



Surveillance of ICU - acquired Infections

National Feedback Report

Infection Indicators

Year 2019

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Table 1: Participation

| | # |
|--|----|
| unit quarters | 15 |
| hospital quarters | 14 |
| unit years | 9 |
| hospital years | 7 |
| level 1 | 7 |
| level 2 basic | 8 |
| level 2a (risk factors / invasive devices) | 8 |
| level 2b (cvc utilization) | 4 |
| level 2c (antibiotic utilization) | 7 |

^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 | 1030 | 64 | 80 | 170 | 205 | 223 |
| patientdays, total | 8952 | 497 | 533 | 1324 | 1721 | 2566 |
| patientdays, mean | 8.7 | 5.9 | 6.7 | 7.8 | 10.1 | 12.5 |
| patientdays, median | 6 | 5 | 5 | 5 | 8 | 8 |

Table 3: Pneumonia

| | # ^a | | rate ^a | | | | | | |
|--|----------------|-------|-------------------|------|-------|-------|-------|---------------------------|--|
| | agg. | agg. | p10 | p25 | p50 | p75 | p90 | | |
| patients with P (all) | 47 | 4.56 | 1.25 | 2.94 | 4.39 | 4.93 | 7.35 | /100 admissions | |
| patients with P ≥ D3 ^b (NP ^b) | 46 | 4.47 | 1.25 | 2.94 | 3.90 | 4.93 | 7.35 | /100 admissions | |
| patients with NP, ID2 ^b | 32 | 3.11 | 0.00 | 1.95 | 3.13 | 3.92 | 4.48 | /100 admissions | |
| P (all) | 50 | 5.59 | 1.88 | 2.91 | 5.02 | 8.31 | 9.92 | /1000 patientdays | |
| P ≥ D3 (NP) | 49 | 5.47 | 1.88 | 2.91 | 5.02 | 8.31 | 9.92 | /1000 patientdays | |
| NP, 1st ^b | 46 | 5.14 | 1.88 | 2.91 | 5.02 | 8.31 | 8.76 | /1000 patientdays | |
| NP, ID2 | 29 | 11.92 | 0.00 | 4.49 | 16.40 | 20.69 | 26.39 | /1000 IDdays ^b | |
| NP, ID2, 1st | 14 | 11.00 | 4.97 | 4.97 | 19.05 | 22.04 | 22.04 | /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) | 25 | 2.43 | 0.00 | 0.00 | 2.35 | 2.69 | 5.39 | /100 admissions | |
| patients with B≥D3 ^b (NB ^b) | 24 | 2.33 | 0.00 | 0.00 | 2.35 | 2.69 | 4.90 | /100 admissions | |
| patients with NB, ID2 ^b | 22 | 2.14 | 0.00 | 0.00 | 2.35 | 2.69 | 4.90 | /100 admissions | |
| B (all) | 35 | 3.91 | 0.00 | 0.00 | 2.32 | 6.04 | 10.51 | /1000 patientdays | |
| B≥D3 (NBs) | 34 | 3.80 | 0.00 | 0.00 | 2.32 | 6.04 | 9.92 | /1000 patientdays | |
| NB, 1st ^b | 24 | 2.68 | 0.00 | 0.00 | 2.32 | 4.53 | 5.84 | /1000 patientdays | |
| NB, ID2 | 26 | 5.14 | 0.00 | 0.00 | 3.29 | 10.00 | 14.72 | /1000 IDdays ^b | |
| NB, ID2, 1st | 10 | 4.01 | 0.00 | 0.00 | 0.00 | 13.87 | 13.87 | /1000 IDdays bef 1st NB | |
| NB, ori=cat/unk ^{b,c} | 15 | 1.68 | 0.00 | 0.00 | 1.74 | 3.75 | 4.09 | /1000 patientdays | |
| NB, (ori=cat/unk, ID2)/(ori=cat) ^d | 12 | 2.37 | 0.00 | 0.00 | 1.23 | 6.44 | 10.00 | /1000 IDdays | |
| NB, ori=cat ^e | 9 | 1.78 | 0.00 | 0.00 | 0.00 | 4.60 | 10.00 | /1000 IDdays | |
| NB, ori=unk | 6 | 0.67 | 0.00 | 0.00 | 0.00 | 1.17 | 2.27 | /1000 patientdays | |
| NB, ori=cat or unk, 1st | 12 | 1.34 | 0.00 | 0.00 | 1.51 | 2.92 | 3.75 | /1000 patientdays | |
| NB, (ori=cat or unk, ID2)/(ori=cat), 1st | 5 | 2.01 | 0.00 | 0.00 | 0.00 | 6.93 | 6.93 | /1000 IDdays bef 1st NB | |
| NB, ori=cat, 1st | 4 | 1.61 | 0.00 | 0.00 | 0.00 | 5.55 | 5.55 | /1000 IDdays bef 1st NB | |
| NB, ori=unk, 1st | 5 | 0.56 | 0.00 | 0.00 | 0.00 | 1.17 | 1.51 | /1000 patientdays | |
| NBs, ID2, ≥1HC path or ≥2HCs with sc ^b | 12 | 4.82 | 0.00 | 0.00 | 0.00 | 16.64 | 16.64 | /1000 IDdays bef 1st NB | |
| NBs, ID2, ≥1HC path or ≥2HCs with sc, ori=cat | 1 | 0.40 | 0.00 | 0.00 | 0.00 | 1.39 | 1.39 | /1000 IDdays bef 1st NB | |
| NBs, ID2, ≥1HC path or ≥2HCs with sc, ori=cat, 1st | 1 | 0.40 | 0.00 | 0.00 | 0.00 | 1.39 | 1.39 | /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; ≥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; ≥1HC path=at least one hemoculture from a pathogen; ≥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) | 8 | 1.64 | 0.00 | 0.00 | 0.00 | 3.90 | 3.90 | /100 admissions | |
| patients with U \geq D3 (NU) ^b | 7 | 1.43 | 0.00 | 0.00 | 0.00 | 3.41 | 3.41 | /100 admissions | |
| patients with NU, ID2 ^b | 1 | 0.20 | 0.00 | 0.00 | 0.00 | 0.49 | 0.49 | /100 admissions | |
| U (all) | 9 | 1.87 | 0.00 | 0.00 | 0.00 | 3.51 | 3.51 | /1000 patientdays | |
| U \geq D3 (NU) | 8 | 1.66 | 0.00 | 0.00 | 0.00 | 3.12 | 3.12 | /1000 patientdays | |
| NU, 1st ^b | 7 | 1.45 | 0.00 | 0.00 | 0.00 | 2.73 | 2.73 | /1000 patientdays | |
| NU, ID2 | 1 | 0.29 | 0.00 | 0.00 | 0.23 | 0.46 | 0.46 | /1000 ID days before 1st NU | |
| NU, ID2, 1st | 1 | 0.34 | 0.00 | 0.00 | 0.27 | 0.54 | 0.54 | /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) | 6 | 1.32 | 0.00 | 0.00 | 1.76 | 2.50 | 2.50 | /100 admissions | |
| patients with CRI \geq D3 (NCRI) ^b | 6 | 1.32 | 0.00 | 0.00 | 1.76 | 2.50 | 2.50 | /100 admissions | |
| CRI (all) | 6 | 1.24 | 0.00 | 0.00 | 1.74 | 3.75 | 3.75 | /1000 patientdays | |
| CRI \geq D3 (NCRI) | 6 | 1.24 | 0.00 | 0.00 | 1.74 | 3.75 | 3.75 | /1000 patientdays | |
| NCRI, 1st ^b | 6 | 1.24 | 0.00 | 0.00 | 1.74 | 3.75 | 3.75 | /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 | 16.3 | 0.0 | 0.0 | 0.0 | 11.8 | 66.7 |
| PN2 | 10 | 20.4 | 0.0 | 0.0 | 0.0 | 52.9 | 100.0 |
| PN3 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PN4 | 29 | 59.2 | 0.0 | 33.3 | 81.8 | 100.0 | 100.0 |
| PN5 | 2 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 |

^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 | 23 | 67.6 | 0.0 | 0.0 | 50.0 | 76.5 | 100.0 |
| BSI-B | 3 | 8.8 | 0.0 | 0.0 | 0.0 | 0.0 | 17.6 |

^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 | 8 | 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 | 1 | 16.7 | 0.0 | 0.0 | 16.7 | 33.3 | 33.3 |
| CRI2 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CRI3 | 5 | 83.3 | 66.7 | 66.7 | 83.3 | 100.0 | 100.0 |

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

^b CRI1=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 | | 5 | 12.2 | 15 | 51.7 | 5 | 71.4 | 30 | 36.1 |
| <i>Enterococcus faecalis</i> | ENCFAE | 0 | 0.0 | 4 | 13.8 | 0 | 0.0 | 4 | 4.8 |
| <i>Enterococcus faecium</i> | ENCFAI | 0 | 0.0 | 2 | 6.9 | 2 | 28.6 | 4 | 4.8 |
| <i>Enterococcus sp., not specified</i> | ENCNSP | 0 | 0.0 | 0 | 0.0 | 3 | 42.9 | 3 | 3.6 |
| <i>Other coagulase-negative staphylococci (cns)</i> | STAOTH | 0 | 0.0 | 1 | 3.4 | 0 | 0.0 | 1 | 1.2 |
| <i>Other gram positive cocci</i> | GPCOTH | 0 | 0.0 | 2 | 6.9 | 0 | 0.0 | 2 | 2.4 |
| <i>Staphylococcus aureus</i> | STAAUR | 5 | 12.2 | 3 | 10.3 | 0 | 0.0 | 9 | 10.8 |
| <i>Staphylococcus epidermidis</i> | STAEPH | 0 | 0.0 | 3 | 10.3 | 0 | 0.0 | 5 | 6.0 |
| <i>Staphylococcus haemolyticus</i> | STAHAE | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 2.4 |
| Gram negative cocci | | 1 | 2.4 | 0 | 0.0 | 0 | 0.0 | 1 | 1.2 |
| <i>Moraxella catharralis</i> | MORCAT | 1 | 2.4 | 0 | 0.0 | 0 | 0.0 | 1 | 1.2 |
| Gram-negative bacilli, enterobacteriaceae | | 27 | 65.9 | 9 | 31.0 | 2 | 28.6 | 39 | 47.0 |
| <i>Citrobacter koseri (ex. diversus)</i> | CITDIV | 1 | 2.4 | 0 | 0.0 | 0 | 0.0 | 1 | 1.2 |
| <i>Citrobacter sp., not specified</i> | CITNSP | 3 | 7.3 | 0 | 0.0 | 0 | 0.0 | 3 | 3.6 |
| <i>Enterobacter aerogenes</i> | ENBAER | 1 | 2.4 | 0 | 0.0 | 0 | 0.0 | 1 | 1.2 |
| <i>Enterobacter cloacae</i> | ENBCLO | 0 | 0.0 | 1 | 3.4 | 0 | 0.0 | 1 | 1.2 |
| <i>Escherichia coli</i> | ESCCOL | 8 | 19.5 | 6 | 20.7 | 1 | 14.3 | 15 | 18.1 |
| <i>Klebsiella pneumoniae</i> | KLEPNE | 6 | 14.6 | 1 | 3.4 | 0 | 0.0 | 8 | 9.6 |
| <i>Morganella species</i> | MOGSPP | 2 | 4.9 | 0 | 0.0 | 0 | 0.0 | 2 | 2.4 |
| <i>Proteus mirabilis</i> | PRTMIR | 2 | 4.9 | 0 | 0.0 | 1 | 14.3 | 3 | 3.6 |
| <i>Serratia marcescens</i> | SERMAR | 4 | 9.8 | 1 | 3.4 | 0 | 0.0 | 5 | 6.0 |

^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 | | 8 | 19.5 | 3 | 10.3 | 0 | 0.0 | 11 | 13.3 |
| <i>Acinetobacter sp., not specified</i> | ACINSP | 1 | 2.4 | 0 | 0.0 | 0 | 0.0 | 1 | 1.2 |
| <i>Haemophilus influenzae</i> | HAEINF | 2 | 4.9 | 0 | 0.0 | 0 | 0.0 | 2 | 2.4 |
| <i>Pseudomonas aeruginosa</i> | PSEAER | 3 | 7.3 | 3 | 10.3 | 0 | 0.0 | 6 | 7.2 |
| <i>Stenotrophomonas maltophilia</i> | STEMAL | 2 | 4.9 | 0 | 0.0 | 0 | 0.0 | 2 | 2.4 |
| Anaerobes | | 0 | 0.0 | 1 | 3.4 | 0 | 0.0 | 1 | 1.2 |
| <i>Bacteroides species, not specified</i> | BATNSP | 0 | 0.0 | 1 | 3.4 | 0 | 0.0 | 1 | 1.2 |
| Parasites | | 0 | 0.0 | 1 | 3.4 | 0 | 0.0 | 1 | 1.2 |
| <i>Candida albicans</i> | CANALB | 0 | 0.0 | 1 | 3.4 | 0 | 0.0 | 1 | 1.2 |

^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> | 9 | | | | | | | | | | | | | |
| cultures | | | | | | | | | | | | | | |
| Fluoroquinolones: Ciprofloxacin/ofloxacine | 2 | 22.2 | 0.0 | 0.0 | 25.0 | 75.0 | 100.0 | 1 | 50.0 | 0.0 | 0.0 | 50.0 | 100.0 | 100.0 |
| Macrolides/sim.: Clindamycin (lincosamides) | 1 | 11.1 | 0.0 | 0.0 | 0.0 | 50.0 | 100.0 | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Macrolides/sim.: Erythromycin (macrolides) | 1 | 11.1 | 0.0 | 0.0 | 0.0 | 50.0 | 100.0 | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Other antibiotics: Fosfomicin | 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 | | | | | | | |
| Aminoglycosides: Gentamicin | 1 | 11.1 | 0.0 | 0.0 | 0.0 | 50.0 | 100.0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Glycopeptides: Vancomycin/teicoplanin (Glycopeptides) | 4 | 44.4 | 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.) | 4 | 44.4 | 0.0 | 50.0 | 100.0 | 100.0 | 100.0 | 2 | 50.0 | 0.0 | 0.0 | 50.0 | 100.0 | 100.0 |
| Penicillins: Penicillin | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| <i>Streptococcus pneumoniae</i> | | | | | | | | | | | | | | |
| no data available | | | | | | | | | | | | | | |
| <i>Enterococcus faecalis</i> | | | | | | | | | | | | | | |
| cultures | 4 | | | | | | | | | | | | | |
| Penicillins: Ampicillin | 3 | 75.0 | 0.0 | 0.0 | 50.0 | 100.0 | 100.0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Penicillins: Amoxicillin/clavulanate | 2 | 50.0 | 0.0 | 0.0 | 33.3 | 66.7 | 66.7 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aminoglycosides: Gentamicin | 1 | 25.0 | 0.0 | 0.0 | 16.7 | 33.3 | 33.3 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Glycopeptides: Vancomycin/teicoplanin (Glycopeptides) | 3 | 75.0 | 0.0 | 0.0 | 50.0 | 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 (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 | 15 | | | | | | | | | | | | | | | | | | | | | |
| Penicillins: Amoxicillin/clavulanate | 10 | 66.7 | 0.0 | 83.3 | 100.0 | 100.0 | 100.0 | 7 | 70.0 | 0.0 | 0.0 | 80.0 | 100.0 | 100.0 | | | | | | | | |
| Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.) | 10 | 66.7 | 0.0 | 83.3 | 100.0 | 100.0 | 100.0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | |
| Carbapenems: Meropenem/imipenem (carbapenems) | 10 | 66.7 | 0.0 | 83.3 | 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 | 13.3 | 0.0 | 0.0 | 0.0 | 16.7 | 100.0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | |
| <i>Enterobacter aerogenes</i> | | | | | | | | | | | | | | | | | | | | | | |
| cultures | 1 | | | | | | | | | | | | | | | | | | | | | |
| Penicillins: Amoxicillin/clavulanate | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | | | | | | | |
| Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.) | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | | | | | | | |
| Carbapenems: Meropenem/imipenem (carbapenems) | 1 | 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 | 1 | 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 | | | | | | | | |
| <i>Enterobacter cloacae</i> | | | | | | | | | | | | | | | | | | | | | | |
| cultures | 1 | | | | | | | | | | | | | | | | | | | | | |
| Penicillins: Amoxicillin/clavulanate | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | | | | | | | |
| Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.) | 1 | 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 | | | | | | | | |
| Carbapenems: Meropenem/imipenem (carbapenems) | 1 | 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 | 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 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> | 8 | | | | | | | | | | | | | |
| cultures | | | | | | | | | | | | | | |
| Penicillins: Amoxicillin/clavulanate | 7 | 87.5 | 50.0 | 75.0 | 100.0 | 100.0 | 100.0 | 6 | 85.7 | 50.0 | 75.0 | 100.0 | 100.0 | 100.0 |
| Cephalosporins: Cefotaxime/ceftriaxone (3rd gen cephalosp.) | 8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 6 | 75.0 | 50.0 | 50.0 | 75.0 | 100.0 | 100.0 |
| Carbapenems: Meropenem/impipenem (carbapenems) | 8 | 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 | 37.5 | 0.0 | 0.0 | 25.0 | 75.0 | 100.0 | 1 | 33.3 | 0.0 | 0.0 | 25.0 | 50.0 | 50.0 |
| <i>Klebsiella oxytoca</i> | | | | | | | | | | | | | | |
| no data available | | | | | | | | | | | | | | |

^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 | 6 | | | | | | | | | | | | | |
| Carbapenems: Meropenem/imipenem (carbapenems) | 5 | 83.3 | 0.0 | 50.0 | 100.0 | 100.0 | 100.0 | 1 | 20.0 | 0.0 | 0.0 | 0.0 | 50.0 | 50.0 |
| Cephalosporins: Ceftazidim (anti-pseudom 3G ceph) | 3 | 50.0 | 0.0 | 0.0 | 25.0 | 75.0 | 100.0 | 1 | 33.3 | 0.0 | 0.0 | 50.0 | 100.0 | 100.0 |
| Polymyx.: Colistin (polymixins) | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| Penicillins: Piperacillin/ticarcillin (anti-pseudom. penic.) | 1 | 16.7 | 0.0 | 0.0 | 0.0 | 25.0 | 50.0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Penicillins: Piperacillin/ticarcillin + enzyme inhibitor | 2 | 33.3 | 0.0 | 0.0 | 25.0 | 75.0 | 100.0 | 2 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <i>Acinetobacter baumannii</i> | | | | | | | | | | | | | | |
| no data available | | | | | | | | | | | | | | |

^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 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 | 3 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 60.0 |
| origin of bloodstream infection | V | V | 0 | O | 2 | 5.7 | 0.0 | 0.0 | 0.0 | 5.6 | 12.5 |
| antimicrobial treatment | V | V | 0 | O | 33 | 34.0 | 0.0 | 0.0 | 100.0 | 100.0 | 110.0 |
| Microorganism indicator | V | V | 0 | M | 7 | 7.2 | 0.0 | 0.0 | 0.0 | 10.5 | 11.4 |
| total infection variables | V | V | 0 | O | 45 | 11.3 | 0.0 | 3.5 | 25.0 | 26.1 | 40.0 |

^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) :
1030 patients

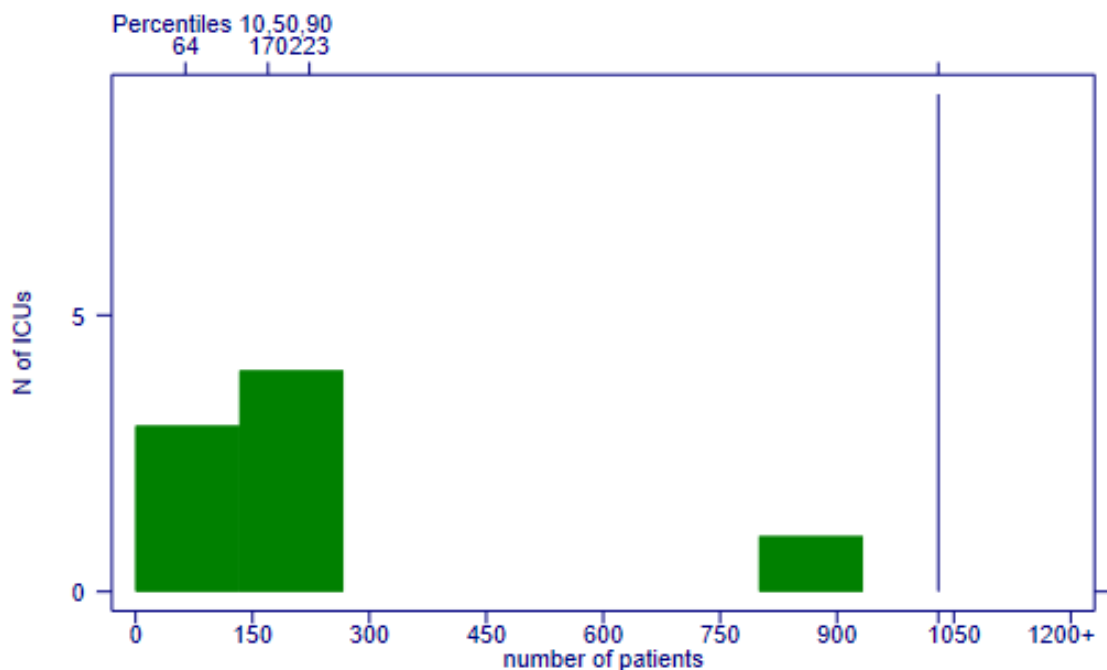


Figure 1: Distribution: number of patients

Hospital (all) :
8.7 days

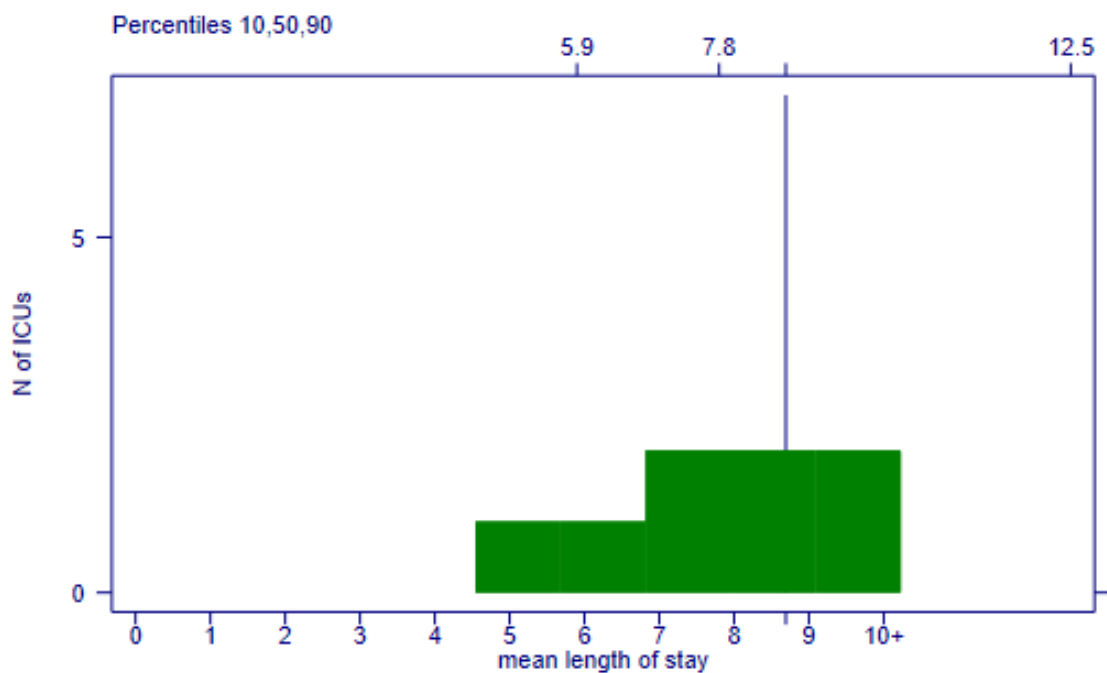


Figure 2: Distribution: mean length of stay

Hospital (all) :
5.5 NP/1000 patientdays (95% CI 4 - 7.2)

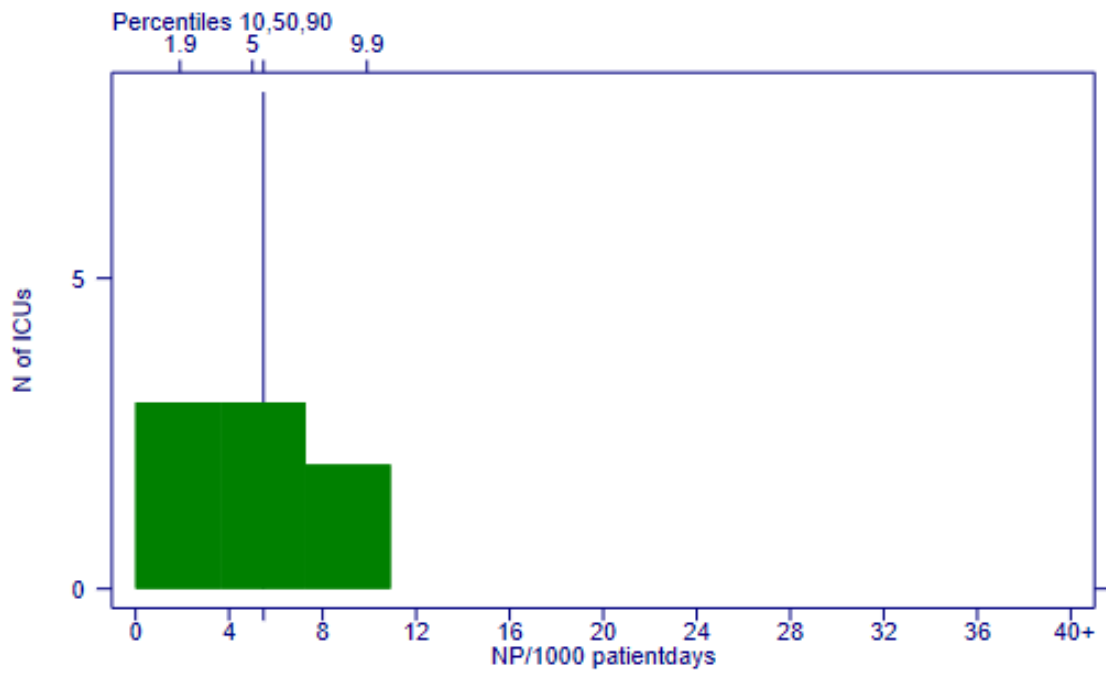


Figure 3: Distribution: P_≥D3 (NP) / 1000 patientdays

Hospital (all) :
11.9 NPs, ID2, all / 1000 IDdays (95% CI 8 - 17.1)

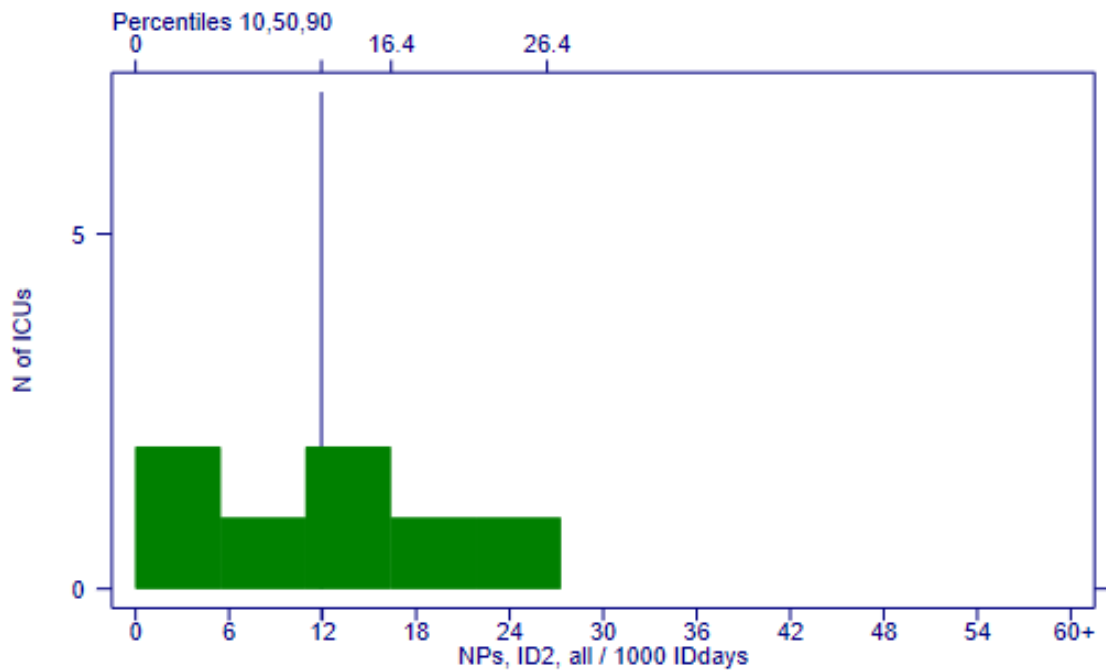


Figure 4: Distribution: NPs, ID2, all / 1000 IDdays ; NPs, with intubation in 2 days before onset of NP, all episodes / 1000 intubation days

Hospital (all) :
11 NPs, ID2, 1st / 1000 IDdays bef 1st NP (95% CI 6 - 18.5)

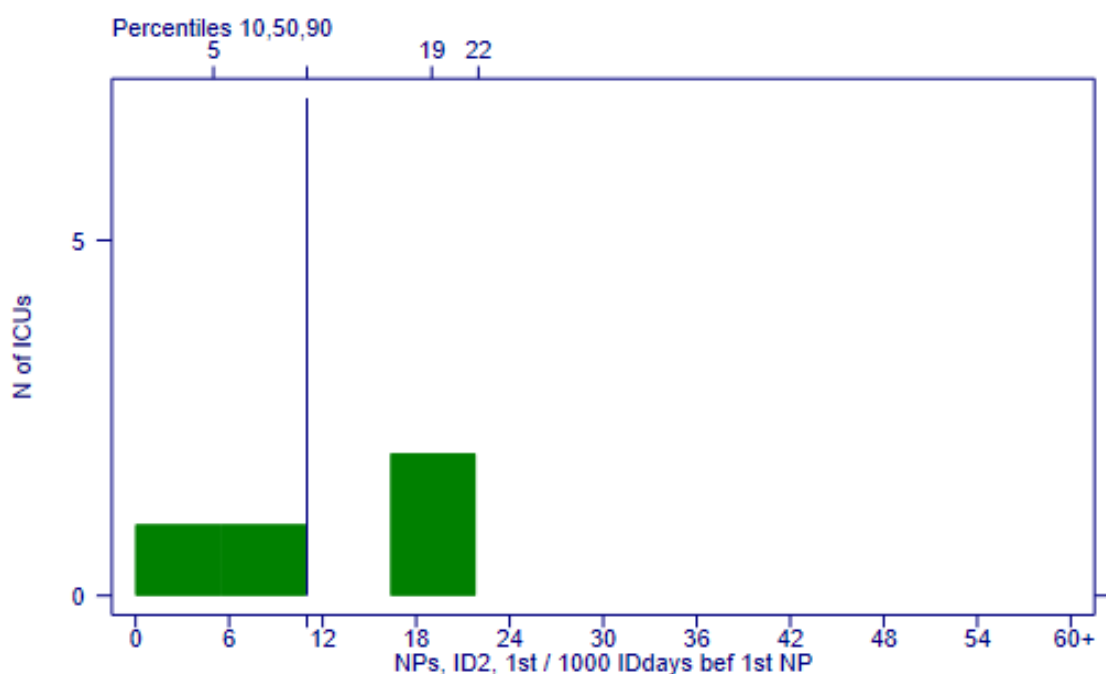


Figure 5: Distribution: NPs, ID2, 1st / 1000 IDdays bef 1st NP ; NPs, 1st episode only, with intubation in 2 days before onset of NP / 1000 intubation days

Hospital (all) :
3.8 Bs \geq D3 (NBs) / 1000 patientdays (95% CI 2.6 - 5.3)

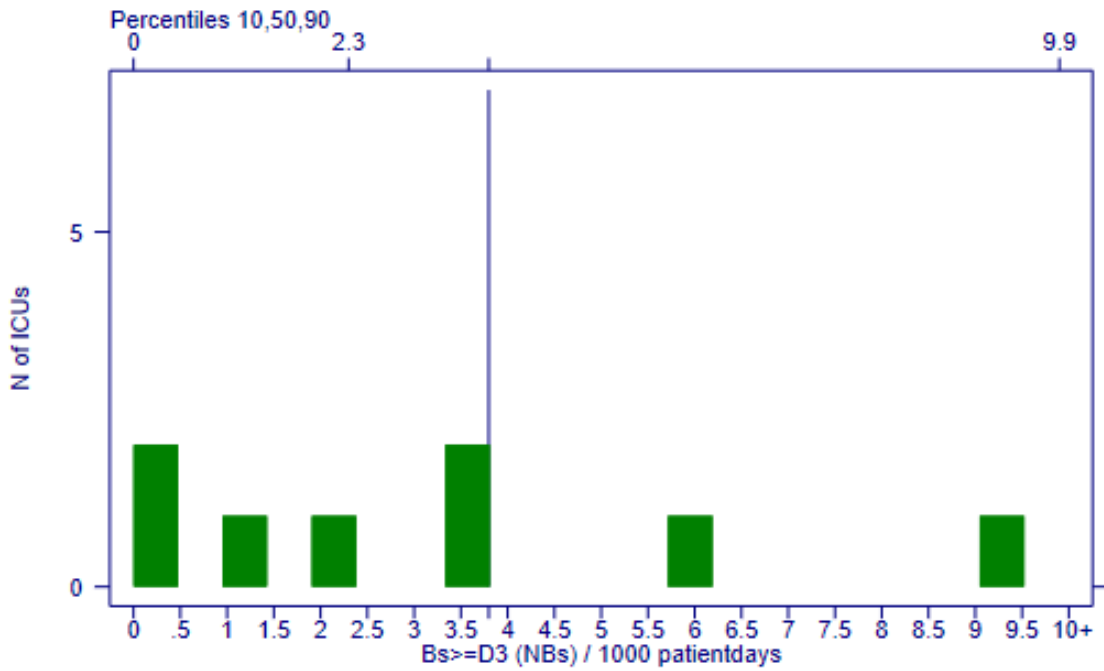


Figure 6: Distribution: Bs \geq D3 (NBs) / 1000 patientdays

Hospital (all) :
5.1 NBs, ID2, all / 1000 IDdays (95% CI 3.4 - 7.5)

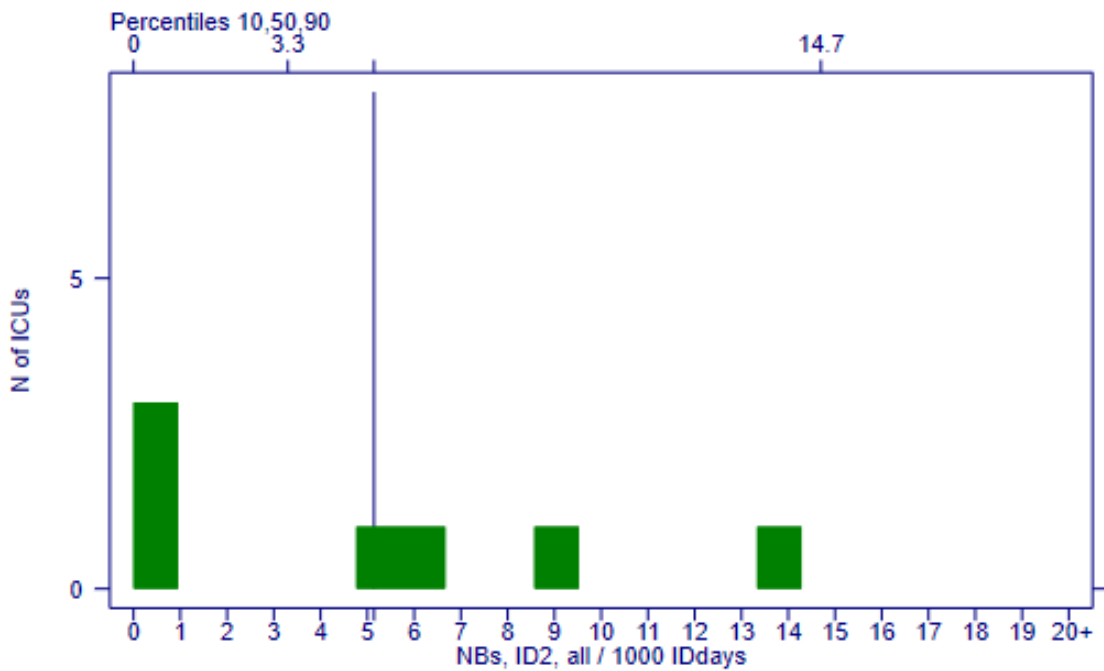


Figure 7: Distribution: NBs, with catheter use in 2days preceding onset of infection, all / 1000 IDdays ; NBs, with catheter use in 2days preceding onset of infection, all episodes / 1000 catheterdays

Hospital (all) :
1.7 NBs, ori=(cat/un) / 1000 patientdays (95% CI .9 - 2.8)

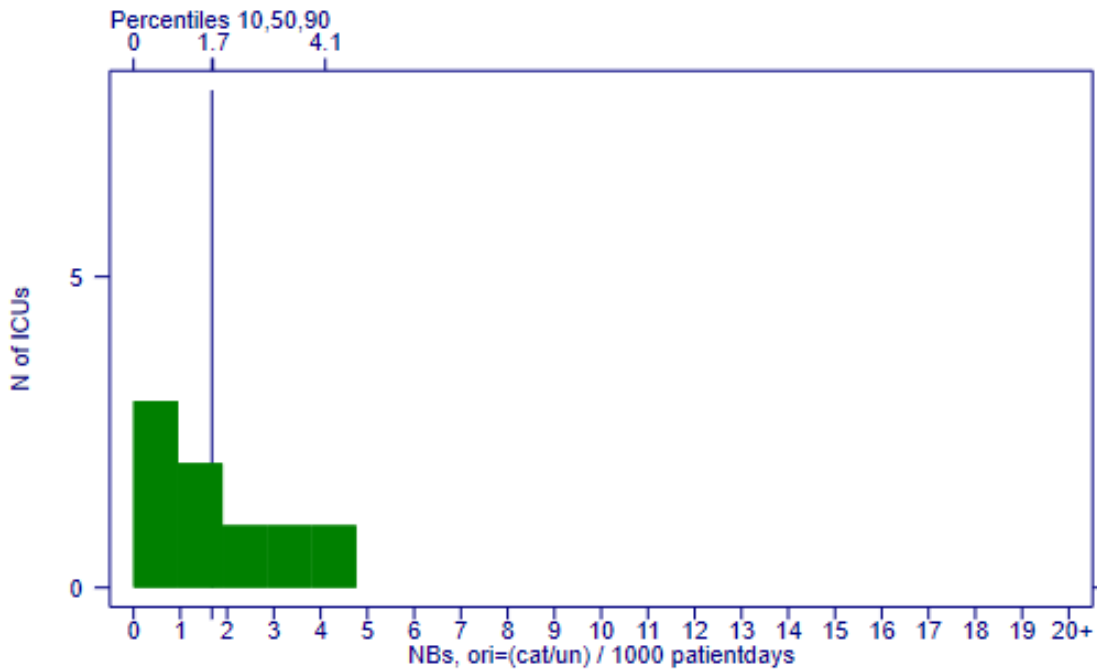


Figure 8: Distribution: NBs, ori=cat/un / 1000 patientdays ; primary NBs / 1000 patientdays

Hospital (all) :
2.4 NBs, (ori=cat/un,ID2) / 1000 IDdays (95% CI 1.2 - 4.1)

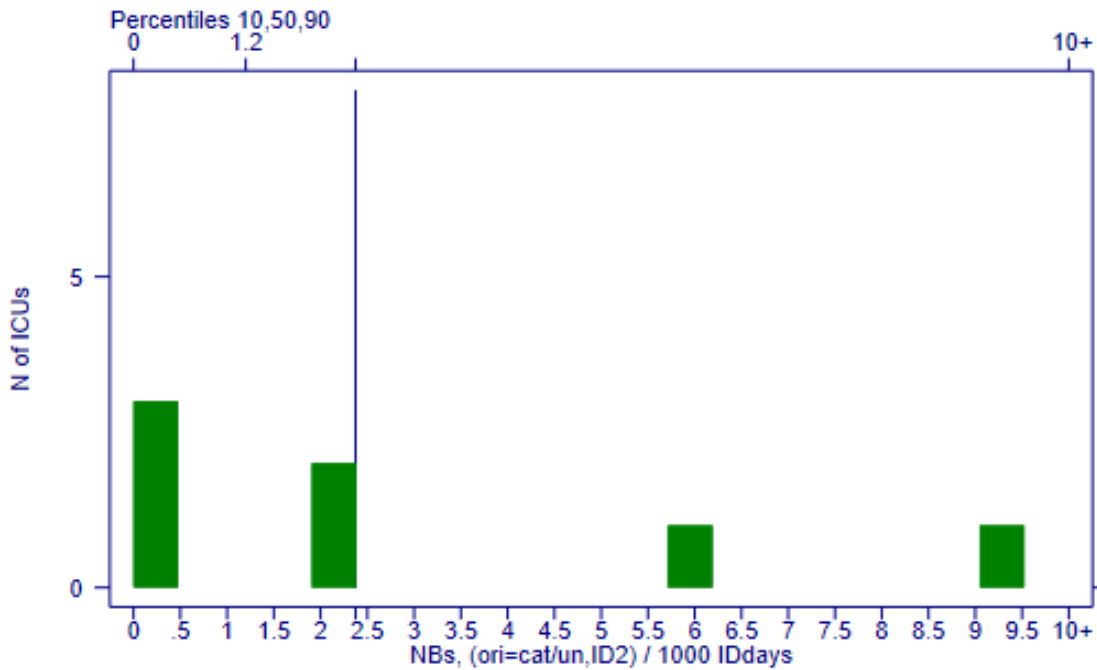


Figure 9: Distribution: NBs, (ori=cat/un,ID2) OR (ori=cat) / 1000 IDdays ; catheter associated NBs / 1000 catheterdays (CDC)

Hospital (all) :
1.6 NBs, ori=cat, 1st / 1000 IDdays bef 1st NB (95% CI .4 - 4.1)

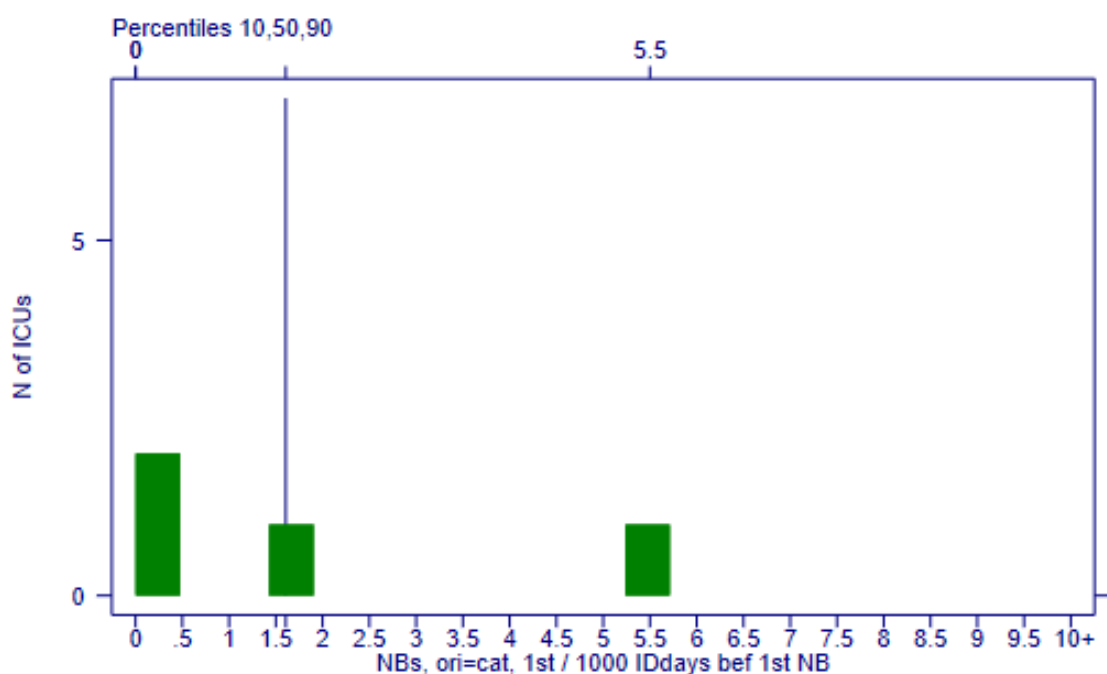


Figure 10: Distribution: NBs, ori=cat, 1st / 1000 IDdays bef 1st NB ; definite catheter associated NBs, 1st episodes only / 1000 catheterdays

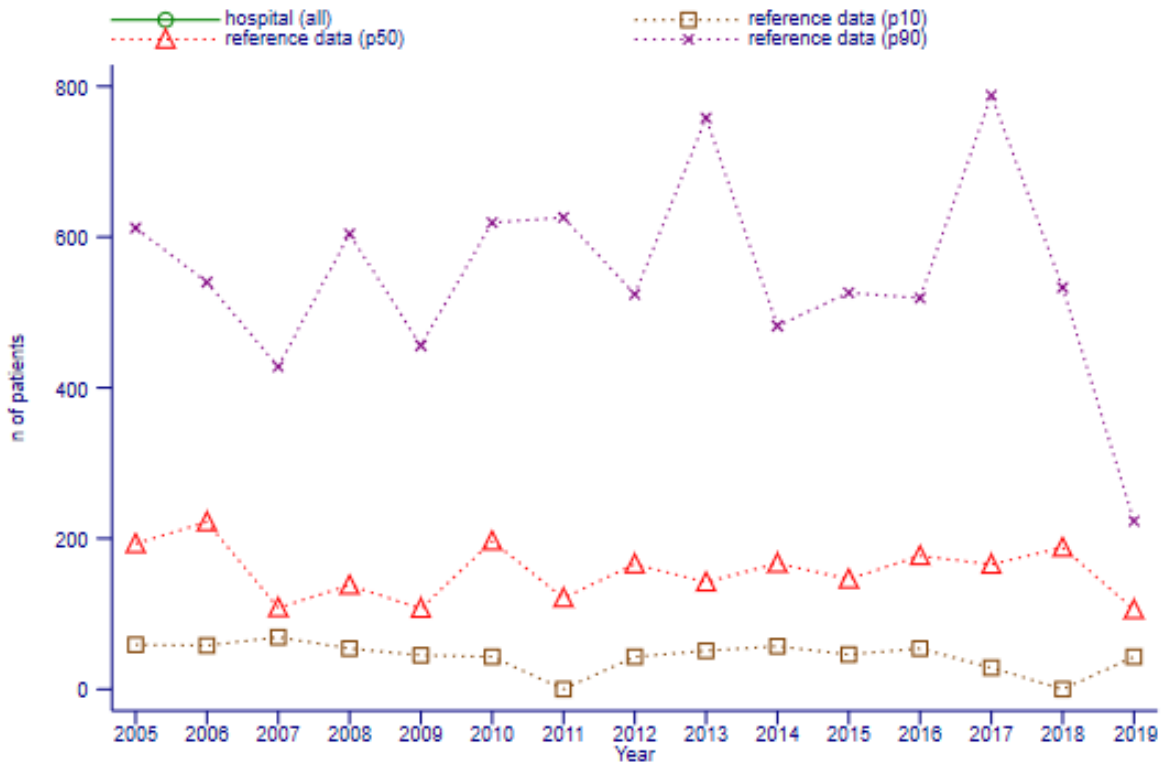


Figure 11: Evolution: Number of patients

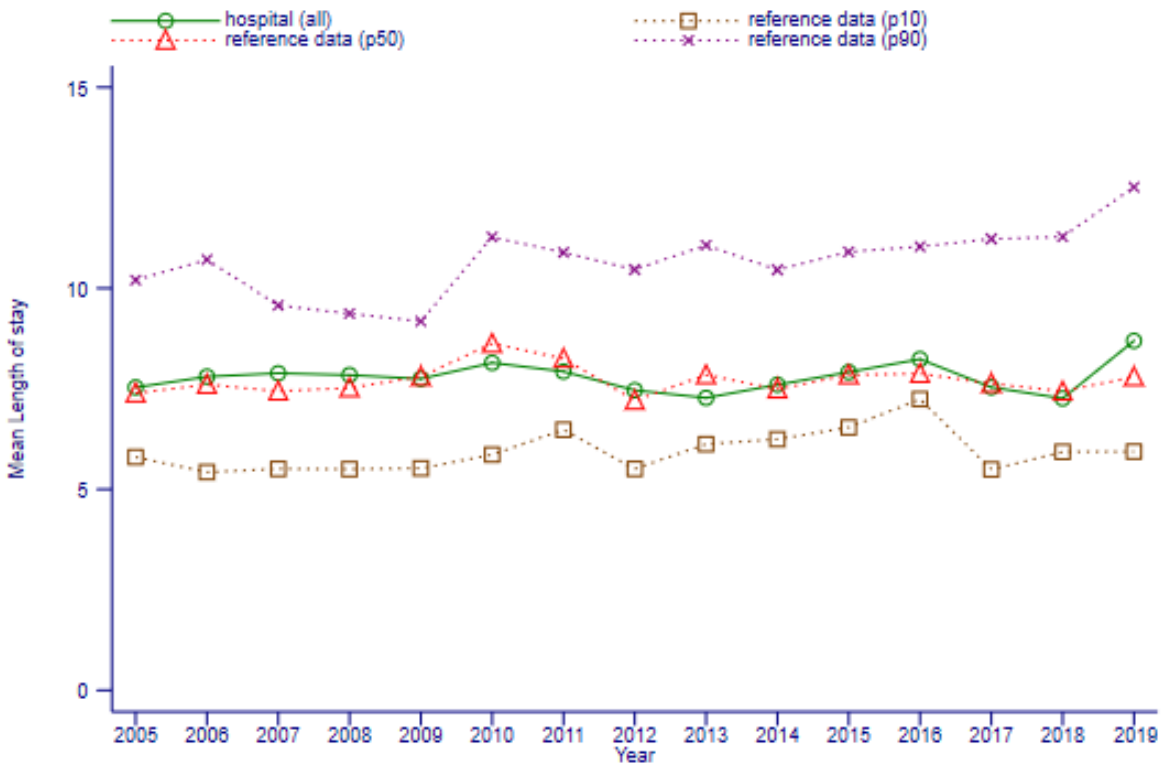


Figure 12: Evolution: Mean Length of stay

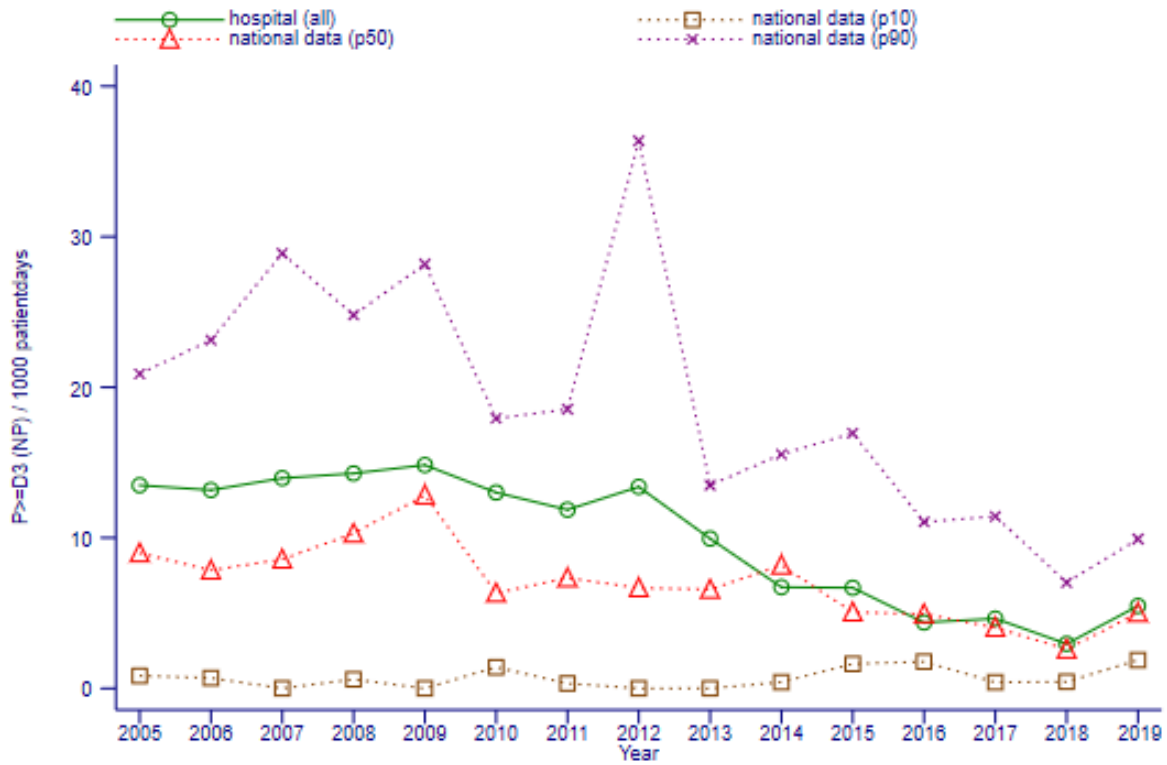


Figure 13: Evolution: $P \geq D3$ (NP) / 1000 patientdays

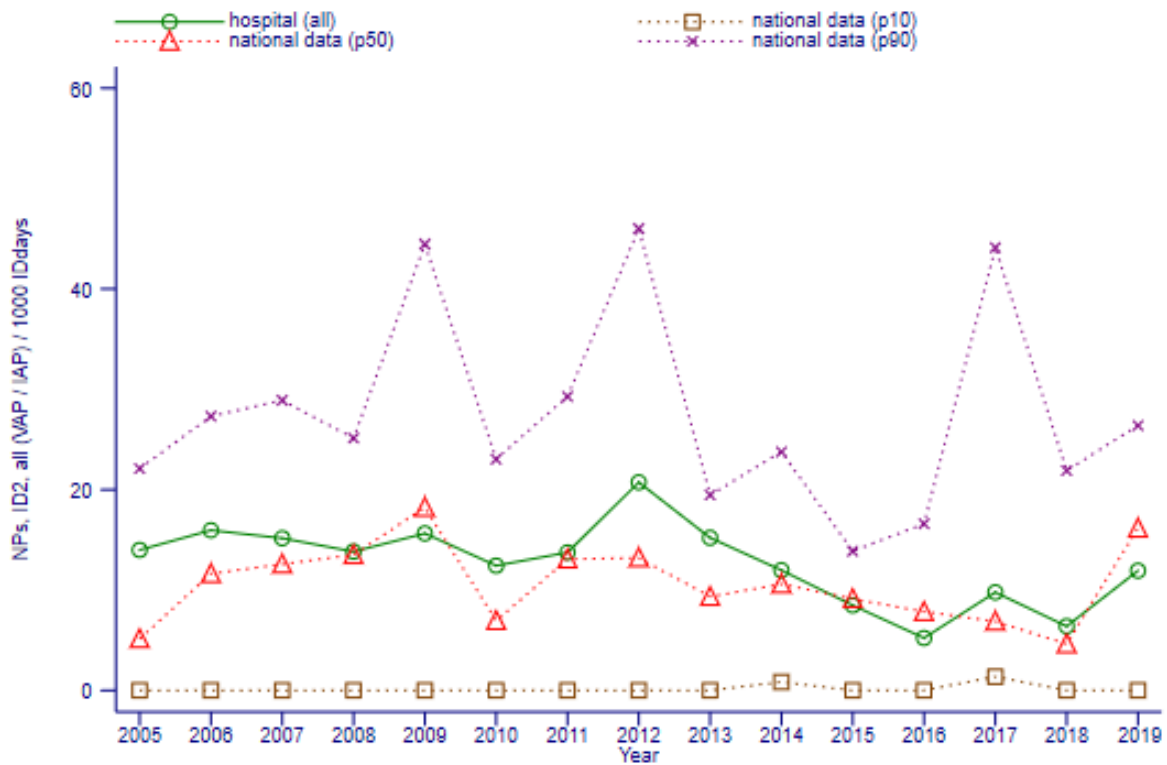


Figure 14: Evolution: NPs, ID2, all / 1000 IDdays ; NPs, with intubation in 2 days before onset of NP, all episodes / 1000 intubation days

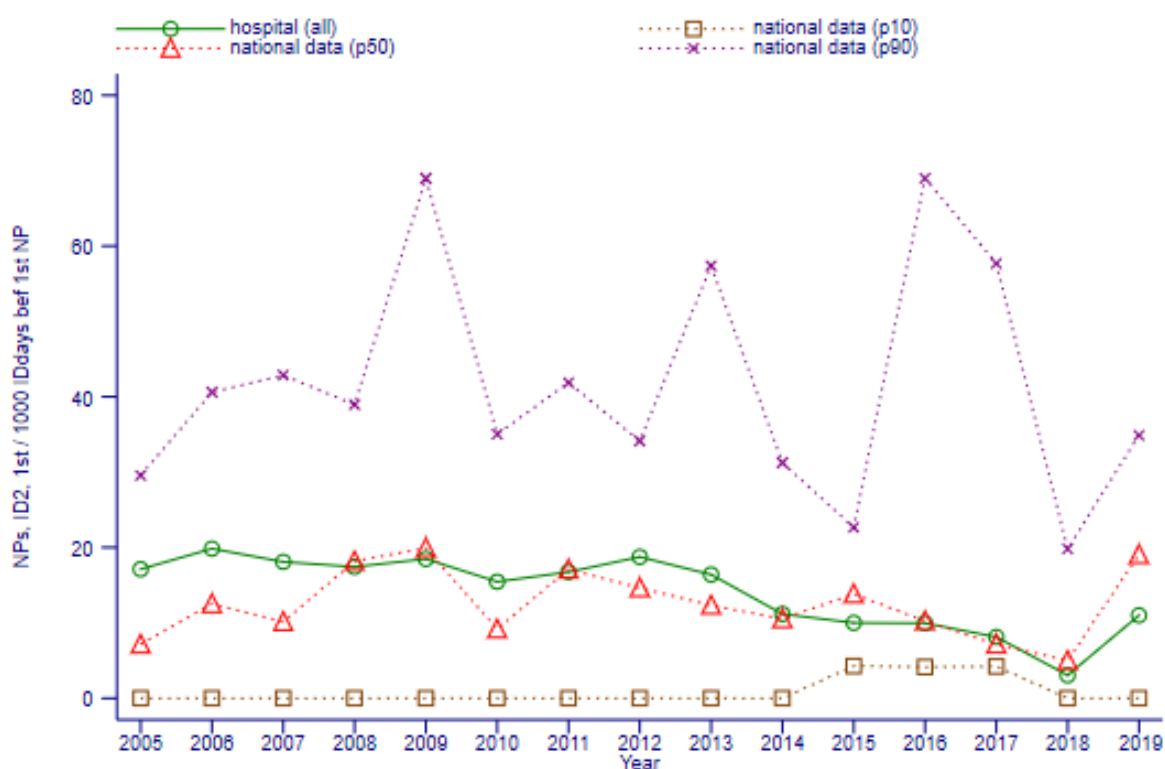


Figure 15: Evolution: NPs, ID2, 1st / 1000 IDdays bef 1st NP ; NPs, with intubation in 2 days before onset of NP, 1st episode only / 1000 intubation days

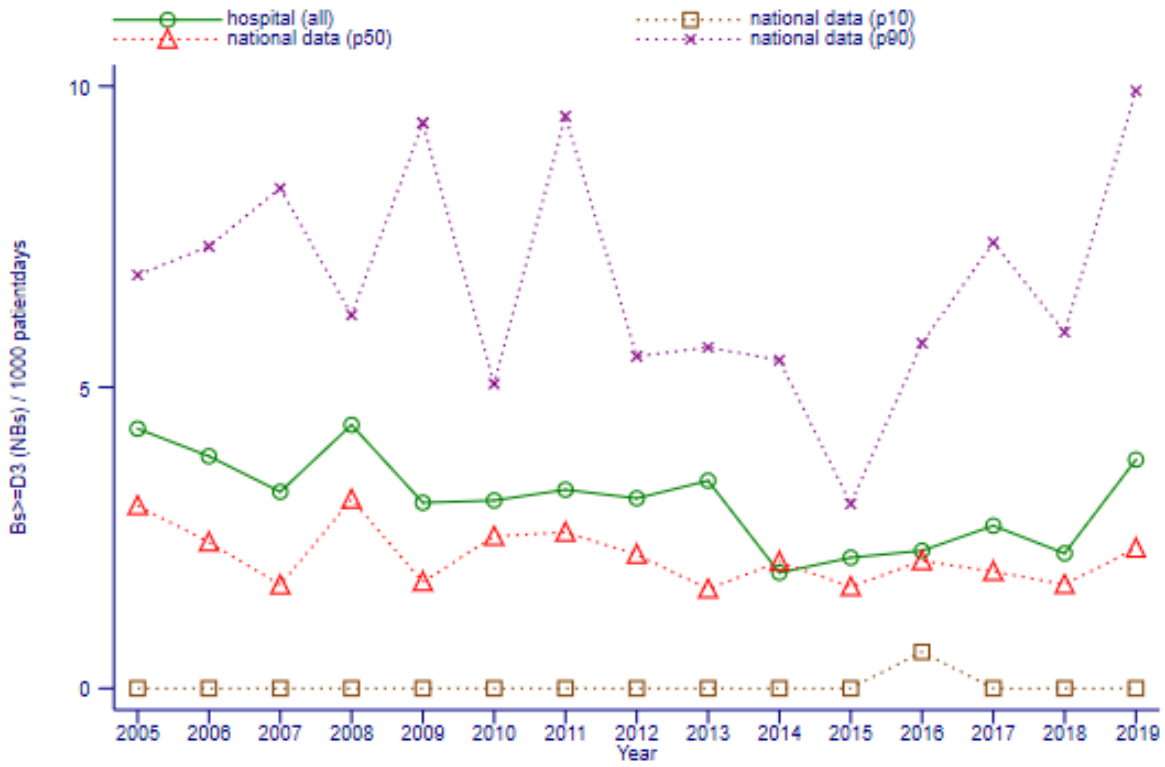


Figure 16: Evolution: Bs ≥ D3 (NBs) / 1000 patientdays

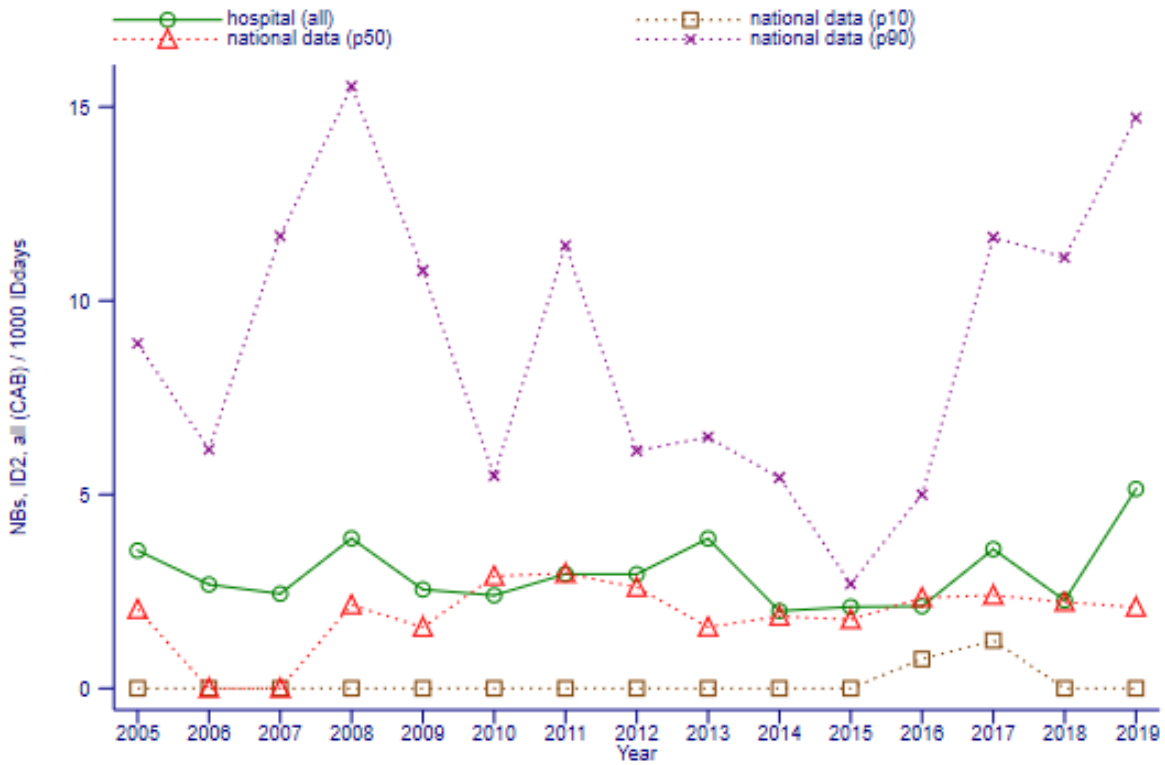


Figure 17: Evolution: NBs, ID2, all / 1000 IDdays ; NBs, with catheter use in 2days preceding onset of infection, all episodes / 1000 catheterdays

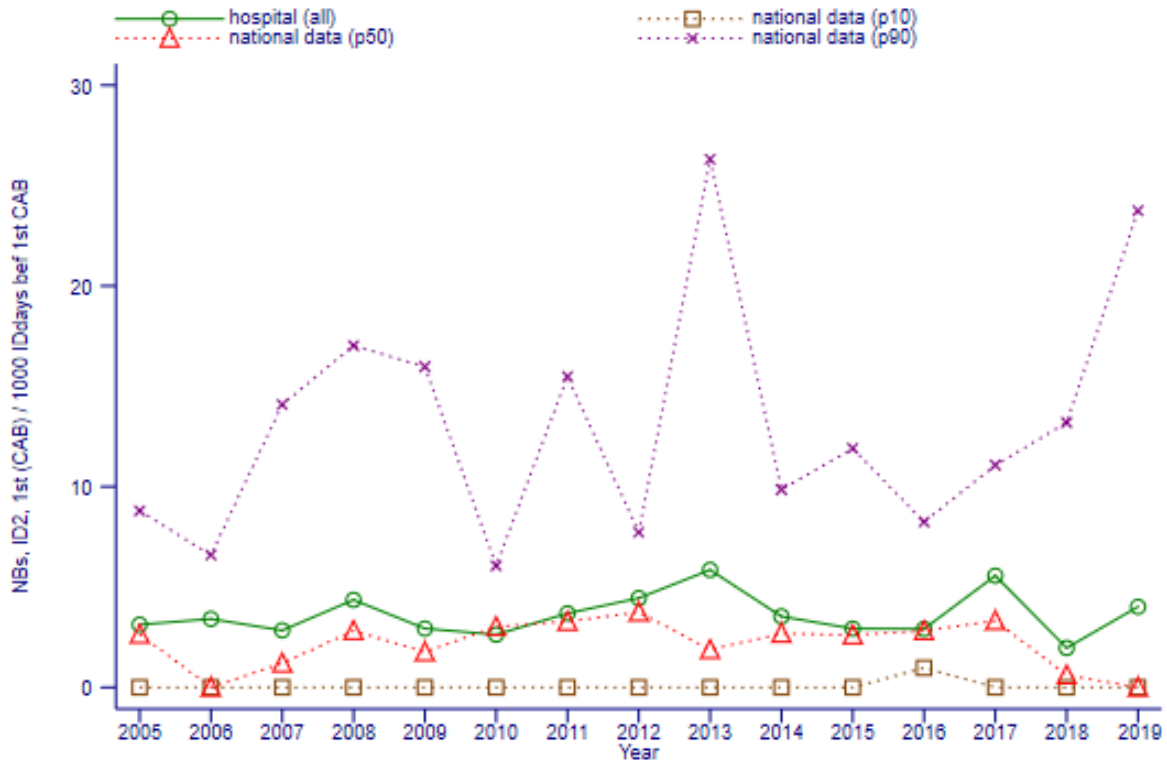


Figure 18: Evolution: NBs, ID2, 1st / 1000 IDdays bef 1st CAB; NBs, with catheter use in 2days preceding onset of infection, 1st episodes only / 1000 catheterdays

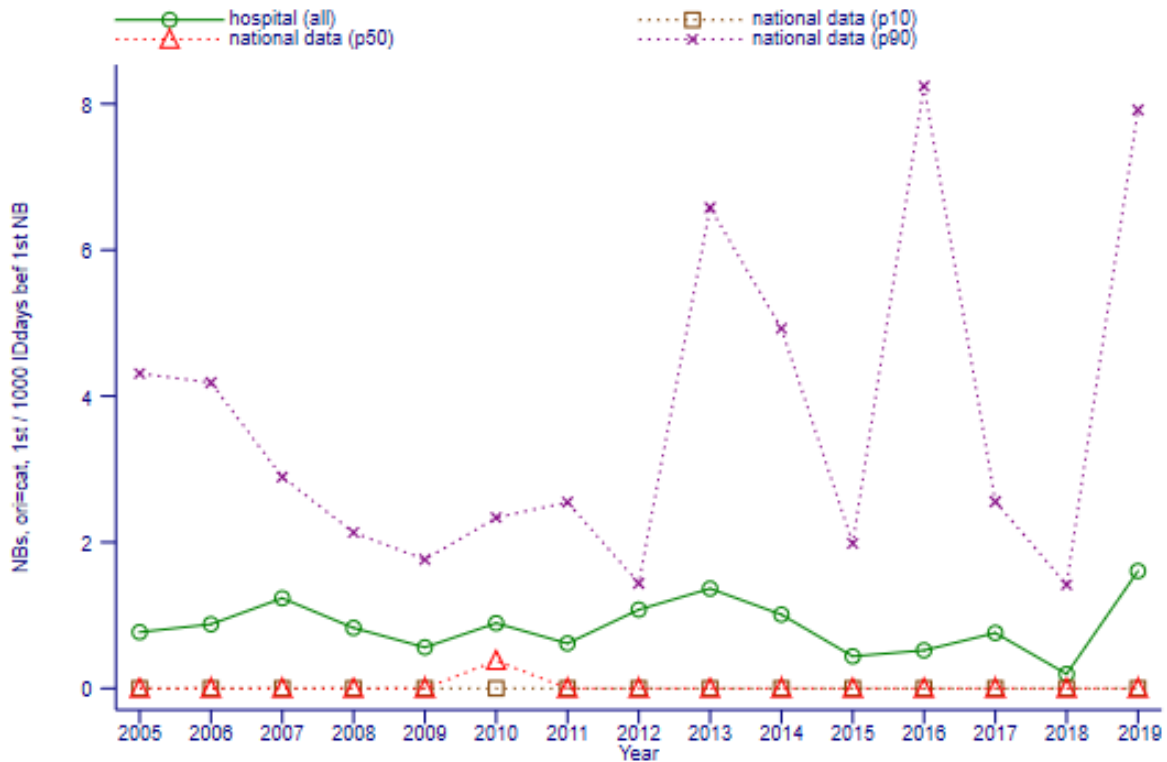


Figure 19: Evolution: NBs, ori=cat, 1st / 1000 IDdays bef 1st NB ; definite catheter associated NBs, 1st episodes only / 1000 catheterdays

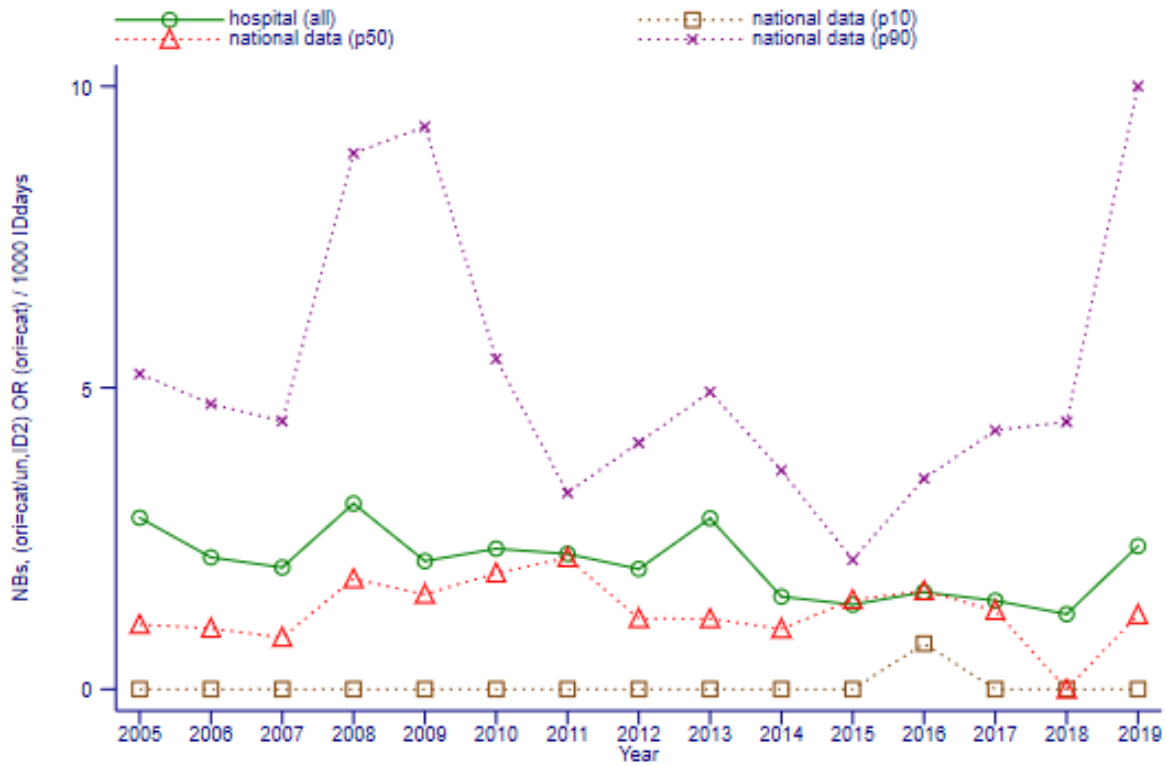


Figure 20: Evolution: NBs, (ori=cat/un,ID2) OR (ori=cat) / 1000 IDdays ; catheter associated NBs / 1000 catheterdays (CDC)

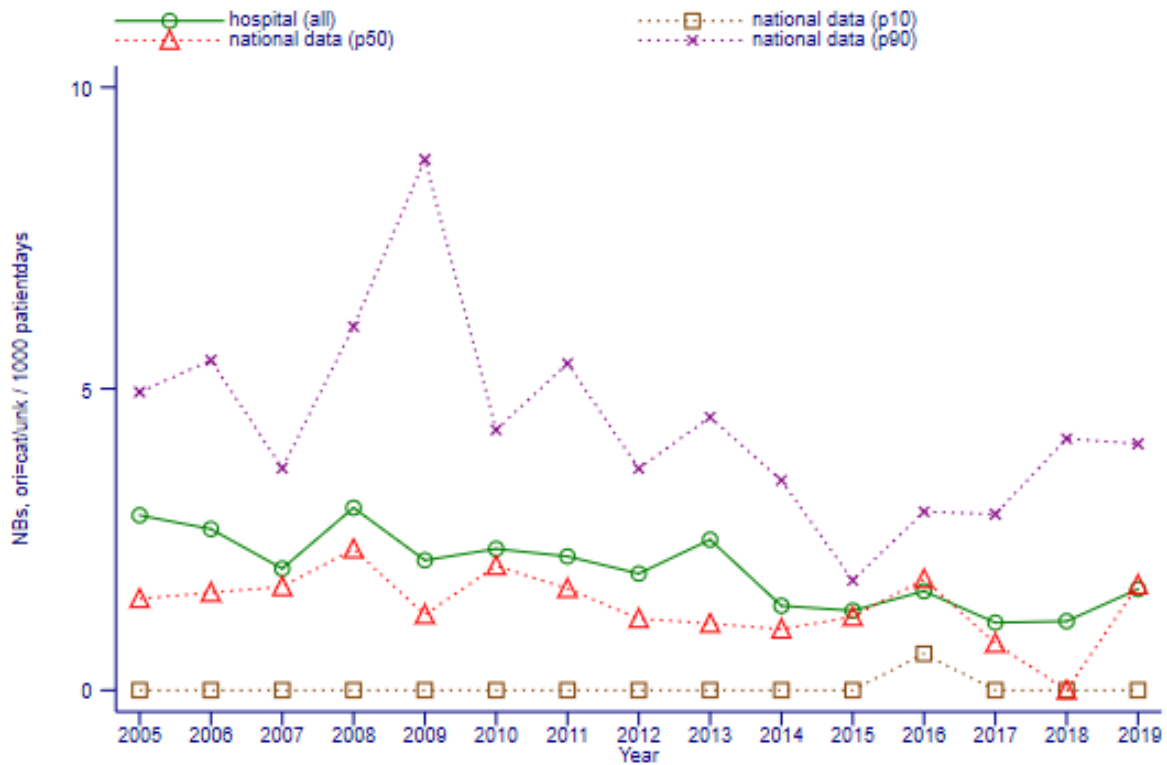


Figure 21: Evolution: NBs, ori=cat/unk / 1000 patientdays ; primary NBs / 1000 patientdays