

# Minutes – CRL Workshop Copenhagen April/2009

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The minutes are listed according to the agenda

## Participants:

All member states (MS) with NRL-AR took part in the meeting. Luxembourg has not appointed an NRL-AR and did not take part.

## **Thursday, April 23th 2009**

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### Welcome (Mr. Rene Hendriksen)

- Emphasized the importance that all participants actively contribute to the meeting
- Looking forward to having presentations from participants – as well as presentations from EFSA, the CRL *Salmonella* and the CRL *Campylobacter*

### Update from the CRL (Prof. Frank Aarestrup)

#### **See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- Emphasized the importance of collaboration in research and monitoring in MS
- Emphasized the importance of standardisation in AST worldwide
  - Mentioned the WHO-network 'AGISAR' (Advisory Group in Surveillance of Antimicrobial Resistance)
- Tasks undertaken in 2008 by the CRL
  - Training Course (individual as well as groups)
  - Project on quinolones (Lina Cavaco and Kees Veldman)
  - Shipment of reference strains
- Additional planned tasks
  - Molecular characterisation which is a need for the future in the EU, more advanced training courses e.g. ESBL
  - Project on quinolones (Lina Cavaco and Kees Veldman)
  - Project on breakpoint of streptomycin (Susanne Karlsmose)
  - MRSA EQAS

### Update from the EU Commission (Dr. Kris De Smet)

#### **See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- According to decision 2007/407/EC, *Salmonella* in laying hens and broilers should be monitored in 2009
- EFSA is working on quantifying the risk of *Campylobacter* in broiler meat, and even though it is not mandatory to monitor *Campylobacter* in 2009, it is suggested that MS continue to provide data
- The cooperation between EFSA experts, the task forces and the EU Commission was presented
- Food and environmental samples will not be monitored in the years to come, as the results from animals would to a larger degree reflect the primary reservoir
- A continuous MRSA monitoring will depend on the results from the MRSA baseline study

### Update from EFSA (Dr. Pierre-Alexandre Beloeil)

#### **See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- The data collected in Europe are not harmonised but historic data are being reviewed (*Salmonella*, *Campylobacter*, *E.coli*, enterococci) with the purpose of detecting trends over time by the use of descriptive tables and graphs
- The report on prevalence of MRSA will be issued in November 2009

- The SCAN-recommendations would be reviewed by FEEDAP, as microorganisms used as feed additives should be phenotypically susceptibility tested
- EFSA will issue guidelines on susceptibility testing of GMO's
- Harmonisation between MIC and DD was discussed, also including the different representatives of the drug classes (e.g. cipro as representative for flouoroquinolones and erythromycin for macrolides). It was suggested to use different interpretative criteria for the EFSA monitoring and for diagnostic purposes
- Until now trends in commensal *E.coli* compared to the *Salmonella* have not been looked into, however, EFSA is planning on looking into this in the future

[Presentation and discussion of EQAS results, \*E. coli\*, enterococci and staphylococci \(Dr. Lourdes Migura\)](#)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- *E. coli*
  - Very good performance by participants

Discussion in plenum regarding *E. coli*:

  - One of the reasons for the poor performance regarding the reference strains could be different guidelines. It is suggested that the CRL should be notified if other guidelines than CLSI are used
  - Another reason is that when performing DD some strains are categorised as intermediated which is not accepted as a susceptibility category in this EQAS (as epidemiological cut off values are used)
- Enterococci
  - A few outliers (2) with high deviation percentages
  - The majority had deviation percentages below the 7% goal
    - The outliers have been at a training course in February 2009 and have been offered a re-test
- Staphylococci
  - Two outliers were identified, the rest of the participants performed very well
  - The highest deviation was observed in the detection of *mecA*

Discussion in plenum regarding staphylococci:

  - It was suggested that oxacillin should be in the MIC panel as a marker of the presence of *mecA*. In the panel that will be used for the 2009 EQAS, cefoxitin will be included
  - It was decided that the detection of *mecA* will be a mandatory part as of the CRL EQAS 2009
- General considerations and discussion (in plenum):
  - EUCAST will soon give DD-guidelines, however, EFSA requires MIC-values which is why the CRL EQAS continues to interpret according to the MIC's in the protocol
  - It was agreed that the MIC-values will be evaluated in future EQASs. This issue will be discussed further internally by CRL
  - It was discussed how much focus should be put in emerging problems and how much on monitoring
  - Laboratories who wish to perform MIC-methods have also the option of purchasing VetMIC-plates from SVA (as little as 5 plates at the time can be purchased)
  - It was agreed to lower the acceptance threshold to 5% for all microorganisms as of the 2009 iterations
  - Results will be further analysed (possibly ignored) if only 75% are correct (test strain/ antimicrobial combination)

[Presentation and discussion of EQAS results, \*Salmonella\* and \*Campylobacter\* \(Ms. Susanne Karlsmose\)](#)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- *Salmonella*

- The vast majority clustered in the interval between 1-3%

Discussion in plenum regarding *Salmonella*:

- It is described in the protocol that all cephalosporins should be regarded resistant if one is resistant. This needs to be described more precisely: *Concerning cefotaxime, ceftazidime and/or ceftiofur used when detecting ESBL-producing strains in the EQAS: If a microorganism is resistant to one or two of these drugs, it should be regarded resistant to all three* (this does not include ceftiofur, as ampC's are resistant to ceftiofur and 'true ESBLs' are not)
- For detection of low-level ciprofloxacin resistance, usage of a 1 µg disk (as opposed to 5 µg) could improve the detection. Unfortunately, there are no international reference breakpoints
- It was stated that ceftriaxone, ceftazidime and cefotaxime is better than ceftiofur at detecting ESBL. This has been investigated the CRL and colleagues and will be published soon.

- *Campylobacter*

- One laboratory is an outlier (used DD)

Discussion in plenum regarding *Campylobacter*:

- Results for test strain C3.6 for erythromycin was omitted
- It was decided that only MIC results for *Campylobacter* ASTs will be accepted as of the 2009 iteration (DD-results will not be accepted)

- General considerations and discussion (in plenum):

- Several items discussed regarding the EC/Staph/Ent EQAS are also relevant for the Salm/Camp EQAS

[VetMIC plates from SVA \(Dr. Stina Englund, NRL Sweden\)](#)

- VetMIC is an alternative method to the Sensititre System, for laboratories who wish to perform microbroth
- It is possible to purchase a minimum volume of 5 plates at the price of 10 euro per plate
- The panel of antimicrobials and the ranges reflect the recommendations of EFSA

[CRL \*Salmonella\* \(Dr. Kirsten Mooijman, CRL \*Salmonella\*\)](#)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- The EQAS run by the CRL *Salmonella* includes quantitative analysis
- Deviations are weighed according to the importance

[Identification by PCR and phenotyping of \*Campylobacter\* isolates from the baseline survey in 2008 \(Dr. Eva Olsson Engvall, CRL \*Campylobacter\*\)](#)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- It was unknown how many of the strains from the baseline survey, submitted to the CRL-*Campylobacter* were mis-identified due to an incorrect hippurate analysis. Preliminary data showed that about 5% of the received strains were not viable at arrival to the CRL
- It was discussed whether PFGE or MLST should be used for strain characterization ('subtyping'). PFGE was recommended for smaller projects as it is much more discriminative. MLST was recommended for broader, international projects as it has common nomenclature

## Friday, April 24th 2009

[Project status: Qnr genes in \*Salmonella\* and \*E. coli\*](#) (Dr. Lina Cavaco and Mr. Kees Veldman)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- Data from the project was presented. Resistance data from 1249 *Salmonella* and 316 *E. coli* were collected and these strains will be further tested for transferrable genes
- Furthermore, data were collected on quinolone resistance over the last 10 years

[Proposal for common \*Staphylococci\* panel design](#) (Dr. Andreas Schroeter, NRL Germany)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- Andreas Schroeter, Antonio Battisti and Dik Mevius have been working on finding a common panel designed for MRSA
- It was discussed whether the aim was a panel for MRSA or staphylococci in general
- Table of suggested antimicrobials (including reason) should be reviewed by the end of May by the network to put together a new draft. NRLs should report the number of plates they wish to order to aim towards the highest possible number of plates:
  - o Price when ordering 500 plates: 21.24 euro
  - o Price when ordering 5000 plates: 6.66 euro
- Conclusion of the plate design is expected in June

[Upcoming MRSA EQAS](#) (Dr. Lina Cavaco)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- The outline of the first MRSA EQAS was presented
- The EQAS protocol will follow the methodology of the baseline study
- Samples should be processed right away

[Research results, projects in past and at the moment \(Mrs. Liidia Häkkinen, Estonia\)](#) – CANCELLED

[Resistance and Virulence determinants in German MRSA ST398 Isolates](#) (Dr. Beatriz Guerra-Roman, NRL Germany)

- The ST398 seems to lack many of the known virulence factors
- A marker for ST398 seems to be kanamycin and/or gentamicin resistance
- One CC398 has been fully sequenced and is being published

[Antimicrobial resistance in bioterrorism agents](#) (Dr. Stina Englund, Sweden)

- A contingency plan was prepared in case of bioterrorism with class three organisms
- For an outbreak of anthrax in December 2008 the contingency plan was in use
- The outbreak strain was susceptibility tested and genotyped, and was found to be the same as also previously described in Sweden

[Review of data from monitoring and eradication programmes in the Czech Republic 2008](#) (Dr. Tomas Cerny, NRL Czech Republic)

**See powerpoint presentation** (link above or <http://www.crl-ar.eu/146-presentations.htm>)

- Data from the national control programmes in breeding flocks, laying hens and chicken broiler flocks were presented
- Additionally, a baseline survey on prevalence of *Salmonella* and MRSA in herds of breeding pigs was shown

Future developments, training courses, EQAS, research – general discussion and summary (All, Mr. Rene Hendriksen)

EQAS:

- Trends regarding performance are positive
- It was suggested to summarize data from all CRL-EQASs for the QC strains
- In future EQASs, no DD data for *Campylobacter* will be evaluated as these are not sufficiently comparable to MIC-data
- In future EQASs, the threshold for the performance will be 5%
- With the EQAS in October the CRL will distribute an Enterobacteriaceae for optional testing of resistance genes
- The MRSA EQAS will be following the EU Commission's requirements for monitoring if/when it comes

ESBL project (occurrence of ESBL genes in *Salmonella* and *E.coli* in Europe)

- The CRL and Bea will disseminate more information

Common panel for AST of *Salmonella* is planned to be evaluated at the next CRL workshop (Dariusz Wasyl)

A change of location for next year's CRL workshop was discussed. Berlin was suggested.