ICA, l'Europa allo specchio

Dr.ssa Elena Carrara

Università degli Studi di Verona

18 ottobre 2019

XI CONGRESSO NAZIONALE ANIPIO

Roma, 18-19 ottobre 2019

Ottobre 2017…

Il clima?

La vita sociale?

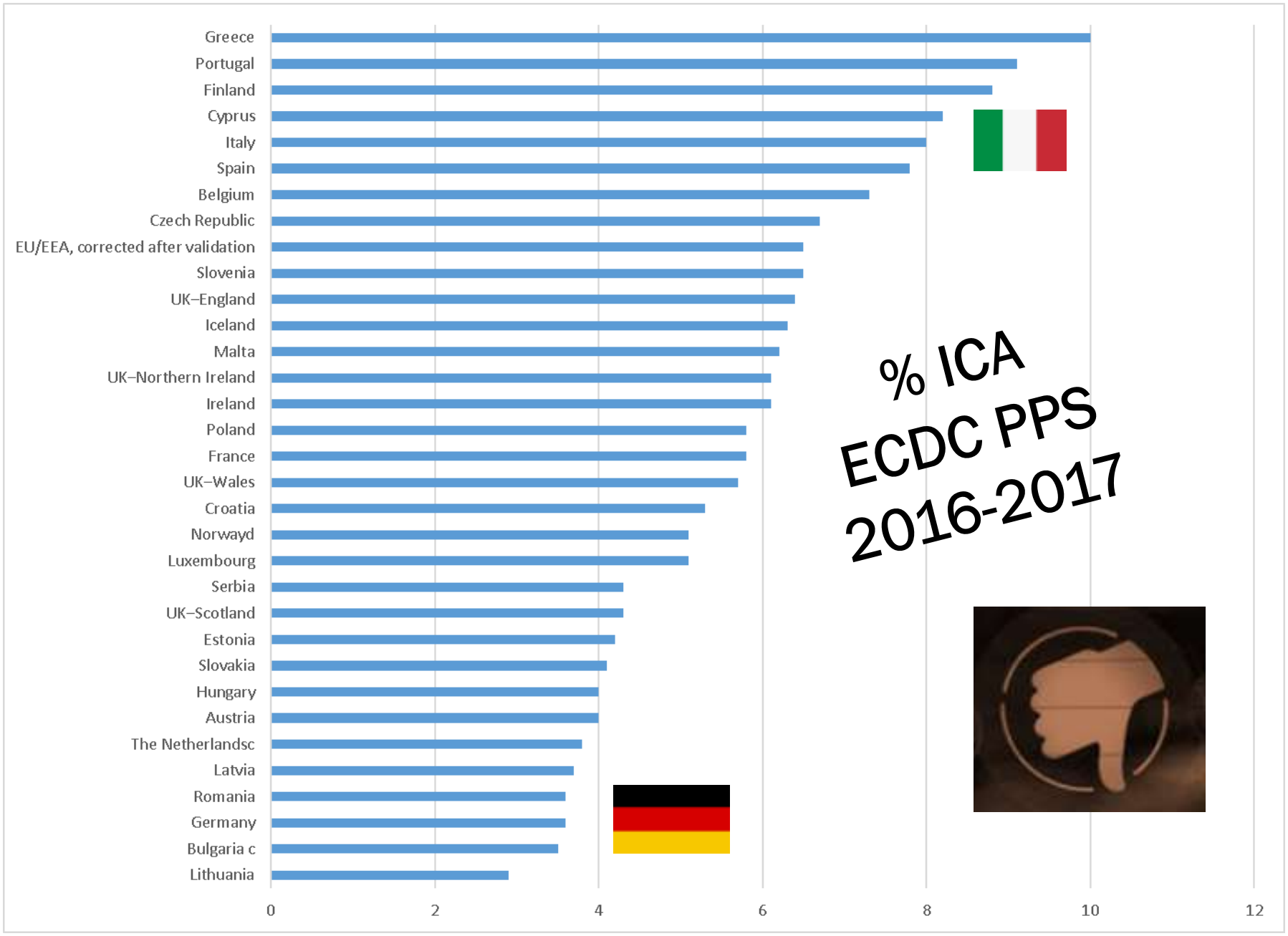

Guida poco
che devi bere
welcome in Veneto

Il traffico?

Berlino 3,5 mln di abitanti

Verona 250,000 abitanti

.... E il lavoro???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% ICA
ECDC PPS
2016-2017

ICA, l'Europa allo specchio

European Centre for Disease Prevention and Control
An agency of the European Union

All topics: A to Z | News & events | Publications & data | Tools | About us

Home > All topics: A to Z > Healthcare-associated infections in acute care hospitals > Surveillance and disease data > Point prevalence survey database

< Surveillance and disease data

Point prevalence survey database (HAI-Net)

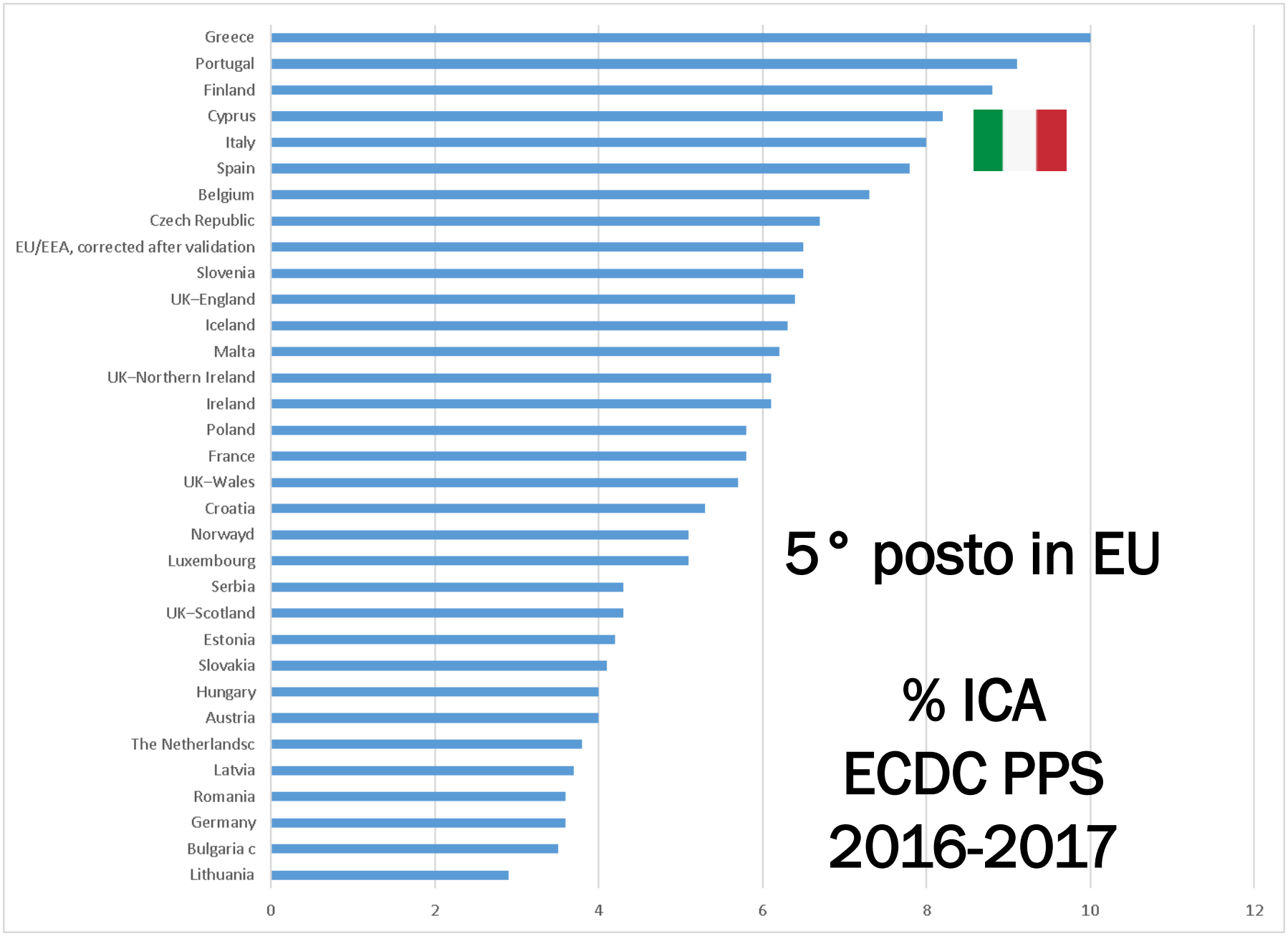
Tool

The **online database of the HAI-Net point prevalence survey (PPS) of healthcare-associated infections (HAIs) and antimicrobial use** provides European reference data on HAIs and antimicrobial use in acute care hospitals in Europe. The reports of the database are provided through the European Surveillance System (TESSy). Data for the first EU-wide Point Prevalence Survey of HAI and antimicrobial use were collected over a period of 2 years (12 countries in 2011 and 21 countries in 2012) and are presented as a single period 2011-2012. Please refer to the PPS protocol for methodological details and to the PPS report for interpretation of the results.

Prevalence of HAIs and antimicrobial use
- Observed and predicted prevalence
- Prevalence by specialty

HAI types distribution
- Type of HAI per country
- Types of HAI, Europe

Microorganisms and antimicrobial resistance in HAIs
- Antimicrobial resistance
- List of microorganisms
- Most frequent organisms
- Frequency of microorganisms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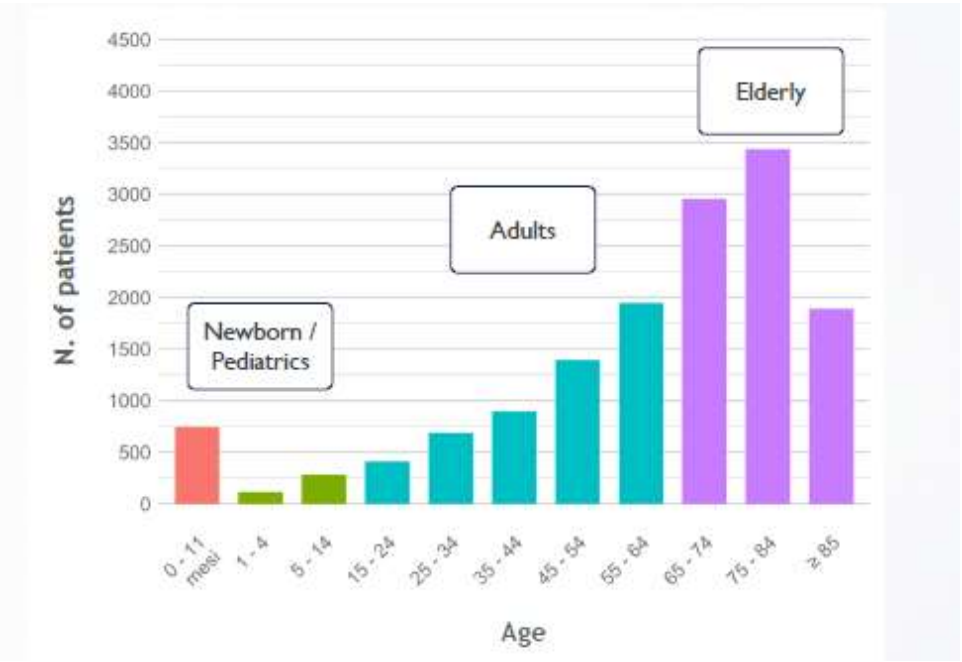
% ICA
ECDC PPS
2016-2017

Country	Patients in PPS sample	Patients with at least one HAI in PPS sample (HAI prevalence)[a]			Validation-corrected HAI prevalence[b]	Occupied beds in the country (average per day)	Patients with at least one HAI on a given day, estimated		Hospital discharges annually in the country	HAI incidence, estimated		Patients with at least one HAI, annually, estimated	
	n	n	%	95% CI	%	n	n	95% CI	n	%	95% CI	n	95% CI
Austria	13,461	541	4.0	3.4–4.7	NR	36,351	1,461	1,243–1,716	2,707,753	2.3	1.5–3.3	62,306	40,978–89,762
Belgium	11,800	856	7.3	6.4–8.3	NR	37,651	2,731	2,397–3,109	1,858,726	5.4	3.7–7.6	101,110	68,186–141,713
Bulgaria[c]	2,200	76	3.5	1.7–6.8	NR	25,324	875	434–1,733	1,632,089	1.8	0.9–3.8	29,572	13,909–61,597
Croatia	10,466	551	5.3	4.5–6.2	NR	11,047	581	495–683	667,849	4.1	2.8–5.6	27,129	18,937–37,561
Cyprus	1,036	85	8.2	5.4–12.4	ND	1,437	118	77–178	166,295	4.8	2.5–8.7	8,010	4,158–14,541
Czech Republic	15,117	1,015	6.7	5.9–7.6	NR	40,691	2,732	2,413–3,090	2,260,239	5.4	3.9–7.3	122,313	87,039–165,208
Estonia	4,220	178	4.2	2.4–7.3	NR	4,582	193	111–332	222,363	3.3	1.6–6.6	7,393	3,558–14,761
Finland	9,079	803	8.8	7.5–10.4	NR	15,894	1,406	1,187–1,660	915,892	5.1	3.3–7.5	46,735	30,053–68,350
France	16,522	965	5.8	4.9–7.0	NR	159,810	9,334	7,823–11,116	11,330, 996	4.1	2.7–5.9	467,961	311,830–671,498
Germany	11,324	409	3.6	2.8–4.7	NR	400,132	14,452	11,087–18,789	19,480,504	3.1	1.9–4.8	604,495	373,766–938,383
Greece	9,401	938	10.0	8.5–11.6	NR	18,252	1,821	1,559–2,121	1,562,761	4.3	3.1–5.7	66,487	48,386–89,068
Hungary	20,588	818	4.0	3.3–4.8	NR	46,134	1,833	1,516–2,212	2,226,485	3.5	2.1–5.4	78,095	46,906–120,082
Iceland	633	40	6.3	0.8–36.8	5.7	642	41	5–237	39,198	6.7	0.6–48.6	2,609	239–19,038
Ireland	10,333	633	6.1	5.0–7.5	NR	10,932	670	546–820	705,000	4.2	2.7–6.3	29,671	18,846–44,323
Italy	14,773	1,186	8.0	6.8–9.5	NR	167,619	13,457	11,362–15,899	8,930,979	6.0	4.2–8.3	534,709	373,705–740,544

Prevalenza ITA 8% (13500 pz/die)

Prev media EU 6.5 % 98.000 pz/die



UNIVERSITÀ DEGLI STUDI DI TORINO

REPORT ITALIANO PPS2 2016/2017

STUDIO DI PREVALENZA ITALIANO SULLE INFEZIONI CORRELATE ALL'ASSISTENZA E SULL'USO DI ANTIBIOTICI NEGLI OSPEDALI PER ACUTI – PROTOCOLLO ECDC

TOT 14 773 (56 H)

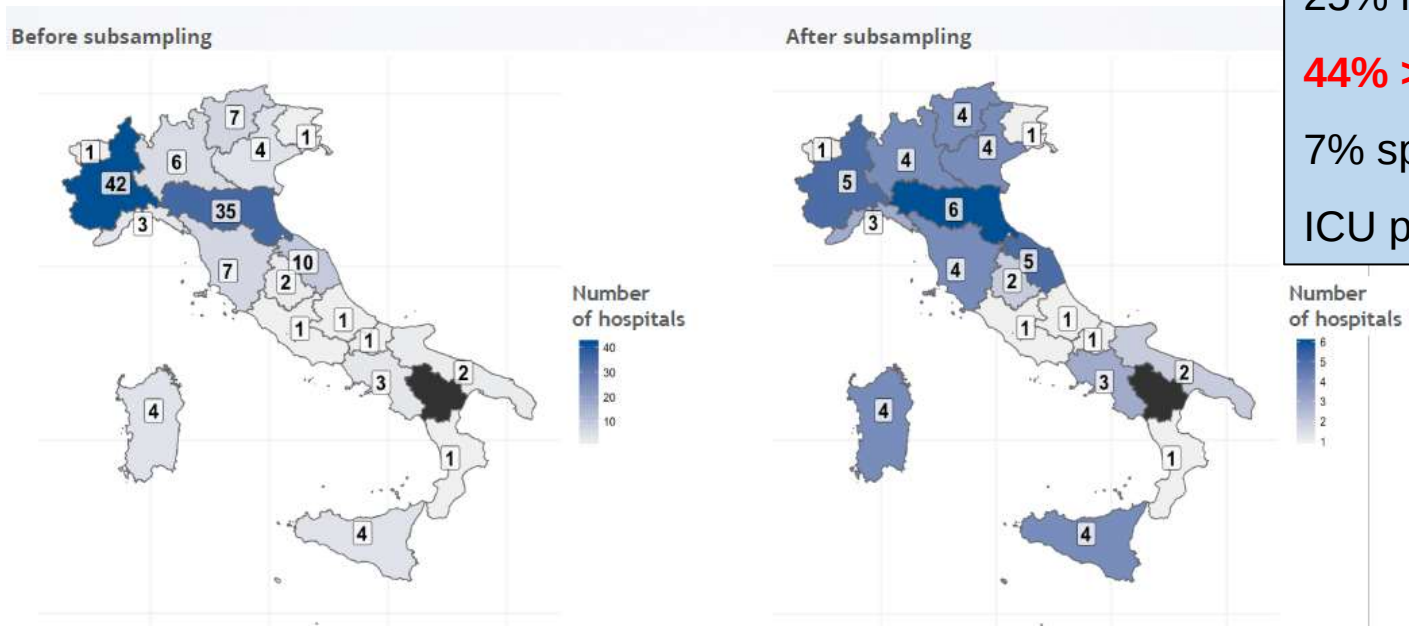
23.2% <200 PL (EU 29.5%)

25% medi (EU 34.2%)

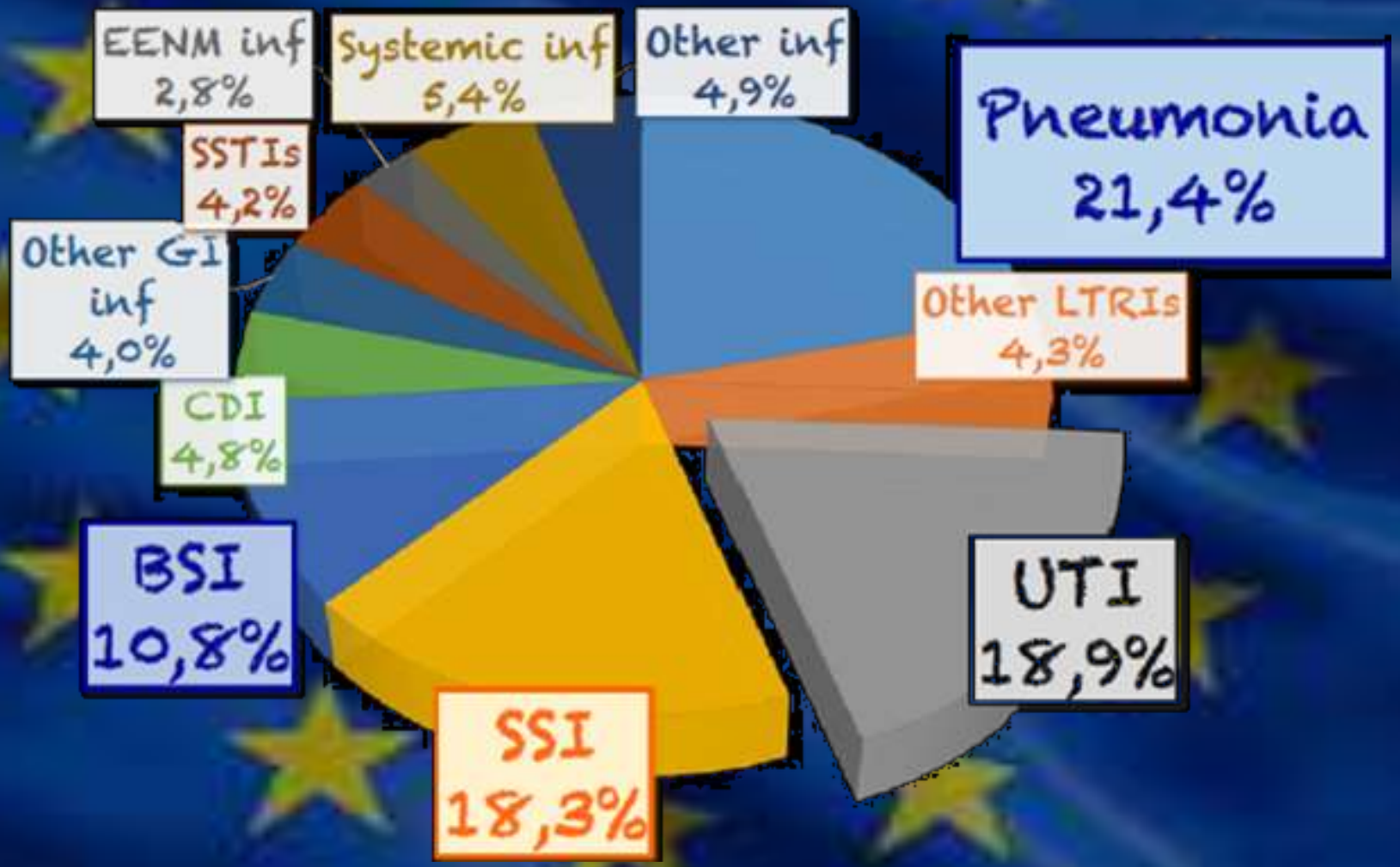
44% >500PL (EU 20.3%)

7% spec (EU 13.6%)

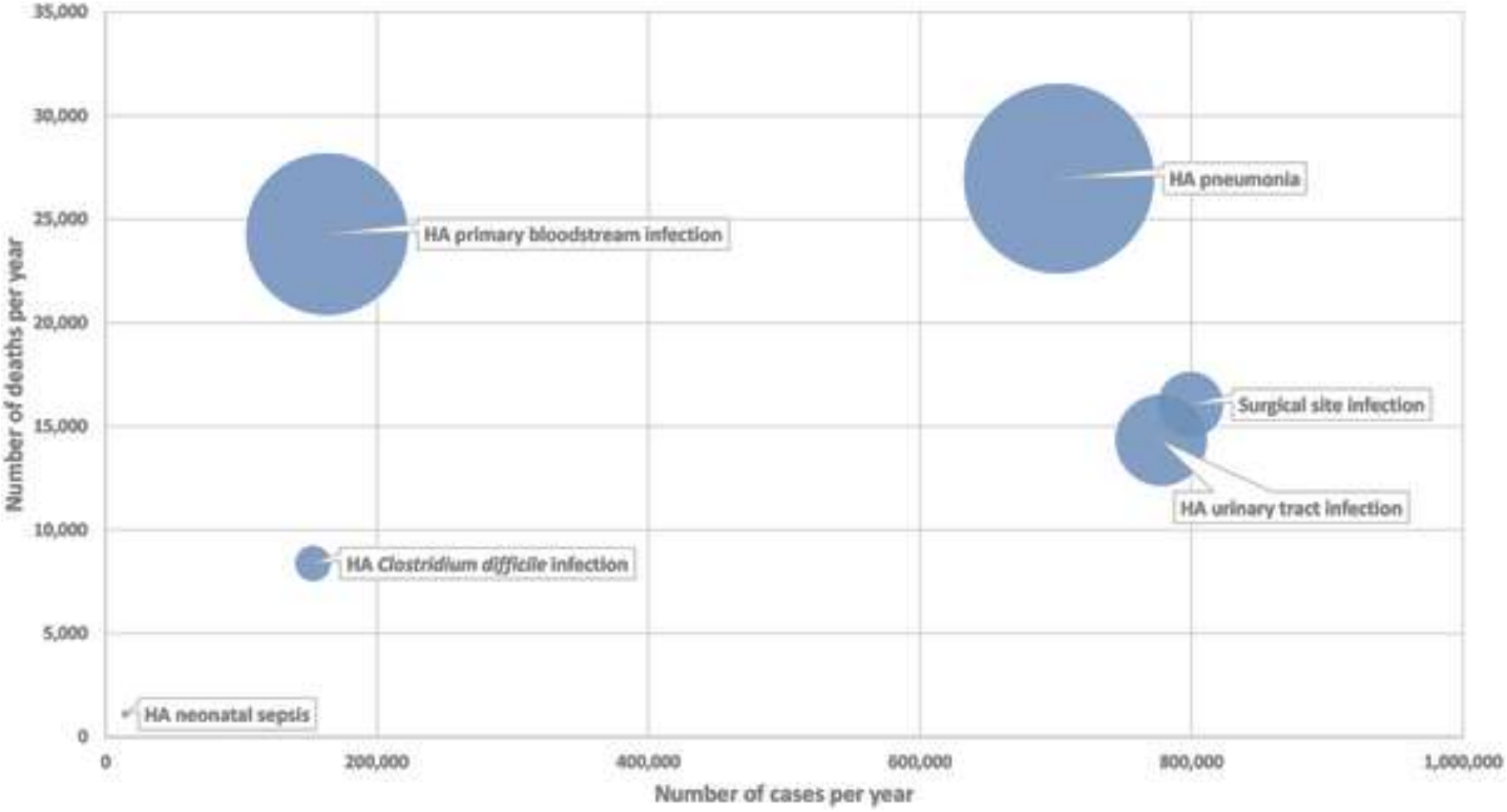
ICU pz 6% (EU 4.9%)



ECDC PPS 2016/17 – Tipo di ICA



Six healthcare-associated infections according to their number of cases per year (x-axis), number of deaths per year (y-axis), and DALYs per year (width of bubble), EU/EEA, 2011–2012



Cassini A, PLOS Medicine 2016

PLOS | MEDICINE

Table 1. Estimated annual burden of six healthcare-associated infections, EU/EEA, 2011–2012 (time discounting was not applied).

Healthcare-Associated Infections	Median (95% Uncertainty Interval)							% Total DALYs
	Cases per Year	Incidence (per 100,000 Population)	Deaths per Year	DALYs per Case	YLDs per 100,000 Population	YLLs per 100,000 Population	DALYs per 100,000 Population	
HA Pneumonia	702,315 (664,764–744,419)	138 (130–145)	26,972 (21,859–32,541)	2.2 (1.9–2.4)	67.0 (59.7–74.0)	103 (85.7–121)	169 (149–192)	33.7
HA Primary Bloodstream Infection	163,216 (145,012–182,059)	32 (28.4–35.7)	24,284 (20,824–27,755)	8 (7.2–8.8)	21.2 (17.9–24.9)	123 (104–142)	145 (123–166)	28.9
HA Urinary Tract Infection	777,639 (737,820–820,228)	152 (145–161)	14,334 (11,768–17,162)	0.8 (0.7–0.9)	24.8 (20.8–29.0)	56.4 (47.1–66.5)	81.2 (69.0–94.2)	16.2
Surgical Site Infection	799,185 (762,721–835,448)	156.5 (150–163.7)	16,049 (15,249–16,893)	0.5 (0.5–0.6)	0.8 (0.7–0.8)	57.5 (55.0–59.8)	58.2 (55.7–60.6)	11.6
HA *C. difficile* Infection	152,905 (134,053–173,089)	30 (26.3–33.9)	8,382 (6,034–11,152)	1.7 (1.3–2.2)	1.4 (1.1–1.8)	29.8 (22.4–39.6)	31.2 (23.6–41.1)	6.23
HA Neonatal Sepsis	14,651 (7,466–23,873)	2.9 (1.5–4.7)	1,109 (383–2,380)	12.1 (7.6–18.9)	6.9 (3.9–11.0)	9.9 (4.0–18.1)	16.8 (8.9–27.6)	3.35
Overall	2,609,911 (2,451,235–2,778,451)	512 (480–545)	91,130 (76,117–107,883)	25.1 (19.0–31.5)	122 (105–143)	380 (318–447)	501 (429–582)	100

Abbreviations: YLDs, years lived with disability; YLLs, years of life lost due to premature mortality.

doi:10.1371/journal.pmed.1002150.t001

Cassini A, Plachouras D, Eckmanns T, Abu Sin M, Blank HP, et al. (2016) Burden of Six Healthcare-Associated Infections on European Population Health: Estimating Incidence-Based Disability-Adjusted Life Years through a Population Prevalence-Based Modelling Study. PLOS Medicine 13(10): e1002150. https://doi.org/10.1371/journal.pmed.1002150
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002150

1.099.032 casi
25.1000 morti

2.609.911 casi
91.130 morti

Parlamento europeo

Le statistiche sugli incidenti stradali mortali nell'UE. Infografica.

Società Aggiornato il: 16-04-2019 - 14:21
Pubblicato: 15-04-2019 - 09:21

Le strade dell'UE sono le più sicure del mondo.

? ?

Il contributo dell'antibiotico-resistenza....

Attributable deaths and disability-adjusted life-years caused by infections with antibiotic-resistant bacteria in the EU and the European Economic Area in 2015: a population-level modelling analysis

*Alessandro Cassini, Liselotte Diaz Högberg, Diamantis Plachouras, Annalisa Quattrocchi, Ana Hoxha, Gunnar Skov Simonsen, Mélanie Colomb-Cotinat, Mirjam E Kretzschmar, Brecht Devleesschauwer, Michele Cecchini, Driss Ait Ouakrim, Tiago Cravo Oliveira, Marc J Struelens, Carl Suetens, Dominique L Monnet, and the Burden of AMR Collaborative Group**

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ANSA.it › Salute&Benessere › Sanità › Italia maglia nera per le infezioni resistenti, al via nuovo piano

Italia maglia nera per le infezioni resistenti, al via nuovo piano

Un terzo delle infezioni in Italia. Ogni anno 500 mila casi in ospedale, costa 300 milioni di euro

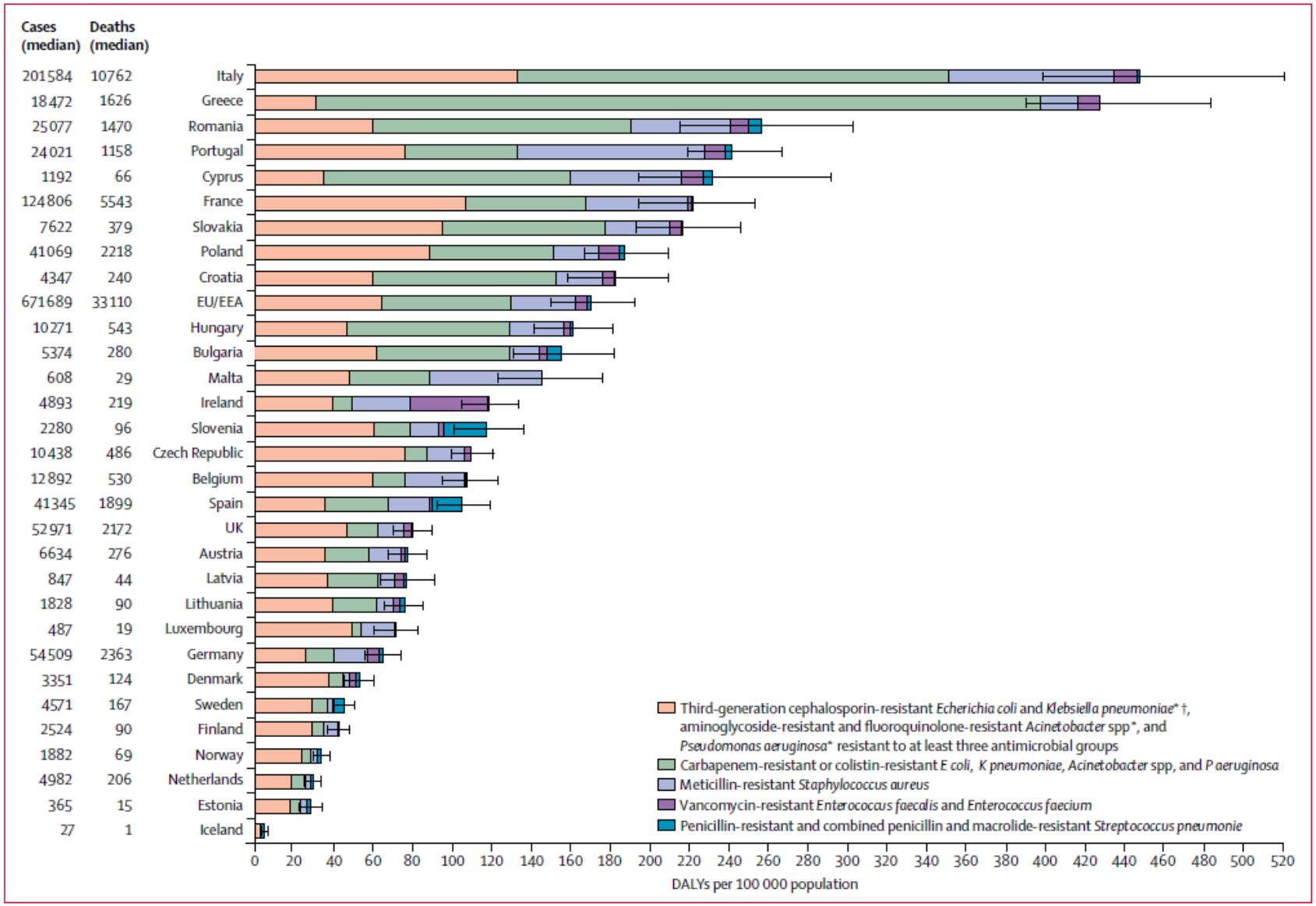

***Figure 3*: Burden of infections with antibiotic-resistant bacteria in DALYs, EU and European Economic Area, 2015**

Error bars are 95% uncertainty intervals. Greece did not report data on *S pneumoniae* isolates to the European Antimicrobial Resistance Surveillance Network in 2015. DALY rates are age-standardised to limit the effect of demographic differences across countries; numbers of cases and deaths are not age-standardised. DALYs=disability-adjusted life-years. *Excludes those resistant to carbapenem or colistin. †In 2015, most of the third-generation cephalosporin-resistant *E coli* (88·6%) and *K pneumoniae* (85·3%) isolates reported to the European Antimicrobial Resistance Surveillance Network produced an extended-spectrum β-lactamase.[9]

CORRESPONDENCE | VOLUME 19, ISSUE 2, P128-129, FEBRUARY 01, 2019

PDF [46 KB]

Attributable deaths caused by infections with antibiotic-resistant bacteria in France

Didier Raoult • Marc Leone • Yanis Roussel • Jean-Marc Rolain

Published: February, 2019 • DOI: https://doi.org/10.1016/S1473-3099(18)30800-4

essential to create a **national account register recording the true instances of deaths**

Mathematical models for estimation of deaths are **disconnected from the reality of clinical practice** of hospital doctors and clinical microbiologists, who look daily for deaths and antibiotic resistance.....

a **reasonable understanding of mortality due to antibiotic resistance cannot be acquired by unrealistic estimations** using **inappropriate mathematical models** based on extrapolation of multiple and non-controlled studies.

COMMENT | VOLUME 19, ISSUE 1, P4-6, JANUARY 01, 2019

Public health burden of antimicrobial resistance in Europe

Evelina Tacconelli • Maria Diletta Pezzani

Open Access • Published: November 05, 2018 • DOI: https://doi.org/10.1016/S1473-3099(18)30648-0 •


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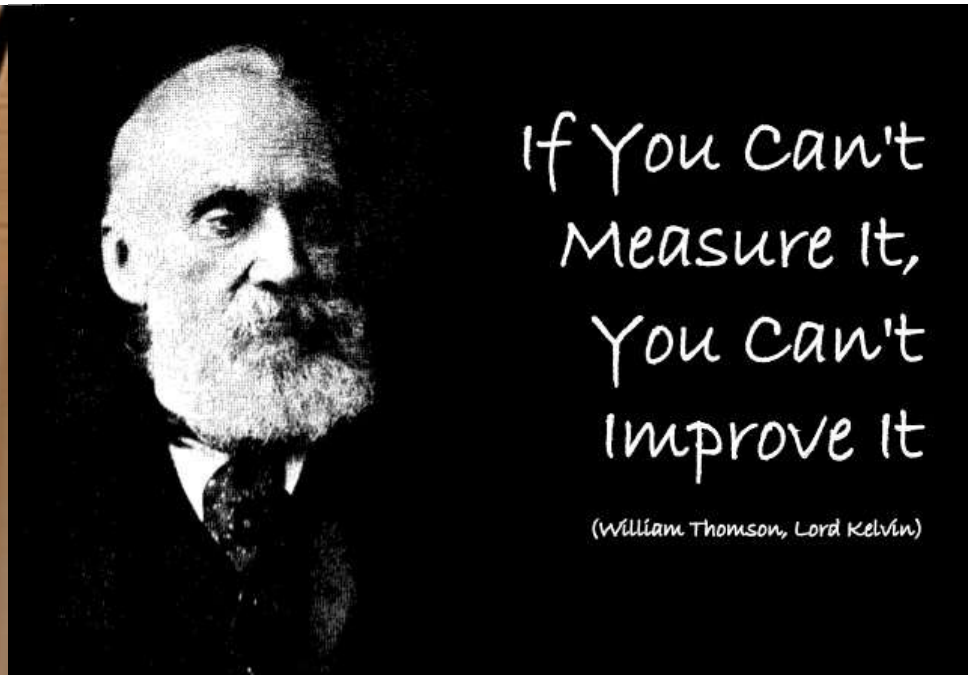


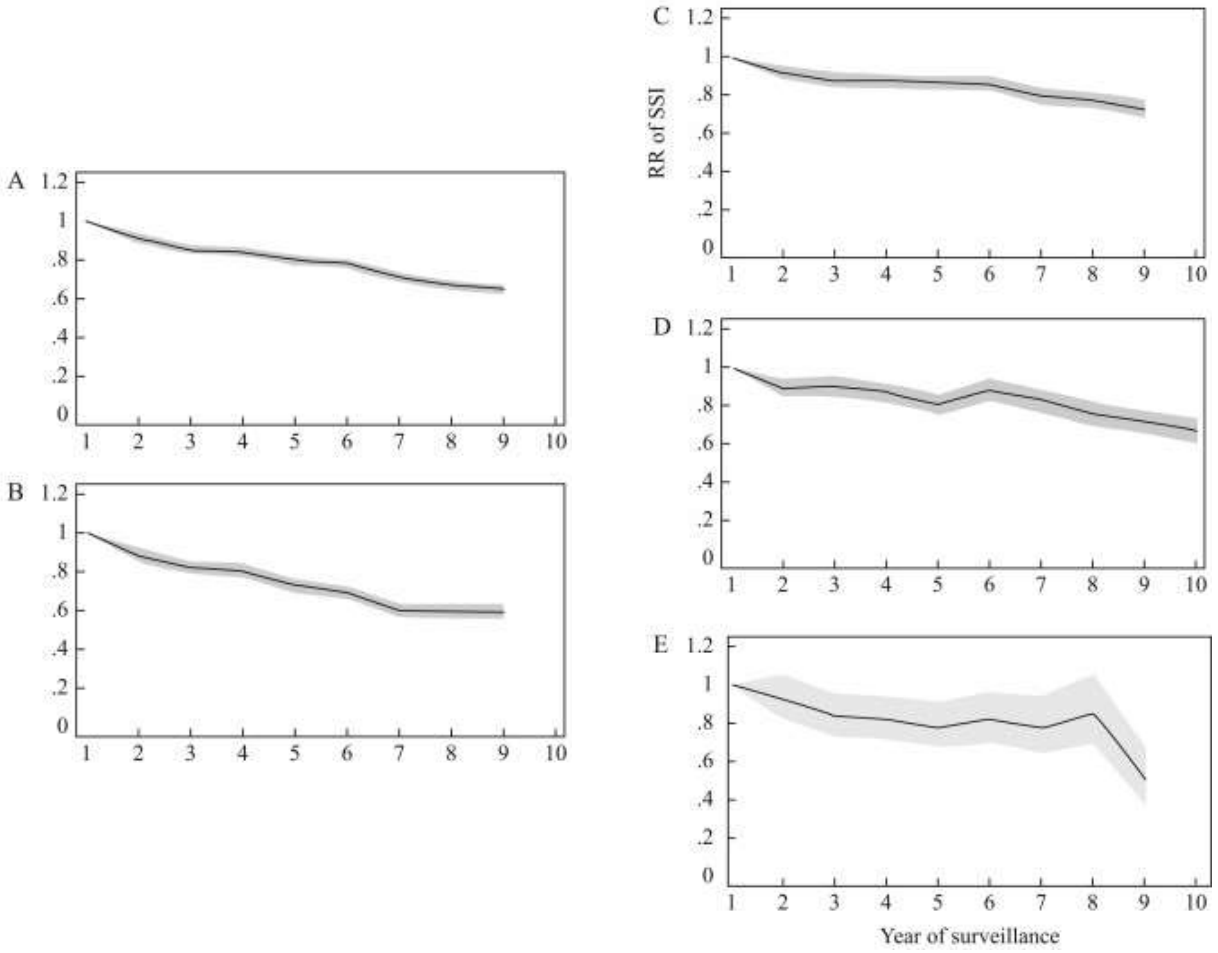
1. Non c'è infection control senza una appropriate sorveglianza

ARTICOLO FULL TEXT

Impact of participation in a surgical site infection surveillance network: results from a large international cohort study

M. Abbas, M.E.A. de Kraker, E. Aghayev, P. Astagneau, M. Aupee, M. Behnke, A. Bull, H.J. Choi, S.C. de Greeff, S. Elgohari, P. Gastmeier, W. Harrison, M.B.G. Koek, T. Lamagni, E. Limon, H.L. Løwer, O. Lyytikäinen, K. Marimuthu, J. Marquess, R. McCann, I. Prantner, E. Presterl, M. Pujol, J. Reilly, C. Roberts, L. Segagni Lusignani, D. Si, E. Szilágyi, J. Tanguy, S. Tempone, N. Troillet, L.J. Worth, D. Pittet e S. Harbarth

Journal of Hospital Infection, 2019-07-01, Fascicolo 102, Numero 3, Pagine 267-276, Copyright © 2018 The Healthcare Infection Society

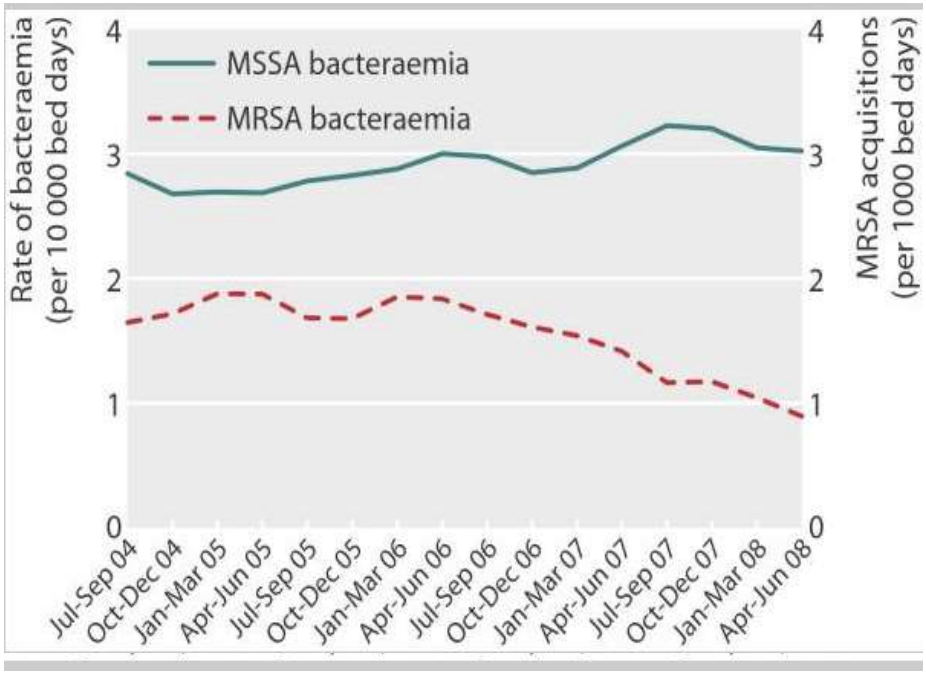


Yearly pooled surgical site infection (SSI) rate ratios (RRs) for all (A) and risk-stratified procedures NNIS-0 (B), NNIS-1 (C), NNIS-2 (D), and NNIS-3 (E), with hospitals' first year of participation in surveillance as reference, 95% CI based on random-effects Poisson regression models. NNIS, National Nosocomial Infection Surveillance system.

2. Leadership e responsabilità

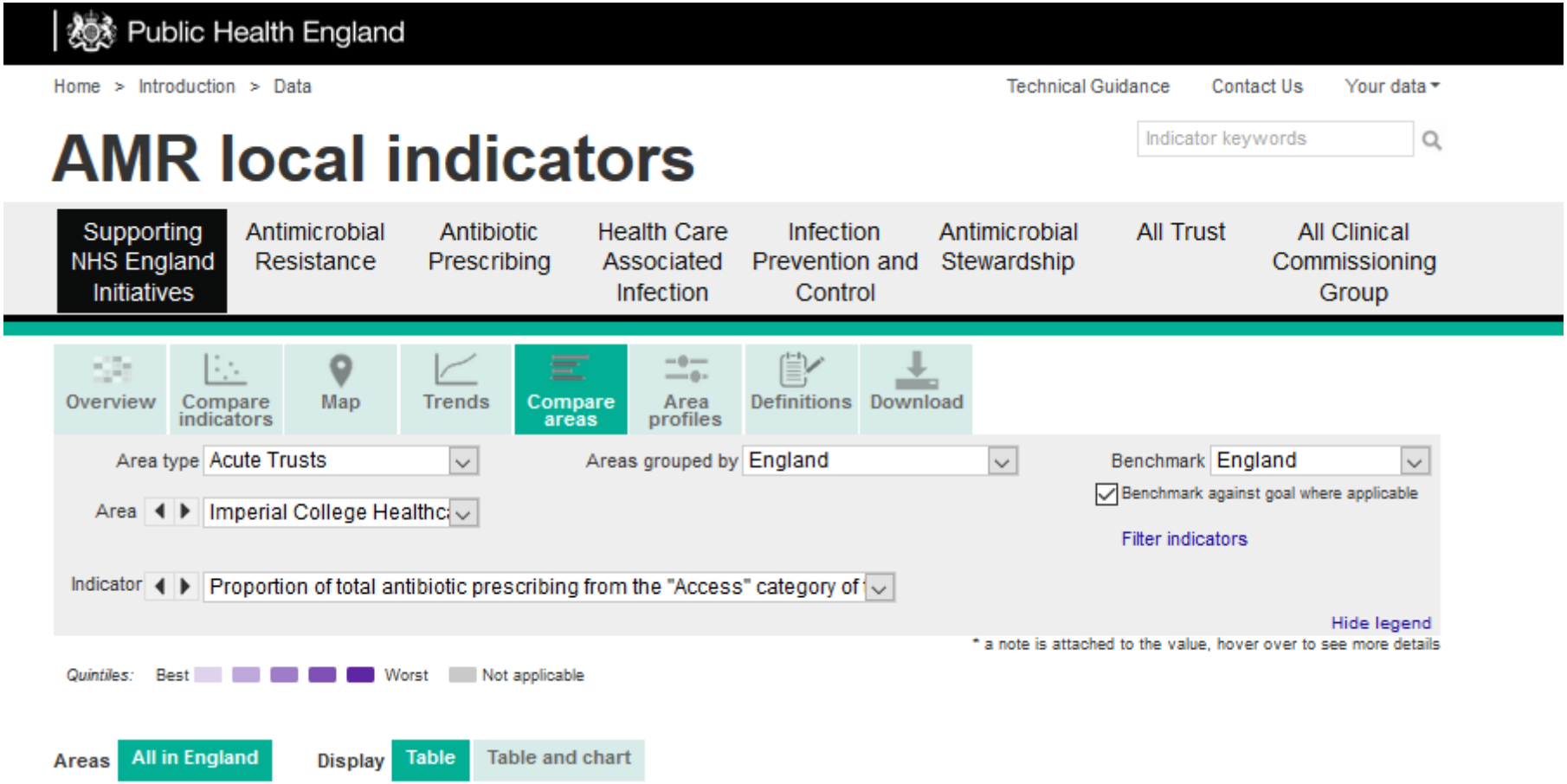
TOP-DOWN approach (?)

Mandatory reporting and Clean-your-hands campaign in 187 acute trusts in UK 2004-2008



Increased procurement of AHR was strongly independently associated with **reduced rates of MRSA BSI and *C difficile*** infection, as were publication of the Health Act 2006 and trust visits by Department of Health improvement teams.**These associations remained after adjustment for other interventions.**

Stone, BMJ 2012


Public Health England
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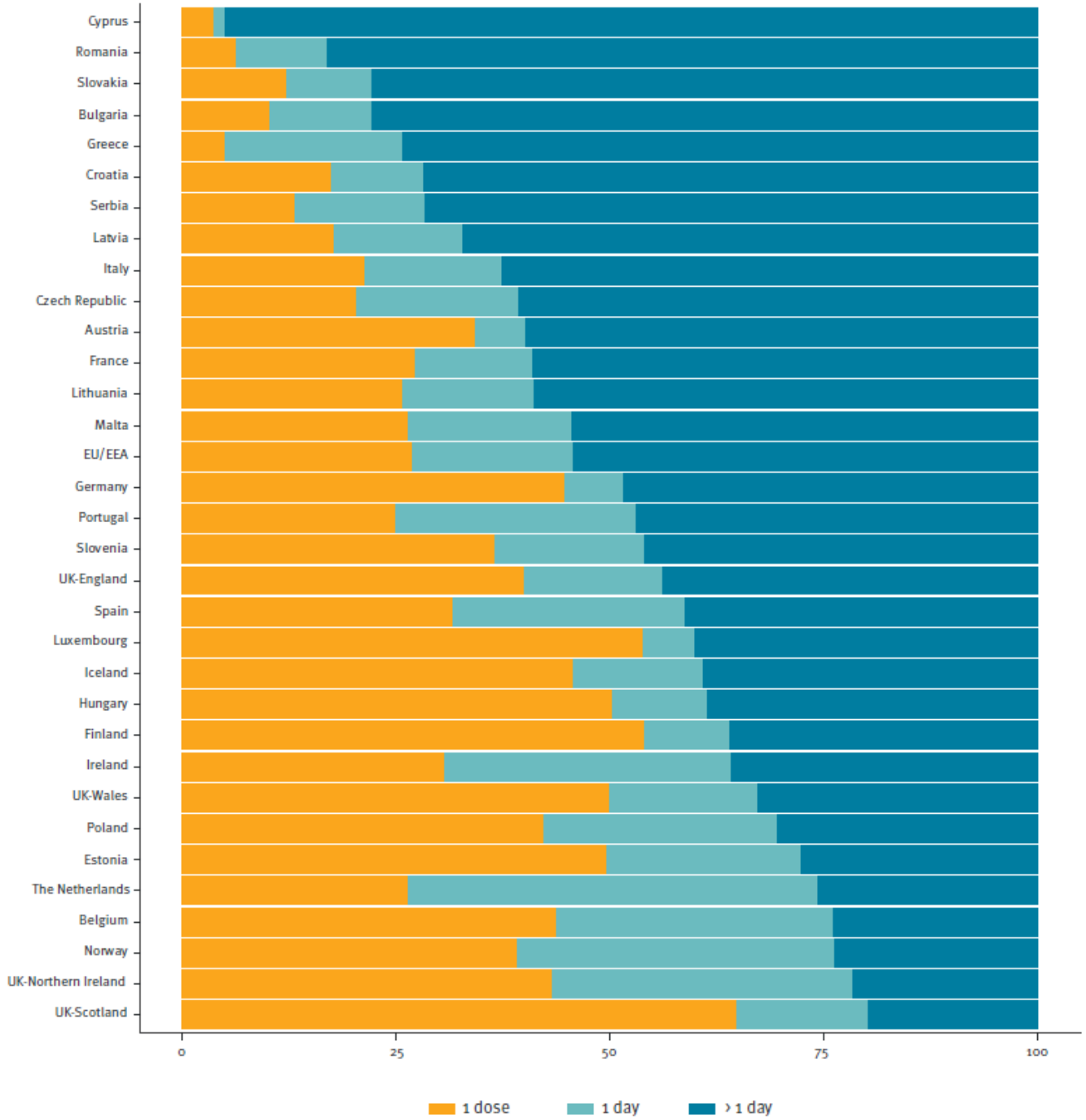
AMR local indicators
Indicator keywords
Supporting NHS England Initiatives
Antimicrobial Resistance
Antibiotic Prescribing
Health Care Associated Infection
Infection Prevention and Control
Antimicrobial Stewardship
All Trust
All Clinical Commissioning Group
Overview
Compare indicators
Map
Trends
Compare areas
Area profiles
Definitions
Download
Area type Acute Trusts
Areas grouped by England
Benchmark England
Benchmark against goal where applicable
Area Imperial College Healthc
Filter indicators
Indicator Proportion of total antibiotic prescribing from the "Access" category of
Hide legend
* a note is attached to the value, hover over to see more details
Quintiles: Best Worst Not applicable
Areas All in England
Display Table Table and chart

3. Conoscere le LG… e farle rispettare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UK-Scotland
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25
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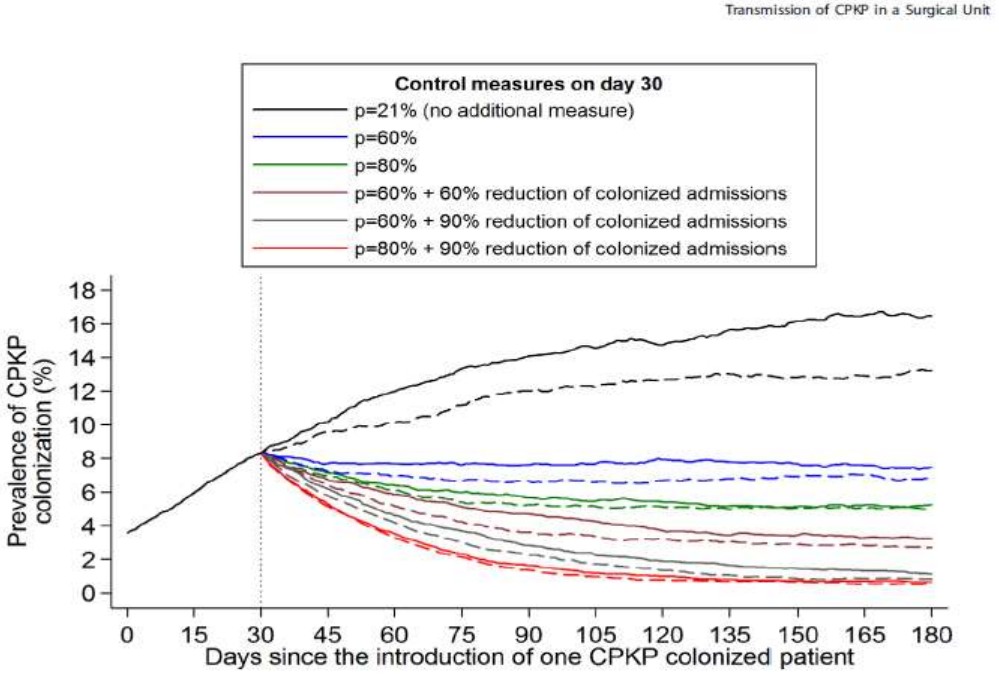
75
100
1 dose
1 day
> 1 day

4. Utilizzare un approccio multimodale

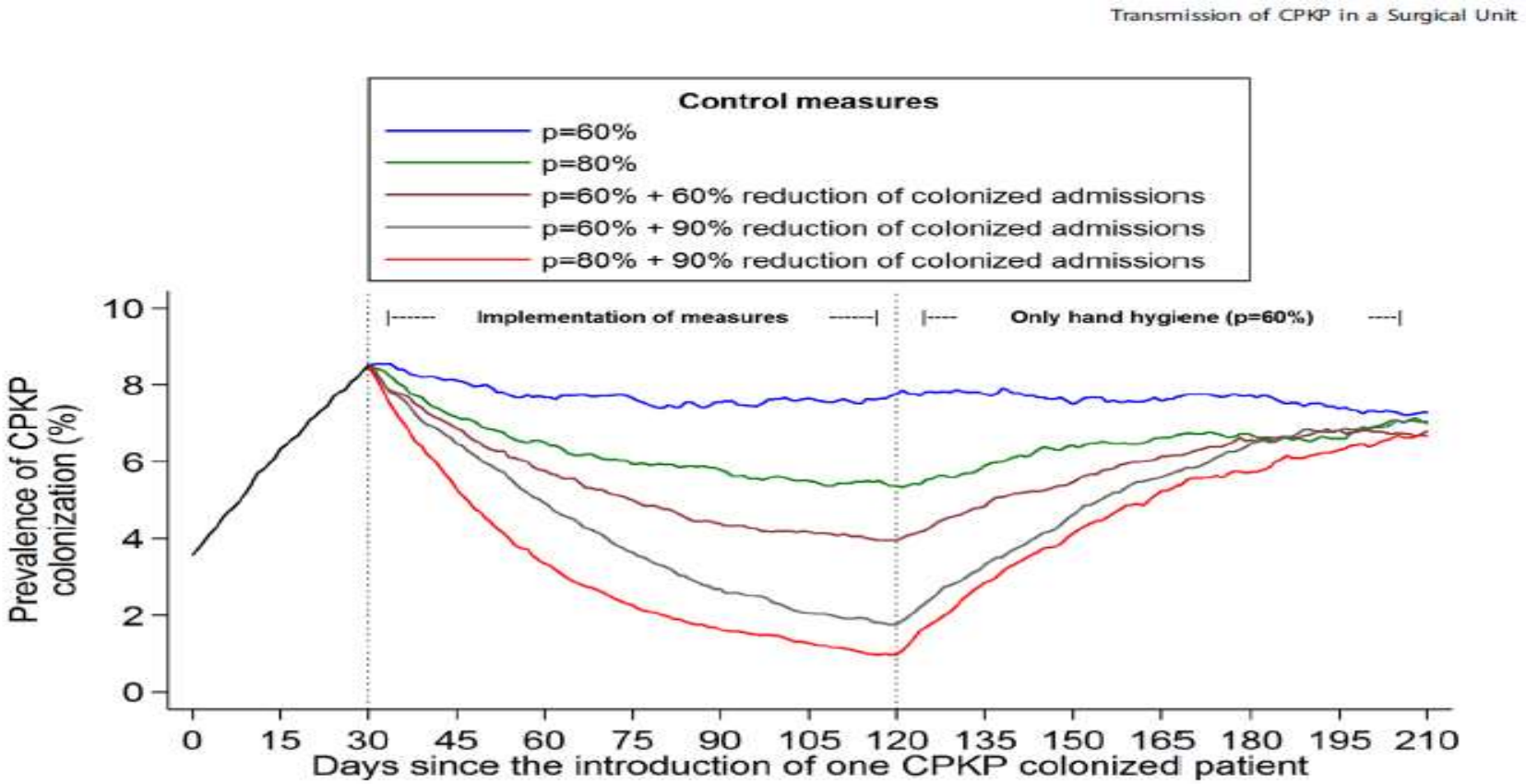
Impact of infection control measures on the prevalence of CPKP colonization in an endemic setting

1. hand hygiene compliance p = 21%
2. increase p to 60%
3. increase p to 80%
4. increase p to 60% and active surveillance and isolation or strict contact precautions (reduce by 60%)
5. increase p to 60% and reduce by 90%
6. increase p to 80% and reduce colonization prevalence on admission of CPKP by 90%.
7. Dashed lines (- - -) correspond to the above scenarios with the addition of 50% reduction in the duration of antibiotic usage during patients' stay in the unit



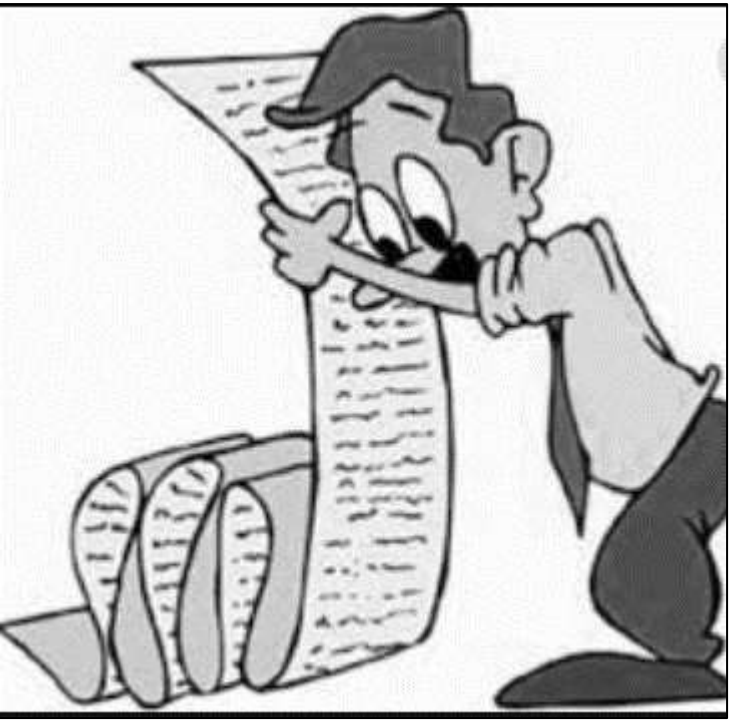
Sypsa, PlosOne 2012

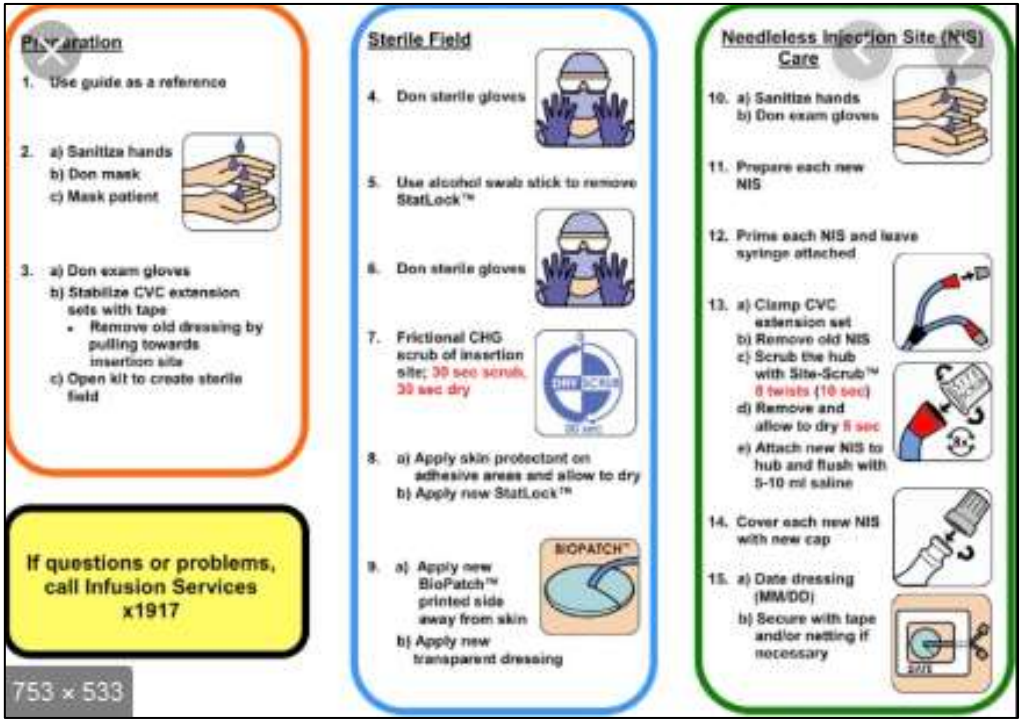
5. Insistere...



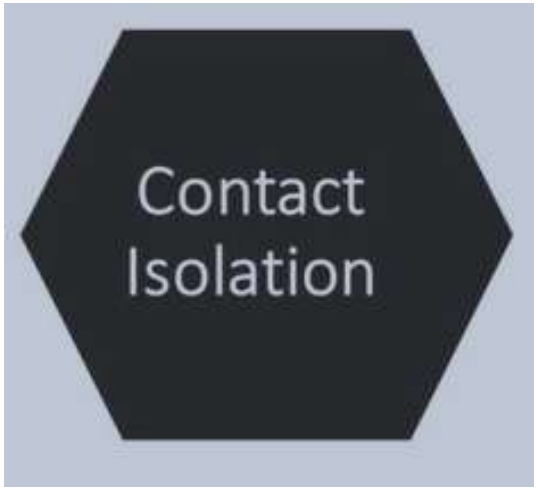
Sypsa, PlosOne 2012

6. Be easy ....




Preparation
1. Use guide as a reference
2. a) Sanitize hands
b) Don mask
c) Mask patient
3. a) Don exam gloves
b) Stabilize CVC extension sets with tape
• Remove old dressing by pulling towards insertion site
c) Open kit to create sterile field
If questions or problems, call Infusion Services x1917
753 × 533
Sterile Field
4. Don sterile gloves
5. Use alcohol swab stick to remove StatLock™
6. Don sterile gloves
7. Frictional CHG scrub of insertion site; 30 sec scrub, 30 sec dry
8. a) Apply skin protectant on adhesive areas and allow to dry
b) Apply new StatLock™
9. a) Apply new BioPatch™ printed side away from skin
b) Apply new transparent dressing
BIOPATCH
Needleless Injection Site (NIS) Care
10. a) Sanitize hands
b) Don exam gloves
11. Prepare each new NIS
12. Prime each NIS and leave syringe attached
13. a) Clamp CVC extension set
b) Remove old NIS
c) Scrub the hub with Site-Scrub™ 6 twists (10 sec)
d) Remove and allow to dry 5 sec
e) Attach new NIS to hub and flush with 5-10 ml saline
14. Cover each new NIS with new cap
15. a) Date dressing (MM/DD)
b) Secure with tape and/or netting if necessary

7… e ‘appealing’



8. Dare l'esempio

9. Be always fair and friendly

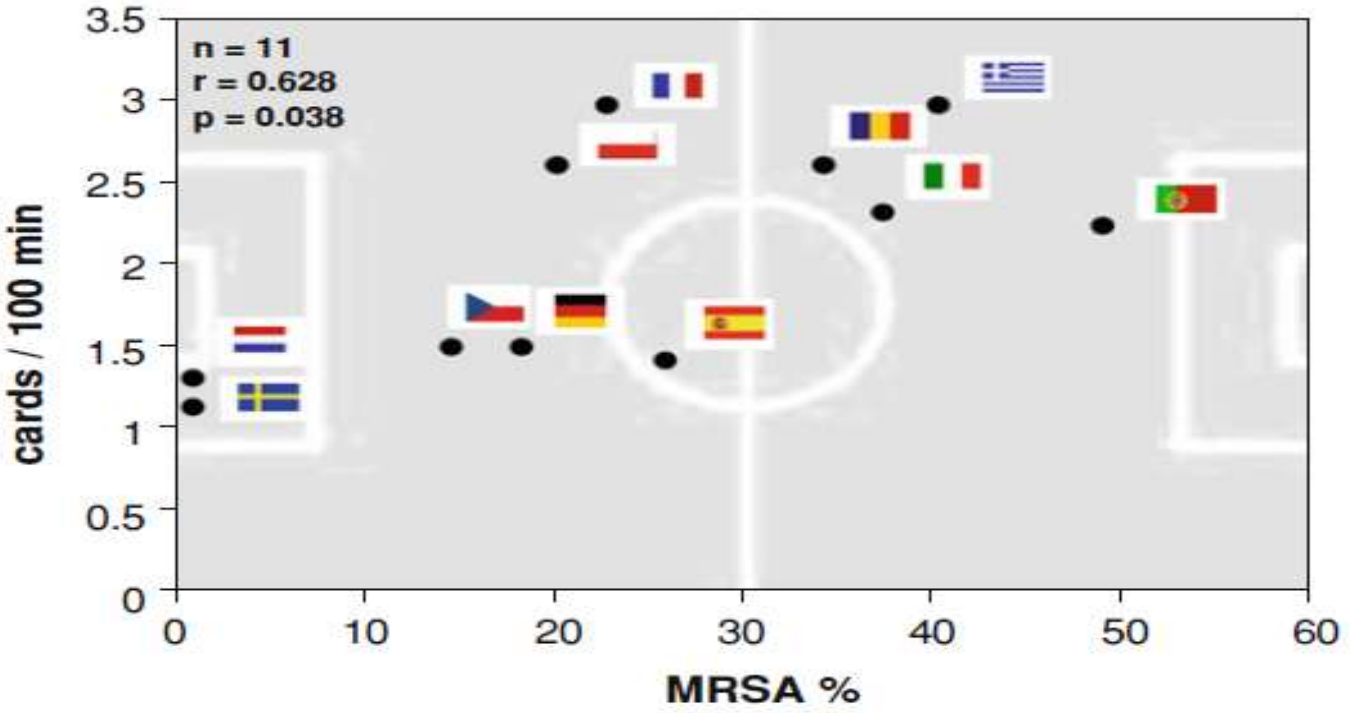
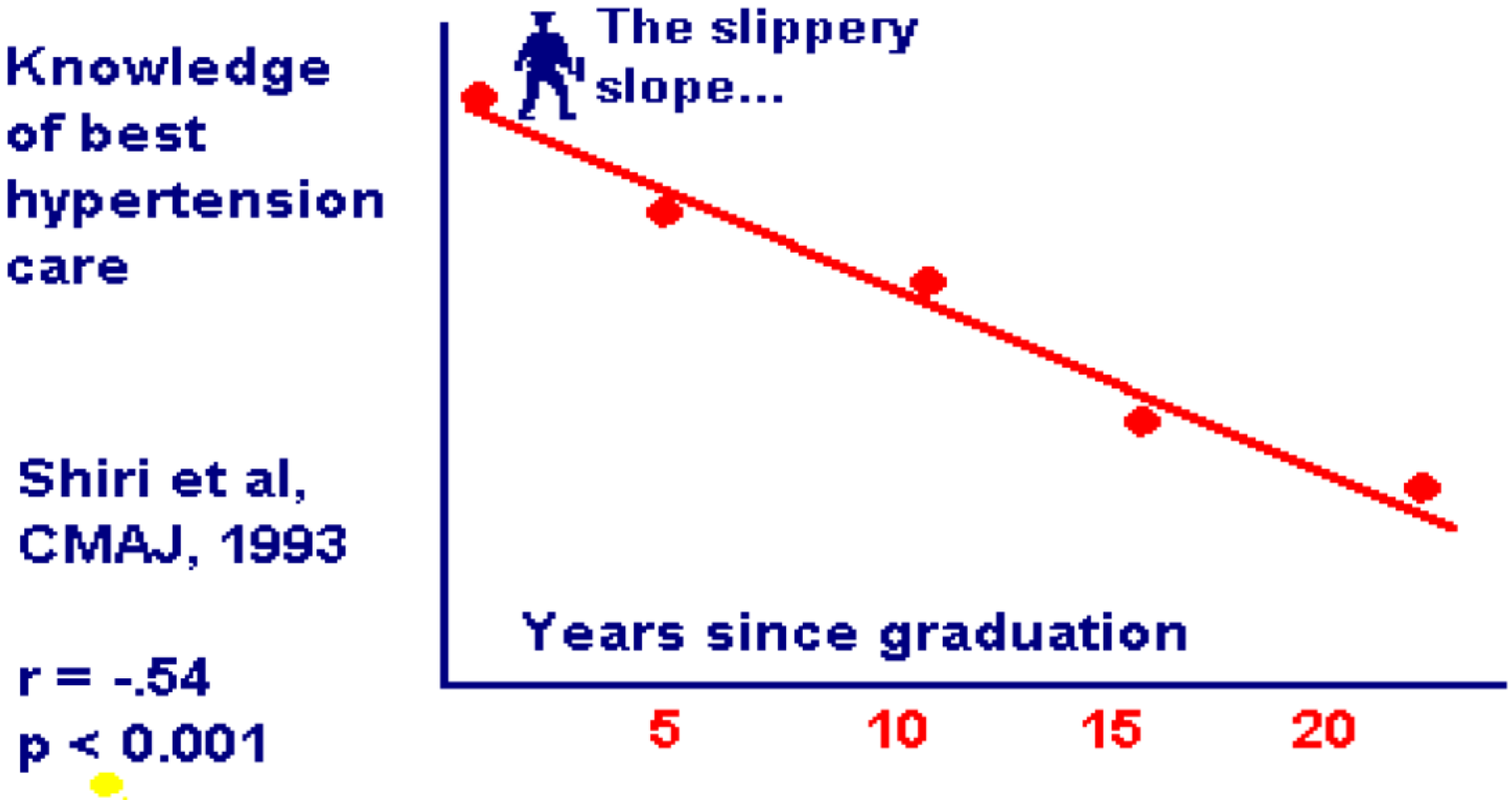


Fig. 1 Correlation between the proportion of methicillin-resistant *Staphylococcus aureus* (MRSA) and the indicator for fair play (i.e. yellow and red cards/100 min; European Football Championship, 2008). MRSA/100 *S. aureus* isolates tested against oxacillin (MRSA %), *n*: number of countries, *r*: Spearman's correlation coefficient, *p*: *p*-value

Gatsmeier, Infection 2012

UNIVERSITÄTS KLINIKUM TÜBINGEN

10. Educazione (continua)



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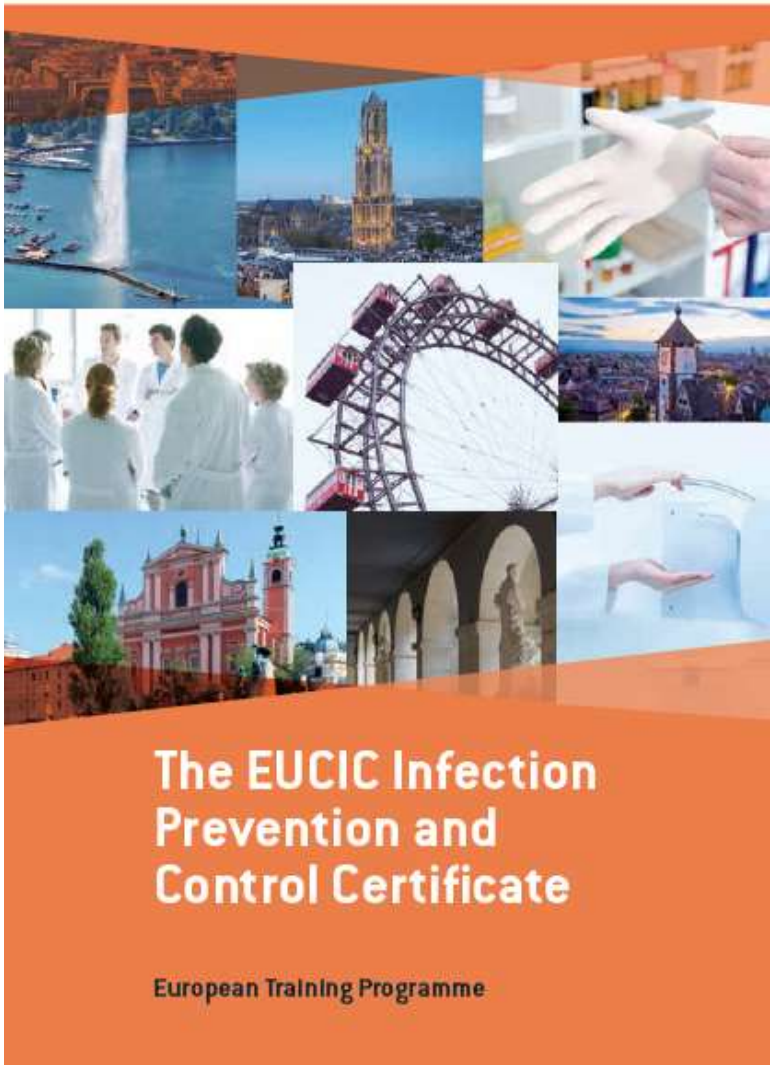

Registration

Registration procedure

Register now online on the ESCMID website at:
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Registration deadline

- For the basic module/ full programme: 29 February 2020
- For specialists who can skip the basic module: 30 April 2020

https://www.escmid.org/eucic/eucictraining_programme/

Grazie al team di ricerca dell'UNIVR

Grazie
Per
l'attenzione

Caravaggio (Michelangelo Merisi) (Milano 1571 - Porto Ercole 1610)
Narciso

1597-1599
olio su tela
cm 113,3 x 94
Palazzo Barberini
Inv. 1569