EUCAST EUROPEAN COMMITTEE ON ANTIMICROBIAL SUSCEPTIBILITY TESTING
European Society of Clinical Microbiology and Infectious Diseases

European Committee on Antimicrobial Susceptibility Testing (EUCAST)

Minutes of the General Committee Meeting on 27 April 2015 at 25th European Congress of Clinical Microbiology and Infectious Diseases, Copenhagen, Denmark

A list of attendees who signed the register is appended.

1. Apologies for absence

None.

2. Minutes of meeting in Barcelona, 12 May 2014

With minor corrections, the unratified minutes were approved as a true record.

3. Matters arising

None.

4. EUCAST Steering Committee membership

4.1 The current membership of the Steering Committee is appended. Francois Jehl/Gerard Lina will replace Luc Dubreuil as representative for France.

4.2 Up to two additional "visiting" General Committee members may attend each Steering Committee meeting by prior agreement. There have been seven such attendances at Steering Committee meetings in the past year from members in Australia, Austria and the USA.

4.3 Rafael Canton reminded the committee that there are five annual ESCMID observerships, each with a maximum value of 1000 Euros, to support attendance of European visiting members to EUCAST Steering Committee meetings. In addition, ESCMID has agreed to fund an additional five observerships of up to 1000 Euros to support attendance by non-European visiting members. Applications should be made by email to the Chairman or Scientific Secretary of EUCAST.

5. EUCAST General Committee membership

5.1 The up-to-date membership list is on the EUCAST website (the current list is appended). Representatives should inform the Scientific Secretary (email derek.brown222@btinternet.com) if the representative for their country has changed.

5.2 There have been continuing difficulties with maintaining the pharmaceutical and susceptibility device manufacturing industries email networks as company representatives commonly do not inform EUCAST when representatives move and there has been no improvement following previous requests to inform EUCAST of changes. Consequently these lists will no longer be maintained and companies should regularly consult the EUCAST website for news and consultations.

6. EUCAST and ECDC

The current EUCAST contract with ECDC ran out in October 2014 and EUCAST is currently supported by ESCMID pending a new tendering process in 2015.

7. EUCAST Chairperson's report

Rafael Cantón summarised activities over the past year.

7.1 **Structure and organisation**

The structure and organisation of EUCAST were reviewed. In the last year there have been five meetings of the Steering Committee. The General Committee meets once a year, at ECCMID.

7.2 **EUCAST National Antimicrobial Susceptibility Testing Committees (NACs)**

7.2.1 National Antimicrobial Susceptibility Testing Committees (NACs) linked to EUCAST continue to be proposed and there are now few European countries without a NAC. Countries outside Europe continue to show interest in joining EUCAST and in the past year New Zealand, South Africa, Brazil and Morocco have joined.

7.2.2 Dr Robert Rennie reported on progress in Canada, which is close to forming a NAC. It is expected that the new NAC (CanCAST) will be officially established in 2015.

7.2.3 Rafael Cantón noted that members of the EUCAST Steering Committee are willing to travel and give presentations to national meetings in countries interested in forming EUCAST-associated NACs. It is expected that NACs affiliated to EUCAST will promote EUCAST breakpoints and guidelines.

7.3 **New breakpoint tables**

7.3.1 Version 5.0 (January, 2015) of breakpoint tables is on the EUCAST website.

7.3.2 There are new or revised breakpoints for several organisms.

▪ Enterobacteriaceae	Amikacin (*zone diameters*)
▪ *Staphylococcus* spp.	Telavancin *(new)*
▪ *Moraxella catarrhalis*	Ceftaroline (*change from dash to IE*)
▪ *Neisseria menigitidis*	Ciprofloxacin *(remove intermediate catergory)*
▪ *Neisseria gonorrhoeae*	Cefpodoxime, ceftibuten *(change from IE to dash)*
▪ *Clostridium difficile*	Fidaxomicin (*new*)

7.3.3 Breakpoints for new agents.

▪ Dalbavancin	*Staphylococcus* spp., Group , B, C, G streptococci, *S. anginosus* group
▪ Oritavancin	*Staphylococcus* spp., Group , B, C, G streptococci, *S. anginosus* group
▪ Tedizolid	*Staphylococcus* spp., Group , B, C, G streptococci, *S. anginosus* group

7.3.4 Some breakpoint notes have been reworded and some new notes added.

▪ Telavancin, tigecycline, daptomycin, fosfomycin	Information on testing conditions
▪ Aztreonam	Enterobacteriaceae, *Pseudomonas* spp.
▪ Trimethoprim-sulfamethoxazole	*Stenotrophomonas maltophilia, Enterococcus* spp.
▪ Cephalosporins	*Staphylococcus* spp.
▪ Clindamycin	Streptococcus groups A, B, C and D *Streptococcus pneumoniae* Viridans group streptococci

7.3.5 There has been some rewording of supplementary tables.

• *S. pneumoniae*	Oxacillin screen
• *H. influenzae*	Benzylpenicillin 1-unit, β-lactam resistance

7.3.6 Quality control data has been added.

- *Haemophilus influenzae*
- *Moraxella catarrhalis*
- *Pasteurella multocida*

7.3.7 A section on mycobacterial breakpoints has been added, including breakpoints for the new agents, delamanid and bedaquiline.

7.3.8 Some breakpoints were reviewed and no changes made.

- linezolid and staphylococci and enterococci
- teicoplanin and coagulase negative staphylococci
- fluoroquinolones and *Corynebacterium* spp.
- metronidazole and anaerobes

- daptomycin and enterococci

7.3.9 A guidance note on topical agents has been added.

7.4 **EUCAST presentations**

7.4.1 At ECCMID this year there has been the annual EUCAST workshop on antimicrobial susceptibility testing, a EUCAST "meet the experts" session on common questions and answers relating to EUCAST breakpoints and methods and many EUCAST-related papers and posters. There were EUCAST-sponsored symposia on "Resurrecting old antimicrobial agents" and "Benefits and challenges of site-specific breakpoints".

7.4.2 There have been multiple presentations by EUCAST representatives at national meetings in Europe and outside, including Australia, Cuba, Uruguay, Malaysia, Japan and Morocco

7.4.3 In Linz, Austria in September 2014 there was an ESCMID Postgraduate Educational Workshop, with lectures and laboratory sessions covering the EUCAST breakpoint setting process, antimicrobial susceptibility testing methods, differences between EUCAST and CLSI, EUCAST expert rules, antimicrobial surveillance systems, epidemiological cut-off values (ECOFFs), and implementation of EUCAST breakpoints and methodology. The next ESCMID Postgraduate Educational Workshop on EUCAST will be in September 2016, but this is yet to be confirmed.

7.5 **Implementation of EUCAST breakpoints**

An updated map based on a survey undertaken by EUCAST at the start of 2015 shows that EUCAST breakpoints continue to be implemented widely, but to various degrees, in most European countries and some outside Europe. In the UKNEQAS External Quality Assessment Scheme, over 85% of participating laboratories reported that they followed EUCAST breakpoint guidelines. In the EARS-Net External Quality Assessment Scheme, 80% of participating laboratories reported that they followed EUCAST breakpoint guidelines. The number of EUCAST-related publications listed in PubMed is also increasing rapidly.

7.6 **EUCAST website**

7.6.1 The EUCAST website continues to be frequently updated with new and revised documents and data. The number of visitors to the website exceeds 50,000 per month, with about 60% of visits from within the EU. The countries with most identified visitors to the website are USA (10.6%), (Germany (10.1%), UK (6.1%), Netherlands 5.7%) and Switzerland (4.0%). The most frequently visited pages are the clinical breakpoint pages (69.2% of visits).

7.6.2 It was noted that some EUCAST documents are available in several languages. Translations are done by the respective NACs, which are responsible for updating the documents when updates to the English versions are released and EUCAST is not responsible for the accuracy of translations. There are links from the EUCAST webpage to these translations.

7.6.3 Several of the major documents, including breakpoints, QC files and method descriptions, are updated annually. The website file of frequent questions and answers related to EUCAST was updated in March 2015.

7.6.4 There is a "news" link on the home page giving details of significant changes. All changes are listed via a "Website changes" link below the index on the home page. All EUCAST documents can be freely downloaded from the website.

7.7 **EUCAST documents and publications**

7.7.1 Two new Standard Operating Procedures (SOPs) have been released on the EUCAST website:

- SOP 8.0. Format and updating of EUCAST documents
- SOP 9.0. Procedure for establishing zone diameter breakpoints and QC criteria for new antimicrobial agents

7.7.2 About 50 rationale documents are now available on the website.

7.7.3 EUCAST publications in scientific journals were as follows:

- Brown, D, Cantón, R., Dubreuil, L., Gatermann, S., Giske, C., MacGowan, A., Martínez-Martínez, L., Mouton, J. Skov, R., Steinbakk, M., Walton, C., Heuer, O., Struelens, M.J., Diaz Högberg, L., Kahlmeter, G. (2015) Widespread implementation of EUCAST breakpoints for antibacterial susceptibility testing in Europe. *Euro Surveillance*; 20: 1-8.

7.8 **What is coming in 2015-1016?**

- New breakpoints (with EMA) β-lactam-β-lactamase inhibitor combinations, cephalosporins aminoglycosides oxazolidinones pleuromutilin
- Colistin breakpoints and methodology review (with CLSI)
- Breakpoint review with NACs temocillin nitroxolin spiramycin tigecycline sulbactam
- Review of breakpoints for fluoroquinolone and carbapenem groups
- *Neisseria gonorrhoeae* breakpoints and methods for various antimicrobials
- Disk diffusion breakpoints for
  - *Kingella kingae*
  - *Actinomyces* spp.
  - *Aerococcus* spp.
  - *Eikenella corrodens*
- Guidelines for companies submitting anti-mycobacterial agents
- Zone diameter breakpoints for fosfomycin disk
- Rationale documents for new agents and agents with revised breakpoints
- New and updated documents, including SOPs, guidance documents and expert rules (v3)
- Revised definitions of the intermediate category and ECOFF

8. EUCAST subcommittee reports

8.1 **Antifungal Susceptibility Testing Subcommittee (AFST)**

Maiken Cavling Arendrup, the subcommittee chairperson, presented a summary of activity of the subcommittee over the past year. Membership of the subcommittee is appended.

8.1.1 There were three meetings of the AFST Steering Committee and one of the AFST General Committee in the past year.

8.1.2 The reorganisation of the structure of the AFST described last year is now completed.

8.1.3 The work of the AFST Network Laboratories was acknowledged, particularly Jesús Guinea (Spain), Eric Dannaoui (France), Caroline Moore (UK), Manuel Cuenca-Estrella (Spain), Oliver Kurzai (Germany), Wendy van de Sande (Netherlands), Joseph Meletiadis (Greece) and Aristea Velegraki (Greece).

EUCAST Development Laboratory for fungi is led by Maiken Cavling Arendrup at the Statens Serum Institute, Unit for Mycology, building 211, 1st floor, Artillerivej 5 DK-2300 Copenhagen S, Denmark. See http://www.eucast.org/organization/network_laboratories for further details.

8.1.4 New Breakpoints for *Aspergillus* and isavuconazole are awaiting launch.

8.1.5 A technical note on *Candida* and anidulafungin, fluconazole and micafungin has been published. Arendrup MC, Cuenca-Estrella M, Lass-Flörl C, Hope WW; European Committee on Antimicrobial Susceptibility Testing - Subcommittee on Antifungal Susceptibility Testing (EUCAST-AFST).

EUCAST technical note on Candida and micafungin, anidulafungin and fluconazole. Mycoses 2014; 57: 377-9.

8.1.4 The EUCAST definitive document "Method for the determination of broth dilution minimum inhibitory concentrations of antifungal agents for conidia forming moulds" includes several updates:

- Acknowledges the increasingly important role of susceptibility testing of moulds and the establishment of clinical breakpoints
- Inoculum preparation specifically for *Aspergillus* includes the spectrophotometric option
- There are practical tips regarding endpoint reading
- Minor issues are clarified, including the solvent for echinocandins (harmonization with the 7.2 document)

8.1.6 A paper on inoculum standardisation has been published. Arendrup MC, Howard S, Lass-Flörl C, Mouton JW, Meletiadis J, Cuenca-Estrella M. EUCAST testing of Isavuconazole susceptibility in Aspergillus: comparison of results for inoculum standardization using Conidium counting versus optical density. Antimicrob Agents Chemother. 2014; 58: 6432-6.

8.1.7 There were numerous presentations by EUCAST AFST subcommittee members in the past year including

8.1.8 All AFST documents are in the revised AFST section on the EUCAST website.

8.1.9 Reference methods and breakpoints were summarised. All are available on the EUCAST website.

8.1.10 Areas for future development include the following:
The following Rationale documents are undergoing revision

Amphotericin B vs. *Candida* v 1.0 2010
Posaconazole vs. *Candida* v 1.0 2010
Voriconazole vs. *Candida* v 2.0 2010
(ECOFFs for additional *Candida* species, *Cryptococcus gattii* and *C. neoformans* and azoles and amphotericin B included)

Agar screening method

Multicentre evaluation of azole agar screening as a future EUCAST reference method for detection of *A. fumigatus* isolates with potential resistance against azoles

In vitro PK-PD model

Help investigate posaconazole and voriconazole activity against *C. glabrata* – could *C. glabrata* be an appropriate target? (Supported by an ESCMID grant)

In vitro MIC testing of echinocandins against *Aspergillus* spp.

Development of a colorimetric method using the tetrazolium salt XTT for *in vitro* antifungal susceptibility testing of *Aspergillus* spp. against caspofungin, micafungin and anidulafungin

8.2 **Veterinary antimicrobial susceptibility testing subcommittee (VetCAST)**
Dik Mevius, the subcommittee chairperson, presented the background to the formation of this new subcommittee. The remit of the subcommittee is as follows:

- To establish a science-based independent committee that will cooperate with European professionals in veterinary medicine, the European Agencies (EMA, EFSA, DG SANCO, ECDC)
- To determine antimicrobial breakpoints specific to the veterinary field
- To harmonize veterinary antimicrobial susceptibility testing in the European Union (EU)
- To initiate and coordinate EU research aimed at filling the current gaps in veterinary antimicrobial susceptibility testing:
  - Missing or insufficient veterinary specific breakpoints (bacterial species-, animal host- and infection-specific breakpoints)
  - Optimized methods for antimicrobial susceptibility testing of bacterial pathogens of animal origin and zoonotic bacteria that can affect humans
- To ensure that antimicrobial susceptibility testing protocols and interpretive criteria are freely accessible online through the EUCAST website

The first meetings, a closed preparatory meeting and an open meeting will be on 27 April 2015 and a Steering Committee will be elected.

In response to comments Dik Mevius noted:

- Because of the variety of animals the setting of breakpoints is more complex than in humans.
- The VetCAST subcommittee will operate independently but will aim to collaborate with CLSI groups.

8.3 **Subcommittee on the role of whole genome sequencing (WGS) in AST of bacteria**

Rafael Canton reported that Neil Woodford will be chairperson of this new subcommittee. The following draft remit is yet to be finalised.

- perform a literature review of the role of WGS in antimicrobial susceptibility testing (AST) of bacteria (excluding mycobacteria
- determine the sensitivity and specificity of WGS compared with standard phenotypic AST
- determine how WGS for AST may be applied in clinical microbiology laboratories and the likely implications for phenotypic and other genotypic methods in use
- consider the epidemiological implications of using WGS
- consider the clinical implications of WGS for the selection of antimicrobial therapy
- determine the principles of how the result of WGS for AST could be presented to clinical users
- describe the drivers and barriers to routine use of WGS
- report within 12 months

9 Workshop on recommendations for pharmaceutical companies regarding data required for new antituberculous drugs, 11-12 November 2014, Basel, Switzerland

Emmanuelle Cambau reported on this meeting between members of the EUCAST Steering Committee and the ESCMID study group on mycobacterial infections (ESGMYC). The meeting was chaired by Emmanuelle Cambau. Participants were :

Gunnar Kahlmeter	Växjö, Sweden	EUCAST
Rafael Cantón	Madrid, Spain	EUCAST
Derek Brown	Peterborough, UK	EUCAST
Christian Giske	Stockholm, Sweden	EUCAST
Johan Mouton	Rotterdam, The Netherlands	EUCAST
Sören Gatermann	Bochum, Germany	EUCAST
Ron Jones	North Liberty, USA	EUCAST
Emmanuelle Cambau	Paris, France	ESGMYC
Nicolas Veziris	Paris, France	ESGMYC
Vincent Jarlier	Paris, France	ESGMYC
Miguel Santin	Barcelona, Spain	ESGMYC
Miguel Viveiros	Lisbon, Portugal	ESGMYC
Radu Botgros	London, UK	EMA

Presentations were as follows:

The current situation

EUCAST approach for new agents *Rafael Cantón*

The current regulatory approach. Differences between antibacterial agents and antituberculous agents *Radu Botgros*

Lessons from the delamanid and bedaquiline EMA documents *Emmanuelle Cambau*

Current methods for *Mycobacterium tuberculosis*

MIC testing methods for *Mycobacterium tuberculosis* complex *Miguel Viveiros*

Wild type distributions for *Mycobacterium tuberculosis* complex with different testing methods *Gunnar Kahlmeter and Thomas Shön*

Current practice in setting breakpoints for *Mycobacterium tuberculosis* complex *Nicolas Veziris*

In a discussion session (moderators Vincent Jarlier and Miguel Santin) the priorities identified for the future were:

1. The need to choose a reference method
   - for the development of new agents
   - to use by pharmaceutical companies
2. To perform MIC studies
3. To give recommendations to EMA and EUCAST on new agents
4. Work is still needed to define
   - A reference medium /manufacturers
   - Expert laboratories
   - A panel of standard/ reference strains

A report on the meeting will be posted on the EUCAST website in the near future.

10. The EUCAST disk diffusion method

A summary was presented by Erika Matuschek, from the EUCAST Development Laboratory, Växjö, Sweden.

10.1 EUCAST Development Laboratories for bacteria (Växjö, Sweden) and fungi (Statens Serum Institut, Copenhagen, Denmark) are responsible for the development and maintenance of EUCAST antimicrobial susceptibility testing methods. They coordinate work by the EUCAST Network Laboratories in the development and validation of EUCAST methods, training, education and technical support for other laboratories.

EUCAST network laboratories are microbiology laboratories with particular expertise and training in EUCAST AST for bacteria and/or fungal isolates. They develop, validate and troubleshoot EUCAST methods and/or train and educate other laboratories. They also assist clinical breakpoint development by providing species-specific MIC datasets.

Current network laboratories for bacteria are:

- Acibadem Labmed Clinical Laboratories, Istanbul, Turkey
- Analyse BioLab, Linz, Austria
- Clinical Microbiology, Aarhus, Denmark
- Clinical Microbiology, Bergen, Norway
- Clinical Microbiology, Kalmar, Sweden
- Hospital Universitario Ramon y Cajal, Madrid, Spain
- Karolinska University Hospital, Solna, Sweden
- Medical Microbiology, Stavanger, Norway
- Norwegian National Advisory Unit on Detection of AR, Tromsø, Norway
- Southmead Hospital, Bristol, UK
- University of Verona, Italy

Current network laboratories for fungi are:

- Clinical Microbiology Laboratory, Athens, Greece
- Department of Medical Microbiology and Infectious Diseases, NL
- Gregorio Marañón Hospital. Madrid, Spain
- Hopital Européen Georges Pompidou, Paris, France
- Mycology Reference Centre, Manchester
- National and Kapodistrian University of Athens, Greece
- National Reference Centre for Invasive Mycoses, Jena, Germany
- Spanish Mycology Reference Laboratory

Dik Mevius noted that veterinary laboratories would be interested in joining the network. Application forms for any laboratory wishing to join the networks are on the EUCAST website under Organization/Network Laboratories.

10.2 Updates in methods, breakpoints and QC criteria for bacteria in the last year include:

- Information on testing conditions added for telavancin, tigecycline, daptomycin and fosfomycin
- Several zone diameter breakpoints evaluated and some updated
- Several new QC ranges (MIC and zone diameter)

- New QC strain for *H. influenzae* to improve test performance

10.3 Ongoing work on new agents for bacteria includes:
- Disk mass studies, QC criteria and MIC-zone diameter correlates to establish zone diameter breakpoints for ceftobiprole, new β-lactam- β-lactamase inhibitor combinations and number of other agents.
- MIC and zone diameter breakpoints for temocillin and nitroxoline
- Disk diffusion test and zone diameter breakpoints for fosfomycin
- Zone diameter breakpoints for early reading (6-8 h incubation) of disk diffusion AST
- Disk diffusion methods for anaerobes and *N. gonorrhoeae*

10.4 Studies on organisms lacking EUCAST breakpoints and methods are underway for *Aerococcus* spp. and *Kingella kingae.* Future work will include *Nocardia* spp., *Streptomyces* spp., *Aeromonas* spp., *Vibrio* spp., *Leuconostoc* spp., *Lactobacillus* spp. and *Pediococcus* spp.

10.5 Evaluation of disks from nine manufacturers has shown considerable variation among manufacturers and if there is no improvement in a planned repeat study the data will be published.

In response to questions the following responses were noted:
- Tests on disks include multiple disks from the same vial as well as different vials.
- Similar work has not been done to evaluate gradient tests.
- Disks failing to meet EUCAST standards should be identified by routine QC.
- The target value in QC tests is the centre of the acceptable range. Some ranges are based on CLSI ranges but all have been checked by EUCAST and some have been set specifically by EUCAST.

10.6 The uptake of the EUCAST disk diffusion method continues to increase in Europe and beyond.

10.7 Daniel Sahm asked what the timelines were for releasing EUCAST data correlating MIC with disk diffusion zone diameters. Erika Matuschek replied that data are released as soon as they are approved by the Steering Committee. There will be a News Item on the home page of the EUCAST website when new data are released.

11. Any other business

11.1 None.

12. Next meeting of the EUCAST General Committee

Scheduled to be held during the 26th ECCMID, Istanbul, Turkey, 9-12 April 2016.
[Note decision in autumn 2015 to relocate ECCMID 2016 to Amsterdam, The Netherlands]

EUCAST General Committee Meeting attendees signing the register, 27 April 2015

Jenny Åhman	Sweden
Jeff Alder	Bayer
Maiken Cavling Arendrup	Denmark
Dominique Boissinot	i2a
Fabio Brocco	Liofilchem
Els Broens	Netherlands
Derek Brown	UK
Samantha Cain	Thermofisher Scientific
Emmanuelle Cambau	France
Rafael Canton	Spain
Christian Curel	i2a
Thomas Fritsche	USA
Jeff Fuller	Canada
Sôren Gaternann	Germany
Christian Giske	Sweden
Antii Hakanen	Finland
Hakan Hanberger	Sweden
Natali Icanchik	Russia
Vincent Jarlier	France
Manette Juvin	Bio-Rad
Gunnar Kahlmeter	Sweden
Onur Karatuna	Acibadem Turkey
Yoram Keness	Israel
Laura Koeth	Laboratory Specialists Inc
Roman Kozlov	Russia
Kara Kreedy	Cempra
Christoffer Lindemann	Norway
Hannah Ma	CMAI UMF
Alasdair MacGowan	UK
Maureen Mansfield	Thermofisher Scientific
Erika Matuschek	Sweden
Dik Mevius	Netherlands
Linda Miller	GSK
Johan Mouton	Netherlands
Hilde Moyoect	Loetis
Milan Niks	Slovakia
Cecile Oger-Duroy	Bio-Rad
Judit Paezti	NCE Hungary
Robert Rennie	Canada
Dace Rudzite	Latvia
Daniel Sahm	IHMA
Jorge Sampaio	Brazil
Robert Skov	Denmark
Martin Steinbakk	Norway
Iztok Štrumbelj	Slovenia
Marina Sukhorukova	Russia
Arjana Tambic	Croatia
Kazuhiro Tateda	Japan
Susan Thomson	Mast
Kai Truusalu	Estonia
John Turnidge	Australia
Jan Verhaegen	Belgium
Manisha Yadav	India
Katso Yanagihara	Japan
Reinhard Zbinden	Switzerland

EUCAST Steering Committee 27 April 2015

Chairperson	Dr Rafael Canton	Sweden
Scientific Secretary	Dr Derek Brown	UK
Clinical Data Coordinator	Prof Gunnar Kahlmeter	Spain
BSAC	Prof Alasdair MacGowan	UK
SWAB	Prof Johan W. Mouton	Netherlands
NWGA	Martin Steinbakk	Norway
CA-SFM	Prof Luc Dubreuil	France
SRGA	Dr Christan Giske	Sweden
General Committee	Prof Sören Gatermann	Germany
General Committee	Prof. Jan Verhaegen	Belgium
General Committee	Dr Iztok Strumbelj	Slovenia

EUCAST General Committee 27 April 2015

Chairperson	Dr Rafael Canton
Scientific Secretary	Dr Derek Brown
Clinical Data Coordinator	Prof Gunnar Kahlmeter

National representatives

Australia	Prof. John Turnidge
Austria	Dr Petra Apfalter
Belgium	Prof. Jan Verhaegen
Bosnia	Dr Selma Uzunovic-Kamberovic
Brazil	Prof Jorge Luiz Mello Sampaio
Bulgaria	Prof. Krassimir Metodiev
Croatia	Dr Arjana Tambic-Andrasevic
Czech Republic	Dr Helena Zemlickova
Denmark	Dr Robert Skov
Estonia	Dr Marina Ivanova
Finland	Dr Antti Hakkanen
France	Prof. Luc Dubreuil
Germany	Prof. Sören Gatermann
Greece	Prof. Alkiviadis Vatopoulos
Hungary	Dr Ákos Tóth
Iceland	Dr Karl Gustaf Kristinsson
Ireland	Dr Michael Mulhern
Israel	Dr Yoram Keness
Italy	Prof. Pietro Varaldo
Latvia	Dr Arta Balode
Lithuania	Dr Jolante Miciuleviciene
Luxemburg	Dr Monique Perrin
Netherlands	Dr Greeta Kampinga
Norway	Dr Christofer Lindemann
Poland	Prof. Waleria Hryniewicz
Portugal	Prof. Jose Melo Cristino
Romania	Dr Irina Codita
Russia	Dr Marina Sukhorukova
Serbia	Dr Lazar Ranin
Slovak Republic	Prof. Milan Niks
Slovenia	Dr Iztok Strumbelj
South Africa	Dr Olga Perovic
Spain	Dr Luis Martinez-Martinez
Sweden	Prof Håkan Hanberger
Switzerland	Prof. Reinhard Zbinden
Turkey	Dr Deniz Gür
UK	Prof Alasdair MacGowan
USA	Prof Paul Ambrose

ISC	Dr Paul Tulkens
FESCI	Dr David Livermore

EUCAST subcommittees

Antifungal Susceptibility Testing Subcommittee

Steering Committee

Maiken Cavling Arendrup, Denmark (Chairperson)
Susan Howard, UK (Secretary)
Joseph Meletiadis, Greece (Data Coordinator)
Manuel Cuenca-Estrella, Spain (NAC representative)
Cornelia Lass-Floerl, Austria (NAC representative)
Johan Mouton, The Netherlands (EUCAST Steering Committee Representative)

Full Committee members

Maiken Cavling Arendrup, Denmark (Chairperson)
Susan Howard, UK (Secretary)
Joseph Meletiadis, Greece (Data Coordinator)
Manuel Cuenca-Estrella, Spain
Cornelia Lass-Floerl, Austria
Johan Mouton, The Netherlands (EUCAST Steering Committee Representative)
S Arikan-Akdagli, Turkey
F Barchiesi, Italy
J Bille, Switzerland
E Chryssanthou, Sweden
P Gaustad, Norway
A Groll, Germany
P Haml, Czech Republic
H Järv, Estonia
P Koukila-Kähkölä, Finland
K Lagrou, Belgium
O Lortholary, France
N Klimko, Russia
T Rogers (Ireland)
C Torp Andersen (Norway)
A Velegraki (Greece)
P Verweij (The Netherlands)
M Pfaller (USA)

Subcommittee on Veterinary Antimicrobial Susceptibilty Testing

Dik Mevius (Chairperson)
Subcommittee currently being established.

Subcommittee on the role of whole genome sequencing (WGS) in AST of bacteria

Neil Wooford (Chairperson)
Subcommittee currently being established.