Session 10: Epidemic Intelligence Information System (EPIS) & national experiences in early warning and response of AMR & HAI

Moderators
Niels Frimodt-Møller, Niels Kleinkauf

Rapporteur
Barbro Olsson Liljequist
4 presentations

1. **Niels Kleinkauf, ECDC**: Presentation of the new EPIS module for Antimicrobial Resistance and Healthcare-associated infections (EPIS AMR-HAI).

2. **Bruno Coignard, France**: How to monitor rare, severe or emerging HAI? Implementation of a national HAI early warning and response system.

3. **Gunnar Kahlmeter, Sweden**: SVEBAR – the Swedish AMR Early Warning and Surveillance System.

4. **Nienke van de Sande-Bruinsma, The Netherlands**: The importance of national surveillance on antimicrobial resistance: The Dutch example.
What is EPIS?

• EPIS is a real-time web-based communication platform for rapid and secure expert information exchange related to potential public health events

• Access is restricted to nominated experts
• Participation is voluntary
• Hosted by ECDC
• Platform for exchange of un- and semi-structured information
• Neither redundant to TESSy nor to EWRS
Who will have access to EPIS AMR-HAI?

• **Network users**
  – nominated by the Member States
  – access rights to all urgent inquiries and public discussions

• **Network guests**
  – nominated by the Member States
  – restricted access to particular urgent inquiry and associated discussion

**ECDC users**
  – Can initiate and read urgent inquiry, post network announcements and read urgent inquiries and public discussions

**ECDC guests (e.g. WHO)**
  – restricted access to particular urgent inquiry and associated discussion
Network architecture

- **Urgent inquiries** - Potential health event at the European level, contains up-to-date detailed information about an AMR-HAI event
- **Discussion Forum** – chat forum for public or private discussions which may or may not be associated to the Urgent Inquiry
- **Network announcements** – used to post any announcements that are relevant to the AMR-HAI network
National, HAI/AMR Early Warning and Response System, France (1)

• *Signalement des infections nosocomiales*

• Defined by law (26/07/2001)

• Mandatory notification of *some* HAI: emerging, severe, epidemic
  – Rare or severe infection, based on the characteristics of the pathogen, its resistance phenotype, or the infection site
  – Associated with a contaminated product or device, specific practices, the environment
  – Death associated with a HAI
  – Otherwise notifiable infectious diseases acquired in the hospital

• Objectives: assistance to healthcare facilities in investigation and control, threat detection, feedback of experience
2011 : Deployment of a Web-Based Application

http://www.invs.sante.fr/esin (public pages)
Data Feedback: Automated Reports (PDF)

RAPPORT AUTOMATISÉ E-SIN

Signalements en bref :

- Pratique : 18/11/2011
- Localisation : hôpital
- Signalement entre le 01/01/2009 et le 31/12/2009

- Événements signalés :
  - Neuvième événement (issu de 10 événements)
  - N° 245

- Cas signalés :
  - 4/10 cas signalés

- Délai signalé :
  - 0 % (0 % du nombre de signalements)

\[ \text{Délai entre la date du dernier cas d'un événement et la date du signalement :} \]

\[ \begin{array}{|c|c|c|c|}
\hline
\text{Qualité (quart)} & \text{hôpital} & \text{pension} & \text{internat} & \text{total} \\
\hline
\text{Septembre} & 2 & 8 & 15 & 25 & 16056 \\
\hline
\end{array} \]

- Pour le signalement 006, la date de cas est mise en évidence.
Querying the Notification Database
Svebar
Swedish antimicrobial resistance early warning and surveillance system

Gunnar Kahlmeter, SMI and Växjö
Tomas Söderblom, SMI
Johan Struwe, SMI
Karin Tegmark-Wisell, SMI
Katarina Skärlund, SMI

Warsaw November 2011
Svebar – two components

- Early warning (EW)
- Antimicrobial resistance surveillance
- Automatic (but avoid pre-mapping)
- To deal early with proprietary issues
- Offer benefits to participating laboratories

Svebar - Swedish surveillance of antimicrobial resistance
<table>
<thead>
<tr>
<th>Labkod</th>
<th>Art</th>
<th>Antibiotika</th>
<th>Aktiv</th>
<th>Antal R</th>
<th>%R</th>
<th>% (I + R)</th>
<th>Period</th>
<th>E/L</th>
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Svebar - AMR surveillance: *E. coli* in urine

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<th>Totalt</th>
<th>S %</th>
<th>I %</th>
<th>R %</th>
<th>Prim1</th>
<th>S %</th>
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When?

- 5 laboratories online since up to 2 years
- + 2 more during 2011
- Another 10 – 15 during 2012
- All laboratories 2013

- Cost per lab: 4 000 – 8 000 €
The Dutch surveillance system ISIS-AR

For this purpose, the Dutch Infectious Diseases Surveillance Information System on Antibiotic Resistance (ISIS-AR) and the interactive database ISISweb were developed.

Multidisciplinary ISIS-AR team started in July 2007

Now, in 2011, 30 of the 66 Dutch Medical Microbiology Laboratories are participating.
Goals ISIS-AR

Monitor AMR trends (Nethmap, EARS-net)
Produce ‘mirror’ data (improve patient care)
  • Feedback reports
  • ISISweb
‘Early’ detection of (multi-)institutional elevations
Active response to new resistance development (guidelines)
Feedback report

- Overview of dataset
- Datamanager check of data send in to RIVM. If necessary consultation with medical microbiologist.
- Table with unknown values
- Table unusual resistance phenotypes are included, and have to be confirmed by the medical microbiologist.
- Medical microbiologist of ISIS-AR team can contact the lab in case of special findings that are worrisome.
- After confirmation the data go online.
- Improvement of quality, awareness and communication!
Wake up call: OXA-48 outbreak in Dutch hospital

• 31 may 2011 outbreak of CPE was officially reported, but was going on already for some time...
• Lot of media attention that lead to political and social discussions, how to prevent these outbreaks in the future
• Due to the late discovery of the outbreak and delayed action, 4,340 patients had to be screened for possible contamination
• In total 115 patients carried the Klebsiella OXA-48
• End of July the outbreak was under control!
• Interim report Health Inspectorate october 2011. Title: Klebsiella outbreak in Maasstad hospital avoidable.
• The final report will be available in the beginning 2012; was the outbreak also blameworthy.