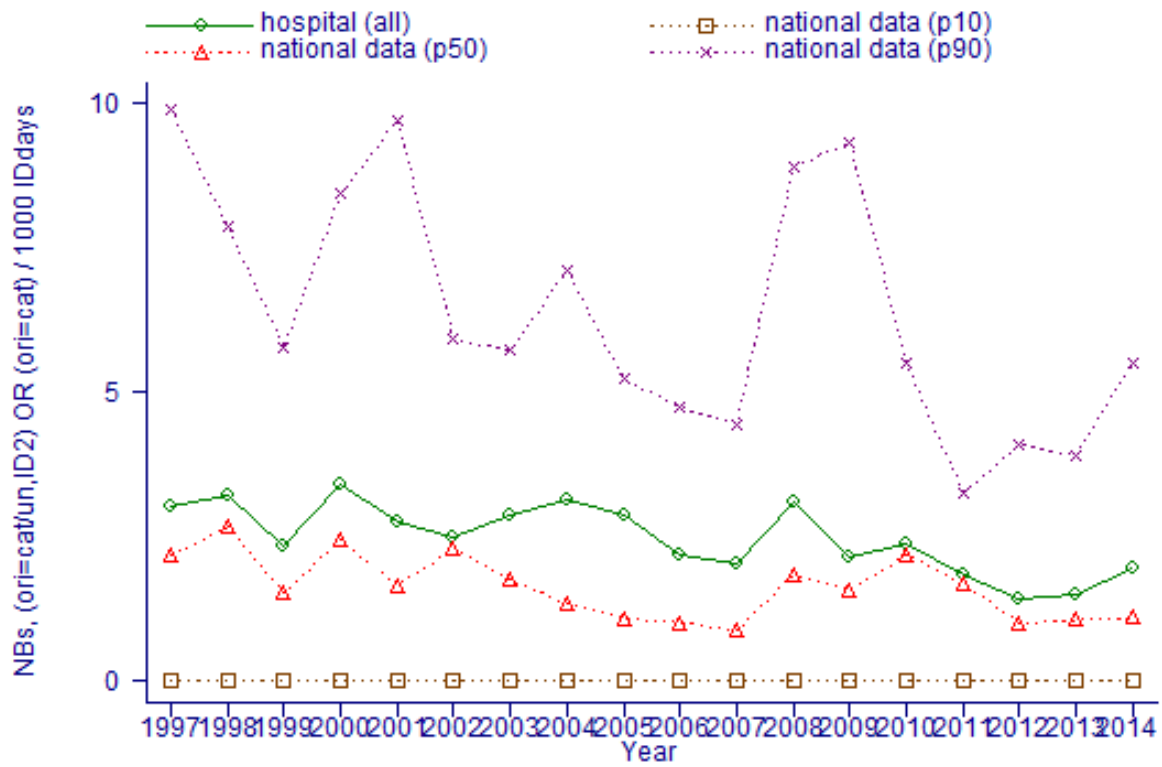


Figure 22: Evolution: NBs, (ori=cat/un,ID2) OR (ori=cat) / 1000 IDdays ; catheter associated NBs / 1000 catheterdays (CDC)

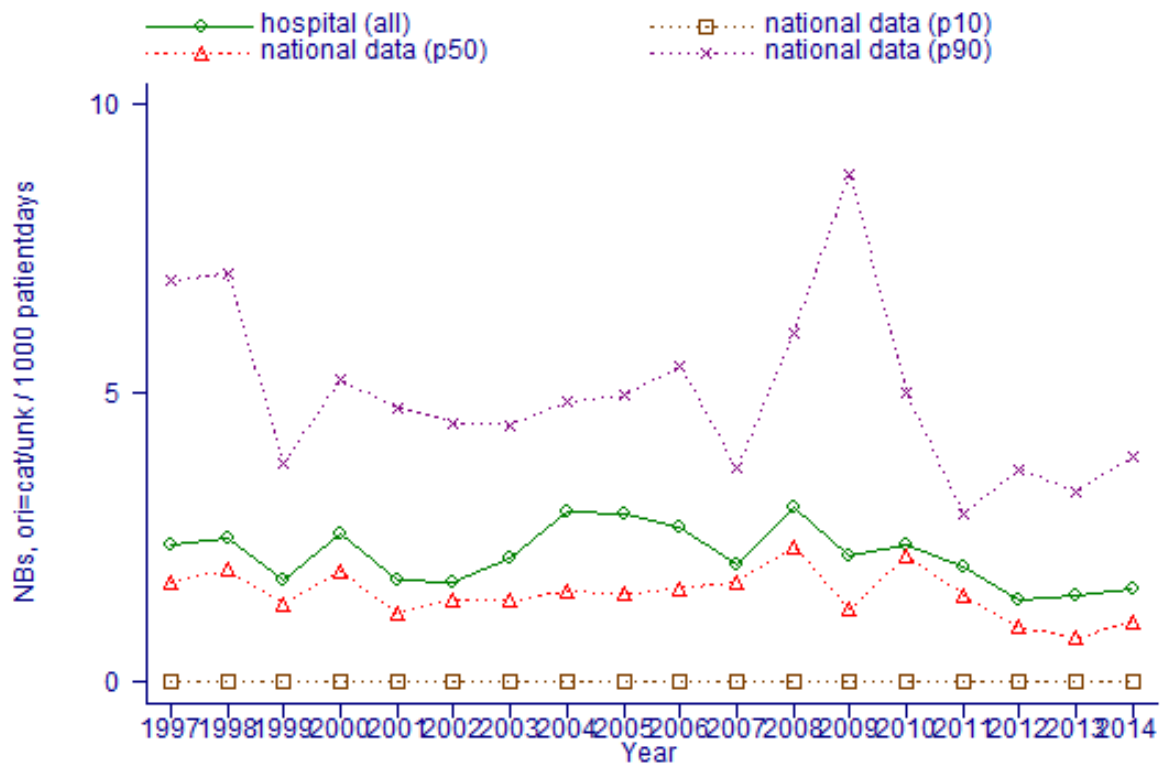


Figure 23: Evolution: NBs, ori=cat/un/k / 1000 patientdays ; primary NBs / 1000 patientdays

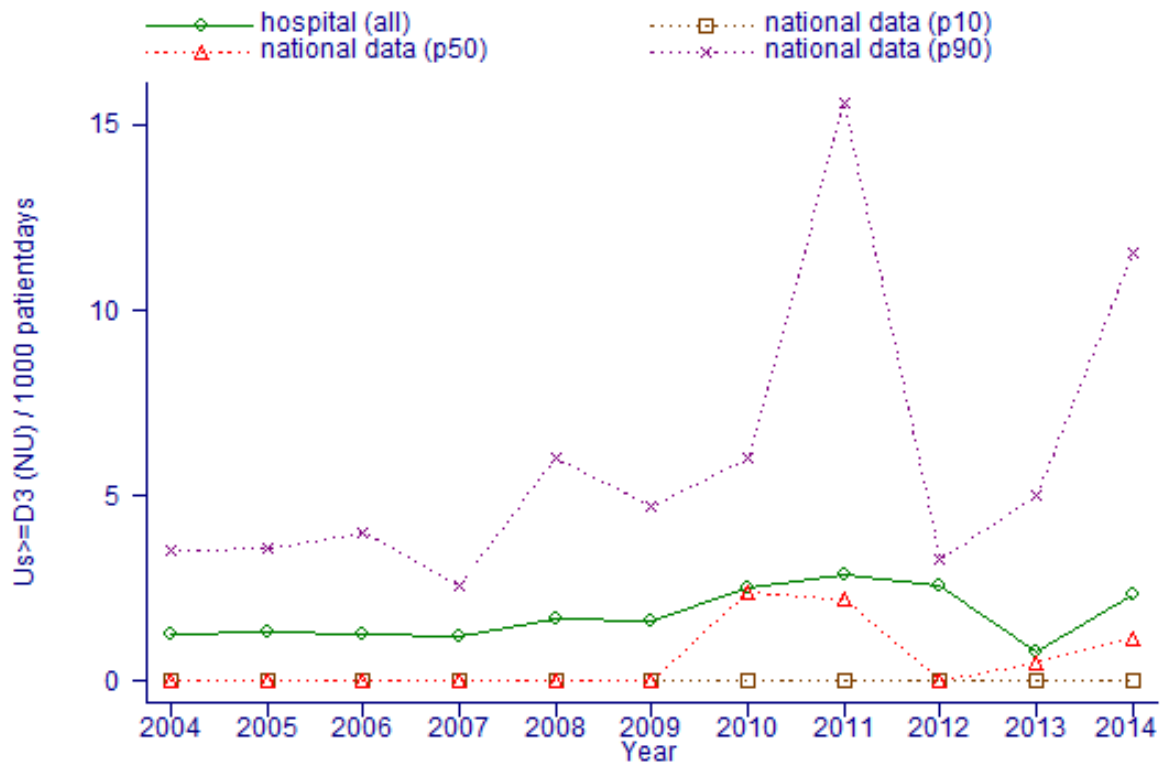


Figure 24: Evolution: $Us_{\geq D3}$ (NU) / 1000 patientdays ; NUs / 1000 patientdays

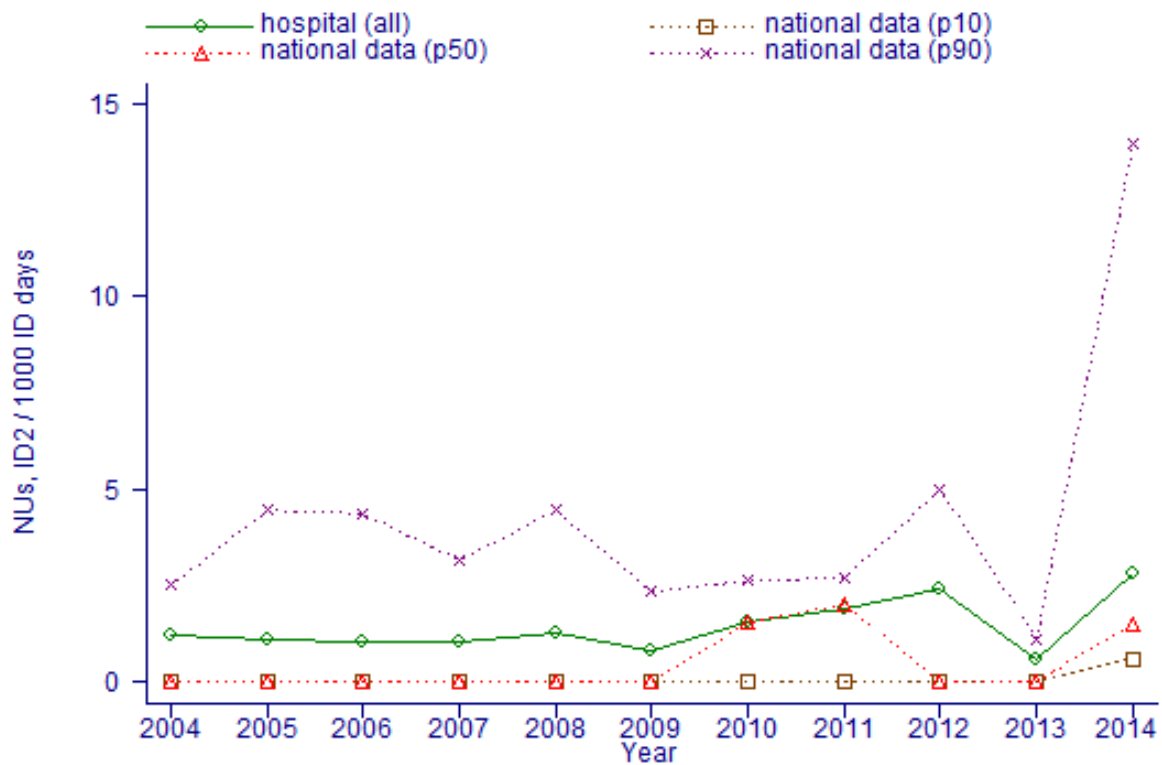


Figure 25: Evolution: NUs, ID2 / 1000 ID days ; catheter associated NUs / 1000 urinary catheterdays