EUCAST criteria and recommandations : practical aspects P. Melin (CHU - Ulg) and J. Van Eldere (UZ Leuven)

EUCAST or European Committee on Antimicrobial Susceptibility Testing http://www.eucast.org

Since several years, many microbiologists, pharmacologists and infectiologists were convinced there was an urgent need for a revision and harmonization of antimicrobial susceptibility testing (AST) methods and interpretative criteria.

CLSI (U.S.), currently used in Belgium, and the different European national breakpoints were equivoccally based on pharmacokinetic and epidemiological criteria. They could present significant differences between them and, some bad correlations between breakpoints and clinical outcome were shown. Evolving therapeutic indications and practices, emergence of new resistance mechanisms, changing dosages, new pharmacokinetic-pharmacodynamic knowledge, clinical outcome data and determination of MICs distribution for wild type populations, were additional factors to stress the need for revision of interpretative criteria for antimicobial susceptibility testing.

The answer came from Europe with the EUCAST creation. EUCAST was initiated in 1997 and harmonized breakpoints for most existing antibacterial drugs have been published and are regularly revised since 2002.

EUCAST breakpoints are currently becoming available in devices for automated susceptibility testing. A disk diffusion test calibrated to EUCAST MIC breakpoints has been developed and will be launched by the end of 2009.

In 2008, a symposium dedicated to EUCAST was organized by the SBIMC-BVIKM. Advantages, technical limiting factors, clinical and epidemiological consequences were discussed. At the issue of the symposium by vote, it was decided to switch to EUCAST criteria the 1st of January 2010. A working party was constituted to bring the needed helps to ensure favorable conditions for a successfull switch either to microbiologists, to clinicians or to AST devices/reagents suppliers,

Today, in view of this planned introduction of EUCAST breakpoints in Belgium (1st January 2010), even if many limiting factors are fading one by one, the inventory of remaining tasks or questions remains important and will be presented during this meeting. What is the actual level of preparation of labs and of AST devices/reagents suppliers? What items are on the checklist of things to do before the switch: update of many documents, update of automated AST systems/expert systems, acquisition of new reagents, paper disks, culture media, quality control strains, training, verification and validation of the new disk diffusion procedure, of the new disks or new AST panels.

Will Belgian labs be ready for the switch the 1st of January 2010 or will it be wiser and more realistic to propose a few-month transition period after the 1st of January.