



ECOCARDIOCHIRURGIA®
ECO-RM-TC CHIRURGIA-INTERVENTISTICA

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VIII CONGRESSO NAZIONALE ECOCARDIOCHIRURGIA 2016

ASST Ospedale Niguarda “Cà Granda” , Milano

1° S.A.R.

Direttore Prof. R. Fumagalli

Disclosures : none

TAKE HOME DI ECOCARDIOCHIRURGIA 2016

La sfida di ridurre le infezioni nosocomiali

Giampaolo Casella (Milano)





**ICA infezioni
correlate
all'assistenza**



**HAI healthcare
associated infection**

almeno 30% evitabili

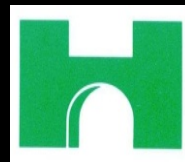




**75.000 dec.
9.8 Bilioni di \$**



**37.000 dec. "diretti"
110.000
"contribuito"
13-24 Bilioni di €**





HAI

- Italia : 450.000 / 700.000 HAI

4500-7000 decessi

più di 3 Mil gg di ricovero 900 Mil € / anno

almeno 30% evitabili :

135.000 / 210.000 infezioni

1350 / 2100 decessi

900.000 gg di ricovero



HAI

4 categorie responsabili di > 80% HAI

- Catheter - associated urinary tract inf (CAUTI – 32%)
- Surgical site inf (SSI – 22%)
- Lung (HAP or VAP – 15%)
- Central Line Ass. Blood Stream Inf (CLABSI – 14%)



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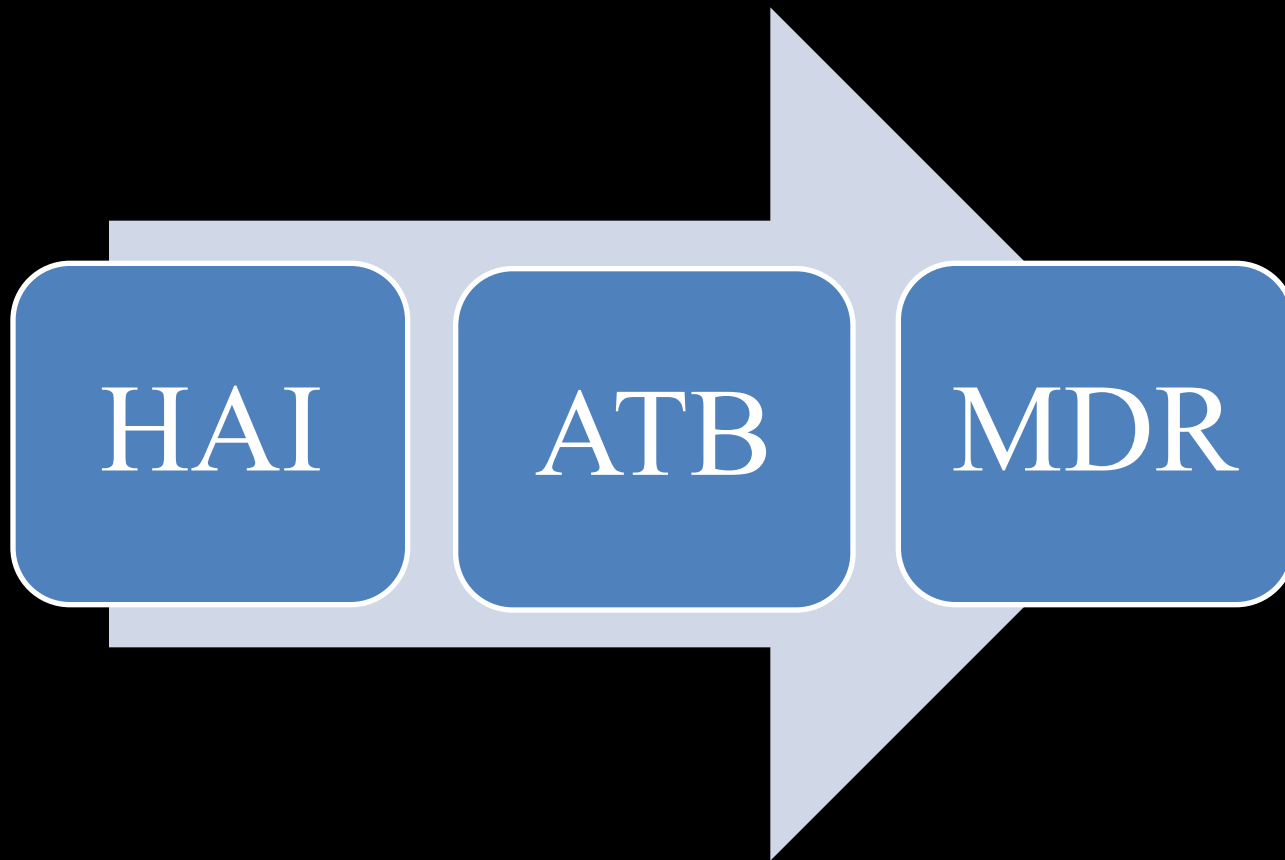


- **CLABSI (Central Line Associated Infection)**
1 su 6 è causata da batteri “difficili” o MDR

CLABSI : 41.000 episodi
18.000 in ICU

CFR “CASE
FATALITY RATE”
12%



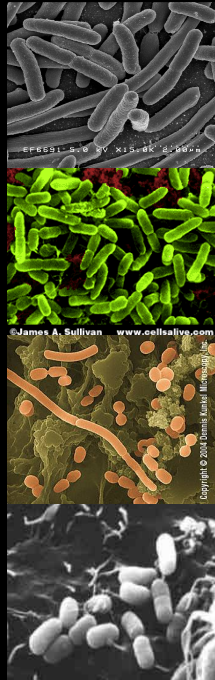


Da MDR, non si torna più indietro



ATB

2012 > 2014 Italy MDR in %

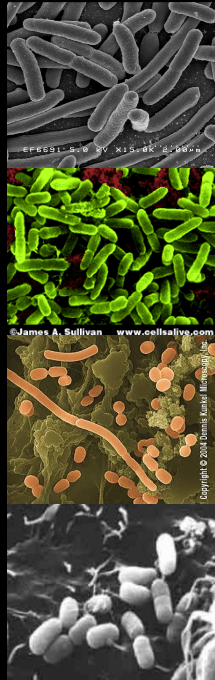


- **E. Coli** 10 > 13.8
- **Pseud Ae.** 21 > 31.5
- **Acineto Baum.** 74 > 86
- **KPC** 15 > 32



ATB

2012 > 2014 Italy MDR in %



• E. Coli > 10 > 13.8

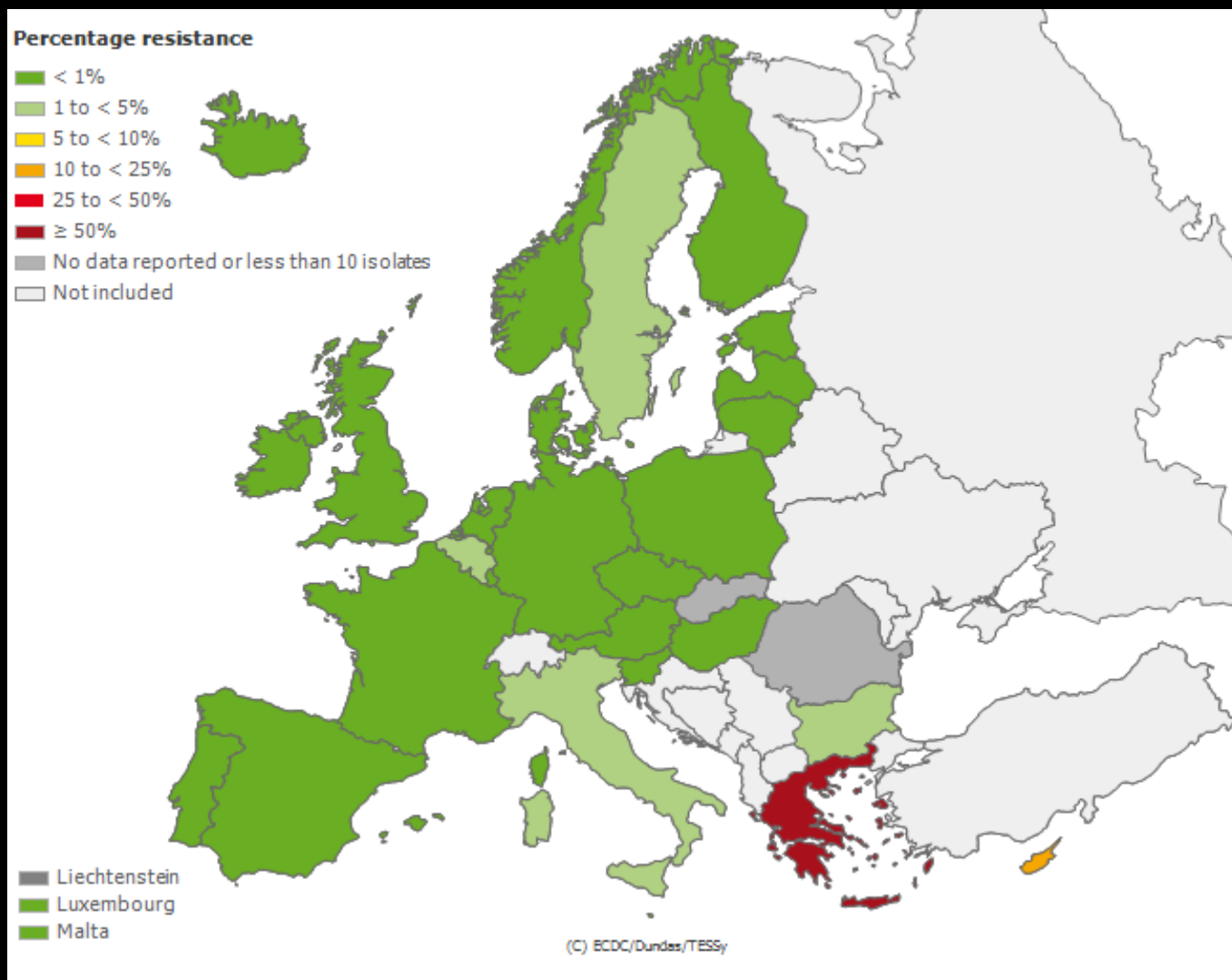
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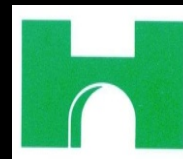
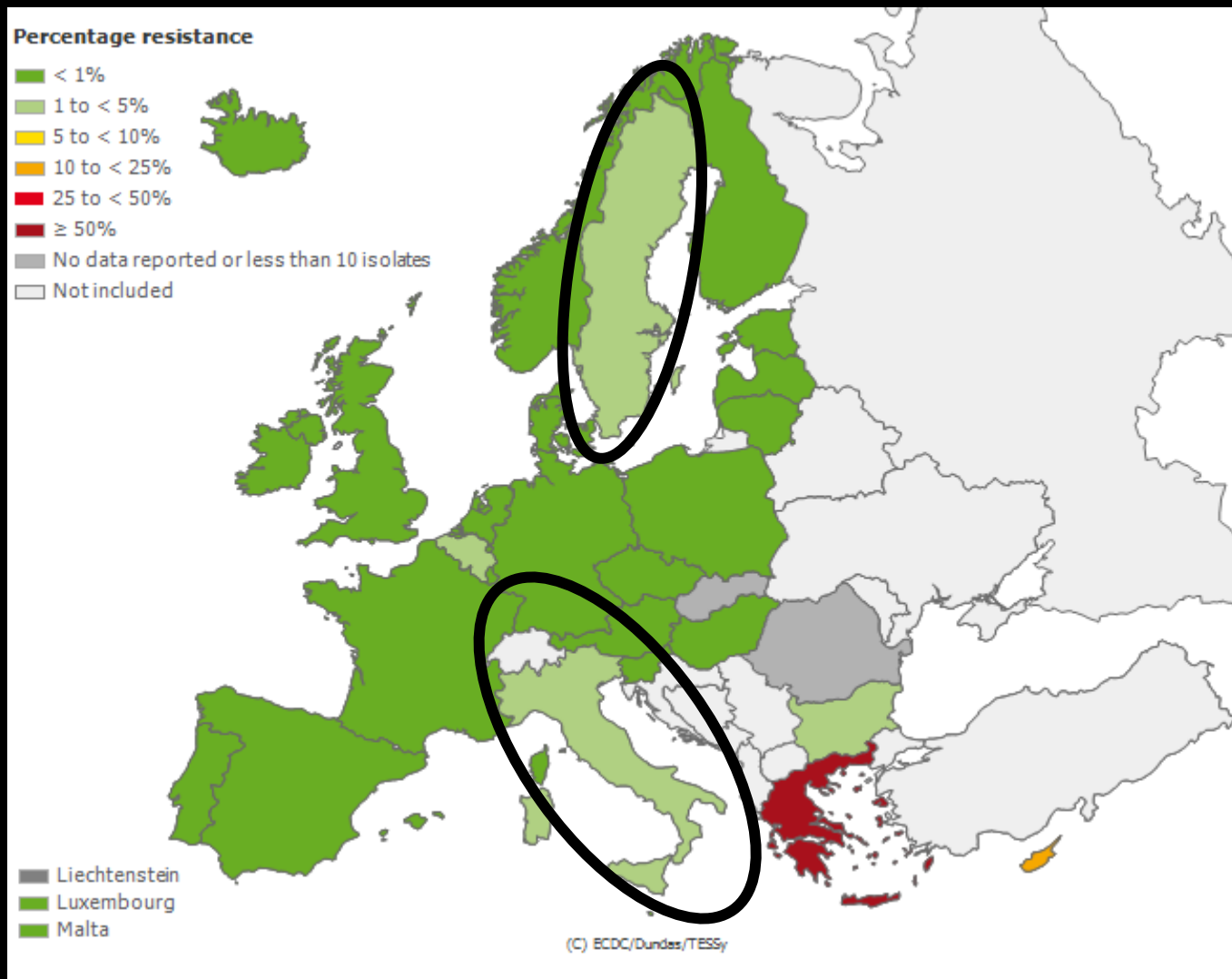
ATB



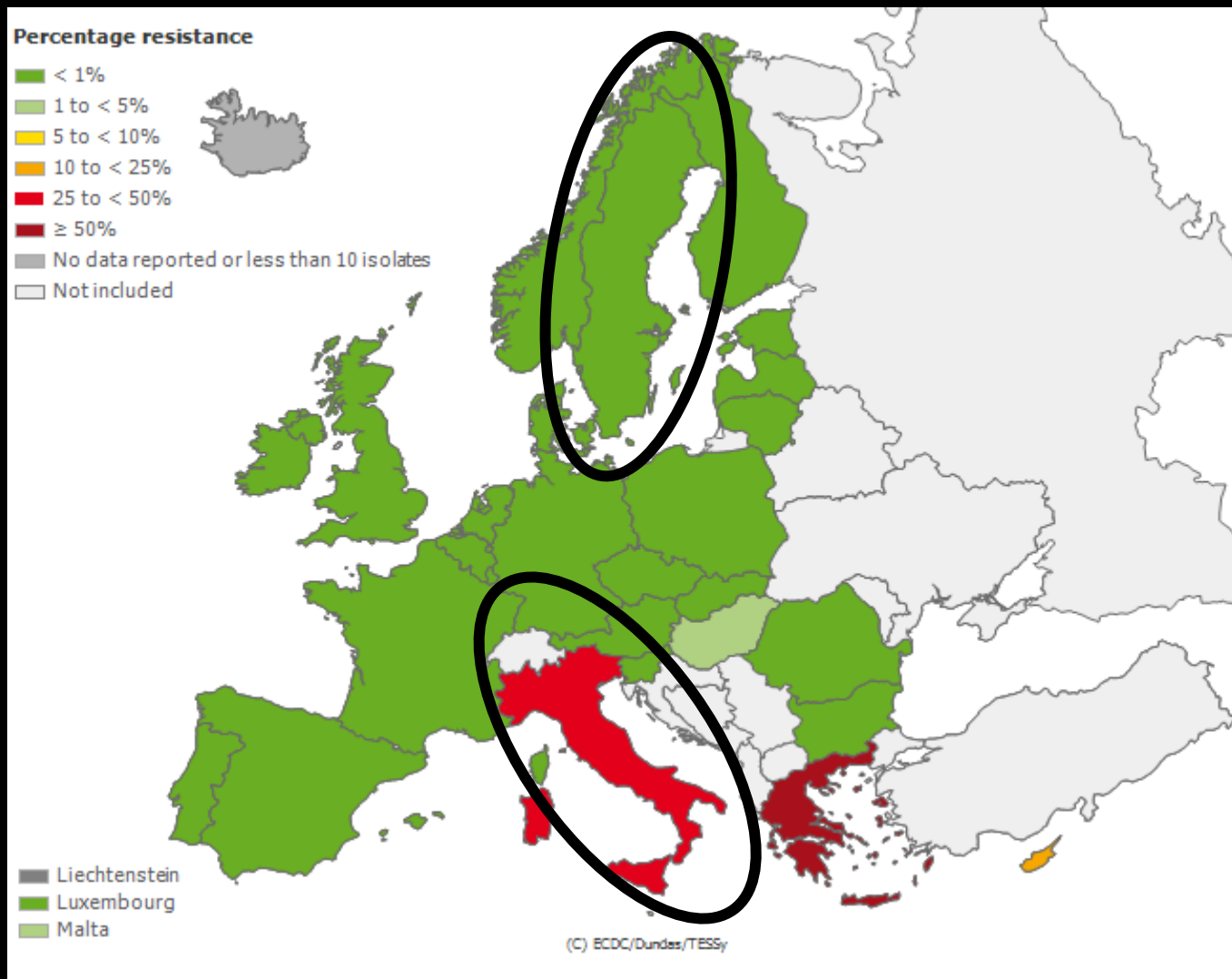
KPC 2009



ATB




ATB



ATB

Thanks to PENICILLIN ...He Will Come Home!



**FROM ORDINARY MOLD—
the Greatest Healing Agent of this War!**

For the greatly increased number of soldiers, a vital Penicillin medicine in the laboratory, proved the antibiotic left water for the wounded by Penicillin. After weeks of research in this regard, penicillin, by its discovery, it is the most powerful weapon ever developed against many of the deadliest bacteria known to man. The new discovery in medicine was directly a result of teamwork cooperation. Richard P. Hechtman, who with this to meet the problem of large-scale production of penicillin, which also great need that to come.

When the mysterious health of this was first exhibited to parts of white girls in a library book, the genius observation of World War II was the discovery and development — and of some in two years, began this discovery — but of a weapon that was a life. This weapon, of course, is penicillin.

Every day, penicillin is performing more and more the role of healing the wounds of men who would have died if it were not for the discovery. It is now available in great quantities to meet the needs of every man.

At the same time, production of penicillin was difficult, costly. Today, after so specially devised methods of mass production, it can be produced in quantity, and the 20 million doses required by the government in such quantities, it is available in even increasing quantities, at progressively lower cost.

Look at "THE UNITED STATES" section, "ANTIBIOTIC" section, facing 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Scientifically prepared
Manufactured by PENICILLIN



ATB



EUROPEAN ANTIBIOTIC AWARENESS DAY




A EUROPEAN HEALTH INITIATIVE





CRITICITA' ITALIA

HAI Italia 6.6% vs 6.0 in EU

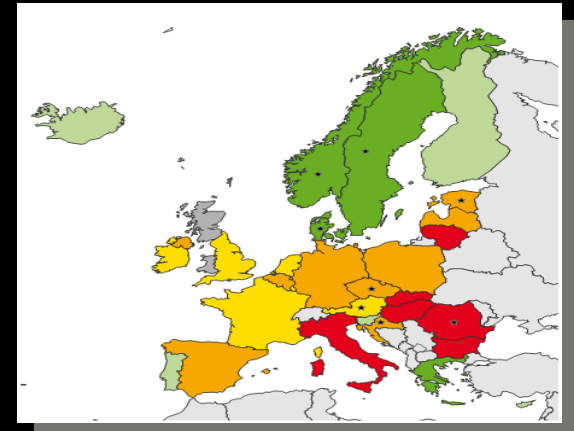
MDR Italia molto > di EU

Trattamento ATB Italia 44% vs EU 35%



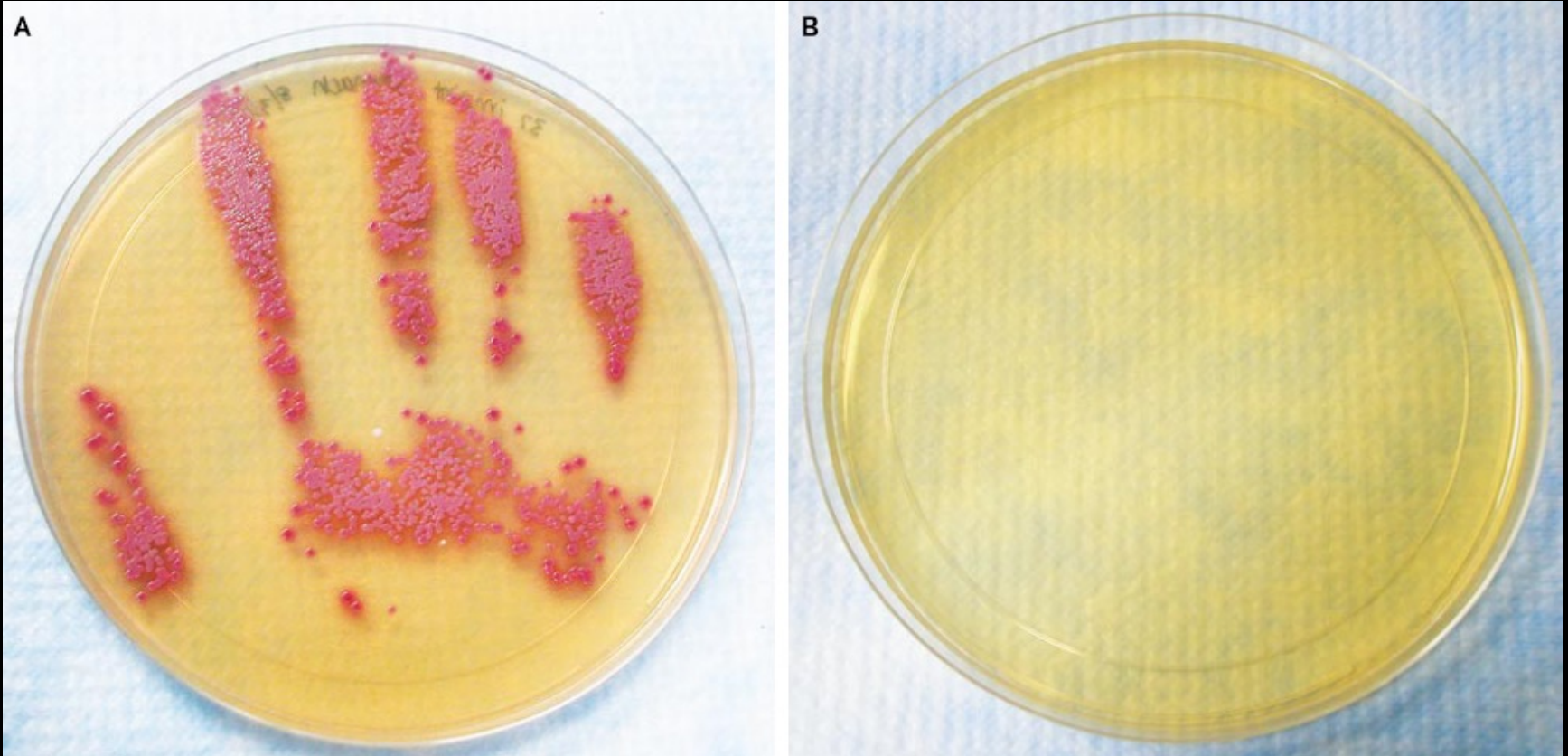


CRITICITA' ITALIA



**GEL alcoolico per lavaggio
mani : Italia = $\frac{1}{4}$ dei paesi
scandinavi**







World Health Organization

Giornata mondiale del lavaggio mani : 5 Maggio





ICAAC : Interscience Conference on Antimicrobial Agent and Chemotherapy

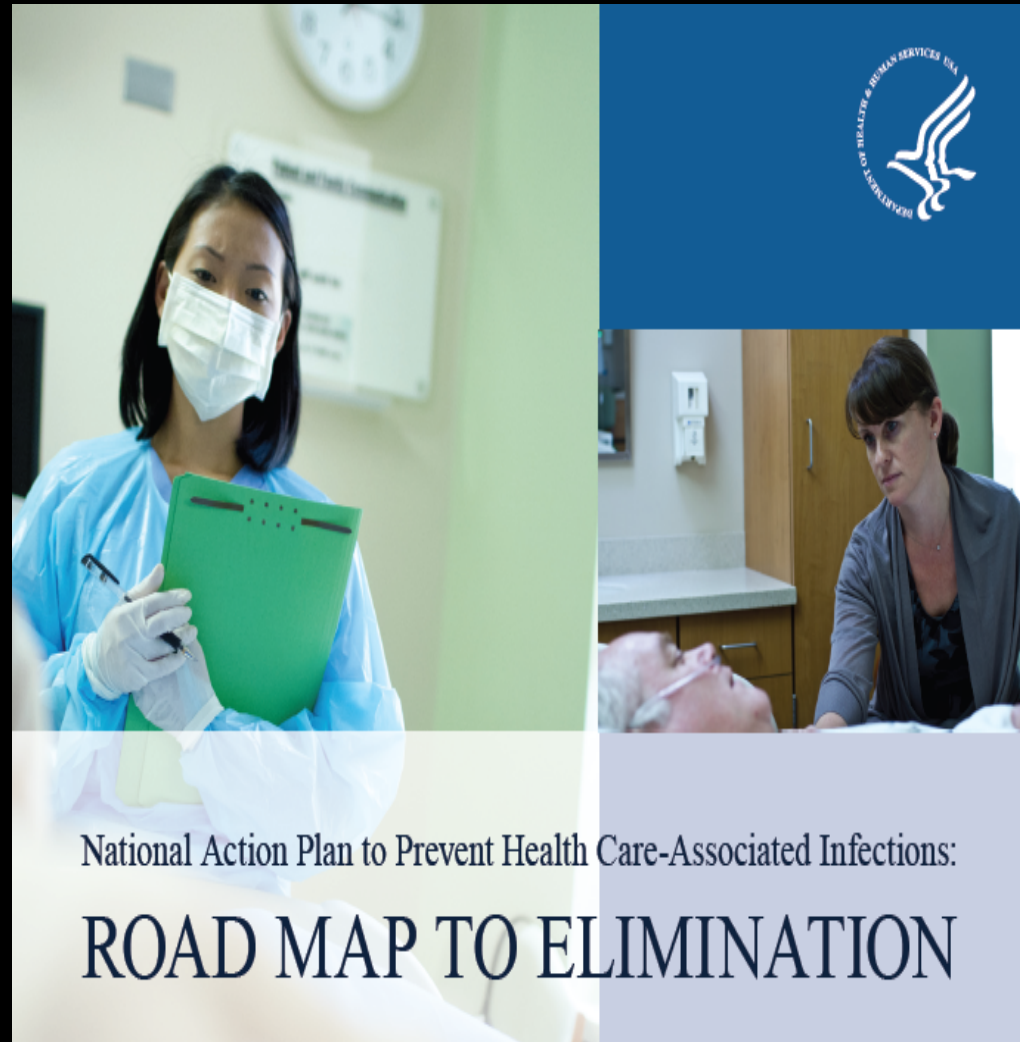
40% si lavano le mani

Se c'è un'altra persona il soggetto che esce si lava le mani



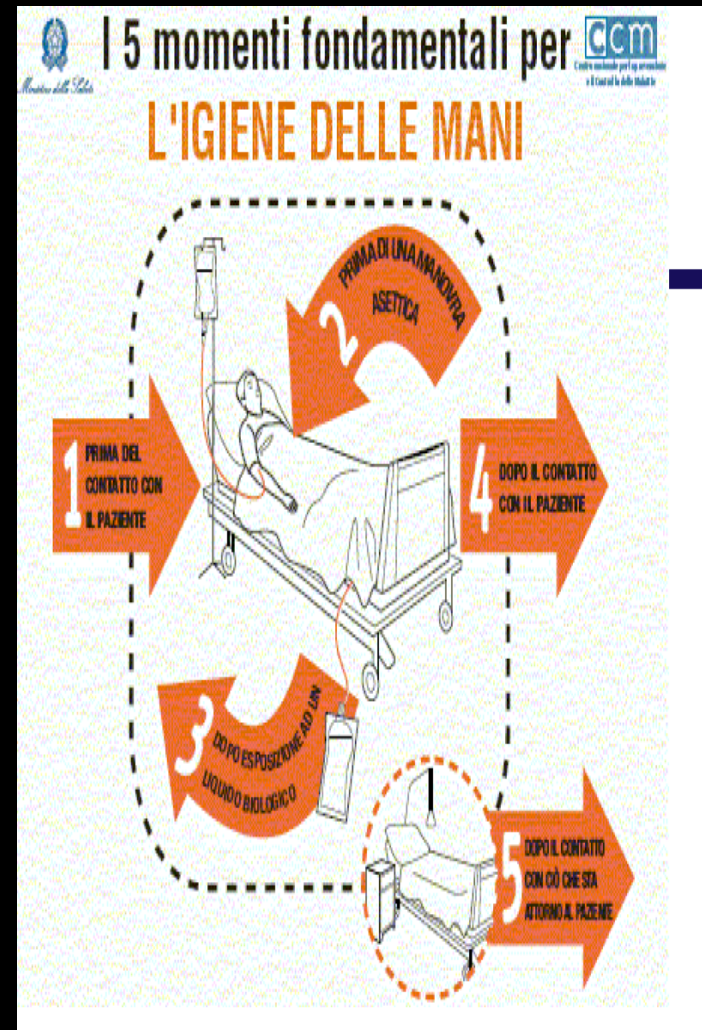
Che fare?

MARCH 2015



ATB :

- Stewardship atb
- Lotta feroce ai carbapenemi
- De escalation
- “Strike early strike hard” (§)
- Stretta adesione protocolli int.



- **GEL** alcoolico ogni letto
- **T-** in ingresso e 2/sett
- **T-** Acineto isolamento tecnico
- **T-** KPC isolamento **STRUTTURALE** (-1!) / cohorting
- **Check-list** quotidiana devices
- **Stretta Adesione BUNDLES**



MDR

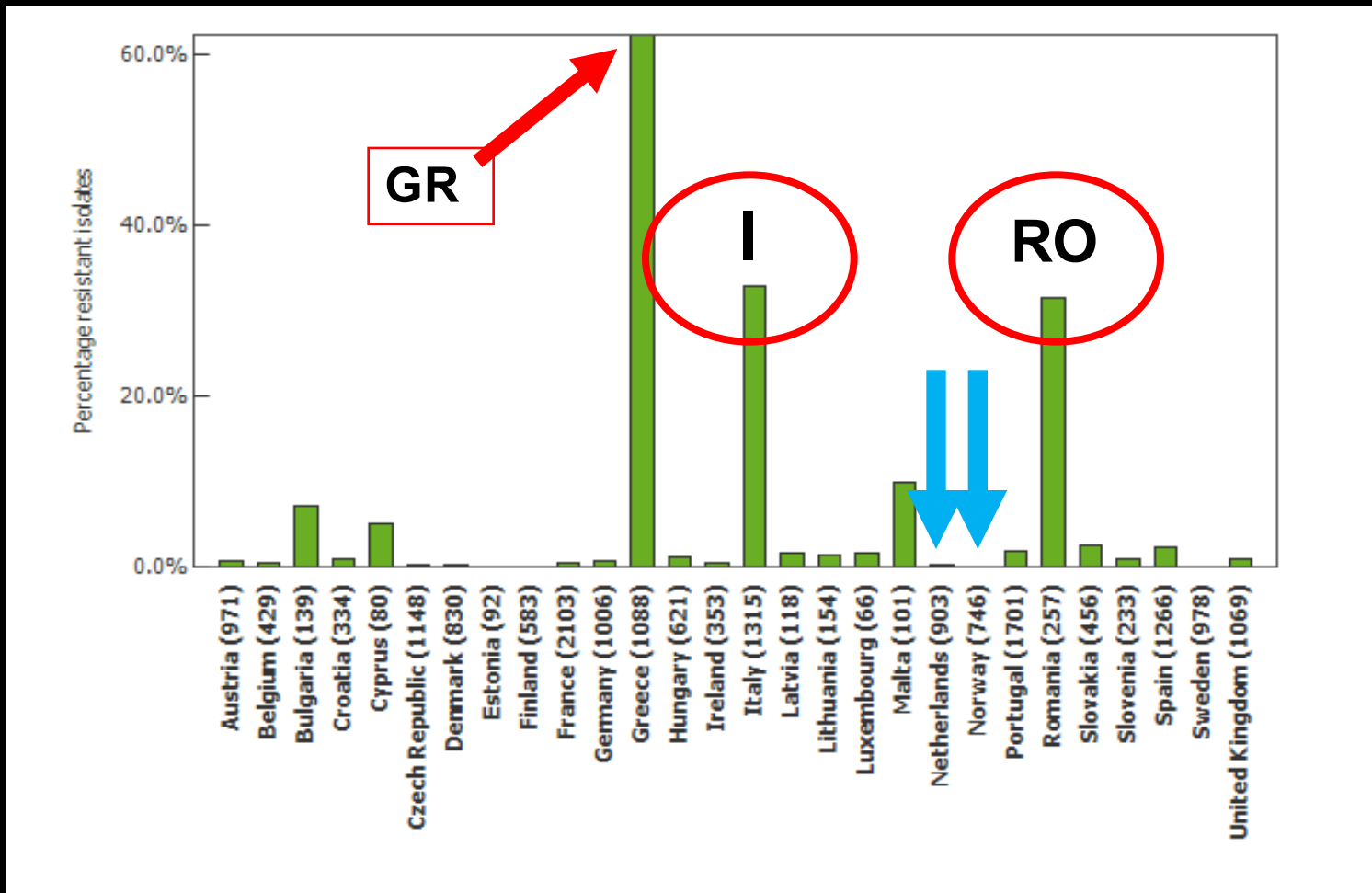
NON
MDR

Amsterdam
Copenaghen

RISULTATO

TAMPONI





KPC 17 Marzo 2016



ATB

“Stewardship”



: il 50% delle
somministrazioni di ATB in
USA sono inappropriate.

Errori più frequenti :

- bassa dose troppo a lungo
- ritardata / assente de-escalation



The staff of the MSICU is committed to providing the highest quality care to our patients and their families, including eliminating hospital acquired infections.



52

Lounge



Congratulations 7 South

Longest Streak without a
Catheter Associated
Bloodstream Infection
394 Days
December 2010



It has been

28 days

since our last catheter-associated
bloodstream infection.

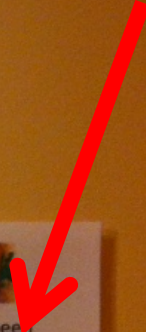


It has been

96

Days

Since our last
Catheter-Associated
Urinary Tract Infection



It has been

202

Days

Since our last
Ventilator-Associated
Pneumonia



Cortesia Dr. F. Tardini



NATIONAL
AND STATE
HEALTHCARE
ASSOCIATED
INFECTIONS
PROGRESS
REPORT



THIS REPORT IS BASED ON 2014 DATA,
PUBLISHED IN 2016



**Centers for Disease
Control and Prevention**
National Center for Emerging and
Zoonotic Infectious Diseases

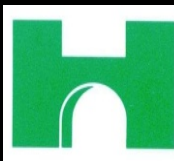


- **Migliaia di morti, eppure non è una malattia inguaribile**
- **Il 30% di HAI è facilmente evitabile, così mortalità morbidità e costi**
- **Inizia col lavaggio mani con gel alcoolico e prosegue con l'adesione alle BUNDLES;
non dobbiamo studiare o imparare nulla di più**
- **E' un nostro dovere anche riguardo alle prossime generazioni**

TAKE HOME DI ECOCARDIOCHIRURGIA 2016

La sfida di ridurre le infezioni nosocomiali

Giampaolo Casella (Milano)



“Se porti un paniere di uova, non danzare.”

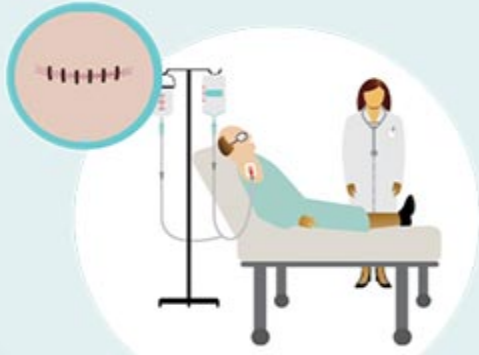
TAKE HOME DI ECOCARDIOCHIRURGIA 2016

La sfida di ridurre le infezioni nosocomiali

Giampaolo Casella (Milano)



Protect patients from antibiotic-resistant infections.



Surgeries and single-use catheters help treat patients, but they can be pathways for bacteria to enter the body.



Bacteria can be spread when appropriate infection control actions are not taken.



Antibiotics save lives, but poor prescribing practices puts patients at risk.

Combine infection control actions with every patient to prevent infections in health care.



Prevent infections from catheters and after surgery.



Prevent bacteria from spreading.



Improve antibiotic use.

SOURCE: CDC Vital Signs, March 2016

Fine, grazie

giampaolo.casella@ospedaleniguarda.it

