



**umcg**



# EuSCAPE tulumused

M. Ivanova

A. Pavelkovich

14.10.2014

**EuSCAPE -**

European Survey on Carbapenemase-Producing  
*Enterobacteriaceae*

Final Plenary Meeting

25<sup>th</sup> – 26<sup>th</sup> of September 2014

University Medical Center Groningen,

Groningen, the Netherlands



# Programme 25<sup>th</sup> of September



## Programme

### Final Plenary Meeting EuSCAPE

25<sup>th</sup> – 26<sup>th</sup> of September 2014

Location: University Medical Center Groningen, the Netherlands

Thursday, 25<sup>th</sup> of September

Meeting room: Roode Zaal

Time	Subject
09.15 - 09.30	Welcome and Introduction <i>(Hajo Grundmann)</i>
09.30 - 10.15	Introductory round and brief feedback from participants <i>(all)</i>
10.15 - 10.45	EuSCAPE structured survey: all be revealed! <i>(Corinna Glasner)</i>
10.45 - 11.00	<i>Coffee Break</i>
11.00 - 12.10	EuSCAPE structured survey: all be revealed! <i>(Hajo Grundmann)</i>
12.10 - 12.30	The EuSCAPE structured survey in Italy <i>(Annalisa Pantosti)</i>

13.30 - 13:50	The EuSCAPE structured survey in Greece <i>(Alkis Vatopoulos)</i>
13.50 - 14.10	The EuSCAPE structured survey in Spain <i>(Belen Aracil)</i>
14.10 - 14.30	The EuSCAPE structured survey in Germany <i>(Martin Kaase)</i>
14.30 - 15.00	<i>Coffee Break</i>
15.00 - 15.20	The EuSCAPE structured survey in the UK <i>(Neil Woodford)</i>
15.20 - 15.30	The EuSCAPE structured survey from the ECDC perspective <i>(Barbara Albiger)</i>
15:30 - 16.00	The EuSCAPE structured survey: short presentations <i>(tba)</i>
17.00 - 22.30	<i>Social program and Dinner</i>

# Structured Survey

- Sampling of isolates and data collection for 6 months
  - 1<sup>st</sup> of November 2013 – 30<sup>st</sup> of April 2014
  - 10 carbapenem non-susceptible isolates and 10 carbapenem-susceptible *Escherichia coli* or *Klebsiella pneumoniae* isolates per hospital
    - isolate submission slips
    - isolate and patient data submission form
  - local laboratories provide the isolates and information to the NE
- Reference identification and confirmation of CPE
  - test (or retest) the isolates obtained from the local laboratories minimum set of carbapenem compounds according to the agreed laboratory procedures

# Isolate submission form



UMCG

Carbapenem non-susceptible *Klebsiella pneumoniae* or *Escherichia coli*



Laboratory postal address:

	isolate lab. ID <sup>1</sup>	sample date <sup>2</sup>	specimen <sup>3</sup>	hospital <sup>4</sup>	species <sup>5</sup>	age <sup>6</sup>	sex <sup>7</sup>	clinical importance <sup>8</sup>	epidemiological context <sup>9</sup>	location in hosp. <sup>10</sup>	previous hospital admission <sup>11</sup>	previously abroad (country) <sup>12</sup>
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

<sup>1</sup>isolate lab. ID : local identifier/code of isolate in laboratory;

<sup>2</sup>sample date: dd/mm/yyyy;

<sup>3</sup>specimen: type of specimen (blood, urine, lower respiratory tract secretion, wound secretion, puncture fluid, OTH=other (specify), UN=unknown);

<sup>4</sup>hospital: name/code of submitting hospital;

<sup>5</sup>species: identified bacterial species (*K. pneumoniae*, *E. coli*);

<sup>6</sup>age (years); <sup>7</sup>sex: gender (M=male, F=female);

<sup>8</sup>clinical importance: likely clinical importance (CO=colonisation, IN= infection);

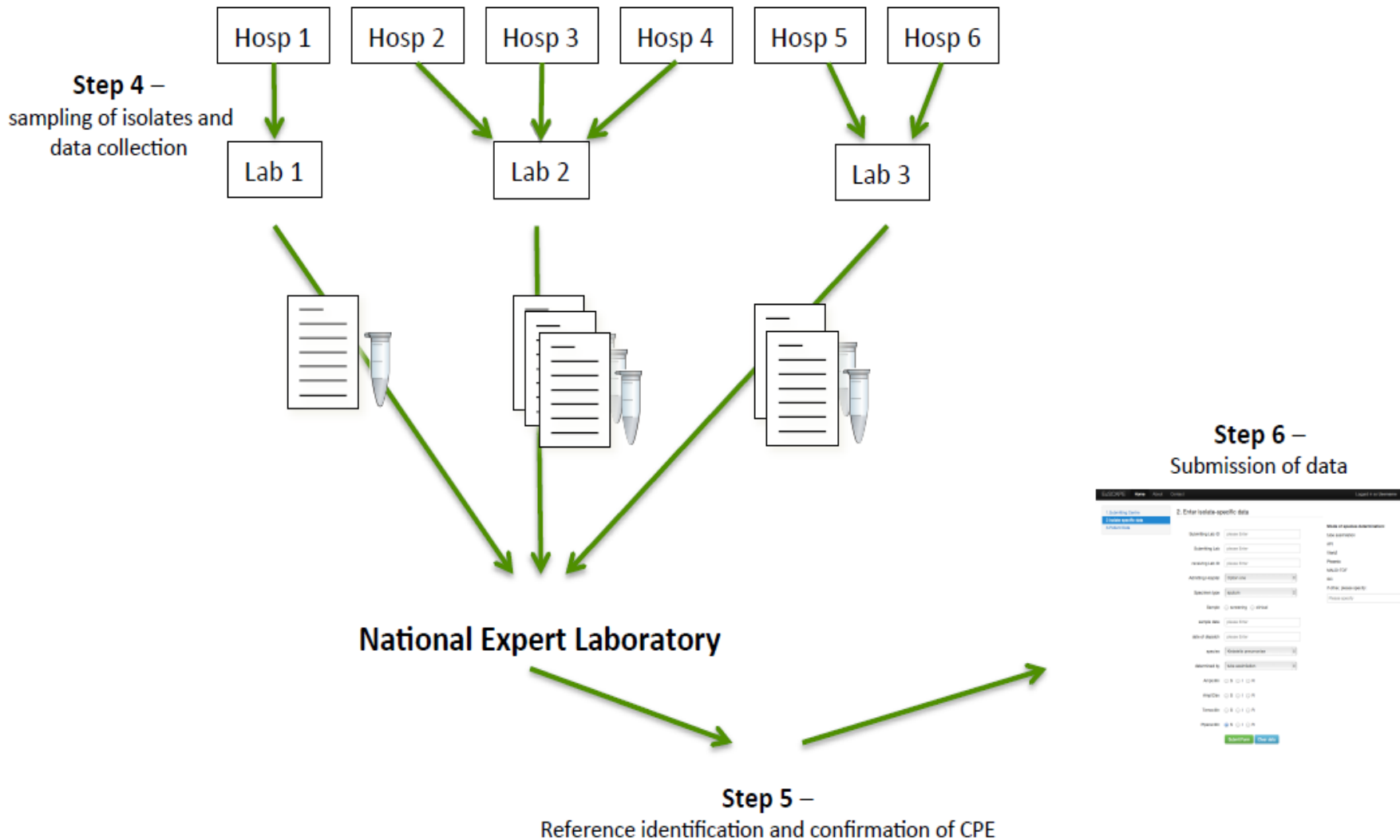
<sup>9</sup>epidemiological context: at time of sample, had the patient stayed two days or more in the hospital where the sample was taken (yes, no);

<sup>10</sup>location in hosp.: location of patient in hospital when the sample was taken; (ICU=intensive care unit, NW=normal ward, i.e. not intensive care, OE=outpatient/emergency, UN=unknown);

<sup>11</sup>previous hospital admission: in the last six months (yes, no, UN=unknown);

<sup>12</sup>previously abroad (country): previous travel or stay abroad within the last 6 months (yes-hosp = yes, hospitalised (specify country), yes-non hosp = yes, not hospitalized (specify country), no, UN=unknown).

# Protocol of the Structured Survey



# Participating countries – Structured Survey



# Participating Hospitals (n = 459)

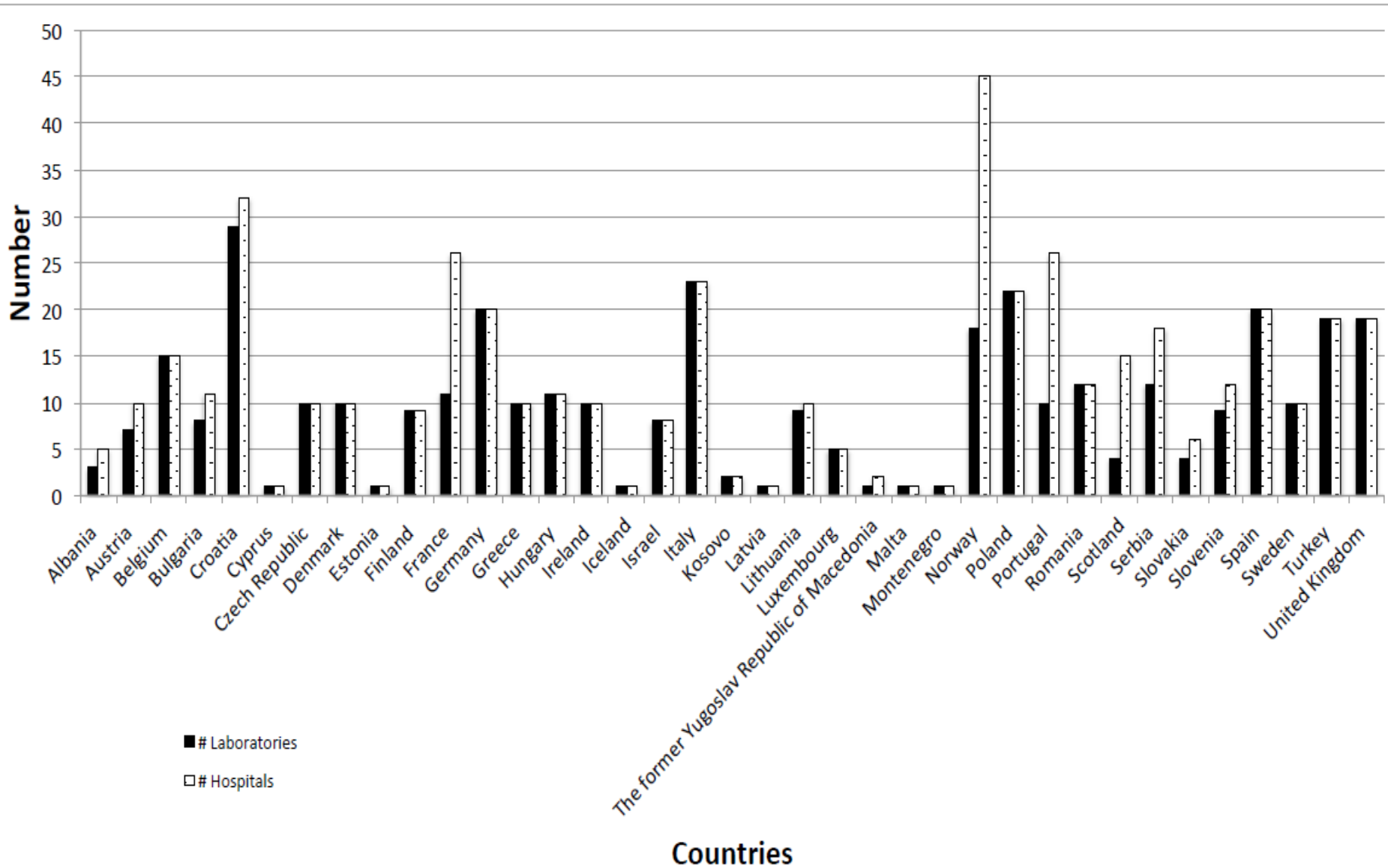




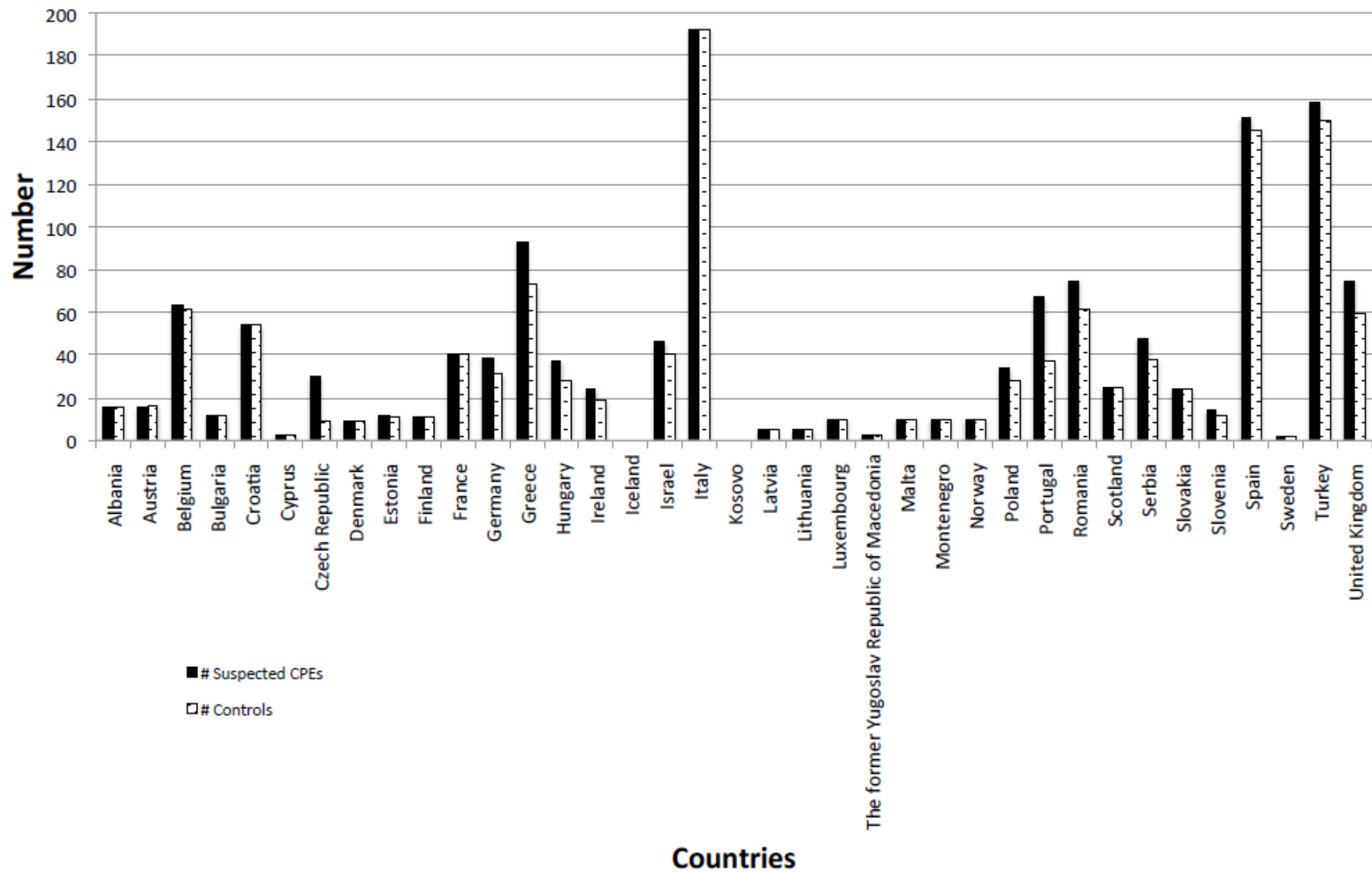
# Structured Survey – Raw Data

Laboratories	Hospitals	Total Isolates	Suspected CPE	Controls	Hospitals with no isolates
366	459	2687	1424	1263	195 (42.5%)

# Laboratories and Hospitals



# Suspected CPEs and Controls



# Metadata Completeness

Metadata	Missing Information	%
Specimen	7	0.26
Species	0	0
Age	11	0.41
Sex	6	0.22
Clinical Importance	287	10.68
Epidemiological Context	378	14.07
Hospital Location	187	6.96
Previous Hospital Admission	782	29.1
Previous Travel	1582	58.17

# Denominators

Controls	1263
suspected CPEs	1424
> confirmed	907
> uncertain/negative	517

# Multivariate Analysis – Confirmed CPEs

	<b>OR</b>	<b>CI<sub>95</sub></b>	<b><i>p</i>-value</b>
male gender	1.3	0.956-1.726	0.096
hospital acquisition	2.8	1.881-4.057	< 0.000
ICU	2.2	1.596-3.158	< 0.000
Previous hospital admission	2.2	1.667-3.029	< 0.000
Previous travel	2.6	1.315-5.054	0.006

# Kreeka

- 60% mehed
- 18.02.2014 valitsuse määrus, mis määratleb haigla administratsiooni vastutuse epideemia ennetamise ja tõrje tegevuse eest
- 47% uriin, 20% veri
- 3 epideemia lainet:
  - VIM 2003-2007
  - KPC
  - NDM praegu (epideemia Korfu saarel, kлонаalne levik)

# Itaalia

- Üle 1500 baktereemia 15 regioonis KPC+ *K.pneumoniae* praeguseks
- EARS-Net 2013:
  - 50% *K. pneumoniae* III pk R
  - 35% *K. pneumoniae* Carba R
- Uriin 74 tüve, veri 65 tüve
- *K. pneumoniae*: KPC – 179 (90% KPC-3 ja 10% KPC-2), NDM - 1, OXA 48 - 1, VIM – 3:
  - 42,5% *K. pneumoniae* KPC+ on colistin R, 0,5% tigecyclin R
- *E. coli*: KPC – 3, OXA 48 – 1
- 60% mehed



# Hispaania

- 52% veri, 19,1 % uriin
- OXA 48 like 68,2%, VIM 9,5%, KPC 8,8%

# Saksamaa

- OXA-48 61,1%, 8 haiglas
- KPC 2