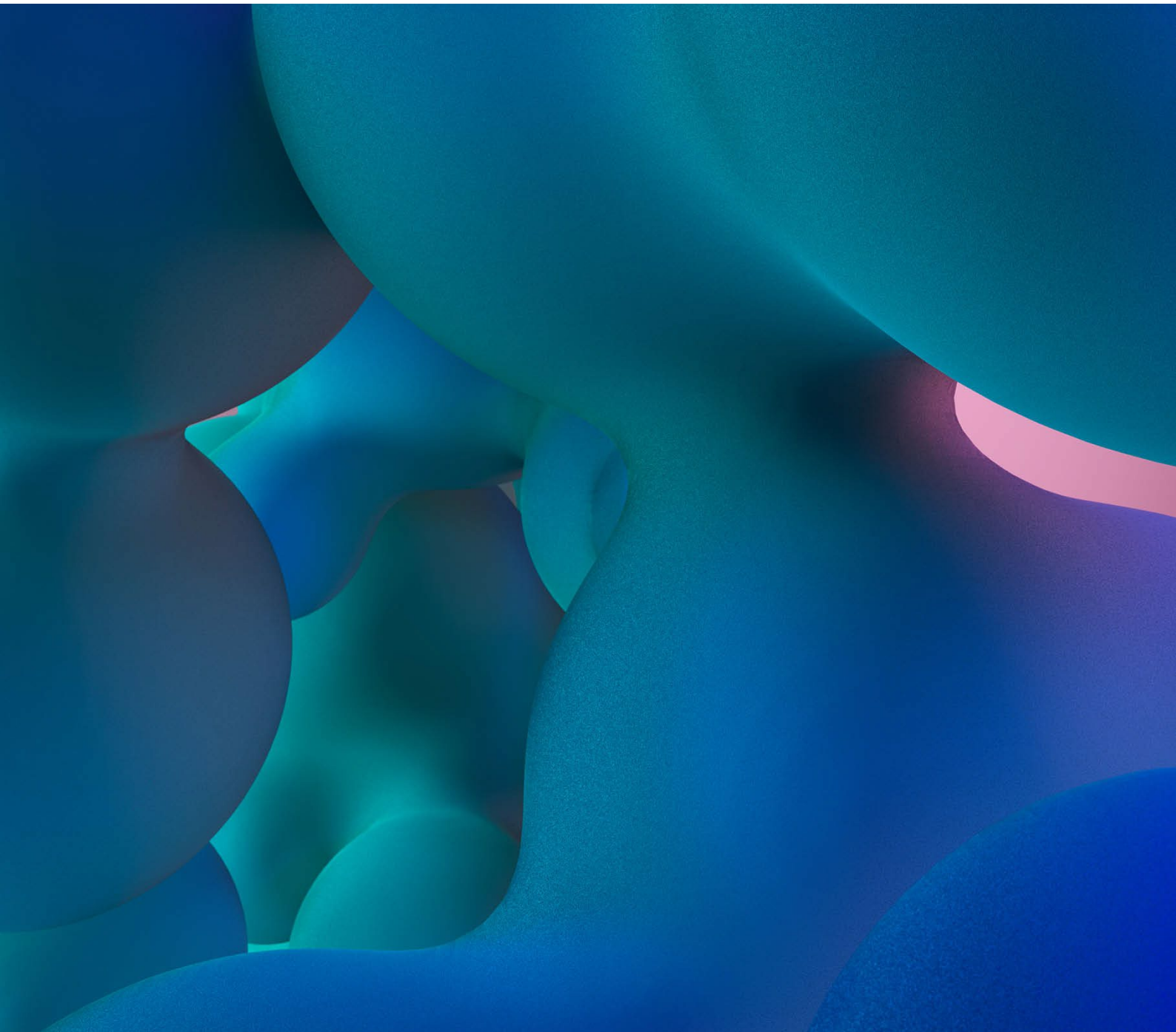


ESCMID Operating Procedures

# **ESCMID Manual for Clinical Practice Guidelines and Other Guidance Documents**



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European Society of Clinical Microbiology and Infectious Diseases (ESCMID)

# ESCMID Manual for Clinical Practice Guidelines and Other Guidance Documents

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## Abbreviations

AGREE	Appraisal of Guidelines Research and Evaluation Collaboration
CM	Clinical Microbiology
CMI	Clinical Microbiology and Infection Journal
CoI	Conflict of interest
DoI	Declaration of Interest
ERG	Evidence Review Group
EUCAST	European Committee on Antimicrobial Susceptibility Testing
GLSC	ESCMID Guideline Subcommittee
GRADE	Grading of Recommendations Assessment, Development and Evaluation
ID	Infectious Disease
ICMJE	International Committee of Medical Journal Editors
MoU	Memorandum of Understanding
PICO	Population, Intervention, Control, Outcome
SG	Study Group

## 1 Introduction and purpose

The European Society of Clinical Microbiology and Infectious Diseases (ESCMID) actively supports the publication of high-quality evidence-based guidance documents to support best practice in the diagnosis and management of infectious diseases (ID).[1]

Clinical Practice Guidelines are statements that include recommendations intended to optimise patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options[2]. Evidence-based medicine is a coherent approach to clinical decision making and is dependent on the integration of best evidence and clinical expertise which incorporates group values and patient preferences. Well-developed guidelines have the potential to improve the appropriateness and quality of patient care, lead to better clinical outcomes, improve the cost effectiveness of management, and impact on epidemiological or population-level outcomes, i.e. AMR rates. Furthermore, they assist in identifying areas requiring further research and also serve as an educational tool. The development of these guidelines is intended to be evidence-based, systematic and transparent in order to fulfil these objectives.

### 1.1 Scope of guidance

ESCMID supports development and maintenance of guidelines and other guidance documents that are used for the prevention, diagnosis, and treatment of infectious diseases.

### 1.2 Types of guidance documents by rigour of development

ESCMID classification of guidance documents has been reported in detail in the ESCMID white paper[3]. The following table summarises major characteristics:

Label	Definition/Scope	Preferred development methods	Proponents and Guideline Panel composition	ESCMID person in charge to contact
ESCMID clinical practice guidelines*	Detailed course of action or clinical algorithms in a clinical area	Evidence-based recommendations via the GRADE approach, AGREE II tool	Proposed by ESCMID Executive Committee, GLSC, Study groups Multidisciplinary composition (at least ID and CM)	Guidelines Director and Officer

Label	Definition/Scope	Preferred development methods	Proponents and Guideline Panel composition	ESCMID person in charge to contact
ESCMID consensus document	General guidance, particularly in areas in which a body of scientific evidence is available, but controversy exists	Consensus development method	Depending on scope, ESCMID Study Groups officially involved	Guidelines Director and Officer, Publication Officer, Scientific Affairs Officer
ESCMID evidence-of-the-science document	Summary of evidence and recommendation of future directions for research	Consensus development method	Depending on scope, ESCMID Study Groups officially involved	Guidelines Director and Officer, Publication Officer, Scientific Affairs Officer
ESCMID position paper	Opinion about an issue or a course of action, with sound supporting arguments	Delphi/RAND, ( <u>Nominal Group Technique</u> ) NGT, Consensus development method depending on scope	Depending on scope, ESCMID Study Groups officially involved	Guidelines Director and Officer, Publication officer, Scientific Affairs Officer
ESCMID White papers	Policy documents to launch debate	Not applicable	ESCMID Executive Committee, ESCMID Study Groups or other groups	Guidelines Director and Officer, for notification

The Guidelines Director, Guideline Subcommittee (GLSC) and the Guideline Officer must be notified regarding position papers.

*NB: Other forms of summary documents (e.g. reviews) do not fall within the remit of the ESCMID programme for guidelines.*

### 1.3 Aims of this document

Most of this document will focus on ESCMID clinical practice guidelines, but the same principles and processes will apply to other types of ESCMID guidance documents, with any differences arising only from the methodology and rigour of development.

The main aims of this document are:

- (1) To underscore the ESCMID principles in developing guidance documents.
- (2) To provide guidance on the guideline development process, including when operating with other professional Societies.
- (3) To highlight differences between clinical practice guidelines and other types of guidance

It is strongly suggested that ESCMID members participating in the development of guidance documents familiarize themselves with the details in this document.

This document will be published in ESCMID website, and reviewed every 2 years by the ESCMID Guidelines Subcommittee, to assess the need for updates. Updates will be subject to a 4-week consultation phase among ESCMID members. Final approval by the ESCMID Executive Committee will be necessary before publication.

#### 1.4 Target audience

All ESCMID stakeholders involved in guidelines preparation might refer to this document for guidance:

- Chairs and panel members
- Affiliated and external scientific societies
- Individual ESCMID members
- Patients
- Readers of ESCMID guidelines
- Health care professionals and institutions involved in implementing ESCMID recommendations
- National health care authorities
- International organisations
- Other guidelines developers

## 2 ESCMID definitions

### 2.1 Types of guidance documents

- ESCMID guidance documents: guidance document developed by ESCMID only, usually through one or more of its Study Groups.
- ESCMID co-lead guidance documents: ESCMID develops a joint Clinical Practice Guideline with one or more other Scientific association. In this co-leadership, the development process should be defined and agreed from the project inception, with a Memorandum of Understanding (MoU) from the onset to be signed by the ESCMID Guidelines Officer and President. This form of collaboration requires co-chairs from each organisation and an equal representation on the panel.
- ESCMID cooperative guidance documents: in this form of association ESCMID contributes to guideline developed by a scientific society partner. The leadership is

provided by the partner. In this situation, ESCMID requests to delegate one or more representatives in the panel. The decision of cooperation will be taken by the ESCMID Executive Committee after the Guidelines Officer and Guidelines Director have checked the details of the operating procedures for the development of guideline of the proposing society or stakeholder.

- Guidance documents developed by other societies: guidance documents without ESCMID official involvement. The Society or stakeholder requests ESCMID endorsement of the guideline
- Clinical Practice Guidelines (from now on called guidelines): a set of statements that include recommendations intended to optimise patient care and that are informed by a systematic review of evidence and assessment of the benefits and harms of alternative care option. Well-developed guidelines have the potential to lead not only to better clinical outcomes but also to improve the cost-effectiveness of management. Furthermore, they assist in identifying areas requiring further research and serve as an educational tool.

## 2.2 Stakeholders

An individual, group or an organisation that has an interest in the content and the outcome of the guidance document. This may include experts, health care providers, professional societies and colleges, research institutions, policy makers, patients, and general population.

## 2.3 Internal review

Peer review of a guidance document conducted by GLSC or by selected advisors from ESCMID Study groups, not involved in the production of the guidance document. It is intended to ensure the guidance document validity.

## 2.4 External review

Review of a guidance document conducted by experts fully independent from the development of the guidance document and by registered stakeholders. This review is applicable to Guidelines developed or co-led by ESCMID; for other cooperative projects an agreement will be sought with the partners.

## 2.5 Public Consultation Procedure

Important step of the endorsement phase. If applicable, the approved draft of the guidance document is made available to all ESCMID members for comments (see chapter 14.4).

# 3 General principles of ESCMID guideline development and ESCMID support

Quality of guidelines (and of other guidance documents) is paramount to their credibility and implementation by the intended users, and is based on a stringent ethical policy: to support

delivery of the best available care to patients in sustainable health systems in Europe and worldwide. ESCMID supports the principles detailed in the Appraisal of Guidelines Research and Evaluation Collaboration ([AGREE II](#)) [4].

ESCMID guidelines should be valid and useful, two intertwined characteristics.

### **3.1 Validity**

Validity pertains to the rigorous application of modern methodological standards; ESCMID endorses the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system.[5]

In the publication of the guidance document, the methods part shall refer to the AGREE II criteria and shall specify that they have been applied for data collection, panel assembly, assessment of author conflicts and applicability of the guidance document. Where the evidence/recommendations are weak this should be stated and recommendations for future research included.

Validity also implies that guidelines are timely and tailored to current clinical and scientific knowledge; the timeframe for each individual project should be kept to a minimum, and not exceed 24 months.

### **3.2 Usefulness**

Usefulness of guidelines also requires adequate implementation. We believe that recommendations included in ESCMID guidelines should be:

- Readable: carefully planned and executed dissemination strategies are crucial
- Understandable: ESCMID guidelines need to be well-written and well-reported
- Trustworthy: credible not only in terms of rigorous and transparent methods (validity) applied by competent panellists, but also free from cognitive biases such as those induced by conflicts of interest or pre-conceptions in the panel, and fair in terms of appropriate representation of countries and stakeholders[4]
- Applicable: easy to follow and implement in any specific setting

### **3.3 Commitments of the ESCMID guidelines programme**

The ESCMID guidelines programme will operate on several dimensions to ensure that these principles are applied:

- Select priority topics, based on transparent criteria
- Apply a sound, independent, and rigorous methodology
- Ensure a perspective that encompasses all stakeholders
- Apply a transparent process to select members of the guideline panels, ensuring stakeholders' representation and expertise
- Engage young ESCMID members to ensure independence in data evaluation and sustainability of the ESCMID programme for guidelines
- Strictly monitor conflicts of interest

- Develop guidelines with end-users and implementation issues in mind
- Disseminated widely and monitor impact

### 3.4 ESCMID support for individual guidelines projects

In order to ensure that ESCMID principles are met, the ESCMID guidelines programme is composed of many activities, and provides support to individual guidelines projects.

At the time of writing, the ESCMID guidelines programme provides support to individual guidelines projects in:

- methodological guidance throughout the project
- support of the Evidence Review Group (ERG) for literature review
- involvement of a medical information specialist
- lease of a platform for project management (GRADE Pro, at the time of writing)
- training of panellists and chairs on guidelines development methods, with focus on the GRADE approach
- medical writing (in some specific circumstances)

## 4 Roles and responsibilities

The functional chart of the ESCMID guidelines programme is as follows:

Function	Responsible	Reward/compensation (if any)
<b>Executive Committee</b>		
<ul style="list-style-type: none"> <li>- Represents ESCMID in agreements with other Societies</li> <li>- Approves the guidelines prioritisation and collaborative projects with other professional Societies and stakeholders</li> <li>- Allocates budget to guidance documents projects Signs the MoU for cooperative projects with other Societies</li> </ul>	ESCMID President and Guideline Officer	Voluntary

Function	Responsible	Reward/compensation (if any)
<b>Guideline Officer</b>		
<p><b>Strategic Alignment and Oversight</b></p> <ul style="list-style-type: none"> <li>- Provide strategic oversight for the Guidelines Programme's long-term objectives</li> <li>- Oversee prioritization of Guidelines topics</li> <li>- Liaise between the EC and the Guidelines Director</li> <li>- Manage Guidelines-related matters in Executive Committee (EC) meetings, including:                             <ul style="list-style-type: none"> <li>- Determining priority Guidelines topics to be discussed</li> <li>- Reviewing and presenting supporting documents</li> </ul> </li> </ul> <p><b>Resource Allocation</b></p> <ul style="list-style-type: none"> <li>- Support resource allocation decisions for guideline development</li> <li>- Oversee budget allocation for Guidelines Programme activities</li> <li>- Ensure efficient use of resources across different guideline projects</li> </ul> <p><b>Governance and Collaboration</b></p> <ul style="list-style-type: none"> <li>- Lead the Guideline Director Selection process</li> <li>- Participate in the selection of new members of the Guideline Subcommittee</li> <li>- Represent the ESCMID EC in the Guidelines Subcommittee meetings</li> <li>- Represent ESCMID in agreements with other Societies, when delegated by the ESCMID President</li> <li>- Sign memoranda of understanding for cooperative projects with other Societies</li> </ul> <p><b>Support to Guidelines Director</b></p> <ul style="list-style-type: none"> <li>- Maintain regular communication and conduct meetings with the Guidelines Director and Guidelines Manager</li> <li>- Provide strategic advice on development and implementation of the ESCMID guidelines programme</li> <li>- support to the Guidelines Director on collaborative projects with other professional Societies and stakeholders</li> <li>- Assist in resolving challenges or conflicts in guideline projects</li> </ul>	<p>Guideline Officer</p>	<p>Voluntary</p>

Function	Responsible	Reward/compensation (if any)
<b>Executive Office</b>		
<ul style="list-style-type: none"> <li>- Coordinates communication</li> <li>- Receives proposals</li> <li>- Maintain a log of activities, minutes of meetings</li> <li>- Prepares reports</li> <li>- Coordinates the public consultation procedure</li> <li>- Organizes the prioritisation exercise</li> <li>- Organises online and face to face meetings, including at ESCMID Global</li> <li>- Organises training course on guideline development for junior members</li> <li>- Evaluates financial issues on the guidance document portfolio</li> </ul>	Guidelines Manager (full time)	Salary

Function	Responsible	Reward/compensation (if any)
<b>Guidelines Director</b>		
<ul style="list-style-type: none"> <li>- Take responsibility for the regular functioning of the ESCMID programme for guidelines, including its strategic development plan</li> <li>- Oversee ESCMID’s guidelines portfolio and the development/updating of guidelines</li> <li>- Chair Guidelines Subcommittee, via regular meetings, email exchanges and other communication means as necessary</li> <li>- Manage the prioritization of topics (both the 5-year pipeline and out-of-planning topics)</li> <li>- Publish, revise and update the relevant policy documents and methodological tools necessary for the guidelines programme, including the ESCMID Manual for guidelines and other guidance documents, Standard Operating Procedures, checklist, Terms of References, and others</li> <li>- Preliminarily assess any request and proposal, in collaboration with the ESCMID Guidelines Subcommittee</li> <li>- Assess Conflict of Interest (CoI) of guideline panels in collaboration with the ESCMID Guidelines Subcommittee</li> <li>- Appoint ESCMID supervisors and Evidence Review Group members to individual guidelines projects</li> <li>- Advice guideline panels on methodology and other issues</li> <li>- Oversee the public consultation phase of prospective ESCMID guidance documents, and issue proposals to the EC about endorsement</li> <li>- Plan and oversee training courses on guideline development</li> <li>- Represent in collaboration with the ESCMID Officer ESCMID’s interests in relation to medical guidance documents to internal (EUCAST, EUCIC, EIS, AMR SC, study groups, TAE etc) and external stakeholder.</li> <li>- Report to the Guidelines Officer in all issues necessitating the EC involvement</li> </ul>	<p>Guidelines Director</p>	<p>Voluntary</p> <p>The term of office is two years with a maximum duration of eight years</p>

Function	Responsible	Reward/compensation (if any)
<b>Guidelines Subcommittee (GLSC)</b>		
<p>The GLSC supports the Guidelines Director in shaping and running the society’s guidance documents programme</p> <ul style="list-style-type: none"> <li>– Cooperates and assists Guidelines Director in:</li> <li>– Advice on call for guidelines/setting priorities of topics</li> <li>– Review of new proposals</li> <li>– Constant evaluation of the need of updates</li> <li>– Advice on the composition of the guideline panels</li> <li>– Review of CoIs</li> <li>– Protocol review at the proposal stage</li> <li>– Review of manuscript before it enters the public consultation</li> <li>– Prepares/updates Standard Operating Procedures and forms</li> <li>– The GLSC convenes once per year during ESCMID Global, but has monthly online meetings. COI Policy of GLSC members is the same as guideline panel members.</li> <li>– GLSC members must get the approval of the Guidelines Director, to participate in a specific guidance document.</li> </ul> <p>The GLSC is chaired by the Guidelines Director and has up to 12 members including:</p> <ul style="list-style-type: none"> <li>– the Guideline Officer</li> <li>– 6 full ESCMID members (At least one with experience in a guideline development)</li> <li>– one representative of the Clinical Microbiology and Infection (CMI) editorial board</li> <li>– the ESCMID methodologists (as permanent members)</li> </ul> <p>Also, Liaison officers with other ESCMID subcommittees (EUCIC, EIS, and other relevant ones) are participating with an advisory role</p>	<p>Guidelines Director</p>	<p>Free participation to ESCMID Global</p> <p>Can participate as panelist to one guideline project per year</p> <p>Selected by the Guidelines Director and Guidelines Officer and approved by Executive</p> <p>Committee after an open call. The term of office is four years with the option to extend for a further two years with approval from the Executive Committee.</p>

Function	Responsible	Reward/compensation (if any)
<b>ESCMID Ethics Advisory Committee</b>		
<ul style="list-style-type: none"> <li>- Contribute to overseeing the topic prioritisation; approval of MoU for cooperative projects for other Societies</li> <li>- At the development phase of guideline: advisory function at the early phase for, panel and GLSC Col assessment, panel balance (e.g. by gender, country, etc.)</li> <li>- At the post-development phase / final draft stage: giving a support in revising or advising on potential ethical matters pertaining to specific guidelines and checking the equity in recommendations</li> <li>- Evaluate potential patients' involvement in guidelines (e.g., through communication with organisations, dissemination of results, etc.)</li> </ul>	ESCMID Ethics Advisory Committee	Voluntary

Further roles are detailed under Panel composition.

## 5 ESCMID stakeholders

The guidelines development process requires input from and collaboration with external parties. Feedback from relevant stakeholders (depending on the guideline topic) is often crucial for the overall guideline content and its further implementation.

ESCMID is actively partnering with and/or involving many external entities (i.e. professional societies, organisations, consortia, and others) in its activities. The list of stakeholders needs to be maintained up to date for the purpose of involving specific stakeholders in relevant guidelines development projects.

### 5.1 Identification of stakeholders

The ESCMID Guidelines Director, supported by the ESCMID GLSC, will identify a comprehensive, global list of relevant Societies and stakeholders in the field of ID, CM, and Infection Control. The list of stakeholders is proposed to the ESCMID Executive Committee for approval.

The initial list is based on the existing list of stakeholders that ESCMID partners with on its many activities. The list includes ESCMID entities (subcommittees and study groups), ESCMID affiliated societies, consortia, ESCMID partner societies, organisations, other professional societies in the field of medicine, veterinary medicine, etc., philanthropies, patient organisations, as well as other institutions and funding bodies. The list will be expanded by the GLSC by reviewing scientific publications, by searching for relevant conferences/congresses in

Europe and worldwide, by contacting initial stakeholders to suggest additions or changes (e.g. snowballing technique).

ESCMID GLSC will:

- Update the initial list including as many relevant entities as possible from the above-mentioned groups
- Create a list of activities in which stakeholders may be involved (i.e. suggestions for topics; inclusion in guideline panels as a full member, partial participation or advisory role with no voting rights; input to open consultations; endorsement)
- Assign priority level to each stakeholder for each respective activity
- Propose the list to ESCMID Executive Committee for approval
- Submit an updated list of stakeholders to ESCMID Executive Committee every 12 months

GLSC, with the help of ESCMID Office, will identify contacts (incl. contact details) and/or official representative for each stakeholder, collect their replies and finalize the list of stakeholders.

In case of change of contact details or other contact information of stakeholders, GLSC, with the help of ESCMID office, will identify new contacts.

Review and update of all contacts will be done once annually.

## 5.2 Stakeholders' engagement

ESCMID stakeholders are involved through two main activities:

1) Participating in the process of priority setting:

All the identified stakeholders will be invited to contribute feedback and potential topics and projects in order to collect suggestions on priority guidelines. A survey will be sent to all stakeholders in the field of ID and guidelines development to gather this information.

2) Inclusion in individual guidelines projects (the level of involvement may vary):

Assessment of the relevant stakeholders should be made early in each ESCMID guidelines project. Stakeholders, depending on their importance to a specific guidelines project, may be involved in its entire development process or only in certain parts of it (e.g. from endorsing a topic, participation in the panel, public consultation phase, to post-publication feedback, etc.).

For each guidelines project, the GLSC will assign to each stakeholder a level of priority depending on how strategic and important it is for the stakeholder to be contacted and involved in guidelines development activities. Priority level will be assigned between 1=high priority/very relevant/strategic (must be included/contacted), 2=medium priority (should be included/contacted), and 3=low priority (could be included/contacted).

For high priority/strategic stakeholders, ESCMID should have a formal agreement (i.e. MoU, etc.) for their involvement in guideline development activities. The invitation to these stakeholders should be signed by ESCMID Executive Committee.

All other stakeholders should be sent a formal letter signed by the Guidelines Officer.

### 5.3 Checklist for EUCAST involvement in ESCMID guidelines projects

For all ESCMID guidelines projects, the GLSC should categorise the topic into one of the following categories:

1. Guidelines outside the EUCAST sphere
2. Guidelines where EUCAST should be consulted but not necessarily involved in the writing of the guideline
3. Guidelines where the involvement of a EUCAST representative throughout the writing of the guideline (participate in the writing group, in all meetings etc) is reasonable.

Once the guideline panel has been approved, the chair will be informed by the GLSC supervisor of the “degree of EUCAST involvement”. For category 2 and 3, the writing group should arrange a meeting with EUCAST early in the process to determine how relevant cooperation is best achieved. Depending on the guideline topic, EUCAST might be involved from the beginning throughout the process or only after PICO’s definition, for those cases where only some PICO’s, and not the whole guidelines topics, fall in category 2 or 3.

For all projects on topics falling in EUCAST sphere, EUCAST opinion should be asked when the final draft document is submitted to ESCMID for endorsement, before the public consultation phase is opened.

#### 5.3.1 Guidelines where one or more of the following subjects are included, would qualify as either group 2 or 3:

- Any guideline where antimicrobial therapy (choice of agent, mode of administration, dose) is an integral part – some species may not have EUCAST breakpoints, some doses may not match EUCAST breakpoints, etc
- Any guideline where the degree of susceptibility of a causative microorganism is discussed
- Any guideline where the detection or exclusion of resistance mechanisms of a causative organism is discussed
- Any guideline where breakpoints are mentioned, unless it is to say “consult the relevant EUCAST breakpoint table”
- Any guideline where it is tempting to the writing group to recommend or warn against the use of specific AST methods (disk diffusion, gradient tests, semi-automated devices etc).
- Guidelines on prophylaxis where AST or breakpoints are mentioned
- Veterinary guidelines with references to antibiotics, AST, resistance or breakpoints

#### 5.3.2 Guideline topics that would fall outside the EUCAST sphere are:

- Purely viral or parasitic infections
- Infection control, unless detection of resistant organisms or resistance mechanisms are discussed

- Differential diagnosis with other diseases (e.g. autoimmune) guidelines
- Vaccinations
- Other preventive measures (e.g. PPE, isolation, etc)
- Screening, unless detection of resistant organisms or resistance mechanisms are discussed
- Imaging of infectious diseases

## **6 Prioritisation of topics for ESCMID Clinical Practice Guidelines**

Setting priorities is an essential component of developing guidelines in any field of healthcare. This process ensures that resources and attention are devoted to those areas in which clinical recommendations will provide the greatest benefit to patients, clinicians, and policy makers. In this section, we describe the process of identification, prioritisation and selection of topics for new ESCMID guidance documents, including external consultation with stakeholders, as well as the process of issuing an open call for project proposals for guidance document development, their assessment, selection, and approval for funding.

### **6.1 Purpose of prioritisation**

By using a survey questionnaire, ESCMID will develop and update a list of topics, within the field of infectious diseases (ID), clinical microbiology (CM), and infection control, where guidance is needed, with a global perspective and transparent criteria. The aim is to avoid duplication of efforts and join forces with major relevant societies and stakeholders.

The priority topics will form the basis for open calls for project proposals, which will finally lead to the ESCMID endorsement funding of selected guidance document projects. The list of priority topics will also facilitate the definition of urgent topics/ad-hoc guidelines when needs be. Flowchart of the process is presented in Appendix 1.

The prioritisation will cover a 5-year period, to will inform ESCMID strategy, and allow proper planning and resources allocation in a 5-year plan for guidelines.

### **6.2 Process of prioritisation of topics**

The process of prioritisation of topics for guidance documents will be repeated every 5 years. The ESCMID Guidelines Manager will support in the exchanges with the stakeholder representatives and will compile tables with all the proposed topics.

#### **6.2.1 Survey design**

The survey questionnaire has been designed by the GLSC. It aims at collecting information, for each proposed topic, on the criteria necessary for priority scoring. The survey will be implemented online using a General Data Protection Regulation (GDPR)-compliant platform.

### 6.2.2 Survey dissemination

Information about the survey will be disseminated by ESCMID Guidelines Manager to the list of Stakeholders as defined in paragraph 5.1:

### 6.2.3 Analysis of survey

The information will be analysed from a qualitative and quantitative point of view by the members of the GLSC:

Descriptive statistics will be produced for the topics submitted.

An initial screening of topics will be made by the GLSC: each GLSC member will assess an appropriate number of topics and suggest those to be dismissed because not falling within ESCMID scope; in case of disagreement between GLSC members, the topic will be retained. Grouping of topics within broader areas can also be performed, based on textual analysis of the proposals.

All the GLSC members will then rate each topic according to the priority criteria, scores and weights detailed in Appendix 2, resulting in a score ranging from 1 to 12. The median score across all GLSC members will be used.

Proposals will then be ranked according to the score, to obtain the final list, which will constitute the list of priority guidelines in the next 5 years.

### 6.2.4 Approval of the priority list

The ESCMID Guidelines Manager will transmit the priority list of topics to the ESCMID Executive Committee and arrange further communication between the Executive Committee and the Guidelines Director.

The ESCMID Executive Committee will evaluate and approve the priority list. Comments and proposed modifications will be sent back to the Guidelines Director. If needed, the ESCMID Ethics Advisory Committee will also review the priority list to identify potential ethical issues.

### 6.2.5 Wide dissemination of the priority list

The 5-years priority list will be widely disseminated. Some of the options will be:

- publication in peer-reviewed journals (i.e. *Clinical Microbiology and Infection*) or other publications
- ESCMID channels (i.e. website, newsletter, social media)
- Presentation during the ESCMID general assembly

#### Timeline

Time	Activity
Day 0	approval by the Executive Committee for the launch of the survey
Day 1 to 15	Implementation of the questionnaire on the platform
Day 15	Stakeholders' involvement (invitation sent out)
Day 30 and 45	Reminders to stakeholders

<b>Time</b>	<b>Activity</b>
Day 60	Closing of the survey
Day 90	Analysis by SC members and finalisation of the priority list
Day 120	Executive Committee decision on the priority topics for the next 5 years
Day >120	Dissemination of the priority list

## **7 Project proposals and their selection**

### **7.1 Call for project proposals for guidelines**

An open call for project proposals for guideline development will be issued every year, based on the priority list: the scope of the call will cover 3-4 topics among those identified as “top priority” during the latest prioritisation exercise; the overall budget and number of proposals which will be funded will be specified in the call, as approved by the ESCMID Executive Committee. We aim at funding 3-4 new guidelines projects each year.

The ESCMID Guidelines Manager will advertise the opening of the call for proposals through ESCMID channels (i.e. website, newsletter, social media).

The call will be open to all ESCMID study groups and individual ESCMID members; other societies may be involved, through the appropriate ESCMID study group. Project proposals will be submitted via email through a pre-specified form, designed according to the AGREE-II items of quality guidance documents. The call will be open for a total duration of approximately two months.

Within each call, submission of projects on other topics than the ones selected by the EC will be allowed, to ensure to meet unplanned needs; these applications will be considered for funding based on quality of proposal, priority scoring, and available resources.

The template for submission of project proposals is in Appendix 3.

### **7.2 Quality assessment and selection of projects**

After the closure of the call, the ESCMID Guidelines Manager will collate and transfer all the project proposals that might meet the requirements to the ESCMID Guidelines Director and ESCMID Guideline Officer, and GLSC.

The ESCMID Guidelines Director and the ESCMID Guideline Officer, supported by the GLSC, will assess project proposals and score them according to (AGREE II) instrument items: Scope and Purpose, Stakeholder Involvement, Rigour of Development, Clarity of Presentation, Applicability, and Editorial Independence.

Each proposal will be independently evaluated by one methodologist and two GLSC members; the Guidelines Director will review all the proposals. The projects with the higher scores will be selected, depending on the available budget. The GLSC can suggest merging or modification to the proposals.

### **7.3 Approval of funding of selected project proposals**

The ESCMID Guidelines Manager will transmit the list of selected project proposals to the ESCMID Executive Committee and arrange further communication between the Executive Committee and the Guidelines Director.

The ESCMID Executive Committee will evaluate and approve the endorsement and funding of the selected project proposals. Comments and proposed modifications will be sent back to the Guidelines Director.

The ESCMID Guidelines Director will contact the groups with the selected proposals.

#### **7.4 Timeline of the guidance project**

The recommended time from appointment of the panel Chair to submission of the finalised guidance document to the ESCMID Guidelines Director/ Executive Committee should be approximately 12–18 months to prevent the likelihood of the evidence becoming outdated. Once appointed, the panel chair shall submit a draft timeline to the ESCMID Guidelines Director for discussion and approval (see Appendix 4 for an example template).

Updates should follow a shorter timeline (see 16).

#### **7.5 Out-of-planning and non-expected, extra priority guidelines projects**

We envisage that occasionally unexpected, out-of-planning, topics might become high priority. Often, proposals are presented by other Scientific Societies and ESCMID stakeholders. ESCMID principles also apply to these projects. The main aim of this section is to provide guidance on the procedures to be followed to approve out-of-planning high-priority topics. For aspects not covered in this section, the standard procedures described in this manual will apply.

##### **7.5.1 Submission of proposals for extra priority guideline projects**

Proposals for extra-priority guideline projects can be submitted by any ESCMID member and should be submitted to the Guidelines Manager using the form in Appendix 5. The form is checked for completeness by the Guidelines Manager and then forwarded to the Guidelines Director. The Guidelines Director can decide to reject the proposal or to initiate an evaluation by the GLSC.

##### **7.5.2 Criteria for prioritisation of out-of-planning guideline projects**

By applying the following criteria, the GLSC can systematically evaluate emergent project proposals and prioritise those that align with the highest urgency, impact, and relevance to the GLSC mission. The criteria for prioritisation are available on Appendix 2.

##### **7.5.3 Review and approval process**

The GLSC will apply the same criteria in Appendix 2. The threshold of the final score for proceeding with the new project should be 8/12.

Proposals are reviewed and scored (using the prioritisation framework outlined above). For each criterion, the ESCMID Guidelines Director, in collaboration with the ESCMID Guidelines Officer and supported by the GLSC, will assign a mark between 1 and 9, with 1 being the lowest and 9 the highest evaluation. For each criterion, the mean score across GL SC members will be calculated. To generate a final score, scores of each criterion will be added up.

Proposals assigned a low score will be rejected at this stage. Proposals with high score will be assessed by the GLSC, following the guideline manual procedures. Specific thresholds are not predefined and final decisions will be made based on the discretion of the GLSC. Proposals assigned a sufficient score will be forwarded to the ESCMID Executive Committee with a recommendation by the GLSC for approval or rejection.

The Executive Committee will make the final decision on approval or rejection, and on which level of support will be funded by ESCMID.

## 7.6 Rapid guidelines

At the time of writing, the ESCMID GLSC is working on specific procedures for rapid guidelines which will be published at a later time.

## 8 Development of guidelines jointly with other organisations

Guidance documents may be jointly produced in cooperation with other societies or organisations. Under such circumstances a MoU (provided in a separate document) should be defined and agreed from the guideline inception and will be signed by the ESCMID Guidelines Officer and President. The panel chair will usually be identified by the lead organisation. Each organisation must have representation on the panel and share costs associated with the development of the guidance document, generally in proportion to the number of members.

Proposals for publication should also be agreed in advance and clearly stated in the MoU. The final document should be reviewed by all participating societies/organisations before publication and must undergo internal and public review through ESCMID; a public review period through other participating societies/organisations is desirable and should be discussed with the publication plan. Consideration should be given to submission of the final document to *Clinical Microbiology and Infection (CMI)*. When it is agreed that the full report is to be published in a journal other than *CMI*, consideration should be given to publishing a Short Report or a Summary Document (as a co-publication) in *CMI* subject to the permission of the publishing journal and agreement by the Editor-in-Chief of *CMI*.

It is a prerequisite of a collaborative guidance document that the final published document is posted on the ESCMID website and be freely available (i.e. published as open access).

When establishing a new MoU for a guidelines project, the ESCMID Ethics Advisory Committee might be involved in reviewing it, to make sure that ESCMID procedures are followed.

## 9 Panel composition

### 9.1 General information

Guideline panel composition must respect the following rules:

- The panel should consist of 9 - 15 members from different (predominantly European, but with a view on the global scale of ESCMID guidance in specific topics) countries.
- The panel should include both specialists in the narrow field under discussion, and people with a wider perspective.
- The participation of members proficient in the methodology of systematic reviews is strongly recommended.

- When assembling the panel, the balance in terms of gender and country of origin should be sought.
- It is strongly advised to include a representative of the patient population or of the lay public into the guideline panel. In future, this might become a requirement.
- The chair and the members of the panel should be drawn from the membership of the Society whenever possible.
- The ESCMID Ethics Advisory Committee will support the GLSC in the panel selection, assessing the CoIs of applicants and checking the gender and geographical and specialty balance in guideline panels.
- The final panels will be approved by the ESCMID EC.
- Panel membership officially starts only after review and approval of the declaration of CoI by the ESCMID Guidelines Director, and Executive Committee approval.

## 9.2 Guideline Chairs

The proponent of a guideline project can apply to be chair or be proposed by another ESCMID member. Alternatively, the ESCMID Guidelines Director will appoint the panel Chair, who will also be approved by the Executive Committee. This is a voluntary position.

Responsibilities of the Chairs include:

- Coordinating the guideline project adhering to the planned timeline
- Communicating with the Guidelines Director.
- Overseeing CoIs of panel members.
- Deciding on PICOs and other questions.
- Working closely with the ESCMID guideline methodologist.
- Managing the Evidence-to-Decision process.
- Reviewing the manuscript and taking responsibility for its content.
- Overseeing the publication of the guideline and communicating with the CMI Editor-in-Chief, always informing the ESCMID Guidelines Manager at each step.

## 9.3 ESCMID Guideline Methodologist

ESCMID (in-house) Guideline Methodologists are experts in research and guideline methodology, hired by ESCMID. Their duty is to support and oversee the methodological aspects of guideline development process, and make sure that ESCMID standards are implemented. They work closely with the chair, the ERG members (see paragraph 9.5) and the panel. ESCMID methodologists are non-voting panel members and are co-authors in guidelines on which they are involved.

The main responsibilities of the Guideline Methodologist include:

- Establishing a methodological plan/protocol for the ESCMID guideline.
- Providing guidance and advice on all methodological steps for the panel.
- Aiding in defining the guideline's scope and formulating research questions.

- Overseeing all methodological aspects of guideline development, including literature searches by the information specialist, outcome rating, data extraction, screening, risk of bias assessment (RoB), meta-analyses, GRADE, and the Evidence to Decision (EtD) Framework.
- Making sure that the guideline manuscript is written according to the results of the synthesised evidence.
- Instructing ERG members and reviewing their work.
- Writing the methods section of the guideline, helping structure the manuscript, and reviewing it.
- Ensuring the highest methodological standards and transparency throughout the guideline development process.
- Collaborating closely with the chair to resolve any methodological issues.

#### 9.4 Guideline panel members

Panel members are experts on the topic for which the guideline is being developed. Usually, each guideline has 9-15 ESCMID members, who are selected for their expertise. This is a voluntary position, and the panel members are co-authors of the guideline based on ICMJE criteria. The guideline panel is recruited through three main sources:

1. 1/3 of the panel is suggested by the guideline chair,
2. 1/3 is suggested by the Executive Committee, Guidelines Director, and GLSC,
3. 1/3 is chosen by an open call (not limited to ESCMID members).

The open call for inclusion would consider the following criteria to select and appoint the three to five members: a) free from financial Col, b) experience on the topic for which guideline is being developed (applicants will need to indicate their 10 best papers on the topic), c) motivation in joining the panel for the specific project (to be clearly presented in a cover letter supporting the application). CVs, Col declarations and motivation letter will be evaluated by the GLSC and the Director, using a scale from 1 to 9. In case of candidates with similar evaluation among the above criteria, further elements for consideration will be given to gender and country balance and being an ESCMID member.

**Including panel members without ESCMID Guidelines Director approval is not permitted.**

The main responsibilities of the panel members include:

- Participating in the guideline and working group meetings.
- Meeting deadlines and adhere to the project timeline
- Get appropriate training on the GRADE approach and on systematic reviews methods
- Being active members of working groups, within the guideline panel.
- Reviewing the protocol of the guideline project.
- Helping in phrasing and defining the PICO questions.
- Working closely with the guideline Chair and ESCMID methodologist.

- Helping the ERG members within the working groups with any questions they may have.
- Assessing the included evidence critically.
- Applying the Evidence-to-Decision (EtD) framework to issue specific recommendations.
- Reviewing the manuscript and taking responsibility for its content.

The Terms of Reference for ESCMID guidelines panelists is reported in Appendix 7, and inclusion in a panel includes acceptance of the Terms of Reference.

### **9.5 ESCMID Evidence Review Group (ERG)**

ERG is a group of motivated junior professionals in infectious diseases or microbiology trained by ESCMID in methodology of systematic reviews, meta-analyses and the GRADE approach, who help with the methodological task for guideline development. Each year ESCMID organises a training course free of charge, and opens a call for participants, who are selected based on their background, motivation and experience. Successful participants commit formally to be available in future ESCMID guideline projects. Each trained participant will be asked to participate to a maximum 1 project per year, in the 5 years following their training. When the document will be published, ERG members are added as co-author of the publication, based on ICMJE criteria.

The main responsibilities of ERG members include:

- Participating in the guideline and working group meetings.
- Working closely with the guideline Chair and ESCMID methodologist.
- Being active members of working groups, within the guideline panel.
- Performing title/abstract and full text screening.
- Performing data extraction.
- Risk of Bias Assessment of included studies.
- Assessing the quality of evidence using GRADE approach.
- Taking responsibility for the data and results of evidence synthesis.

### **9.6 Non-panel memchbers supporting guideline development**

#### **9.6.1 ESCMID supervisor**

The ESCMID Supervisors are members of the ESCMID GLSC. Their main role is to supervise individual ESCMID guidelines projects. Each supervisor is assigned to a maximum of 2-3 guidelines projects at any given time. The main tasks of the supervisors are:

Task	Responsibility shared with	Notes/Comments
Participate as observer to the meetings of the panels		The supervisors might have to attend 2-3 meetings per month, depending on the panel schedule. An attempt should be made not to miss more than one meeting in a row.
Constant remainder of ESCMID “ownership” of the GL	methodologist	Guidelines chairs and panels of ESCMID guidelines projects represent ESCMID, and are not acting in a personal capacity. ESCMID is providing support for many of the activities of a guidelines project.
Participate in defining the scope of the guidelines, to ensure that it fits ESCMID aims and perspective.	methodologist	<p>In this task, the supervisors will act as representative of the EC, in setting the aim and strategy of the Society.</p> <p>A discussion between the EC (represented by the Guidelines Officer) and the supervisor before the project is started (either as individual meeting or during one of the SC meetings), might be useful to clarify ESCMID preferred scope for the specific guideline project.</p>
Contact point/Liaison with ESCMID SC for any question/doubts about the management of project		The supervisor reports on a monthly basis about the progress of the projects, during the SC meetings.
Ensuring steps are followed (Quality assurance)	methodologist	The supervisor should support the methodologist in making sure that right steps are followed according ESCMID procedures, reinforcing methodologist requests/suggestions when needed.

Task	Responsibility shared with	Notes/Comments
Oversee update of CoI declaration of panel members every 12 months		<p>The panel chair is responsible for overseeing collection of CoI declaration of panel members. However, a reinforcement/reminder might be useful in some settings.</p> <p>The supervisor should also suggest involving the EEAC whenever necessary).</p>
Prevent inclusion of unauthorised members		<p>All requests for changes in the panel composition of a ESCMID guidelines projects should be submitted to the ESCMID supervisor who will forward it to the Guidelines Director. No additions/replacements of members of the original submitted group are allowed without official approval by ESCMID.</p>
Submission of session proposals for ESCMID Global	methodologist	<p>The GL panels are asked by the GLSC to propose sessions for ESCMID Global e.g. to open the Public Consultation Phase or to report on systematic reviews with relevant results. This will also help the panels to commit to deadlines. The supervisor should assist the panels in choosing the right format for the proposed session, writing the proposal, finding appropriate speakers.</p>
Follow-up after publication (e.g. for dissemination, implementation etc)		<p>This might be difficult to achieve, because SC members will change over time. This should probably best assigned to the Office or the SC itself. Dissemination and implementation are very different issues: ESCMID might need/want to address those separately.</p>

The role of supervisors should be acknowledged in the final publication, but they don't qualify as Authors.

### 9.6.2 Medical Information Specialist

To ensure the highest quality standards in guideline development, ESCMID guideline panels rely on systematic literature searches conducted by skilled information specialists, who are hired by ESCMID. The main tasks of the information specialist are:

- Designing the search strategies, in coordination with the ESCMID guideline methodologist.
- Running the literature searches in several electronic databases (to be decided with the ESCMID methodologist and the Guideline Chair).
- De-duplicating the records.
- Sending the retrieved records to the Guideline Methodologist (in Endnote or in another format, as agreed upon).
- Sending a report with search strategies and search details (which databases, how many records, search dates, filters etc).
- If agreed to, provide the full texts to the panel, as needed.
- Updating the searches after one year (exact time to be decided with the Chair and Methodologist).

Depending on the level of involvement, medical information specialists may qualify as Authors.

## 10 Conflicts of interest (Col)

### 10.1 Background and motivation

Guidance documents should be based on high quality evidence and should be free of bias.[6] Col can bias guidance document recommendations towards certain treatments, diagnostic tests or other products. If Cols are not appropriately managed and dealt with prior to guidance document development, this will affect the credibility and reliability of the guidance document.

Conflicts of interests do not necessarily imply improper motivation or require immediate exclusion of a person from involvement in guidance document development, but since they can influence decision-making, all Cols (even those only considered “potential”) should be declared, transparently reported, identified and properly managed to limit bias.

### 10.2 Who should disclose?

The list of required disclosure required is the following:

- ESCMID Guideline Officer
- ESCMID Guidelines Director
- ESCMID GLSC members

- Guideline Chair
- Panel members
- Guideline Staff (Methodologist, Medical Information Specialist)

The Col declarations of all authors must be completed and published in the final guidance document.

### 10.3 What should be disclosed?

Interest is defined as any direct or indirect financial or nonfinancial interest besides the development of the guideline itself, i.e. to the purposes of the guidance document development represents a “secondary interest”.

A Col arises when there is a risk that the professional judgement of an author regarding the specific guidance document will be influenced by a secondary interest.

Type	Explanation/Examples	Threshold/mitigation	Time limit
Direct financial interest	Payment for services from a commercial company (consultancies, speaker’s fees, membership), indirect payments (e.g. funding for travel, accommodation, professional development, hospitality), stock ownership, royalties, directorships, grants received or pending, patents, received or pending.	None (all direct financial interests shall be declared)	5 years
Scientific funding	EU, national and international public bodies, grants from organisations, patients’ associations, and other societies	None (all shall be declared)	3 years from guideline project conclusion
Indirect financial interest	Representation or having roles in organisations with financial links or affiliations with commercial companies that will benefit or be affected by the guidance documents recommendations.	None (all indirect financial interests shall be declared)	3 years from guideline project conclusion
Non - financial interests	Including, but not limited to, academic advancement, clinical revenue streams, community standing, scientific interest, public comments and testimony, leadership role on a panel, substantial career efforts/interests,	Not applicable	On a case-by-case basis

Type	Explanation/Examples	Threshold/mitigation	Time limit
	previously published opinions, and advocacy or policy positions		

In general, any the funding by interested parties – whatever or whoever they are – should be disclosed; when in doubt, err on the full disclosure side.

By commercial company we mean pharmaceutical, diagnostic and medical device industries with primarily profit aims.

Non-financial interests might not always be considered problematic (sometimes they are even considered an added value). On the other hand, they can induce bias, and therefore need to be disclosed. Examples include publishing or being involved in research that may be used in the guidance document, being considered an expert or opinion leader on an intervention or treatment that will be considered in the guidance document etc.

Col of first-degree relatives and close personal relationships (e.g. partner) need also be disclosed.

#### 10.4 How to disclose?

All Dols are to be included into the dedicated ESCMID form, suitable for all ESCMID-related activities.

#### 10.5 When to disclose?

Since this document adopts a broad definition of interests, in particular non-financial ones, it would be virtually impossible for most professionals to declare all of them at any specific point in time.

Besides, most “interests” become “conflicts of interest” only relating to the task to be performed.

Therefore, interests will be declared at specific times:

- when applying to serve
  - in an official ESCMID position Executive Committee, Director, Study Group (SG), Sub-Committees etc).
  - as chair of an ESCMID guidance document project.
  - as panel member of an ESCMID guidance document project.
- during the development of an ESCMID guidance document project: at least every 12 months (earlier, in case of intervening new Col) or alternatively, at major milestones (PICO definition, *summary of findings* finalisation).
- at the time of submission for Public Consultation Phase.

In these cases, the declarations will be assessed as detailed below.

Guideline panels may choose to add an open discussion of Dol of all participants at the beginning of each meeting.

### 10.6 Who will assess whether an interest represents a Col?

The DoI will be assessed as per the following:

Candidate to task of:	DoI assessed by:
Guideline Officer	Executive Committee
Guidelines Director	Guideline Officer and Executive Committee
GLSC members	Guidelines Director and Guideline Officer
Panel Chair	Guidelines Director, Guideline Officer, Executive Committee
Panel members	Panel chair, who then reports to Guidelines Director, GLSC*†
Panel advisors and consultants	Panel Chair†
Panel staff	Panel Chair†

\* The DoI will be assessed by the ESCMID Guidelines Director and at least one other member of GLSC, prior to inclusion as panel member.

† The final composition of the panel will be approved by the Executive Committee, after a recommendation by the Guidelines Director and GLSC.

The ESCMID Ethics Advisory Committee should also be consulted in case of concern about COI in a guideline panel (i.e. new member of GLSC to be appointed, change in the DoI occurs).

### 10.7 Requirements for individual roles/tasks

Role/task	Requirement	Mitigation (if any)
Guideline Officer	no current or recent (i.e. past 5 years) direct or indirect financial Col	None
Guidelines Director	no current or recent (i.e. past 5 years) direct or indirect financial Col	None
GLSC members	no current or recent (i.e. past 5 years) direct or indirect financial Col	None
Panel Chair	no current or recent (i.e. past 5 years) direct or indirect financial Col	None

Panel as a whole	>50% of members free from direct or indirect financial Col	Indirect Col might be assessed on a case-by-case basis
Guidelines evidence group	no current or recent (i.e. past 5 years) direct or indirect financial Col	None
Panel members	No current or recent (i.e. past 5 years) direct or indirect financial Col	Participation in the discussion or voting for the PICOs related to the COI is not allowed.

### 10.7.1 Risk levels of Col

The following list is an attempt to stratify risk of bias due to situations of Col. The distinction in low and high risk Col, however, is only tentative and certainly arbitrary: each potential Col needs to be assessed in the context of specific tasks.

Low-risk Col:

- Delivery of non-promotional talks in which the speaker has full control of the content and is either unpaid or paid by a third party that is responsible for ensuring that the event is free of influence of relevant industry (i.e. if the event has industry financial support, all planning and content must be free of industry influence, and any payment of expenses and honoraria must occur through a third party, such as the medical society or institution sponsoring the event, or an event manager acceptable to them, rather than directly by a commercial entity with an interest in guideline subject matter or its agent).
- Honoraria for speaking at company sponsored meetings or events, depending on the number of speaking engagements and overall amount of retribution.
- Support in the form of fellowships, travel grants, in-kind donations, to Institution or department of affiliation, depending on overall amount
- Participation in clinical trials.
- Officer or board member of another medical society.
- Editorial positions with publications.
- Program oversight of meetings (e.g., program organiser or guidance documents publications).

High risk Col:

- Research grants, partial or full salary support from a commercial organisation for self or employees for whom you are managerially responsible (i.e. laboratory technical/research fellow) or for the participant's institution.
- Research funding from a government program or non-profit organisation that receives funding from industry with business interests in the content of the guidance document.

- Consultation or advisership to pharma/medical device company including positions on medical or scientific advisory boards.
- Equity interests (or entitlement to same) of stocks, stock options, royalties, etc, including income from patents or copyrights. Or a family member (first degree/spouse), holding stock, etc...
- Service as a director, or employment by, a commercial organisation, whether or not remuneration is provided for such service (the same would apply to a close family member).
- Ownership, partnership, or prominent role in a commercial enterprise (the same would apply to a close family member holding this position).
- Investigator initiated trials sponsored by a commercial company.
- Participation on a data and safety monitoring board concerned with research that is relevant to the content of the guidance document and is funded by an industry with business interests in the content of the guidance document, or by a government program or non-profit organisation that receives funding from industry with business interests in the content of the guidance document.
- Participation in industry-funded research, scientific advisory committees, consulting roles, non-promotional speaking engagements, or expert testimony on matters that are unrelated to guidance document subject matter, but the company involved is known to have business interest in the guidance document subject matter.
- If a potential recommendation of the guidance document would jeopardize or enhance the panelist's professional work or professional group fundamentally (definition of intellectual Col of the Institute of Medicine, National Academy of Sciences, Clinical Practice Guidelines We Can Trust, 2011).

### 10.7.2 Evaluation and its outcome

The evaluation will consider both the nature of the interest, the relevancy to the task at hand and the potential impact. The possible outcomes of the evaluation are:

- Activity (appointment or ongoing participation) approved; no financial interests are disclosed, or disclosed interest is considered not a possible source of bias.
- Activity prohibited; disclosed interests are in an unacceptable conflict with the task at hand and could lead to bias; appointment may be rescinded if activity has already commenced.
- Activity approved with limitations; relevant interests are noted, but the need for expertise outweighs the potential conflict; participation is allowed, but some tasks are prohibited (e.g. drafting or voting on guidance document text/recommendations, or guidance document approval) in areas related to the relevant interest.
- Further review required; final decision referred to the ESCMID guidelines subcommittee or an higher role.

Members may be asked if they are willing to disinvest from a relationship prior to a final decision.

#### **10.7.3 Publication of the conflict-of-interest declarations in the final document**

All ESCMID guidelines manuscripts will include, at the time of public consultation, a detailed statement on COI of panel member, which will also be included in the final publication.

#### **10.7.4 Approval and updates of the conflict-of-interest management policy**

The present document will be updated every four years, by the ESCMID Guidelines Director and GLSC, reviewed by the Guideline Officer and approved by the Executive Committee.

## 11 Budget and expenses of the guidance project

ESCMID guidelines document development is financially supported by the Society. All parties involved should be committed to maintain the costs at a reasonable scale. Along with the timeline, the panel chair will send a tentative budget; budget negotiation will ensue as needed, before for approval. ESCMID staff will be responsible for monitoring and communicating on budgetary issues, overlooked by the Guidelines Director. **When funds other than those provided by ESCMID are to be used, this should be clearly detailed in the budget proposal. Financial contributions from industry (e.g. pharmaceutical or diagnostic companies) are not accepted.**

Note: All ESCMID guidance documents published in CMI benefit from open access for the public, without any surcharge.

ESCMID funds can be used to cover e.g. meeting expenses including travel and accommodation for the panel members, costs for literature search, or for necessary activities not currently covered by ESCMID support (see Chapter 3.4).

The voluntary contributions of panel and ERG members' time, though unpaid, constitutes the greatest and unvaluable asset of ESCMID guidelines (see 3.4).

## 12 Training for panel members

ESCMID organises training courses on developing systematic reviews, meta-analyses and clinical practice guidelines with the GRADE approach in the area of infectious diseases and clinical microbiology. Please refer to the [ESCMID website](#) for more information.

In particular, ESCMID organises a 3-day in person course yearly to select and train ESCMID members for the ERG. The training course covers all steps of guidelines production, but focuses mainly on systematic reviews, meta-analyses and the GRADE approach. The course is free of charge, but the participants will need to commit formally to be available for future ESCMID guidelines projects. Participants must agree to be available for systematic review work (abstract screening, full text screening and data extraction) for ESCMID guidelines projects in the next 5 years. The course consists of interactive lectures and practical exercises. ERG members are further trained by working closely with the ESCMID in-house methodologists.

ESCMID also organises advanced courses, reserved to ERG members having completed the basic course and participating to at least 1 guideline.

For guideline panel members and chairs the **minimum training requirement** is to complete the online [McMaster](#) training on the GRADE approach (8 videos). The course is available to ESCMID members on the [ESCMID website](#). A certificate of completion following a short online test will be issued.

INGUIDE is a comprehensive, evidence-based, and up-to-date training program for guideline recommendation and development. It is the product of a partnership between leaders in the field of guideline development – Guidelines International Network (GIN) and world-renowned experts in guideline research, development and implementation at McMaster University’s Department of Health Research Methods, Evidence, and Impact. The INGUIDE program offers courses for panel members, guideline methodologists and guideline chairs (methodological and clinical chairs). All courses lead to certification.

ESCMID will offer reimbursement of the fee of the INGUIDE “**Certified Guideline Panel Member**” course, to ESCMID members appointed in ESCMID guidelines panels, upon certification. Ideally, the interested panel members should obtain the certification in the time between appointment and kick-off of the project. Enquiries to the ESCMID Office should be made before enlisting to the INGUIDE course, to verify if the conditions for reimbursement are met and to obtain special discounts to ESCMID members.

The ESCMID GLSC will develop a more structured training strategy to ensure that appropriate training is available to, and followed by, all panel members.

## 13 Methodology: GRADE approach

ESCMID has adopted the GRADE approach for guideline development. Throughout the project, the guidelines panel will be supported by the ESCMID methodologist.

### **13.1 Scope and questions addressed by the guideline**

We encourage formulation of background and foreground questions.

#### **13.1.1 Background questions**

The background should provide information on the prevalence and incidence of the disease and its different forms, either severity or other; the mechanisms of the disease and of the interventions; and others. The background should also be used to justify the decisions that were taken in formulating the foreground questions. For example, if the population of interest in the foreground question is divided into subpopulations, the background should make clear why this division is needed; if a comparator was used in a foreground question, why this comparator is relevant (or why another comparator is not).

#### **13.1.2 Foreground questions**

The foreground questions are the key part of the guidance document, and should be developed using the Population, Intervention, Control, Outcome (PICO) format. The PICO model is a helpful tool that allows the design of structured, searchable clinical questions that tackle the four key elements needed for producing precise recommendations: Patients/population (P), Intervention/exposure (I/E), Comparison (C), Outcome (O).

Population should address different epidemiological settings (e.g. pathogen distribution and resistance rates). These components can be further divided into sub-components (e.g. patients in affluent countries and in resource poor countries; by drug availability; by age; etc...). The choice of relevant outcomes is of utmost importance. They should include both the beneficial effects of the intervention and damage caused by the intervention. The beneficial outcomes should be divided into the main outcome (the one that matters most to the patient); other important outcomes; and less important outcomes. The ecological impact of recommended interventions, i.e. what is known and what is expected regarding resistance selection and development should be addressed among outcomes. Costs may be included in the important outcomes or among the less important, depending on the main outcome/s.

The optimal number of PICO questions addressed in a guidelines is no more than 20 (with large variability allowed).

### **13.2 Literature search**

Systematic review methods should be used to examine interventions and diagnostic tests. We encourage the use or update of existing systematic reviews. The systematic literature review for the development of the guidance document should be performed following the methodology outlined in the Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 ([www.handbook.cochrane.org](http://www.handbook.cochrane.org)), in coordination with the ESCMID methodologist.

The databases searched need to be specified in the manuscript and should include at least PubMed, EMBASE, and the Cochrane Library. The search terms used need to be specified in the manuscript.

### **13.3 Screening of articles**

All studies identified by the search process detailed above need to be screened for eligibility by two independent reviewers. The inclusion and exclusion criteria for identified articles, such as study design, language, publication dates, need to be detailed in the manuscript.

### **13.4 Data extraction**

Relevant data should be extracted using standardized and piloted extraction sheets, by one reviewer and checked by another.

### **13.5 Evidence synthesis**

For analysing and synthesizing evidence, meta-analyses should be performed when clinical and statistical criteria are met. Otherwise, when meta-analyses are not possible, a narrative synthesis of evidence can be used. Such decision should be taken in close collaboration with the ESCMID methodologist.

We understand that there might be a clinical need for recommendations even when published evidence is insufficient. In such cases recommendations should be provided with explicit acknowledgment that they are based on expert opinion. Empirical evidence can be extended to similar interventions based on experts' opinion using a similar mechanism.

The methods used to synthesize the evidence should be clearly defined and presented in the methods section.

### **13.6 Quality of evidence assessment**

The risk of bias for all included studies should be assessed following the recommendations of the GRADE guidelines.[7] For each body of evidence, the Cochrane RoB tool will be used for interventional studies and the Newcastle Ottawa Scale for observational research.

### **13.7 Development of recommendations**

The direction and strength of recommendation should be decided using the GRADE Evidence to Decision (EtD) framework.[8]

#### **13.7.1 Equity in the recommendations**

During the Evidence-to-Decision process, the panel might decide to involve the ESCMID Ethics Advisory Committee, if considered appropriate, for evaluating the equity of resulting recommendation(s). If consulted, the ESCMID Ethics Advisory Committee will not have any decisional role, nor will participate to the voting, but only provide opinion/advise.

### **13.8 Progress reporting**

Guideline chairs are required to provide regular progress updates by submitting three main reports. This aims to enhance communication between ESCMID guideline chairs and the

ESCMID office, fostering improved reporting of project progress and minimizing unnecessary delays in the completion of ESCMID guidelines.

The chair will be provided with a list of the contact persons: ESCMID Methodologist, Guideline Manager, and ESCMID Supervisor, to facilitate communications.

Reports should be submitted every 6 months (located in appendix 5). A total of three reports are expected, for the duration of the guideline project:

Update requested	Months after project approval	Description	Process
First report	6 months	An email update confirming the guideline's initiation, the meeting with the ESCMID methodologist, the first panel meeting, and the systematic review protocol.	Chairs will email the ESCMID Guidelines Manager copying the ESCMID Methodologist and ESCMID Supervisor.
Second report	12 months	A comprehensive report (completed form) detailing progress made, accompanied by a timeline outlining remaining steps for project completion.	The ESCMID Guidelines Manager will provide a report form for chairs to complete. The filled report will undergo review by the ESCMID methodologist before its final form being sent to the ESCMID Guidelines Manager ESCMID Methodologist. The report is then sent to the ESCMID supervisor by the ESCMID Guidelines Manager.
Third report	18 months	The same as the update at 12 months.	The same as the update at 12 months.

In the event of chairs failing to meet reporting deadlines, the ESCMID Guidelines Manager will issue reminders for timely submission. If substantial delays occur in project milestones and chairs neglect to provide reasons and mitigation strategies, ESCMID will consider different options on how to proceed further.

To ensure a clear understanding of reporting responsibilities, this strategy will be incorporated into the signed agreement between ESCMID and the chairs, communicated, and explained to the chairs prior to project initiation.

Any unreasonable delays in the guideline development will be evaluated by the ESCMID Guidelines Director, and any corrective action will be discussed with the ESCMID Guidelines Officer.

Corrective actions may range from increasing resource allocation to exclusion from chair/panel member role/authorship.

## 14 Review and endorsement process

### 14.1 Purpose

The endorsement phase is mandatory for all guidance documents developed by ESCMID (guidelines, consensus papers, state-of-the-art papers, position papers), as a sole responsible or in partnership with other scientific organisations, and for those prepared by other societies where ESCMID endorsement is sought; the process has the aim of ensuring that ESCMID position is represented. Position papers might undergo less strict requirements, discussed in a dedicated paragraph.

This phase is the last step before publication of a new and an updated guidance document.

We distinguish the four following situations:

- ESCMID-only guidance documents.
- ESCMID co-led guidance documents.
- ESCMID cooperative guidance documents.
- Guidance prepared by other societies.

### 14.2 Selection of ESCMID representative(s) for cooperative projects

This section applies only to ESCMID co-lead guidance documents and to cooperative projects, where ESCMID has been invited by another society. This section does not apply to ESCMID-only guidance documents, since those are subject to separate call for proposals.

Analogously, it does not apply to position papers (see relevant section) by ESCMID study groups.

The selection of ESCMID representative(s) responds to a formal and transparent process:

- Executive Committee and Guidelines Director propose names of suitable ESCMID professionals
- The Guidelines Manager checks for ESCMID membership status, CV and CoI. If not available, they will contact them to obtain an updated CV and to assess CoI and availability. The topic of the guidance document project will not be specified in the letter.
- The Guidelines Director and Guidelines Officer present the list to the entire Executive Committee. The final decision on ESCMID representative(s) is made by the Executive Committee.
- The list is presented to the leading organisation.
- During the guidance document development process, the ESCMID representatives commit to provide update (in written) to the ESCMID Guidelines Director at least every 6 months, or in case any relevant issue arises.

A specific MoU should give details of the agreement between the parties and identify the roles and responsibilities of the ESCMID representatives in the development of the guidance documents, dealing with ESCMID comments and endorsement and publication outcomes.

### **14.3 Endorsement Process**

#### **14.3.1 Endorsement of guidance documents developed or co-lead by ESCMID (general process)**

The panel Chair submits the guidance document draft by email to the Guidelines Manager ([guidancedocuments@escmid.org](mailto:guidancedocuments@escmid.org)), requesting final endorsement by ESCMID; they will include a report on the project management, and up-to-date DoI of all panel members.

The panel Chair can also propose up to two peer reviewers for external review, detailing affiliation, contact details and reason for selecting. These need to be chosen among other stakeholders (other/potential endorsing organisations, patient representatives). If applicable, one or two other reviewers are selected by co-lead partner organisation.

In parallel, submission to CMI will be initiated, so that CMI peer review and ESCMID Public Consultation Phase proceed in parallel as to expedite the review process.

If ESCMID is in a co-lead guidance document, the management of the whole process is included in the MoU (provided in a separate document).

ESCMID Guidelines Director and GLSC bring forward the consultation process, if applicable, from the beginning of the guidance development or updating, to enable stakeholders with an interest to comment on guidance document development at specific stages.

Overview of ESCMID guideline review and endorsement process and timeline:

Step	Role	Task(s)	Deadline*
1	Manager	Receives request and check if report and DoI have been submitted.	3 days
2	Guidelines director and one or more of the SC	<p>Reviews the manuscript for adherence to ESCMID Manual and to the AGREE Reporting checklist (<a href="http://www.agreetrust.org/resource-centre/agree-reporting-checklist/">http://www.agreetrust.org/resource-centre/agree-reporting-checklist/</a>), to assess the comprehensiveness, completeness and transparency of reporting in the guideline.</p> <p>DoI of the panel Chair and members are reviewed according to the relevant chapter in this manual.</p> <p>Can appoint external peer reviewers.</p> <p>Can appoint 2-3 internal peer reviewers, chosen among the appropriate SG(s)</p>	7 days
3	Manager	<p>Produces and disseminates a timeline/calendar with expected deadlines for all concerned participants.</p> <p>Initiate the Public Consultation Phase (see chapter 11.4)</p> <p>Contact peer reviewers(if any), checks their availability and requests their DoI (by email).</p>	3 days
4	ESCMID members, internal peer reviewers, external peer reviewers and at least one SC member	Provide comments (Public Consultation Phase)	4 weeks
5	Guidelines Manager	Collects comments and send them to Guidelines Director and SC	3 days

6	Guideline Director and one or more of the SC	Reviews and approves comments	3 days
7	Manager	Sends comments to Panel	1 day
8	Panel	Responds to comments, revises manuscript, and sends to Guidelines Manager	at their earliest convenience
9	Guidelines Director and one or more of the SC	Assess responses and advice Executive Committee for final endorsement (see relevant chapter)	7 days
10	Executive Committee (via Officer)	Final endorsement	nearest Executive Committee meeting

\* in case of any issue, deadlines will be rescheduled

- The external review is made by the previously selected CoI-cleared ESCMID external peer reviewers and stakeholders (other/potential endorsing organisations, patient representatives) and general public consultation. The consultation process varies between the different types of guidance document.

\* Procedures of stakeholders' registration for ESCMID guidance document and dealing with their comments are published as scoping or drafting of the guidance document.

#### **14.3.2 Endorsement of Clinical Guidance documents developed in collaboration with other stakeholders or Societies (includes co-leadership and participation of ESCMID members in the panel group of Guidelines documents lead by other Societies)**

The MoU signed prior to the cooperation start should include details of procedures agreed by the Parties.

The general steps for endorsement will apply. The only modifications are:

- The partner organisation proceeds to its own external and internal review, while ESCMID will only follow the steps of an internal review process.

- In step 2, also the reports of ESCMID representatives are appraised and taken into account.

### **14.3.3 Endorsement of existing guidance document by ESCMID**

ESCMID can endorse a large scope of appropriate guidance documents (guidelines, consensus, decision support tools for use, implementation resources...) produced by other societies/organisations, provided they comply with ESCMID principles and quality standards.

ESCMID encourages other societies/organisations to seek collaboration or at least to inform as early as possible that a guidance document is being developed and that endorsement will be in due time requested.

The general steps for endorsement will apply. The only modifications are:

- The proposal for endorsement may be upon the initiative of ESCMID members, GLSC, SGs or the external organisation, with a formal request to the ESCMID GLSC/Guidelines Director.
- In step 2, relevance and appropriateness to the mission of ESCMID, among its priorities and not duplicative, are also assessed.
- Col policy, methodological aspects and format of the guidance document are developed according to ESCMID standards regarding.
- Any inappropriate support or influence from industry.

### **14.3.4 Procedures specific for position papers**

Position papers usually represent the opinion of the panellists (drawn from ESCMID Study Groups, or individual ESCMID members), and not necessarily ESCMID position as a Scientific Society.

In case the panel asks for ESCMID endorsement, the general procedures will apply.

In case the panel does not ask for ESCMID endorsement, the only requirement is to notify the ESCMID Guidelines Director, who will in turn notify the Executive Committee via the Guideline Officer:

1. at the start of the project, stating the provisional title, the scope of the position paper, the composition of the panel, and the expected delivery of the document.
2. at the time of submission for publication. The reporting items for publication, (detailed in the white paper[3], should be followed if ESCMID commentary is requested by authors.

This procedure will allow to avoid duplication/redundancy of similar documents, and to prepare (if deemed necessary) an official response to it.

In all cases, ESCMID position paper will be peer-reviewed should be primarily submitted to CMI; only in cases where the publication is rejected by CMI EIC, another journal can be chosen.

#### 14.4 Public Consultation Procedures

The decision to start a Public Consultation Phase is taken by the Guidelines Director, in coordination with the Guideline Officer in the Executive Committee. The Guidelines Director may appoint a SC member to oversee the process for individual projects.

For official ESCMID guidance documents and for documents where *CMI* Editorial board has declared interest into publication *CMI*, this step will be performed in parallel to *CMI* peer review. Coordination with *CMI* editorial staff will be ensured by the Guidelines Director and the Guideline Manager.

The Guidelines Manager publishes a notification on ESCMID channels (newsletter, social media, website) Deadline is 4 weeks.

The Public Consultation Phase is restricted to ESCMID members, since it aims at representing ESCMID position. Only ESCMID members with at least one-month prior membership can apply.

All external reviewers at the Public Consultation Phase will complete the ESCMID Col form. Only reviewers free of financial Col or financial relationship with companies will serve as guideline reviewers. Disclosure of any financial relationship with an affected company will be cause for recusal of reviewer comments by the CGI-SC.

Interested professionals write to Guideline Manager, committing to confidentiality and to respond within the deadline.

At the deadline, Guideline anager collects all comments and sends them to Guidelines Director or appointed SC members to review and give comments.

The Guidelines Manager sends the list of comments to the panel Chair, for replying.

At the end of the process the panel Chair responds in written to each of the comments, either accepting to modify the manuscript or justifying why not doing so. Also, the comments by *CMI* peer reviewers shall be added to the list by the panel Chair, together with the panel responses.

#### 14.5 Outcome of endorsement process

The outcome of the endorsement process can be:

1. Not endorsed
2. Full endorsement
3. Endorsement of the guideline with comments for consideration.
4. Conditional endorsement of the guidance document. In this situation, the Guidelines Director appoints, a panel (through the corresponding SGs, Executive Committee, *CMI* editors, or any other reviewer) to review the document and approve or reject the endorsement
5. Partial endorsement: when only relevant parts of the guidance documents fulfil reviewers' criteria.

In all cases, the final decision of endorsement is made by the Guideline Officer and Executive Committee.

## 15 Publication, dissemination, and translation into other languages

Any publication or presentation derived from the work of a guideline panel needs approval from the ESCMID Guidelines Director. All the products of the work are ESCMID property, and will be used for future updates or other Societies purposes.

At the end of each project, all files and working materials need to be uploaded to ESCMID drives.

### 15.1 Splitting publication of recommendations

A single guideline project can be published in a sequential manner (as opposed to a single publication) provided that CMI Editor-in-Chief agrees. For instance, the panel might address first diagnostic recommendations, and subsequently therapeutic recommendations.

Advantages of this strategy would be faster publication and more manageable projects. Caution will however need to be exerted to prevent delays between publications, and to ensure consistency between evidence base, definitions and recommendations in the sequential publications.

The decision to proceed with two (or more) publications needs to be taken at a very early stage; after the PICOs definition (the number of questions to be addressed in the project will not change), the Chair and the ESCMID guidelines methodologist, together with the ESCMID supervisor, will consider whether the project is suitable for splitting recommendations.

Also, at the stage of project selection (see 7), the GLSC can suggest that the project qualifies for sequential publication.

### 15.2 Manuscript format and publication into CMI

All ESCMID guidelines will be published in *CMI* using the [template](#) available in the *CMI* instructions to authors, undergoing the standard peer review process in parallel with ESCMID public consultation. For guidelines, the publication will be open access, with no Article Processing Charge.

When recommendations are included in the abstract, certainty of the evidence and strength of recommendation should always be reported.

Also other types of ESCMID guidance documents should be primarily submitted to CMI and agreement should be sought with *CMI* Editor-in-Chief at the planning stage.

All guidance documents (guidelines or other) will be published in *CMI* as an Executive Summary of no more than 4,000 words. This summary should contain a short introduction of the background topics, the foreground questions together with the guide on each question, GRADE and recommendation, [G-I-N checklist](#) [9] and a very short explanation. A larger document that provides greater detail and has the same format as the Executive Summary will be available on the [ESCMID website](#).

### 15.3 Dissemination

Publication of ESCMID guidelines in other journals must be discussed with the ESCMID Executive Committee and the *CMI* Editor-in-Chief before starting the guideline development process.

Publication of all ESCMID guidelines and other guidance documents endorsed by ESCMID, will be announced through all available ESCMID channels (weekly newsletter, social media accounts). If deemed appropriate, a press release will be prepared as well.

Presenting ESCMID guidance documents, in part or full, in meetings or publications prior to publication is not permitted unless approved by the ESCMID Guidelines Director. Violation of this requirement will likely nullify their acceptance as ESCMID guidance document.

Presentation of the guidelines document at the ESCMID congress (ESCMID Global) has also to be agreed with the ESCMID Guidelines Director before the publication, possibly in an “open discussion” session, duly advertised, to improve the external review and public consultation of the final document (needs to be planned and coordinated with ESCMID GLSC).

In the publication of the guidance document, the methods part shall refer to the AGREE criteria and shall specify that they have been applied for data collection, panel assembly, assessment of author CoI and applicability of the guidance document.

Guidance document content should be adapted to other formats to increase usability (e.g. app, mobile website, pocket cards). This may be proposed and planned by the panel Chair or the ESCMID Guidelines Director during guidance document development to have these other formats ready at the time of guidance document publication.

### 15.4 Translating published guidance into languages other than English

Requests to translate published guidance document requires approval of ESCMID who will consult with the ESCMID Guidelines Director.

Conditions:

- The text must remain true to the original, must not be altered for commercial purposes and not contain any commercial material in the body of the published document. The draft translation has to be submitted to ESCMID for approval before publication. ESCMID reserves the right to appoint a reviewer fluent in both languages, or to ask for a back-translation if deemed necessary to ensure correct translation.
- Copyright of the official ESCMID guideline is owned by the publishers who must give their permission.
- The final text shall be made available for unrestricted availability on the ESCMID website and in addition may be published on a national infection society website.
- Neither part of nor the full translation must be presented/published before official publication of the original ESCMID guidance document.

## 16 Guideline Updates

Keeping the guidelines timely and updated with the most recent evidence, is a priority to support best practice in the diagnosis and management of infectious diseases. Guidelines update is a standardised procedure to review the currency and validity of the recommendations provided in a previous version of a guideline. Updates can be classified in two categories:

- *Full updates* involve the reassessment of all PICO questions from the previous version, in order to judge if they still address a current clinical question, modifying the existing questions or adding new ones if necessary.
- *Partial updates* will be limited to the assessment of new evidence regarding one or few specific PICOs of critical interest, either if it is a new PICO or a question already included in the previous version of the guideline.

Both full and partial updates can be prompted according to a predefined schedule or by an *ad hoc* request provided to ESCMID through the specific channels defined in this document.

### 16.1 Timing for guidelines update

#### 16.1.1 Role of the original panel in defining the timing

ESCMID guidelines must be published with a predefined time frame to be updated, according to the level of certainty of the developed recommendations, the expected new evidence in the incoming years or the clinical relevance of the questions addressed by the guideline.

At the time of the original publication, the panel must propose a predefined schedule for the regular update of any ESCMID guideline.

The panel is recommended to check the primary document of the guideline using the UpPriority tool before publication in order to properly assess the ideal time frame for updating, and also to eventually define specially relevant PICOs whose update may need an earlier review in an interim partial update. Thus, PICOs with the highest ranks can be considered for an interim partial update, delaying the assessment of the remaining PICOs until a full review is considered.

The GLSC will encourage yearly meetings of the panel after the guideline publication, to discuss if the predefined update schedule remains appropriate. The GLSC-designed guideline supervisor will contact the panel Chair with a yearly basis to promote this meeting.

In general, a full update of guideline should be done within a 5-year period from its publication. If a guideline is not updated within this period, the ESCMID GLSC may designate an alternative panel chair to lead the update or review the document for archiving if considered outdated.

The date of the last update of each guideline will be shown on the ESCMID website together with its status (current, outdated, review currently in progress).

### **16.1.2 Role of the GLSC in defining the timing**

Regardless of the date for the review planned by the panel, the GLSC may decide a reschedule, according to the priority of the rest of ongoing or upcoming projects, and the available resources at the time the review is planned to begin.

The GLSC will periodically review and adjust the schedule for updates. Factors influencing this decision are detailed appendix 2. The score defined by this table will serve as an orientation, and will be subordinated to the final decision of the GLSC and the Executive Committee.

The GLSC will set a schedule for periodical reassessment of the update status of current guidelines.

### **16.1.3 Role of the ESCMID community in defining the timing**

In order for ESCMID to be able to respond appropriately to the needs of healthcare providers, full or partial updates of specific questions can also be promoted by ESCMID study groups or individual members.

ESCMID study groups or individual ESCMID members can request partial updates of specific questions. The GLSC will assess these proposals, balancing its potential relevance with current workload and available resources. If needed, the GLSC may ask for advice from the chair of the panel of the requested guideline.

## **16.2 Who should perform the update**

In general, it will be desirable to look for the continuity of panel for a more efficient work when developing an update. However, specific situations may require changes in the original panel.

- The panel should be ideally constituted by the same authors responsible for the development of the primary guideline. If it is not possible to gather a sufficient number of participants from the previous panel, or if the update involves new PICO questions requiring different expertise, a formal call for new authors may be performed by the GLSC according to the standard procedure for new guidelines, to integrate or even replace the original group. In any case, the ESCMID Executive Committee needs to approve any changes to the original panel.
- For interim partial updates, the panel may designate a more limited group of authors, within the original group, more closely involved in the development of the specific PICO questions to be reviewed. The chair of the panel must participate in each of these groups, as well as the same in-house guideline methodologist.
- At the moment of planning the update, CoI declarations of participating authors need to be renewed. The emergence of new CoI may justify the removal of a member from the original panel, according to ESCMID policies.

## **16.3 Identifying new evidence**

The update of the guideline will commence by reassessing the PICO questions from its previous iteration, in order to define an accurate search strategy for new evidence. In general terms,

the identification of new evidence will follow the same procedure as for newly developed guidelines, but certain adaptations can be enabled in the case of updates for the sake of efficiency.

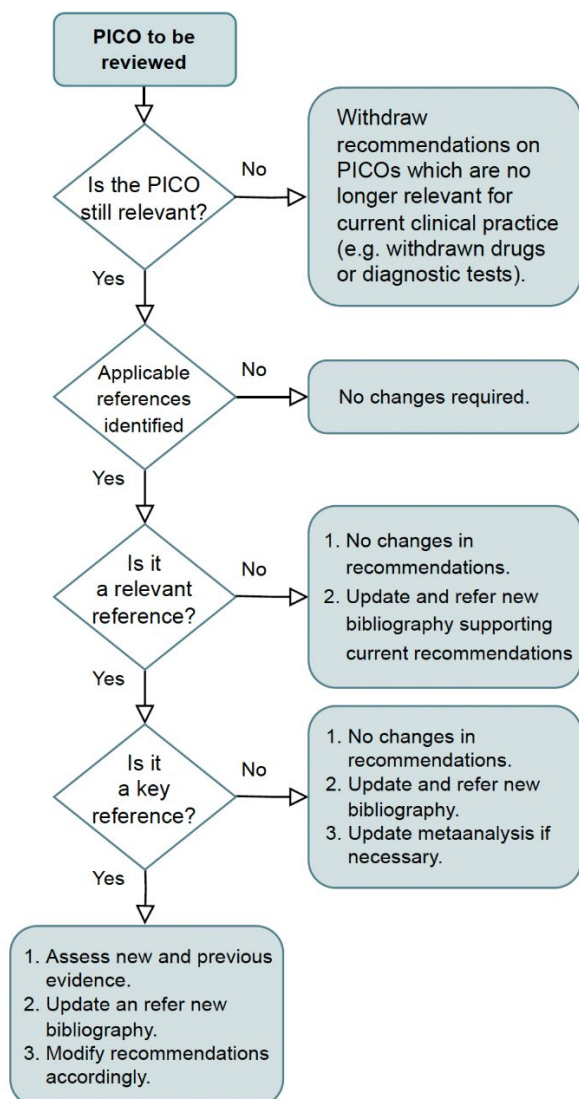
- Full reviews will assess all the PICOs from its previous version, in order to judge if they still address a current clinical question, modifying the existing questions or adding new ones if necessary. Interim partial updates will typically be limited to the update of new evidence regarding specific PICOs of critical interest.
- In general, evidence search will be performed following the same methodology as for newly developed guideline. For those PICOs which are maintained unaltered, the prior search strategy may be re-run with specific date limits following the latest search. For new PICOs, or those significantly modified, it will be necessary to develop a new search with no date limits.
- The panel will count on the support of a methodologist, and, if feasible, an experienced information specialist to supervise the adequacy of the search strategy.
- New identified references will be classified in one of the following categories:
- 

Relevant reference	Reference related to the addressed topic, which provides useful data for updating the previous recommendation, but does not imply a change on its own.
Key reference	Reference related to the addressed topic which may potentially change the previous recommendation on its own. This modification may be:  <i>Qualitative:</i> if they modify the reach (new patient subgroups, new interventions or new outcomes are detected) or the formulation of the previous recommendation (i.e. the strength of the recommendation).  <i>Quantitative:</i> if previous outcome measures are significantly changed (sometimes after introducing this new reference into a previous meta-analyses), either because changes in previous statistical significance, or in the magnitude of the effect on relevant outcomes.

#### 16.4 Updating previous recommendations

The impact of newly gathered evidence over previous recommendations must be then assessed by the panel in a standardised manner.

- The methodology for assessing the new evidence, including data extraction and analysis, risk of bias assessment, as well as new recommendations elaboration if necessary, will be the same as the original guideline.
- The following algorithm is proposed for the panel to decide the potential actions needed resulting from new evidence assessment:



– As a result of the review, the following modifications may be performed:

- New recommendations.
- Reviewed modified recommendations.
- Reviewed unmodified recommendations.
- Withdrawn recommendations.

– The panel must elaborate a detailed record of any of the previous modifications throughout the update process.

### 16.5 Formal aspects and authorship for publishing updates

A homogeneous format is desirable across all ESCMID guidelines. General formal aspects in updates should be compliant with recommendations for newly developed guideline. However,

there are several specific recommendations to be considered by the panel when redacting an update, which must be properly addressed in each specific section of the new guideline version.

- *Title*. The updated version must be clearly differentiated from the original version in the title of the document. The year in which the update has been performed must be set in the title.
- *Authors*. In the case of full updates, authors of former versions will not be included in the by-line of the new version if they did not participate in the update, but they will be named in the acknowledgments and authors' contribution sections. For partial updates, authors responsible for the update will be added to the by-line of the primary document, if not previously included.
- *Aim and scope of the update*. Justification for the need of the update must be described. Changes in the scope must also be set if necessary.
- *Questions addressed*. A list of addressed questions by the current update must be presented. For partial updates, reasons to prioritise specific questions must be discussed, and questions pending to be updated later during the full-review process should be listed.
- *Recommendations*. New, modified and removed recommendations must be clearly defined and changes must be properly justified. Reviewed unmodified recommendations must also be addressed; in these cases, references will be updated, and previous justification may be considered to be rephrased according to new ensuring data.
- In the case of partial updates, the new document should bring together the updated information and also the standing information from previous versions of the guideline, in order to provide users with a unique document to be consulted. Readers of the updated document should be able to easily identify changes.
- *Ethical aspects*. An updated list of potential conflicts of interest of the current panel and funding sources must be acknowledged, according to current ESCMID CoI policy.
- *References*. The primary guideline (or previous iterations in case there were previous updates) must be cited.
- An executive summary of no more than 4,000 words must be developed, concisely addressing all previous sections.

## 16.6 Peer-review and public consultation

Guidelines updates must follow the same process for peer-review and public consultation as new guideline.

## 16.7 Dissemination

The same principles as for the original guidelines apply.

The executive summary of the update will be published as an open-access document in *CMI*. The full-size document will be also available on the ESCMID website.

Published updates will be timely disseminated on social networks through the institutional accounts of ESCMID and *CMI*.

Full guideline updates will be proposed for specific sessions at the next ESCMID Global after the document publication, at the discretion of the ESCMID Global Programme Committee and the GLSC.

Once the new version of the guideline is published, the outdated version will be removed from the ESCMID website. The original files of removed versions will be archived by ESCMID for the sake of transparency and traceability.

Requests to translate published updates require approval of ESCMID, who will consult with the ESCMID Guidelines Director. Conditions for translating updates will be the same as for new guideline.

## 17 Living guidelines

Guidelines addressing clinical questions of critical relevance with rapidly evolving evidence could be considered to be developed as living guidelines, which allows for more frequent, periodic updates.

Living guidelines should follow the GRADE approach methodology as specified in section 13. The special additional requirements for living systematic review are specified in table below. Further information on living guideline methods can be found in Methods for living guidelines series in the Journal of Clinical Epidemiology[10–14]. The panel for the living guidelines will be selected as per the usual SOPs (see 9); in short, 1/3 suggested by the group leading, 1/3 by the EC, GL Director, and GL Committee, and 1/3 by open call not limited to ESCMID members.

Background	
Justify the need for a living guideline	For whom is this a priority topic and why do authors expect regular changes to the recommendations?
Responsibilities	The persons responsible for each of the components of a living SR
Update strategy and frequency	Continuous, fixed time points (define), trigger-based (define trigger)
Website for the living guidelines	Where the current status of the guidelines with the last update will be accessible
Systematic review methods	
Systematic review update protocol	Define which parts of the review will be redone and which will only be updated
Artificial intelligence	Description of AI tools used, if any
Methods of ongoing search	Sources, frequency of searching, mechanisms, study triage
Date of last search	Per data source
Conditions for repeating the meta-analysis	Report the criteria for repeating the meta-analysis
Statistical methods for the updated meta-analyses	Addressing type I error inflation

Conditions for stopping the updates	End date for the “living” of the systematic review or rules for ending the update process
Evidence to decision methods	
Criteria for re-considering recommendations	Define the changes that will raise the need to re-discuss the recommendations
Pending recommendations	Address whether the ongoing process of the living systematic review has already identified potential new evidence that was not included in the current version of the recommendations
For guideline updates	
Reference the original guideline publication and previous updates	Links between review versions, also in abstract
Changes to the methodology of the guideline	Define changes in scope, inclusion criteria, or other methods
Changes to the recommendations	Include a summary of whether and how recommendations were changed
Authorship	Describe and justify changes in authorship in the acknowledgement section

At the time of writing, the ESCMID GLSC is working on a living guidelines project to derive specific procedures for living guidelines, which will be incorporated in this manual at a later time.

## 18 Guidelines implementation

Guidelines should be developed with the perspective of practical implementation, depending on the scope. Scope and desired implementation setting should be discussed early in the process, before PICO questions are discussed. ESCMID will produce a document on implementation of ESCMID guidelines in the near future.

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