

Bactéries multi-résistantes à l'hôpital : Changer de couleur

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The control programs

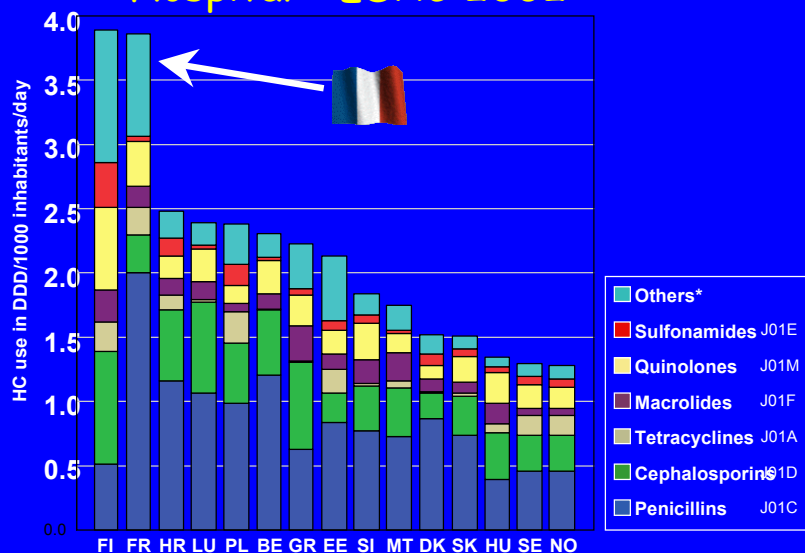
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% MRSA in *Staphylococcus aureus* in Europe 1990-1991 (43 hospitals, 7.354 strains)

Pays	%	Pays	%
Denmark	0,1	Austria	21,6
Sweden	0,3	Belgium	25,1
Netherlands	1,5	Spain	30,3
Switzerland	1,8	France	33,6
Germany	5,5	Italy	34,3

Voss ICAAC anaheim 1992 Eur J Clin Microbiol Infect Dis 1994

Antibiotic consumption in Europe - Hospital - ESAC 2002



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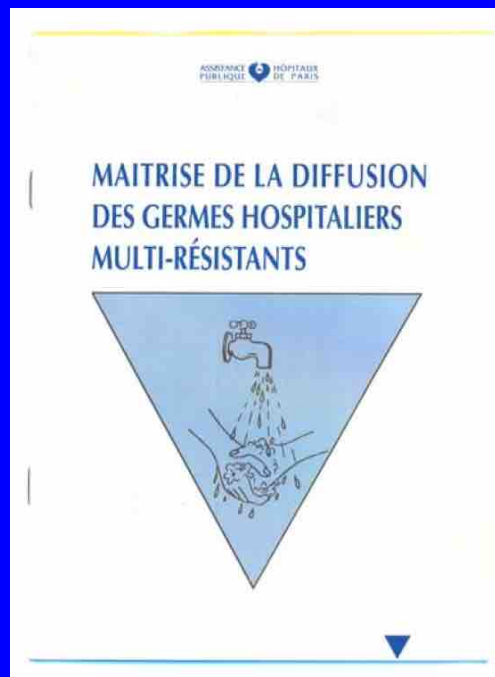
Vander Stichele J. Antimicrob. Chemother 2006; 58:159 – 167

MDR program

**Regional
Univ. hospitals
Paris area
(AP-HP)**

1993

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MDR program

National

1999

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Alcool based hand rub solution campaigns

2001-02

VJanlier 2009



Large and continuous antibiotic policy campaigns in the community 2001-08 (national health insurance system)

3 notions clés pour bien utiliser les antibiotiques

- 1** Uniquement pour combattre les infections bactériennes
- 2** Seulement sur prescription du médecin
- 3** À condition de suivre l'ordonnance à la lettre

Parlez-en avec votre médecin

Rhinopharyngites, angines, bronchites : aider son corps à se défendre, ça s'apprend

LES ANTIBIOTIQUES C'EST PAS AUTOMATIQUE

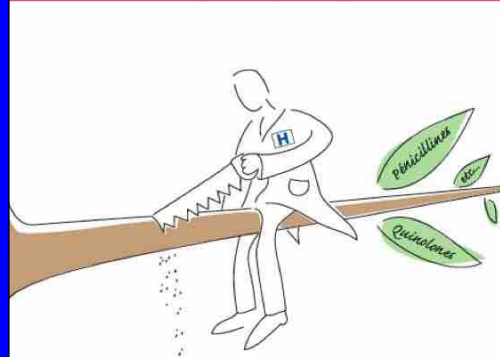
VJan



Antibiotic policy
campaign
in hospitals
of Paris area
(AP-HP)
2006-08

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LES ANTIBIOTIQUES
C'EST PAS AUTOMATIQUE



Mieux utiliser les antibiotiques
pour préserver leur efficacité.

ASSISTANCE
PUBLIQUE  HÔPITAUX
DE PARIS

Baisser d'un ton

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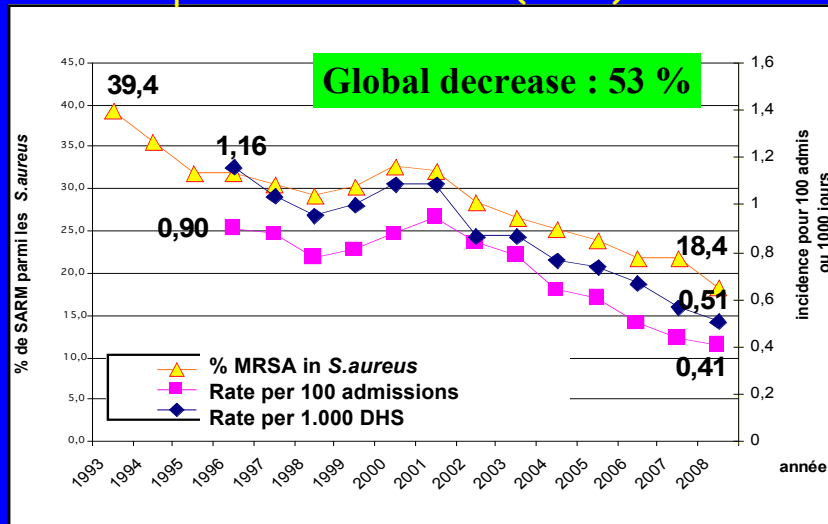
Curbing MRSA in French hospitals : 1993 - 2008

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Regional level

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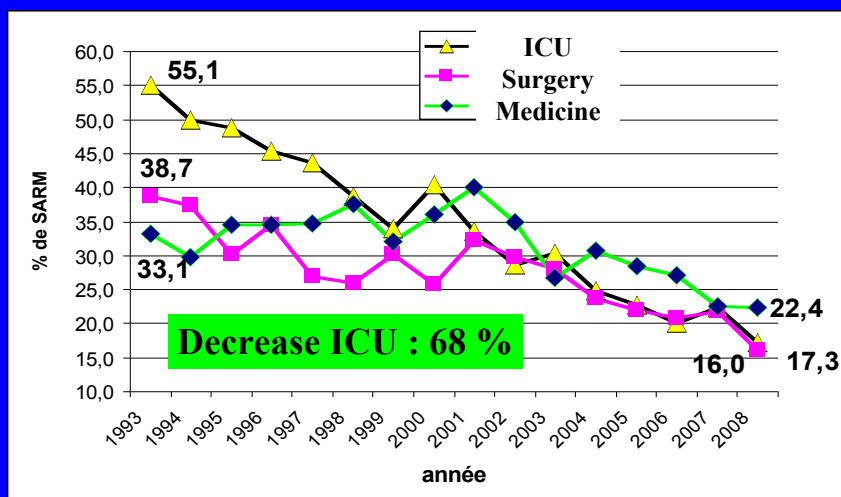
**% MRSA in *S.aureus* and MRSA incidence
in acute care
Univ. hospitals of Paris area (n=39) 1993-2007**



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Jarlier Arch Int Med 2009

**% MRSA in *S.aureus* in acute care
Univ. hospitals of Paris area (n=39) 1993-2008**



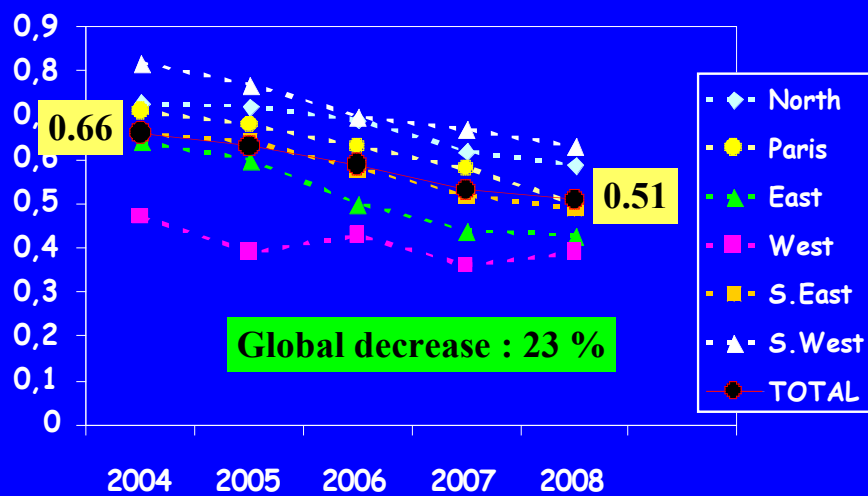
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National level

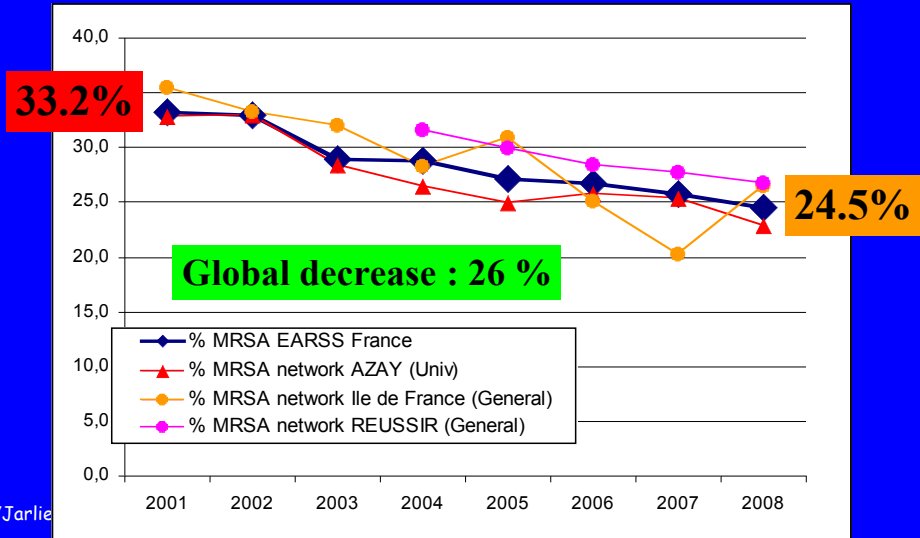
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MRSA National survey (« RAISIN »)
Incidence rate per 1,000 DHs per area
2004-2008 (302 hospitals, 3 months/year)



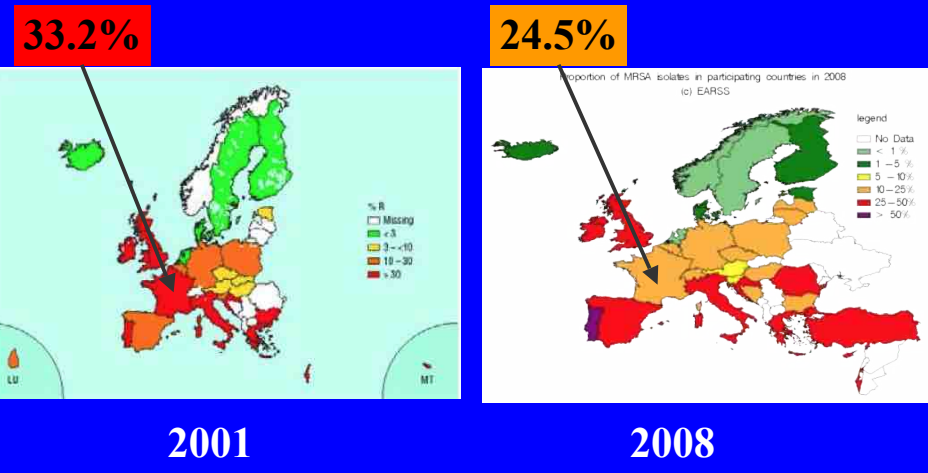
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% MRSA in *S. aureus* from bacteremias in the 3 French networks participating in EARSS (21 Univ Hosp, 9 GH Paris area, 30 GH all country) 2001-2008



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MRSA in Europe (% in *S.aureus*) EARSS 2001-2008

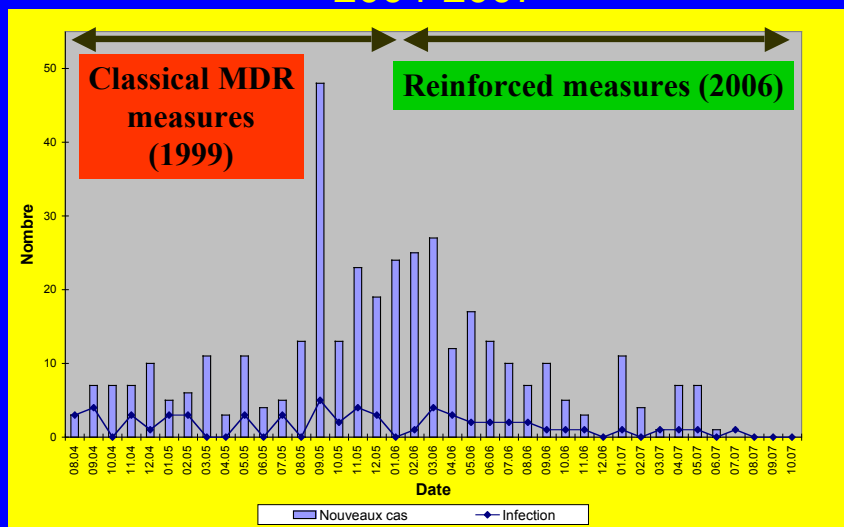


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VRE

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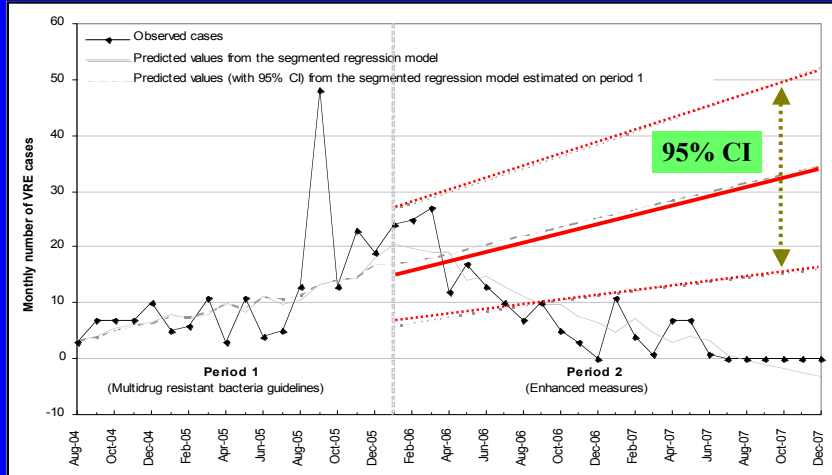
VRE cases per month 39 univ. hosp. Paris area (AP-HP) 2004-2007



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Founier 2009 submitted

VRE cases per month observed and predicted by time series analysis 39 univ. Hosp. Paris area (AP-HP) 2004-2007

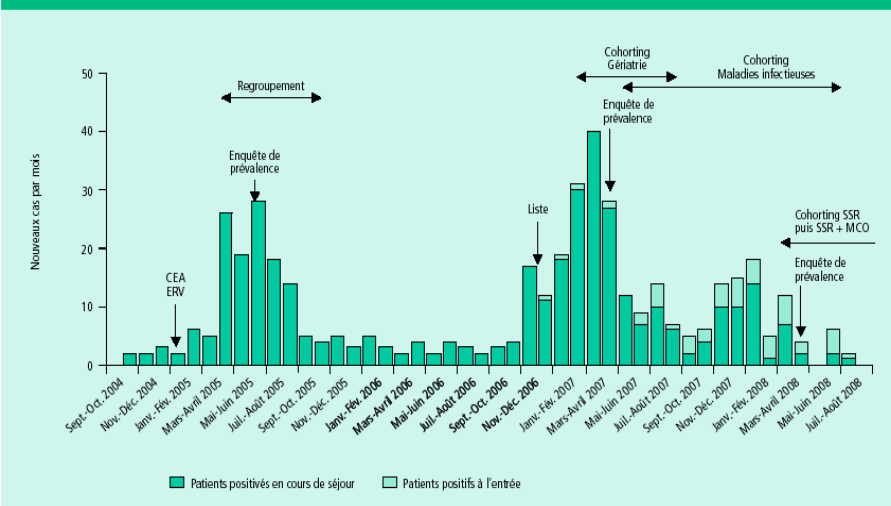


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Fournier 2009 submitted

VRE cases per 2 months Nancy hospital (Lorraine) 2004-2008

Figure Nombre de nouveaux cas de colonisations/infections à ERG découverts chaque mois au CHU de Nancy d'octobre 2004 à juillet 2008, France
Figure Number of new cases of GRE colonisations/infections reported each month at the Nancy University Hospital from October 2004 to July 2008, France

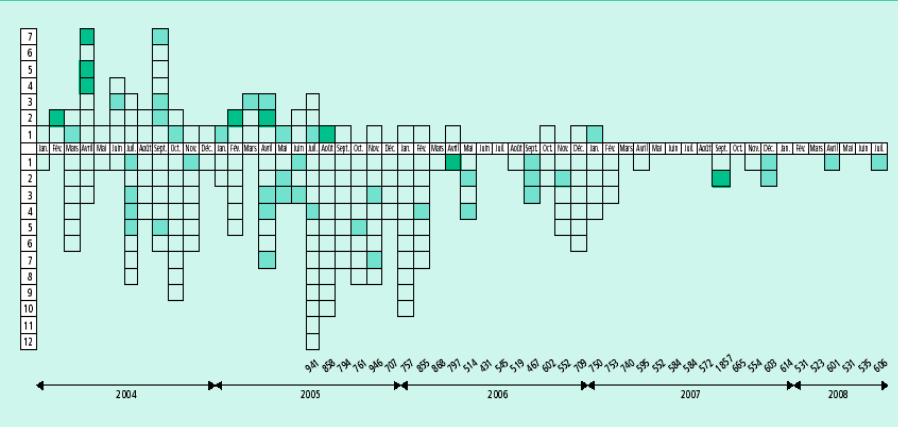


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Raubaud BEH 2008

VRE cases per month Clermont Ferrand hospital (Auvergne) 2004-2008

Figure Patients colonisés par *Enterococcus faecium* résistant aux glycopeptides (ERG) et patients porteurs d'ERG de janvier 2004 à août 2007, France
 Figure Patients colonised by glycopeptides-resistant *Enterococcus faecium* (GRE) and patients carriers of GRE from January 2004 to August 2007, France



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Lesens BEH 2008

EARSS : *E. faecium* resistant to vancomycin (%) in bacteremias

2% (5% in 2004)

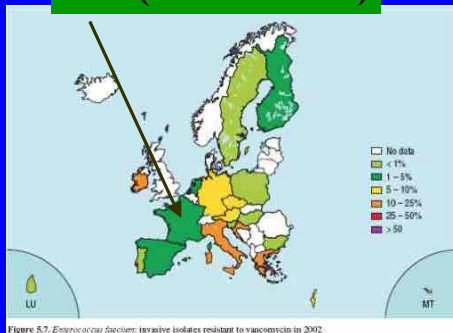
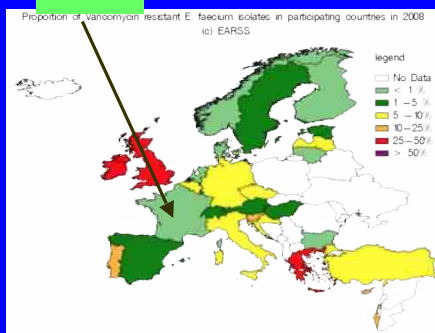


Figure 6.7. *Enterococcus faecium*: invasive isolates resistant to vancomycin in 2002

2002

<1%



2008

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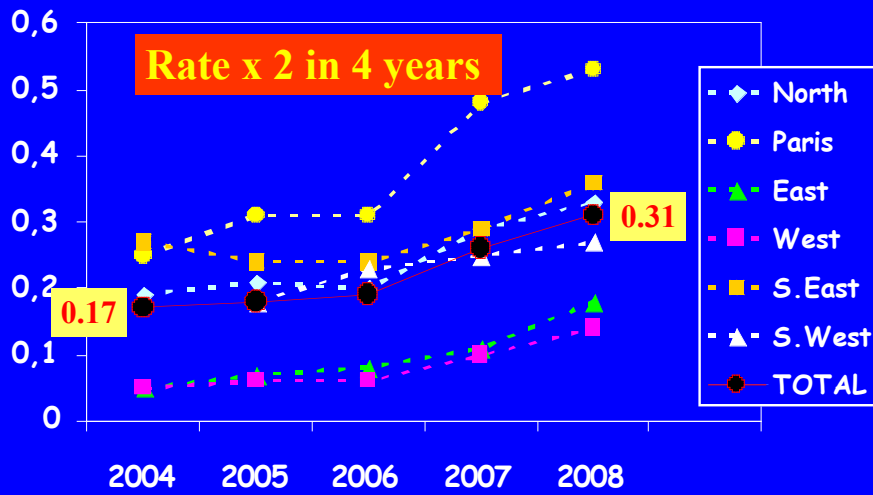
Hausser d'un ton

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ESBL enterobacteria (global)

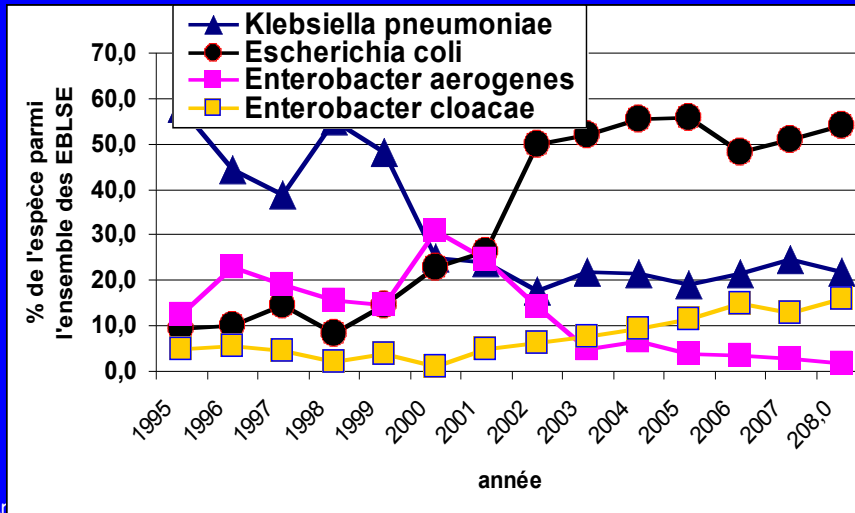
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ESBL National survey (« RAISIN »)
 Incidence rate / 1,000 DHs per area
 2004-2008 (227 hospitals 3 months/year)



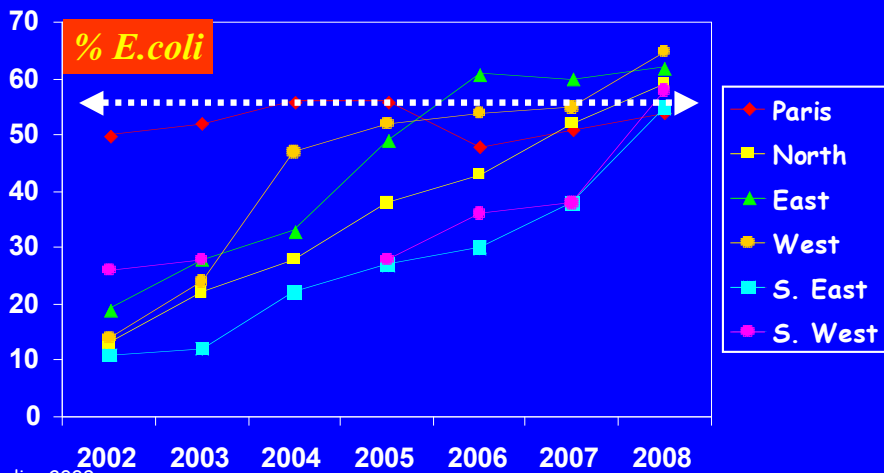
ESBL *Escherichia coli*

Proportion of main species (%) among ESBL enterobacteria Paris area (AP-HP) 1995-2008



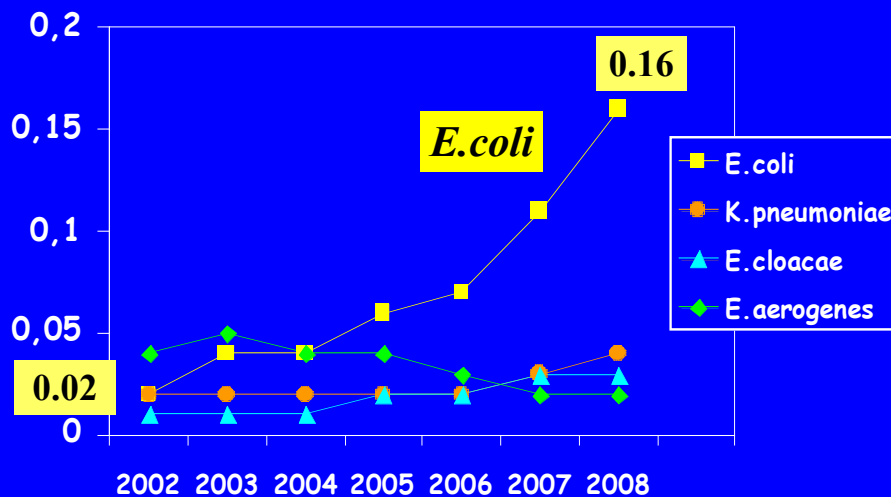
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ESBL National survey (« RAISIN ») Proportion of *E.coli* (%) among ESBL enterobacteria per area 2002-2008 (3 months/year)



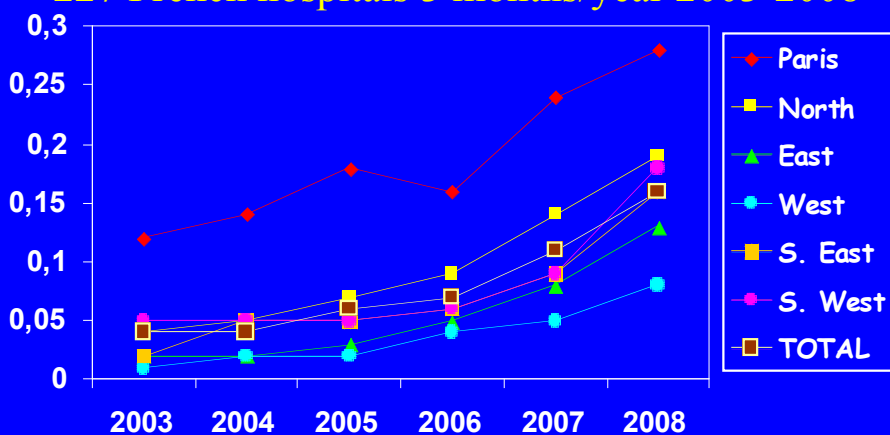
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ESBL National survey (« RAISIN »)
 Incidence rate / 1,000 DHs of ESBL per species
 2002-2008 (3 months/year)



VJ

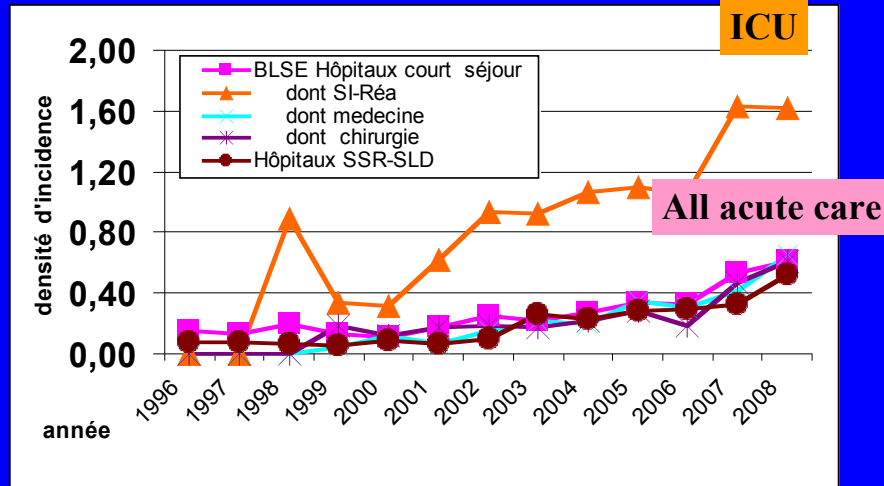
ESBL national survey (« RAISIN »)
 Incidence rates of *E. coli*/ 1,000 DHs per area
 227 French hospitals 3 months/year 2003-2008



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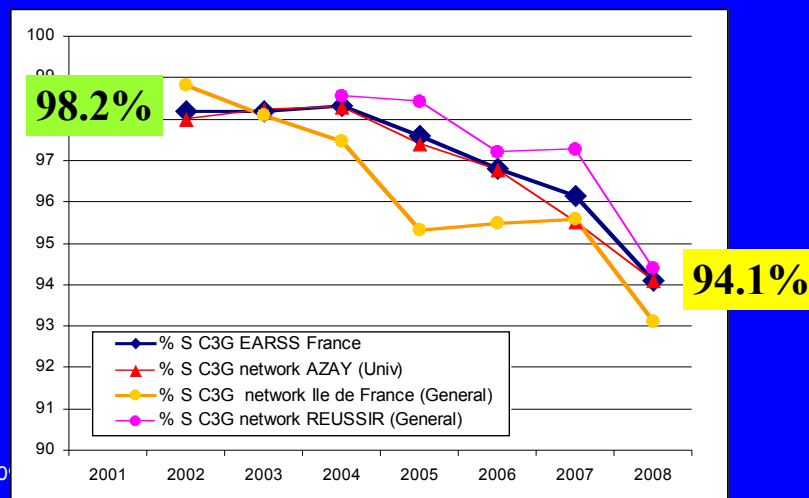
National extrapolation :
 ~20,000 cases /year

Incidence rates /1000 DHs 1996-2008 ESBL *E.coli* per activity Paris area (AP-HP)



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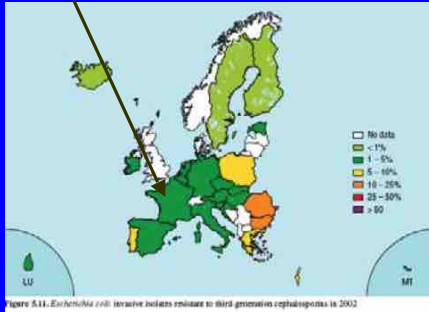
% IR-C3G in *E.coli* from bacteremias in the 3 French networks participating in EARSS (21 Univ Hosp, 9 GH Paris area, 30 GH all country) 2002-2008



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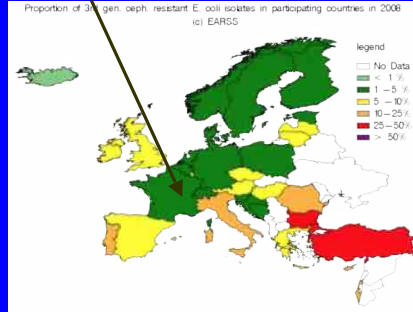
EARSS : *E.coli* resistant to 3rd generation cephalosporins (%) in bacteremias

2%



2002

4.5%

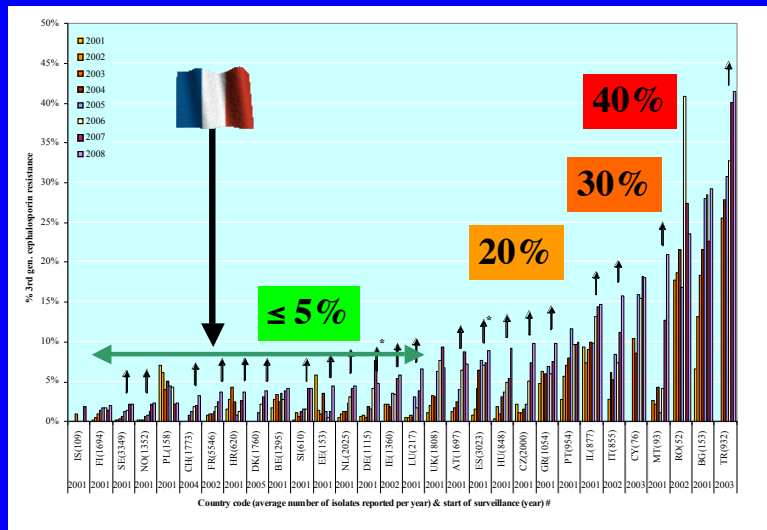


2008

→ > 5% in 2009 !!

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% R 3rd gener. Cephalosporins in *E.coli* Bacteremias in Europe, EARSS 2001-08

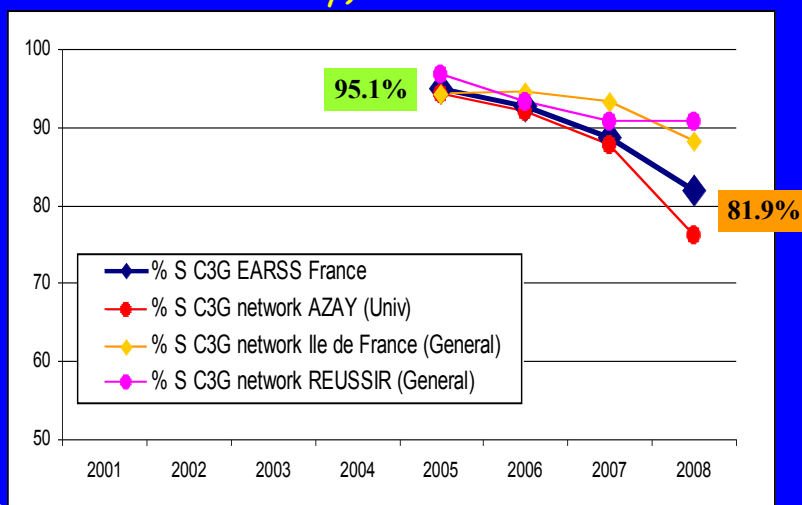


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ESBL *K.pneumoniae*

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% IR-C3G in *K.pneumoniae* from bacteremias in the 3 French networks participating in EARSS (21 Univ Hosp, 9 GH Paris area, 30 GH all country) 2005-2008

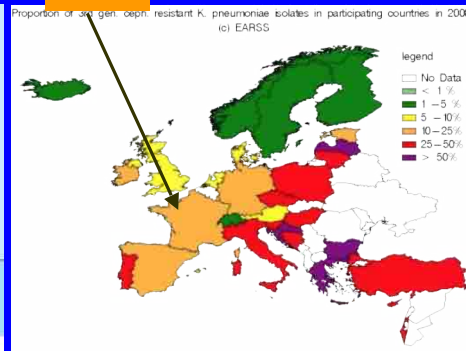


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EARSS : *K.pneumoniae* resistant to 3rd generation cephalosporins in bacteremias

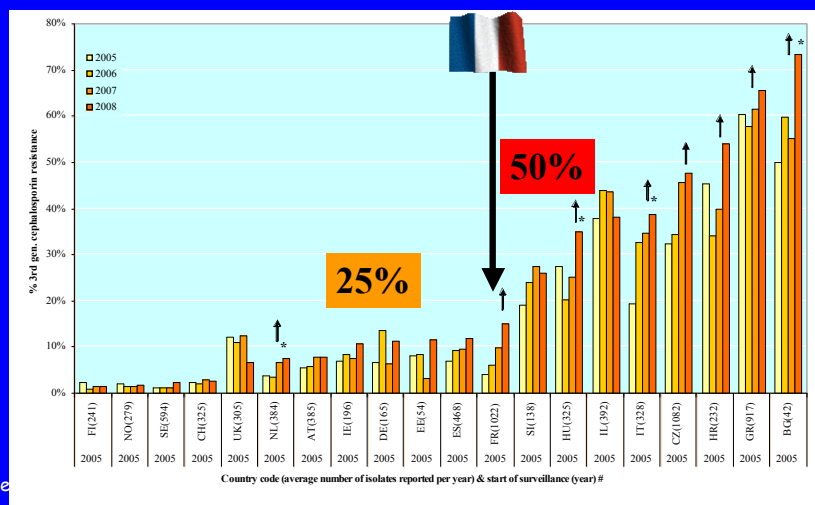
2%

15%



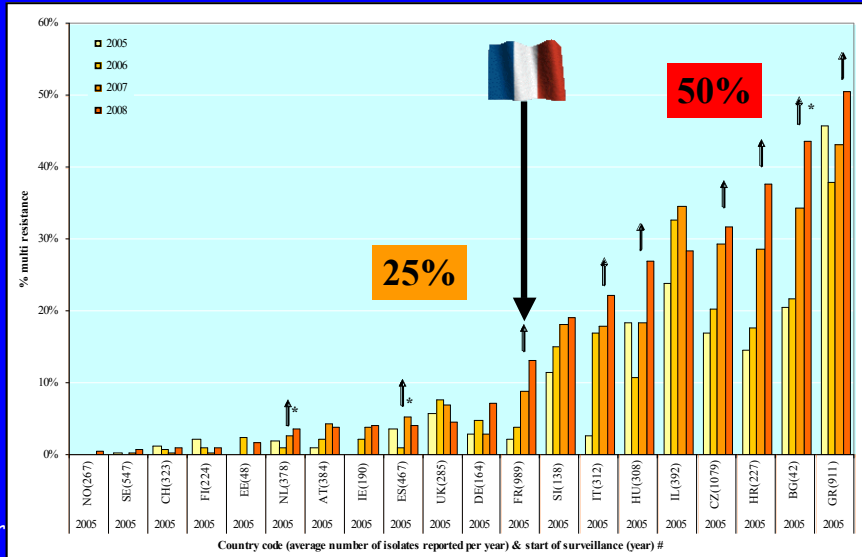
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% R 3rd gener. Cephalosporins in *K.pneumoniae* Bacteremias in Europe, EARSS 2005-08



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**% R multirésistance (C3G + aminos + FQ)
in *K.pneumoniae* Bacteremias in Europe,
EARSS 2005-08**

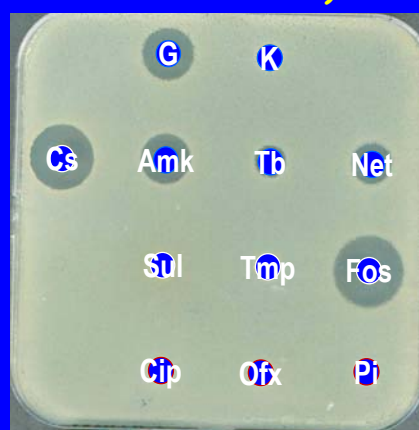
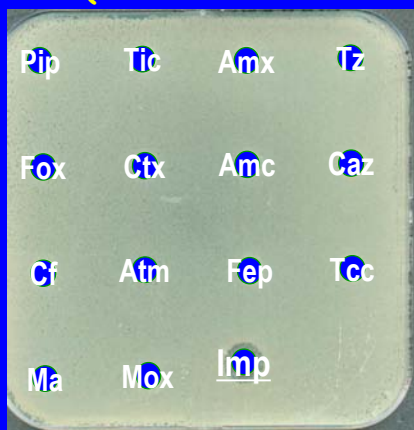


**Prendre garde de ne
pas hausser le ton**

Carbapéménase-producing *K.pneumoniae*

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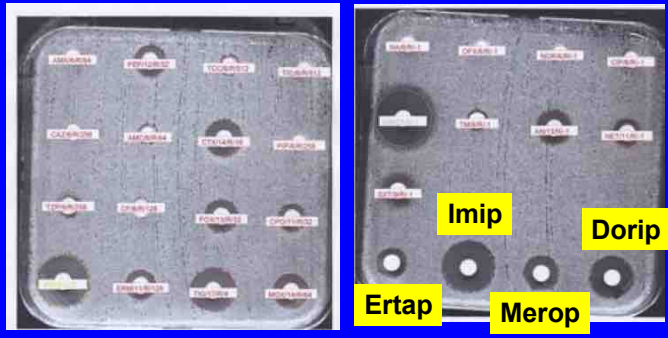
Paul Brousse hospital (Paris) 2004
Klebsiella pneumoniae VIM-1 + SHV-5
(index case : transfer from Athens)



MIC : imipenem 32 mg/l ; gentamicin 8 mg/l

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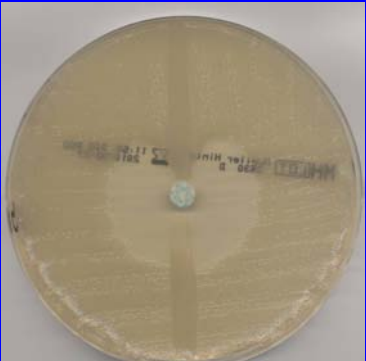
Courtesy: N. Kassis-Chikhani



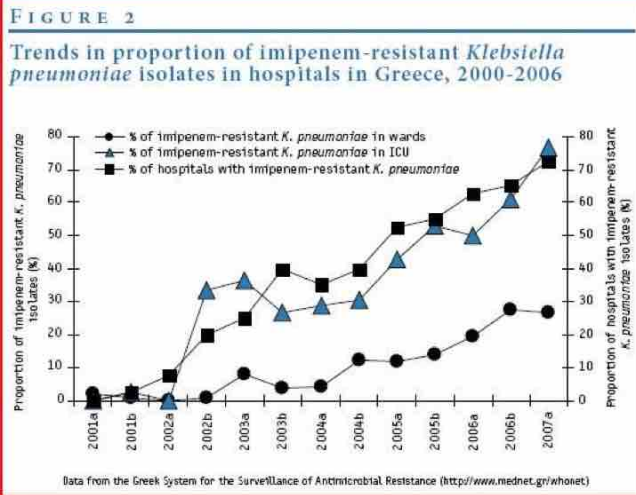
K.pneumoniae
KPC-2
Bicêtre, P.Brousse
Poissy 2009

Courtesy :
N. Kassis-Chikhani

VJarlier 2009



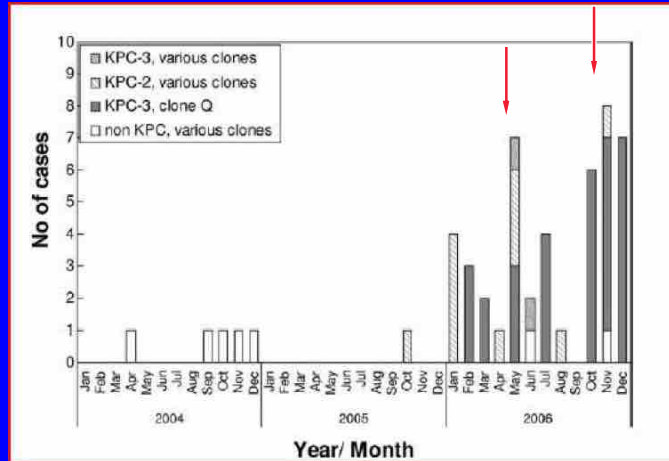
K.pneumoniae IMP-R en GRECE



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A. Vatopoulos, eurosurveillance, 2008

K.pneumoniae IMP-R en ISRAEL (Tel Aviv)



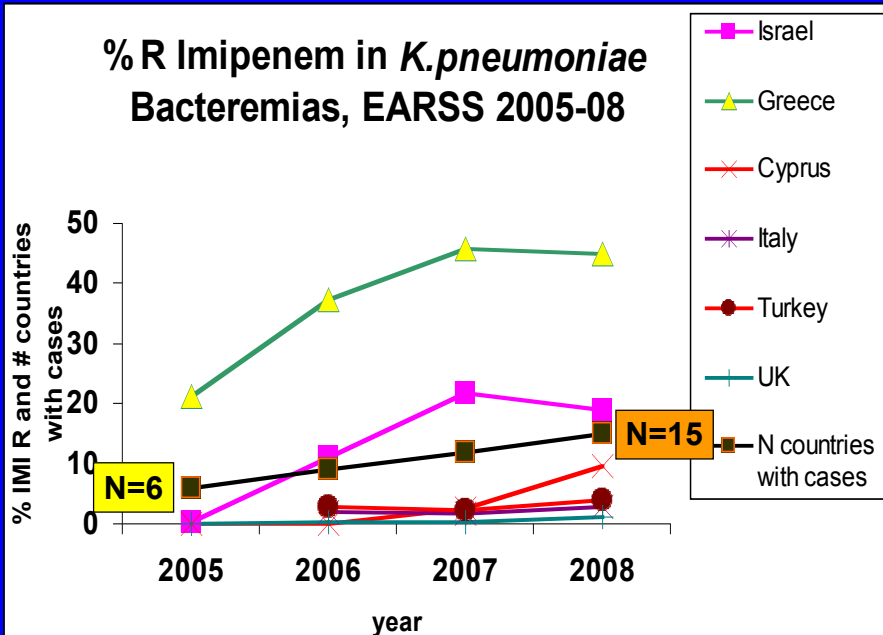
Epidémie de souches *K. pneumoniae* résistantes aux carbapénèmes possédant KPC-2 et KPC-3 dans un hôpital à Tel Aviv de 2004 à 2006.

12 clones différents et un clone majeur Q avec des **profils de sensibilité différents**

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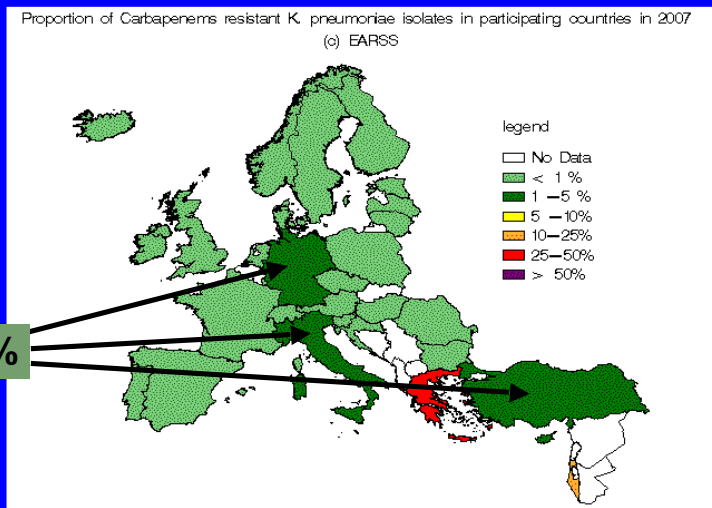
A.leavitt, AAC, 2007

% R Imipenem in *K.pneumoniae* Bacteremias, EARSS 2005-08



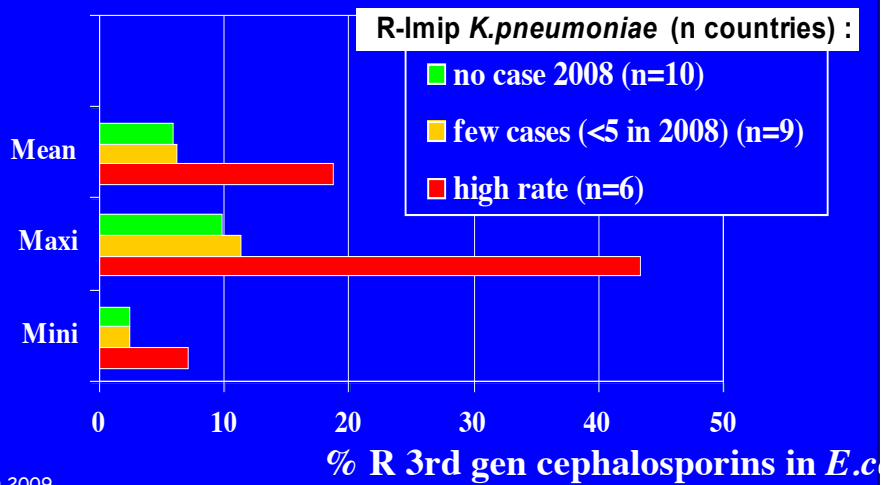
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K. pneumoniae résistantes à l'imipénème en 2007 source EARSS



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% of strains R to 3rd cephalosporins in *E.coli* according to the rates of Imip-R strains in *K.pneumoniae* Bacteremias, EARSS 2008



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VJanlier 2009