EUCAST in 2011–2012

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EUCAST Steering Committee

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EUCAST is the European Committee on Antimicrobial Susceptibility Testing. It aims to provide common European breakpoints and antimicrobial susceptibility testing methodology. Over the years ESCMID has provided the administrative, financial and scientific framework for EUCAST. The European Centre for Disease prevention and Control (ECDC) is currently supporting EUCAST on another three year contract (2012–14), while ESCMID is supporting the development of the EUCAST disk diffusion method.

Version 2 of the EUCAST breakpoint tables was published on the EUCAST website (www.eucast.org) in December 2011. Breakpoints for new agents are set by EUCAST as part of the licensing process by the European Medicines Agency (EMA). Through this process breakpoints have been set in the past year for telavancin, and several other new agents are currently in process. Several breakpoints, including cefituben for Enterobacteriaceae and Streptococcus pneumoniae, fosfomycin for Pseudomonas spp., vancomycin for coagulase-negative staphylococci, nitrofurantoin for enterococci, phenoxymethylpenicillin and trimethoprim for group B streptococci, and amoxicillin, amoxicillin-clavulanate, chloramphenicol and rifampicin for Haemophilus influenzae, have been revised in the light of new information. Breakpoints for various less common fastidious organisms are being developed in collaboration with the relevant ESCMID Study Groups and through this process breakpoints for Clostridium difficile, Helicobacter pylori and Listeria monocytogenes have been added in version 2 of the tables. In addition, breakpoints for less common non-fermentative Gram-negative bacilli are under discussion. Several additional ‘rationale documents’ giving the rationale for EUCAST breakpoints have been published on the EUCAST website. A paper explaining the role of pharmacokinetics/pharmacodynamics in the setting of clinical MIC breakpoints by EUCAST was published in Clinical Microbiology and Infection (Epub ahead of print, December 2011).

The EUCAST website continues to be developed and updated, and all EUCAST breakpoints and documents are freely available from the website. Under ‘Susceptibility Testing’ a new section has been added on ‘Calibration and Validation’ of the EUCAST disk diffusion method. In addition, there is a new section on ‘Projects and Data Submission’ where laboratories are invited to participate in specific projects to develop methods. The EUCAST methodology and breakpoints for a disk diffusion method are available on the EUCAST website and technical documents relating to the method have recently been updated. Automated susceptibility testing systems continue to be developed for EUCAST breakpoints, and details of the current compliance of manufacturers with EUCAST breakpoints and methods are periodically updated on the website. The ‘frequently asked questions’ section about EUCAST breakpoints and methods continues to be expanded as questions are received. The ‘News’ section on the Home page has been extended and users can now subscribe to the EUCAST website RSS feed. This means that EUCAST news items can be automatically presented on other websites or in the browsers of individual computers. The EUCAST MIC and zone diameter website presents MIC and zone diameter distributions of bacteria and fungi based on a continually increasing number of distributions. Graphs showing MIC-zone diameter correlations also continue to be expanded. The distributions highlight wild type populations and give epidemiological cut-off values (ECOFFs).

New national Antimicrobial Susceptibility Testing Committees (NACs) have been established in several countries to help provide a national strategy for antimicrobial susceptibility testing, and implement EUCAST breakpoints and methods where appropriate. In Europe, the trend from using other breakpoint
guidelines to using EUCAST breakpoints and methods continues. In the EARS-Net resistance surveillance external quality assessment exercise in May 2011, EUCAST breakpoints were used by around 50% of participating laboratories, compared with around 30% a year earlier. Several more countries are in the process of changing or plan to change to EUCAST in the near future. The interest in EUCAST breakpoints from outside Europe is highlighted by the first southern hemisphere country, Australia, joining the EUCAST General Committee. Changes to the organisation of the EUCAST Steering Committee are proposed, to make it easier for countries outside Europe to take part in Steering Committee meetings.

The Antifungal Susceptibility Testing (AFST) Subcommittee is a standing EUCAST subcommittee, dealing with all issues related to breakpoints and susceptibility testing for fungi. The AFST Steering Committee currently consists of Maiken C. Arendrup, (chairman), William Hope (secretary), Cornelia Lass-Floerl, and Manuel Cuenca-Estrella. During the past year two Steering Committee meetings and two General Committee meetings have been held. The AFST has continued to work on the establishment of clinical breakpoints for antifungal agents. Rationale documents and technical notes for Candida spp. with amphotericin, posaconazole and anidulafungin, and for Aspergillus spp. with amphotericin, itraconazole and posaconazole are now available from the EUCAST website. A revised version of the EUCAST reference method for susceptibility testing of fermentative yeasts (EDEF 7.1) was recently posted on the EUCAST website for consultation. The revised version includes testing of Cryptococcus spp., reference anidulafungin MIC ranges for quality control strains and new recommendations concerning solvent for echinocandins and shelf-life for microdilution plates.

In April 2008 the first version of EUCAST expert rules was released on the EUCAST website. Since then the process of harmonisation of European breakpoints has been completed and the Expert Rules subcommittee immediately started work to ensure congruity between categorisations and recommendations in EUCAST breakpoint tables and recommendations in the expert rules. As a consequence, the Expert Rules Subcommittee and the EUCAST Steering Committee has updated the EUCAST expert rules. The new version was published in Clinical Microbiology and Infection (Epub ahead of print, October 2011). Major contributors were Roland Leclercq, Rafael Cantón, Derek Brown, Christian Giske, Peter Heisig, Alasdair MacGowan, Johan Mouton, Patrice Nordmann, Arne Rodloff, Gian Maria Rossolini, Claude-James Soussy, Martin Steinbakk, Trevor Winstanley and Gunnar Kahlmeter. Major modifications include, among others, the deletion of previous expert rules on extended spectrum β-lactamases and carbapenemases and rewording the expert rules on quinolones with Salmonella spp. and β-lactams with Haemophilus influenzae. The basis of all these modifications is explained in the publication. The subcommittee achieved its objectives and has now been disbanded.

The Anaerobe Subcommittee advised the Steering Committee on breakpoints for anaerobes and ran a project on methods for susceptibility testing of anaerobes. The subcommittee achieved its major objectives and has now been disbanded.

A new subcommittee on antimicrobial resistance mechanisms of clinical and/or epidemiological importance has recently been set up (chairman Christian Giske). The remit is to develop practical guidelines for the detection of resistance mechanisms.