

European Committee on Antimicrobial Susceptibility Testing (EUCAST)

Minutes of the **General Committee Meeting** on 29 April 2024 at the European Society of Clinical Microbiology and Infectious Diseases (ESCMID Global), Barcelona, Spain

The Chair of EUCAST, Professor Christian Giske, opened the meeting at 09.00

1. Apologies

Official apologies were received from Shampa Das (unable to attend ESCMID Global)

2. Minutes of meeting in 2023

Minutes for the 2023 meeting were ratified.

3. EUCAST General Committee membership

The current membership list is detailed on the EUCAST website. Representatives should inform the Scientific Secretary (email mandy.wootton@wales.nhs.uk) if the representative for their national antimicrobial susceptibility testing committee (NAC) has changed.

4. EUCAST Steering Committee membership

The current membership of the Steering Committee was presented: Christian Giske is Chair, Mandy Wootton is Scientific Secretary, Rafael Cantón is Clinical Data Coordinator and Gunnar Kahlmeter is Technical Data Coordinator and Website Manager. Barbara Holzknicht (Denmark) and Anouk Muller (The Netherlands) are the current General Committee representatives. Marlene Amara has replaced Gerard Lina as the French representative. The rest of the Steering Committee remains unchanged since previous years.

Members of National Antimicrobial Committees (NAC) may attend the Steering Committee meeting by prior agreement (one per meeting).

5. EUCAST Chair's report

Christian Giske (CG) summarised activities over the past year. Implementation of EUCAST breakpoints and guidelines continues to grow in Europe and internationally. The majority of European countries now have >90% implementation.

In addition to the Steering Committee, there are three standing subcommittees for fungi, veterinary pathogens, and mycobacteria, and seven active ad hoc subcommittees on Expected Phenotypes and Expert Rules, MIC Distributions and ECOFFs, Joint Working Group with CLSI on Disk Mass Development and QC criteria, the Relationship Between WGS and Phenotype, Anaerobe AST (less active currently), Detection of Resistance Mechanisms and the recently added Phage AST group. Details of the newly formed Phage AST (PHAST) subcommittee will be added to the webpage.

National AST Committees (NACs) are now established in all European countries except Bulgaria, Belarus, Georgia, and Armenia. In addition, there are NACs in 11 countries outside Europe.

CG noted the five finalised consultations on breakpoints in 2023 which were included in Breakpoint Tables 14.0

- Breakpoints for *Brucella melitensis* and *Bacillus anthracis*

- Breakpoints for i.v. fosfomycin
- Additional breakpoints for anaerobic agents.
- Adjustment of some meningitis breakpoints
- Dosing of cephalosporins in *S. aureus*

He also indicated that there were 4 upcoming or ongoing consultations in 2024:

- Viridans group streptococci – breakpoints and MIC vs. zone diameter correlations
- Development of breakpoints for endocarditis
- *Nocardia* spp. AST methodology and breakpoints
- Paediatric dosing in conjunction with ESPID.

CG summarised the change in i.v. fosfomycin breakpoints: the breakpoint of 8 mg/L applying to monotherapy of *E. coli* in infections originating from the urinary tract only. The review concluded that it was not possible to assess the added value of the agent in combination plus there is no current evidence to suggest that MIC is predictive of clinical efficacy in combination therapy. Therefore, no breakpoints were determined for other species.

CG explained that the removal of the PK-PD breakpoint tab from the breakpoint tables was to prevent use as non-species-specific breakpoints. A new guidance document “When there are no breakpoints” contains criteria for interpretation of AST on both aerobic and anaerobic bacterial species not in the breakpoint tables. The PK-PD breakpoints will be rebranded PK-PD cut off values (PCOFFs). The main driver of the changes is that with time an increasing amount of data suggests that PK-PD cut-off values are largely species-specific.

CG summarised the ongoing review of *S. pneumoniae* breakpoints vs benzylpenicillin. The PK-PD data for the common dose of 1.2 g x 6 shows that a reduction in breakpoint from 2 mg/L to 1 mg/L may be applicable.

CG thanked the committee for the 8-year tenure as EUCAST chair and introduced Sören Gatermann as the new chair from 2nd May 2024. CG confirmed that he will take up a new position in the executive as “past chair/advisor” and representative of Sweden on the committee.

6. Subcommittee on Antifungal Susceptibility Testing (AFST)

Maiken Arendrup (AFST Chair) presented an update on the organisation, including the network of laboratories, meetings, and activities of the AFST in 2023-24.

She confirmed that Jesus Guinea will be leaving the post of Scientific Secretary in 2024 and the term for the National representative, Konrad Muehlethaler (Switzerland), will end at ESCMID Global 2024. Two NAC representatives have joined: Jochem Buil (The Netherlands) and Eric Dannoui (France). MA would welcome additional committee members; interested parties should contact Maiken Arundrup (maca@ssi.dk).

MA provided updates on the three important activities during 2023-24, including ongoing work with methods and quality control:

- AST of the new agent rezafungin. Update of E.Def 7.4.
- Guidance document for yeasts: “When there are no breakpoints”.
- Warning for commercial tests for amphotericin B vs *Candida auris*.

MA confirmed the method modification (E.Def 7.4) for rezafungin; addition of tween 20 to prevent adherence of the agent to the plastic broth dilution trays. Previous reference MIC testing provided varied results due to the adherence of the agent. MICs were lower using the new method but were more robust due to there being more unbound drug. She explained that rezafungin breakpoints were set at the ECOFF (February 2024) until more clinical experience was available for isolates with MICs above the ECOFFs. She also provided some guidance on the challenges in susceptibility testing interpretation due to different EUCAST and CLSI breakpoints. Commercial kits will require alignment to either CLSI or EUCAST as the MIC distributions for *C. albicans* were 5-fold higher with CLSI breakpoints.

The new guidance document “When there are no breakpoints” was published in April 2024 and

contains criteria to interpret those yeasts without clinical breakpoints. The guidance took into consideration published literature, MIC distributions, breakpoints of current species and the current clinical guidelines for management of rare yeasts. MA summarised the tables in the guidance document and how to use them.

MA presented the warning regarding commercial kits for testing amphotericin B in *C. auris*; high MIC variability is seen in several commercial kits.

QC, breakpoint, and ECOFF documents were updated in 2023-24, including rezafungin breakpoints for yeasts and removal of ATUs for itraconazole in moulds.

MA presented the progress in methods for screening of Trichophyton; a multicentre study where results showed 97.4% sensitivity (resistance detection) and 97.5% specificity (wild type detection).

Three publications were presented.

7. Subcommittee on Veterinary Antimicrobial Susceptibility Testing (VetCAST)

Peter Damborg (PD), the Chair of VetCAST, confirmed no change in subcommittee members (67 members from 17 countries) and gave a brief overview of the activities of VetCAST. PD discussed the possibility of introducing a smaller coordination group and PK and PD working groups.

PD presented data for 16 new ECOFFs and 7 new TECOFFs for tetracyclines and penicillins on *S. aureus*, *S. pseudintermedius*, *S. equi*, *A. pleuropneumoniae*, *M. haemolytica* and *P. multocida*. Work on tetracycline ECOFFs were still ongoing with GK/JT, as some differences within subspecies were evident. Further projects with the European partnership on Animal Health and Welfare were ongoing.

PD confirmed that rationale documents for amoxicillin-clavulanic acid iv and oral in dogs plus benzylpenicillin in horses were in public consultation currently. Doxycycline rational documents were in progress.

PB confirmed that a breakpoint table draft is in preparation; the tab for *Pasteurellaceae* and *Staphylococcus* spp. were presented.

PD described the EMA consultation to establish a list of priority antibiotics for which the dose could be reviewed.

MA asked whether the ECOFFs for veterinarian bacterial isolates would be different to those in humans. PD confirmed that the ECOFFs for human and animal isolates would be the same, but different agents tested.

PD confirmed that 3 workshops and training courses took place in 2023 and plans for the coming year were:

- Publish 3 rational documents in consultation
- Finalise and publish breakpoint table
- Continue PK/PD modelling of doxycycline in pigs, oxytetracycline in cattle, amoxicillin-clavulanic acid in dogs, cefazolin in dogs and sulfonamides.
- Conduct more training courses.

8. Subcommittee on Antimycobacterial Susceptibility Testing (AMST)

Emmanuelle Cambau (EC, Subcommittee Chair) presented the members and activities of AMST, including the newly recruited laboratories. Multiple studies were ongoing, including reference protocol for DMSO-dissolved agents, a calibration study, MIC reference study for non-tuberculous mycobacteria (NTM, a public consultation), reference set of European strains and new agents.

EC presented new MIC distributions, from 8 laboratories, for reference strain H37Rv *M. tuberculosis*. and QC data for delamanid, pretomanid, bedaquiline, and clofazimine against *M. tuberculosis*. QC modal MICs and ranges were presented on these agents, including the MIC reading timepoint of 7-14 days. EC confirmed the breakpoints for bedaquiline and delamanid against *M. tuberculosis* plus the updated comments. WHO recommendations confirmed that two concentrations (0.5 and 2 mg/L) of pretomanid should be used for testing to cover the different lineages of *M. tuberculosis* with different resistance profiles. This difference responsible for difficulty in setting ECOFFs.

EC summarised the difficulties in inoculum preparation for reproducible results and confirmed that a workshop in 2025 is being planned.

EC suggested that currently there is interest in the comparison of phenotype and genotype (whole genome sequencing) of *M. tuberculosis*, with the latter's use at predicting resistance.

9. EUCAST Subcommittee on MIC Distributions and ECOFFs

Gunnar Kahlmeter (GK) spoke to the progress that this Subcommittee, confirming that all ECOFFs and MIC distributions have now been reviewed and that more distributions, both for MIC and inhibition zone diameter are continuously being added.

10. EUCAST Development Laboratory (EDL) Report

Erika Matuschek (EM) outlined the wide range of activities currently being undertaken in the EDL

- New agents in breakpoint tables
 - Cefiderocol against *Enterobacterales*
 - Ertapenem against *Enterobacterales*
 - Fosfomycin iv (MIC and zone diameter breakpoint) against *Enterobacterales*
 - Ciprofloxacin (MIC and zone diameter breakpoint) against *Staphylococcus* spp.
 - Benzylpenicillin (MIC and zone diameter breakpoint) against *Corynebacterium* spp. other than *C. diphtheriae* and *C. ulcerans*.
- MIC-zone diameter distributions
 - Cefepime-enmetazobactam (30-20 ug)
 - Aztreonam-avibactam (30-20 ug)
- CLSI-EUCAST Joint Working Group

New disk potency studies, according to updated SOP 11.0, with criteria determined for 4 agents and 7 ongoing.

 - Ceftibuten-avibactam (10-4 ug)
 - Contezolid (5 ug)
 - Imipenem-funobactam (10-10 ug)
 - Zosurabalpin (5 ug)

Updated guidance on disk potency studies on combination agents to be published during 2024.
- Other ongoing work
 - Evaluation of enterococcal breakpoints for species other than *E. faecium*/*E. faecalis*.
 - Development of disk diffusion criteria for additional anaerobic species
 - RAST breakpoints for *Salmonella enterica*.
 - Investigation of alternative media in addition to MH-F agar for disk diffusion of fastidious organisms.
 - Development of a disk diffusion method for *Neisseria gonorrhoeae*.
 - Evaluation of suitable media for antimicrobial susceptibility testing of *Neisseria meningitidis*.

There have been three publications from EDL in the last 12 months and three posters at ESCMID Global 2024.

11. EUCAST websites

GK noted that the website continues to expand and has a high hit rate both within and outside Europe now. He confirmed that MIC distributions were continually updated and welcomed submission of new agents and organisms.

GK suggested that people use the newsletter to keep abreast of new information on the website.

15. Future Activities

CG described the EUCAST future activities in his report.

15. Any Other Business

CG introduced Sören Gatermann (SG) as the new chair of the EUCAST steering committee as of 2nd May 2024. SG thanked CG for his chairmanship and skills at steering discussions and decision making. SG promised his tenure would focus on transparency and resolving current issues as well as establishing educational programmes to disseminate why and how EUCAST decisions are made. CG confirmed that he would remain on the executive in the “past chair” role.

16. Next meeting of the EUCAST General Committee

Scheduled to be held during the 2025 ESCMID Global, Vienna, Austria, 11-15 April 2025.