

Cochrane Scientific Committee

Terms and Conditions for Scientific Practice

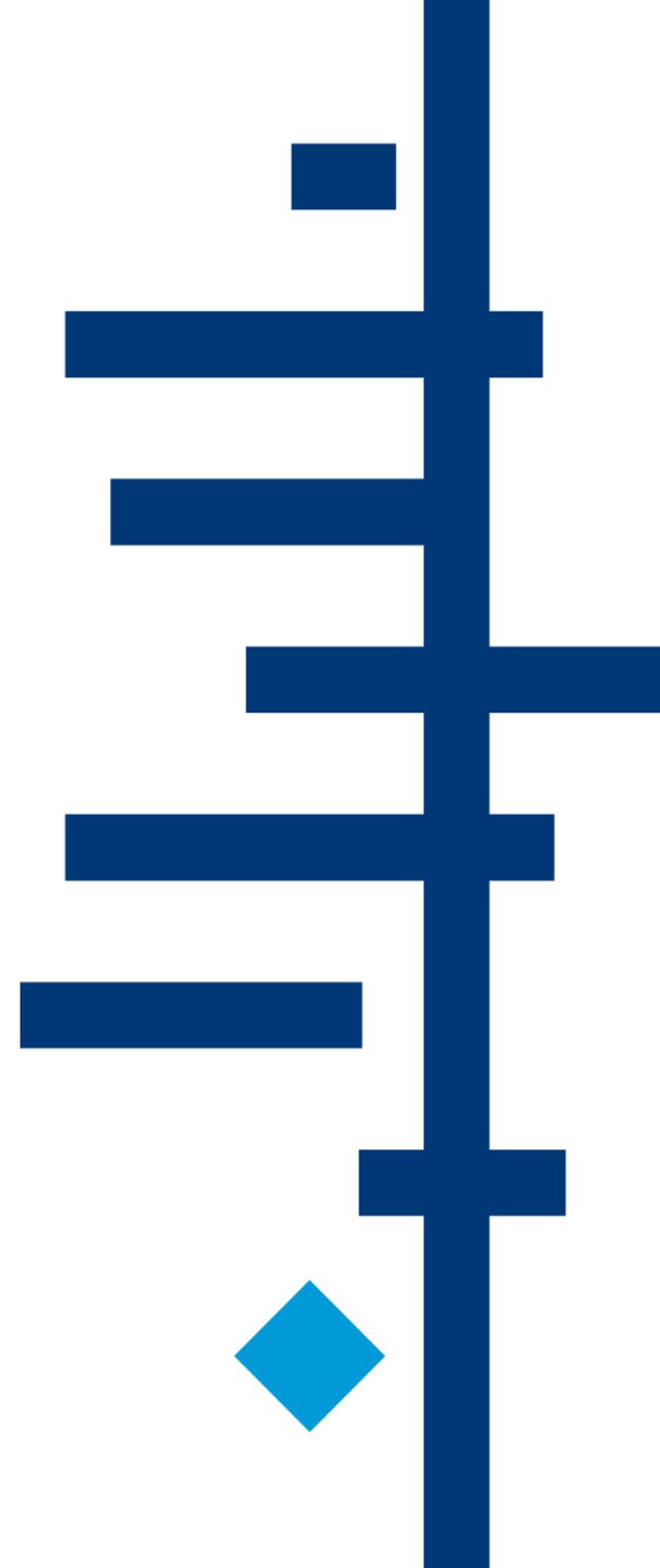
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Cochrane Scientific Committee

The Cochrane Scientific Committee (CSC) will provide impartial recommendations on methods for Cochrane Reviews

1. Introduction

Evidence synthesis for health care is undergoing rapid change with many methodological advances emerging. These include diagnostic test evaluations, prognosis studies, [IPD studies analysing individual participant data](#), big data research, [data automation techniques](#), and [real world integration of observational evidence studies](#). Cochrane's Strategy to 2020 identified the need to continue to identify, critically evaluate and implement methodological advances for the benefit of health care decision makers (health care practitioners, policy makers and consumers).

Following an internal Methods Review in 2015 the Cochrane Governing Board agreed to establish a body to guide strategic decisions on 'what' methods Cochrane should employ in its Reviews, and which new methods or types of Cochrane Reviews Cochrane should embark upon, anticipating the 10-year research horizons of numerous influential institutes such as EU (Horizon 2020), NHS (UK) and NIH (US). This will involve new review methods, possibly

addressing different types of review questions, additional methods to those currently in use, new sources of data, technology advances, and changes to current methods. In addition, some methods currently in use could become obsolete or inappropriate.

2. Relationship between CSC, Cochrane Methods Groups and other experts within and beyond Cochrane

This ~~new~~ Committee will represent the main ~~decision-making~~ [decision-making](#) body to agree what methods are employed within and outside Cochrane and will advise the Editor in Chief. In making its judgements the Scientific Committee will draw upon expertise within the Cochrane community, including Cochrane's Methods Groups. The Methods Groups represent networks of expert researchers with expertise and experience in specific areas of methodology who support Cochrane by conducting methods research, developing tools to guide best practice in methods, producing guidance and providing training on methods. Other Cochrane experts, and methods experts not working within Cochrane, will provide additional expertise. The CSC will provide an overview of recommended methods for priority implementation and arbitrate between expert differences of opinion.

3. CSC purpose and area of responsibility

The Cochrane Scientific Committee (CSC) provides an independent forum to discuss, debate and agree current and future methodological issues. The Cochrane Board's delegated authority to the CSC will support the Editor in Chief of the Cochrane Library, to determine the most appropriate methods for implementation in Cochrane Reviews. The CSC will work in close association with the Methods Groups. However, whilst the CSC will inevitably wish to consider and advise on implementation, this is not its primary role. The burden of responsibility and justification as to how recommended methods are implemented will rest with review authors and their respective Review Groups, and ultimately the Editor in Chief and the Editorial Board. However, weighing up the implementation impact with the relative value to adopt a new method is useful.

4. Governance of the CSC

The CSC is an independent arm's length body reporting to the Editor in Chief who reports to the Cochrane Board.

Aims and objectives

Aim: The CSC will advise Cochrane on recommended methods for its Reviews, by maintaining vigilance on the ongoing development of systematic reviews and future methodological possibilities collaborating with Cochrane's Methods Groups and other experts in Cochrane.

Objectives:

Specifically, the CSC in collaboration with Methods Groups and other experts will:

- Consult, in the first instance, with relevant Methods Groups and other methodological experts internal or external to Cochrane.
- Address current outstanding methodological issues, where there is a difference of opinion or ambiguity regarding whether specific methods should be implemented or not.

- Identify (horizon scan) important methods that Cochrane should prioritize for implementation in the immediate, short to medium and long term.
- Arbitrate between different professional opinions on methods and their application, in support of the Editor in Chief and the Editorial Board in implementing the most appropriate and up to date methods in Cochrane Reviews.
- Provide recommendations on methods, advising on whether a method is best practice, recommended, permitted or not permitted from a pool of available methods, clearly stating whether a method is no longer appropriate and should cease to be used.
- Provide recommendations on methods that Cochrane should prioritise for evaluation and development, negotiating with the appropriate Methods Group and other experts.

5. CSC principles of scientific practice

The CSC will provide, to the best of its members' ability, impartial advice that benefits Cochrane allowing it to meet its strategic objectives, following principles of scientific practice outlined in these terms and conditions. The CSC's deliberations and recommendations must provide the best available advice. This advice, as far as reasonably possible, should be based on available evidence provided by evaluation, or current expert consensus (Methods Groups and other experts). Importantly, advice and decision-making should be credible, ensuring its integrity. The CSC should communicate with clarity and completeness on how it obtained its information, and reached a consensus decision.

5.1. Individual members

Scientific integrity of the CSC, although requiring formal rules and governance structures, also requires individuals to act with intellectual honesty taking personal responsibility for their actions and decisions, and requires individuals engaged in scientific practice to:

- Assume responsibility for their actions
- Display critical thinking and strategic awareness
- Fully disclose any potential bias or conflicts
- Refrain from being affected by outside interference and censorship
- Ensure adequate procedural and information security
- Be prepared to report any breach
- Represent other people's work fairly and accurately and acknowledge the contribution of others
- Incorporate an awareness of equity issues
- Maintain objectivity uninfluenced by one's own prejudices and prior beliefs
- Acknowledge differing views and opinions with respect and sensitivity

5.2. Independence and objectivity

CSC members' decisions should not be influenced by any other consideration other than the scientific basis of the advice provided. CSC members should refrain from any political or commercial influence. CSC members engaging in the principle of independence need to ensure that their processes reflect an independent approach.

5.3. Transparency

Scientific advice provided, conclusions drawn, limits of their validity and the relevant uncertainties must be clear and understandable. The process and rationale for decisions made must also be clear and understandable. Should members involve any third party or invite in expertise, the process and rationale for doing so must be explicit.

5.4. Declaration of interests

Members are required to declare conflicts of interests in line with Cochrane guidance for the three years preceding the start of their term of office. This should include Cochrane methods members have developed. Members are required to do this on an annual basis and are responsible for updating the CSC, should there be a change affecting their previous disclosure in the meantime. We expect members to adhere to the Cochrane Commercial Sponsorship policy (see appendix 1).

5.5. Confidentiality

CSC discussions should be conducted in the spirit of transparency. However, CSC members are asked to exercise due diligence and not divulge information deemed to be confidential beyond the CSC and its sub Committees, and if appropriate the relevant Methods Group or expert. In addition, members should maintain confidentiality of all CSC discussions and opinions for future recommendations before their public announcement and dissemination.

6. Committee membership and structure

6.1. Committee structure

The CSC is an independent arm's length committee within Cochrane's governance structure, to ensure the independence of its view to the Cochrane membership and its stakeholders. CSC will consist of up to fifteen members. The Editor-in-Chief will sit on the committee as a non-voting member and will take part in the CSC's deliberations and discussions. He/she will advise the CSC on procedural and editorial issues to inform discussions as appropriate. The Methods [Implementation](#) Co-ordinator will support the activities of the CSC, and is not a member and does not have voting rights.

The CSC needs a quorum of 10 [elected](#) members ([see 6.2 –members from within the Cochrane community and external members](#))~~excluding the Editor in Chief~~ for decisions. This should include at least one co-Chair, ~~and the Editor in Chief~~. CSC members can continue to meet when not

quorate to continue with work in progress. Any decisions or developments should be subsequently ratified by a quorate CSC.

6.2. CSC membership

CSC members are credible and influential members of the research evidence synthesis community. They will demonstrate active involvement in the practice of conducting reviews and developing review methodology. CSC membership is unlikely to include expertise across all possible methods so the CSC can co-opt appropriate experts at its discretion. These co-opted experts may attend a single meeting or work on sub-Committees for a fixed pre-determined period. The CSC will need to decide based on the 'membership' status of the additional member whether it is appropriate for them to have voting rights or not. The composition of the CSC membership is:

- Six ~~to eight~~ members from within the Cochrane community who either have a strong focus on methods research and development, or editorial skills and healthcare experience with strong methods interests. Evidence of a longstanding leading role in Cochrane is an additional requirement. However, the selected member does not represent any entity in Cochrane.
- ~~Four to s~~ Six external members for independent balance. These people are senior experienced research leaders within their specialist field, who have a wide knowledge of systematic review methodology, or senior experienced systematic reviewers or editors with a known interest and experience in methodological development. At least two of the external members will also represent stakeholders and end users of reviews e.g. agencies using Cochrane Reviews in guidelines, health research funders and those representing consumer interests.
- The Editor in Chief (or Deputy Editor in Chief)
- An early career researcher who is also within 5 years of completing a PhD, developing a relevant methodological track record. This is a mentored position for up-and-coming early career researchers in the

field, where the role is observational, and they do not have voting rights.

Selection will consider geographical location, gender and language diversity and any other considerations of equity. The CSC will take responsibility for the selection of members following a process of open nomination for suitable candidates.

Any member of the Cochrane community who meets the member criteria (see below section 6.3) can nominate themselves to become a CSC member. If multiple suitable candidates step forward, Independent of the number of suitable candidates, CSC members will be asked to vote on the candidates (one vote per member); if multiple suitable candidates step forward, each member will rank the candidates in order of preference, or if only one suitable candidate steps forward, each member will vote on whether they should join the CSC or not.

6.3. Member criteria

A spectrum of expertise is sought. Individuals will not necessarily meet all criteria. The following provides a baseline line that may be subject to amendment by the CSC. Aside from the early career researcher, we expect nominated members to have a high level of experience (5 years+) in their specific field and hold senior positions. The CSC needs the following breadth of experience across its membership:

1. Methodological research
2. Conducting, editing and publishing Systematic Reviews
3. Senior management of evidence producing systems, e.g. guidelines.
4. Similar scientific or research committees.
5. Health research funding, grant management or health policy.
6. Consumer advocacy.
7. More than five years' senior level experience holding a senior institutional position
8. Early career researcher who is also within 5 years of PhD.

9. Expertise in developments using technology for methodological purposes
10. Committee chair experience

6.4. Selection and role of Co-Chairs

The CSC will select two Co-Chairs from amongst its membership. Co-chairs are responsible for CSC conduct. Co-Chairs will manage the agenda and briefing of members in consultation with the Editor in Chief and the Methods [Implementation](#) Co-ordinator. The Co-Chairs are expected to have experience chairing similar bodies, and should have strong communication and conflict resolution skills. The Co-Chairs may be required to represent the CSC on certain occasions.

The Co-Chairs hold office for two years, with annual elections so only one Co-Chair rotates off in one calendar year. Any CSC member with two or more years remaining on the CSC can nominate themselves to be Co-Chair. If multiple suitable candidates step forward, CSC members will be asked to vote on the candidates (one vote per member with candidates ranked in order of preference). Co-Chairs may continue to hold office for a further two-year term with the approval of the CSC members. After completing two terms, an individual may not stand again as a Co-Chair.

6.5. Terms of office

All terms will be for three years and each CSC member will automatically rotate off at the end of their term. To ensure continuity, terms will be staggered to ensure that approximately one third of the CSC is replaced in a given year. A two-term limit will be set on the number of terms that may be served (six years), but reappointment is contingent upon the CSC members' approval. If elections fail, members may be asked to serve another year.

Terms of office are initially for three years, extended on request for a further two years at the Co-Chair's discretion. No member should serve for more than 5 years. Co-chairs should change every two years.

Staggered membership at CSC inception will ensure continuity throughout the CSC life cycle.

6.6. Termination of membership

We request members give prior notification, at least one meeting in advance, when resigning from the Committee. The Co-chairs are responsible for membership management. Co-chairs of the CSC are obliged to consider termination if a member has:

- not attended three consecutive meetings, or any meetings in one year.
- acted beyond the scope of Cochrane policy e.g. Spokesperson policy, Commercial Sponsorship Policy.
- acted in a manner that undermines the scientific integrity of the Committee.
- breached any of these terms and conditions.
- acted in a manner considered inappropriate by CSC members (including the Editor in Chief) supported by the Co-chairs of the Cochrane Governing Board.

The CSC Co-Chairs (in consultation with the Editor in Chief) will determine whether the Committee member should leave the CSC immediately or within a given notice period. The Co-Chairs will communicate and record clearly in writing the reasons for their decision.

The CSC Co-chairs can take the option to counsel the member making a written record of their recommendation to allow the member to continue membership.

Should such a breach occur involving a CSC Co-Chair, the Editor-in-Chief will seek the advice of the Governing Board Co-Chairs and support for any subsequent action.

6.7. Officers of the CSC

The Methods [Implementation](#) Co-ordinator will manage CSC support and liaison ensuring the fulfilment of CSC processes and obligations. They will support the Co-chairs and the Editor in Chief with agenda and member management. This will include:

- managing the agenda and action points from meeting to meeting;
- submission of agenda items from CSC members, Cochrane Methods Groups and other Cochrane members and any external submission if appropriate;
- organizing and supporting scientific reports and statements;
- dissemination of recommendations;
- scheduling a calendar of meetings and any special or extraordinary meetings as required;
- supporting the management of selection and induction of new members.

6.8. Sub committees and work groups

The CSC can set up *sub committees* on an ongoing basis, if required, although it retains responsibility for the sub-committee and should ensure proper reporting mechanisms. For short term, focussed work the CSC can establish *work groups* provided with specific, clearly defined tasks and objectives. Again, the CSC retains responsibility for the work group and its output to ensure proper reporting mechanisms. For both sub-committees and work groups the CSC is at liberty to co-opt appropriately skilled people to meet its objectives.

6.9. Members responsibilities

All Committee members should maintain the scientific integrity of the CSC maintaining a balanced viewpoint that objectively ascertains the right approach for Cochrane. Committee statements and reports should be of a high quality reflecting scientific integrity, due diligence and consideration.

CSC members are expected to attend all meetings unless prevented due to unforeseen circumstances or prior engagement and notification. Committee members unable to attend three meetings in a row or no meetings within one year may be asked by the Co-chairs to stand down from the Committee. Cochrane expects Committee members to familiarize themselves with all pertinent Cochrane policies, including the Spokesperson policy (see appendix 2).

For the CSC to function properly members will need to ensure they have capacity within their primary roles to undertake Committee activities as specified here. Expectations are attendance at teleconference meetings, occasional face to face meeting, involvement in sub-Committee activity and contributing to statement or report writing. Also, members are expected to read and familiarize themselves with papers presented in support of agenda items. This may require up to 5-8 days per year. Co-chairs will need to provide some additional support.

6.10. Membership support

Cochrane will support all virtual communication. We do not anticipate the need for regular face to face meetings, but if these are required, Cochrane will cover travel and accommodation expenditure, within the limits of Cochrane's expense claims policy. Additional out of pocket expenses will be negotiated on a case by case basis.

6.11. Risk and indemnity

Individual members are professionally liable for their own conduct within their CSC role, and ensuring all Conflicts of Interest are declared. Cochrane accepts all opinions in good faith, it cannot be liable for misappropriation of information.

7. CSC functions

The Committee will convene as often as needed to address the issues tabled for discussion. A CSC discussion forum will allow members to discuss and tease out pertinent issues for further investigation or information from support staff (Methods [Implementation](#) Co-ordinator) before meetings. The CSC may on occasion convene in response to urgent issues that arise. It may

also require experts to present and address the CSC. CSC agenda, decisions and recommendations are open access unless pre-determined as restricted. Agenda development will involve submissions to the CSC for consideration and scientific opinion.

In order to agree on the adoption of a new method a broad consensus (following input from Methods Groups and other experts) is ideal, however when a consensus cannot be reached, there should be at the minimum a majority (80%) of CSC members supporting a recommendation. If this is not the case, refer to section 10.

7.1. Agenda management and submission of items

7.1.1. Responsibility for agenda organization and minutes

The Co-chairs and the Editor in Chief with support from the Methods [Implementation](#) Co-ordinator, will manage the agenda reviewing items submitted, prioritising those for action and organizing items as appropriate. This will require additional input from the Co-chairs, via teleconference, to support CSC function. We will keep additional communication to a minimum using other media other than a conference call. The Methods [Implementation](#) Co-ordinator will manage minutes, actions and work plan.

7.1.2. Submission of items for discussion

A submission system through the Methods website will on a regular basis, linked to planned CSC meetings, call for initial expressions of interest. This will only record essential information. The CSC will review these submissions and request further information and supporting evidence to fit in with the CSC schedule of meetings and their agenda priorities. A feedback system will log and a record progress and decisions on submissions and communicate to the originator. Submissions are expected to come from a variety of sources: primarily Methods Groups, and then CRGs, Centres, Fields, and other individuals with research interests either members or non-members (interested parties linked to other projects). CSC members may also submit proposals for consideration. The member will not vote on their specific submitted interest.

7.1.3. Meetings and symposia

Members can anticipate at least two meetings a year. On occasion, it may be necessary to call an urgent extra-ordinary meeting. The CSC may invite an open forum from time to time to provide an opportunity for transparency and wider discussion on current debates (e.g. Symposia or workshops – specific funding will need to be agreed).

7.1.4. Production of consensus scientific statements or reports

Minutes of the meeting are required to be succinct and open access (in plain language) and report CSC activity and management. In addition, Cochrane will require a brief open access annual report submitted to the Cochrane Board. The Committee will form its decisions and recommendations on methods in clearly worded ‘CSC Statements’ or for detailed accounts in a ‘CSC Report’. These statements and reports are open access unless otherwise restricted for reasons provided. These open access reports or statements should be widely distributed and made accessible. Following decisions on implementation by the Editorial Board and the Editor in Chief roll out will be support by the Central Executive who will co-ordinate implementation of recommendations (see section 8.5).

7.2. Processes and work plan

The CSC will review, assess and judge the appropriateness of material submitted for discussion, request additional information, discuss and deliberate, or advise further evaluation (See section 9).

We envisage the work of this committee to involve the following steps (see fig.1):

- Review of methods, their assessment and priority
- Co-opting specialist advisers where appropriate
- Reviewing evidence produced in relation to submissions to the Committee
- Seeking additional information

- Advising on additional work, development or evaluation
- Consideration of the likely implementation challenges
- Committee deliberation to form recommendations
- Production of written statements on recommended methods and/or further evaluation required.

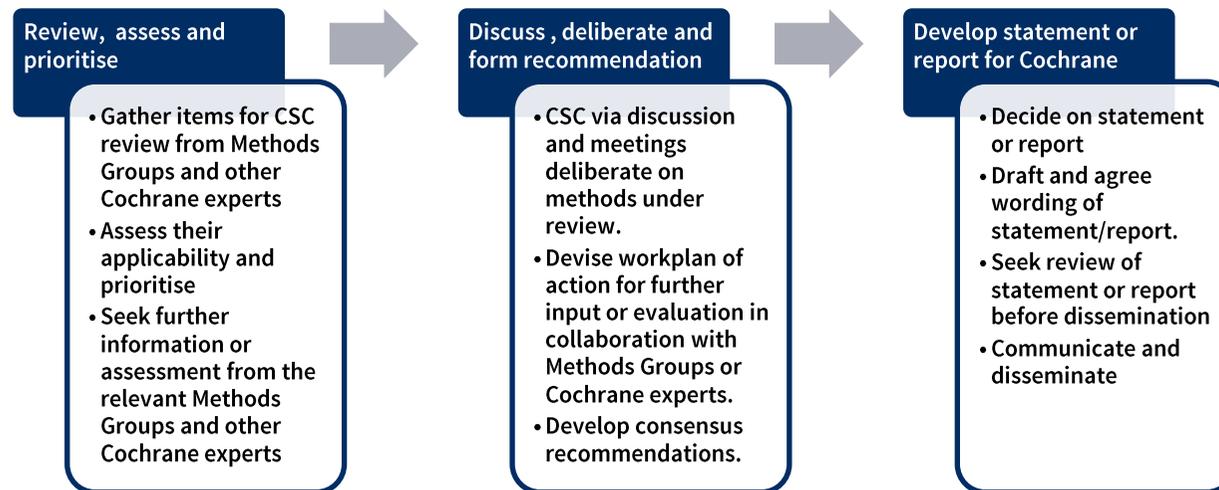


Fig. 1

7.2.1. Work plans

A key CSC task is the development of a research agenda mapping and prioritising current developments in the evidence synthesis field. Co-Chairs in co-operation with the Editor in Chief supported by the Methods [Implementation](#) Co-ordinator will manage the development of the research agenda in cooperation with CSC members.

8. CSC relations within Cochrane

8.1. Cochrane Governing Board

The CSC is independent. Should the Committee or members of the Committee seriously breach these terms and procedures and bring Cochrane into discredit, the Governing Board and the Editor in Chief have responsibility for managing the situation. Otherwise, all CSC matters and decisions should firstly go through the Editor in Chief, although if this is not satisfactory to members they can request Governing Board guidance and support.

8.2. Methods Groups

Cochrane's Methods Groups are Cochrane's in house experts providing ongoing methodological advice, support and training directly to

Cochrane. These researchers also conduct research as part of their individual research agenda's as well as conducting research specifically for Cochrane. These Methods Groups will predominately put forward Methods for CSC consideration. Minor changes to current methods or tools that do not fundamentally change the method but are just enhancements to improve methods already agreed do not necessarily need CSC review. However, Methods Groups may wish to seek the authority of the CSC to facilitate take up by Cochrane.

8.3. Editor in Chief

The Editor in Chief is a non-voting, ex-officio member of the CSC. They will keep the CSC advised on current issues regarding CRG methods practice, the quality of reviews, and implications for implementation of methods in Cochrane Reviews.

8.4. Cochrane Library Editorial Board

CSC Statements and Reports will go to the Editorial Board (and others) for consideration. The Editorial Board can petition the CSC on their recommendations, however, the Editor in Chief will make the final decision.

8.5. Cochrane Central Executive

The primary contact within the Central Executive Team (CET) will be the Methods [Implementation](#) Co-ordinator. Several departments within Cochrane will support the CSC when required, for example, Communications and External Affairs. The Editor in Chief will provide the necessary communication and reporting structure between the CSC and the CET Senior Management Team.

9. Methods implementation

Cochrane agreed processes for experimentation and evaluation of methods before their wide spread implementation. This process of defining the type of methodological change and the processes of development (e.g. pilot, evaluation or exemplar development) and decision-making, include whether adoption is universal or self-selecting by Cochrane Review Groups or Review

author teams. The CSC will give due attention to Cochrane's current procedures for testing and evaluating methods before their implementation.

9.1. Implementation of recommendations

Implementation of recommendations is not the responsibility of the CSC, although they may advise. The Editorial Board along with support from the Central Executive Team will manage implementation of recommendations. Implementation of methods will most often start with a process of development and evaluation that can involve testing and piloting by Cochrane Review Groups before widespread implementation.

10. Handling disagreements and disputes

10.1. Diverging opinions

On occasion expert opinions diverge and it may not be possible to resolve these differences of opinion. Further evaluations may be required. The CSC should provide a report or statement clearly outlining the differences and their implications, with any recommendation for action as appropriate.

10.2. Disputes and disagreements

Should a dispute occur between CSC members, or between the CSC and members of Cochrane or Central Executive Staff that is unresolved through discussion the following steps should be undertaken.

Both Co-Chairs of the CSC and the Governing Board with the Editor in Chief should decide a plan of action.

This plan should include a meeting with the key Cochrane members (MG and CRG and others based on the nature of issue), CSC members, both sets of Co-chairs, and the Editor in Chief; they should agree a process for resolution. The Board will make the final decision.

11. Communications

11.1. The Website

A page will be designated on the Cochrane Methods website for managing communications (discussions) between CSC members. The page will also provide open access to any documentation including agendas (work plans), minutes, statements and reports.

11.2. Communication

The CSC through the Editor in Chief and the Methods [Implementation](#) Co-ordinator will liaise with the Communications and External Affairs department on internal and external communications.

12. Advisors to the Committee

12.1. Methods Convenors

Methods Convenors are an important community of experts attached to Cochrane, who will be very familiar with the Cochrane context for methodological development and implementation. Cochrane expects their active participation when appropriate methodological discussions arise. The CSC might require additional input from a wider base of advisers. However, these in-house experts should be the first of port of call and there should be ongoing dialogue with active engagement of the relevant Methods Group(s)

12.2. External advisors

The CSC should seek additional expertise, as and when, appropriate. This will ensure a balanced and considered approach to deciding on appropriate methodology. Likewise, including external advisors will ensure Cochrane remains abreast of all developments and future possibilities.

14. Independent review of CSC

The CSC will undergo two yearly review of its processes, management and output. A special review team considered 'independent' of any interest in the CSC will conduct the review. The Editor in Chief, however, will lead this review supported by the Methods [Implementation](#) Co-ordinator.

13. Dissolving the CSC

13.1. Failure to carry out its obligations

If there are concerns that the CSC is persistently unable to function and meet its obligations as set out in this document, or that the ambition of this guidance is unrealistic, an independent review conducted at the earliest opportunity will recommend either dissolution of the CSC or amendments to these terms.