CCS Guidelines

Development Procedures and Policies

Revision History

Date	Status	Author	Description of Change
Nov 2012	New Draft	S. Oliver	Created new document by merging existing development TOR and Heart Failure development document. Updated and expanded sections to reflect current procedures and incorporated content from Dr. Stan Nattel, CJC editor in Chief
Jan 2013	Approved V1.0	S. Oliver	Incorporated comments from Guidelines Committee Chair. Removed inserted forms and replaced with links to website
October 2013	V1.1	S. Oliver	Updated appendix B editorial Information to reflect new procedures for online publication. Edits
April 2015	V2.0	S. Oliver	Updated CCC presentation section and Appendix A summary of procedures. Switched order of appendices
March 2016	V2.1	C. Brooks	Updated website links. Removed tracked changes from '*Information about review and publication.'* Section. Added mention of Appendix B within document
November 2016	V2.2	M. Byrne	Updated strength of recommendation from 'conditional' to 'weak' as per Guidelines Committee
December 2016	V2.3	K. Sadler	Added author block instructions
July 2017	V2.4	S. Oliver	Added peer review instructions
July 2018	V2.5	C. Brooks	Updated COI statement to include the term 'relevant COI'
January 2019	V2.6	C. Brooks	Added sex and gender assessment instructions. Updated call outs for appendices.
April 2020	V2.7	C. Brooks	Approved B. Forrest's changes and updated re: removal of Position Statement instructions

Contents

Introduction

Guidelines serve an important role in supporting the mission of the CCS "to advance the cardiovascular health and care of Canadians through advocacy, continuing professional education and the promotion and dissemination of research." However, their development requires a considerable amount of member time and expertise, and financial resources of the CCS. The purpose of this document is to describe for co-chairs, panel members, members and CCS staff the policies and procedures for development of guidelines including special consideration of the "closed-loop" development model guideline programs. This document addresses all stages of the development process from topic selection through to publication for guidelines.

Guidelines deal with topics of clinical relevance where there is sufficient literature but where clinical practice patterns are contentious, where literature is conflicting or where the evidence is rapidly accumulating or changing. The purpose is to synthesize and analyze the literature to provide evidence-based guidelines for practitioners. Well-developed guidelines have the potential to improve the quality of cardiovascular care, lead to better patient outcomes, improve cost- effectiveness and highlight areas for further research. The creation of guidelines has been a key activity of the Canadian Cardiovascular Society (CCS) for over a decade, and the presentation of guidelines has become an anticipated event at each year's annual Canadian Cardiovascular Congress (CCC).

See ***Appendix A: Guideline Development Summary*** for an overview of the development process.

Annual Call for Topics

The formal request to initiate a guideline must come from the CCS and must be approved by CCS Council.

A call for topics will be issued annually (usually in January) for topics to be undertaken the following year. The call will be made via CCS Online and the CCS website using a standardized submission form. Procedures and policies for the Annual Call for Topics are as follows:

- Past chairs of published guidelines will be contacted to determine if an update should be considered in the upcoming year.
- Topic proposals are reviewed by the Guidelines Committee and selection of topic(s) is based on whether there is an immediate or emerging need for information on a particular topic, whether the topic would add new information to the existing literature, and whether the CCS has within its membership the expertise to speak authoritatively on the topic. To avoid duplication of efforts, consideration is also given to whether or not a proposed topic is already being addressed by another organization.
- Once the Guidelines Committee has selected the topic(s) for the coming year, the Committee makes a recommendation to the Council (or CCS Executive) to initiate the project(s).
- All CCS members who propose a topic will receive feedback about their proposal from the Guidelines Committee.

- For closed loop Guideline programs, currently Atrial Fibrillation and Heart Failure, the annual topics are selected by the program co-chairs and primary panel.

The CCS will not consider developing a guideline when work on the manuscript has already been initiated and/or writing groups have already been formed, prior to project approval by CCS Council.

Guideline Panels

Co-chairs

Co-chairs oversee proceedings for the cycle of the document and are responsible for developing guidelines to completion and co-coordinating administrative work with CCS Staff.

Selection and eligibility

CCS guidelines are presided over by 2 volunteer co-chairs appointed by the CCS Council.

Upon approval of a topic(s), the Guidelines Committee and/or Council will suggest possible co-chairs and/or panel members. Chairs are selected based on their expertise in the chosen topic area and must be appointed through the CCS and approved by Council.

For published guidelines, new co-chairs are appointed when document updates are required. New co-chairs can be members of a previous panel, or new additions to the panel. Individuals who have served as chairs in the past may sit on the primary or secondary panel again, but are not eligible to chair the process for the next sequential revision.

For closed loop guideline programs, nominated co-chairs should have served a minimum of two years as a primary panel member. Identification of incoming co-chair(s) is determined by the primary panel and approved by CCS Guidelines Committee and CCS Council.

Terms

Co-chairs are considered as the Chairs of a particular guideline until an update is written.

For closed loop guideline programs, co-chairs are appointed for two-year terms on a staggered basis to provide continuity. After the two-year term, chairs serve one additional year as past-chair to improve continuity.

Primary and secondary panels

The primary panel is the main writing committee for the guideline and is comprised of members with expertise in the topic area. They decide the substantive content of the document. Together, the primary panel reflects content expertise for the topic addressed in addition to the diversity of the CCS membership with respect to geography and type of practice as they apply to the topic area. The primary panel should also be representative of the audience of health professionals that will use the material including family practitioners, IM specialists and others as applicable. The Chairs and panel members identify gaps in the membership of the primary panel, set guideline scope and identify topics and writing leads for guideline development and form working groups for each topic.

Secondary panel members provide feedback and guidance on drafts and provide a wider perspective on the topic. Secondary panel members do not have to be CCS members, but must have recognized topic expertise or be key members of the target audience. Secondary panel members must have the capacity to consult on guidelines drafts in terms of content, presentation and relevance to the audience.

Member selection and eligibility

Primary and secondary panel members are volunteers and are selected by the co-chairs.

The CCS Council and/or the Guidelines Committee may make recommendations to the co-chairs for individuals who should be considered as panel members. Consideration in the selection of panel members is given for criteria including clinical expertise, geographic, gender and generational representation, multidisciplinary balance, conflict of interest, professional writing ability, experience in writing guidelines, experience in guideline development methodology, willingness to participate actively in the content development process, ability to meet deadlines, etc.

Panels need to be geographically robust and have significant (>50%) representation from within the CCS membership. Multidisciplinary panels are encouraged and panel members with specific expertise may be sought from other specialty societies as appropriate. Expertise in health economics and epidemiology is considered where appropriate. Participation on panels should be regarded as a professional development opportunity for younger members of the Canadian cardiovascular community.

For closed loop guideline programs, identification of new panel members is determined by the existing primary panel and co-chairs. Panel members serve for two-year terms, on a staggered basis, with optional extension at the discretion of the co-chairs.

Disclosing and managing conflict of interest

Co-chairs must disclose all relationships with industry at the outset of the project and should have no relevant conflicts of interest related to the topic throughout the duration of the guidelines development process.

COI disclosure is collected from proposed panel members via an electronic data collection system. Co-chairs review conflict of interest statements from all panel members, and make adjustments to the panel composition based on COI.

The CCS *strives* for 50% +1 of primary panel members to have no relevant relationships with industry therefore; conflicts must be identified early in the process to achieve the necessary panel composition.

Co-chairs may discuss questions about conflict of interest relating to any panel member(s) with the CCS Guidelines Committee and/or Council. Exceptions for panel membership where conflicts of interest may exist may be made in the case where specific/unique expertise is required. Conflict of interest statements will be reviewed by the Guidelines Committee and final approval of panel composition rests with Council.

Conflict of interest details for all manuscripts will be posted at www.ccs.ca once the manuscript is published. Once panel membership and conflict of interest statements have been received and approved, the panel can begin working on drafting the manuscript.

Confidentiality and nondisclosure

Co-chairs, panel members and secondary reviewers of documents produced for the CCS may be exposed to confidential and/or proprietary information, materials or data related to the writing group's work, and final documents. It is important to the integrity of the writing process and the final work that this information be kept confidential and not disclosed prior to publication.

Co-chairs, panel members and secondary reviewers are required to sign and return a CCS Confidentiality and Nondisclosure Agreement.

Content of guideline manuscripts is considered embargoed until publication, with the exception of presentation at CCC.

Chairs and panel members are advised not to present content derived from unpublished manuscripts under the name of CCS until manuscripts are approved by Council and released in the public domain.

Manuscript Development

Guidelines are systematically developed statements to assist practitioners and patients to make decisions about appropriate health care for specific clinical circumstances. Appropriate methodologies and rigorous strategies in the development process are important for the successful implementation of the resulting recommendations (See ***Appendix B: Development Process Flowchart***).

Financial and administrative support

CCS does not accept industry support for the development of guidelines.

The CCS can provide the following support of guideline development:

- CCS staff will track and invite potential panel members;
- CCS staff will collect panel member COI disclosure forms and produce a COI summary;
- CCS will provide co-chairs with dial-in coordinates for panel teleconferences and will coordinate conference calls and writing committee meetings;
- At the request of the co-chairs, CCS can provide a meeting room and catering for writing group meetings at CCC;
- CCS staff will coordinate collection of confidentiality agreements;
- CCS staff and the Guidelines Committee liaison will monitor status of guideline process and provide updates to Guidelines Committee and Council;
- CCS staff can set up an online community for document sharing and collaboration;
- CCS staff will assist with survey setup, dissemination and compilation for recommendation voting;
- CCS staff will collect and collate comments from secondary panels;

- CCS staff will disseminate and collect sign off forms from primary panel;
- CCS staff will coordinate Guidelines Committee review and Council approval.

Guidelines Committee liaison

A member of the Guidelines Committee will be assigned to each guideline under development to act as a liaison and information resource. This individual will attend the first team meeting (either face to face meeting or via teleconference) to reinforce the procedures and policies as outlined herein. This individual will also act as resource for the co-chairs, particularly in instances where conflict is identified.

The AGREE II instrument

To ensure high quality and transparency, the CCS strongly suggests all guideline developers use the international AGREE II Instrument as a tool for guiding development and assessing the quality and methodological transparency of guidelines.

For a copy of the AGREE II Instrument and background information on AGREE II, please visit www.agreetrust.org.

Review of evidence

The primary panel working groups undertake a review of the literature and a critical appraisal of the evidence focusing predominantly on the results of randomized clinical trials and systematic reviews. In the absence of such data, recommendations can be based on the results of large cohort studies or smaller clinical studies. The recommendations are developed and finalized by informed consensus.

Unpublished data cannot be used to shape CCS guideline recommendations.

The GRADE scale for rating recommendations

To ensure high quality and transparency, the CCS has adopted the GRADE Scale for rating the strength of recommendations and the quality of evidence. As of January 2010, the CCS uses the GRADE system of evidence assessment for all guidelines and position statements.

All manuscripts initiated after January 2010 are expected to report evidence in the GRADE format.

Guidelines developed after January 2010 which fail to explicitly state level of evidence according to the GRADE format will be returned to the co-chairs for revision which may result in delayed approval and delayed publication.

For more information on the CCS GRADE process please see the CCS Framework for Application of GRADE in Guideline . For further background information on GRADE, please visit www.gradeworkinggroup.org, or link to GRADE resources via the CCS website www.ccs.ca.

For all manuscripts initiated after January 2010, the following terms will be used in discussion of the evidence:

ALL recommendations will begin with ***we recommend*** (where strength and quality are strong) and we suggest (where strength and quality of evidence is not strong).

For strength of recommendations, we will use ***strong and weak*** as qualifiers.

For quality of evidence, we will use the words ***very low, low, moderate, or high***.

Voting on recommendations and achieving consensus

At the outset of the project, the co-chairs and primary panel members must agree on the definition of consensus. It is not uncommon for panels to define consensus as less than 100%. It is important that the panel agrees on the definition prior to project initiation. At a minimum, consensus must be at least two thirds majority of the voting panel (those with a significant conflict must recuse themselves from voting on those specific recommendations).

To achieve consensus on recommendations, a voting process is employed that allows panel members to agree/disagree with comments/or recuse. For recommendations not passing with consensus, the panel then modifies the recommendations and/or addresses the comments and the panel re-votes. Contentious recommendations may take multiple rounds of voting. CCS staff can assist with the setup, administration, distribution and collation of voting surveys and results.

Manuscript format

The principal goal of the manuscript is to inform the medical community about the recommendations. The three main components of the manuscript in order of importance are:

1. recommendations;
2. supporting display material;
3. accompanying text.

The text of a Guidelines paper needs to transmit the logical basis for the panel's recommendations. It should NOT be a general review of the literature followed by some conclusions. In general, the recommendations should be organized into thematic blocks, with the text associated with the recommendation-block providing the underlying logic of the committee. Specific key literature should be cited as needed to clarify the basis for each recommendation for the reading audience. To control length, only directly-relevant papers should be cited- in particular, multiple citations for the same statement should be avoided unless they are all really important to support the statement. Display materials (figures and/or tables) are extremely important. Many readers look only at the abstract and display materials, and then go to the text if they want to look at something specific in more detail.

For more information on proper manuscript format see ***Appendix C: Editorial information and tips for CJC publication.***

Panel recognition and author block format

Level of participation required for authorship recognition should be decided and disclosed to primary panel members at the time of invitation. Authorship recognition for secondary panel members is at the discretion of the co-chairs and should be decided early in the process and disclosed to secondary panel members at the time of invitation.

There are three ways to acknowledge panel participation in the publication, which are outlined below:

1. **Primary panel member recognition in the main author block of the publication, with secondary panel members recognized in a hyperlinked footnote**, and as Collaborators on Pub Med. Please click on the following links to see an example: http://www.onlinecjc.ca/article/S0828-282X(11)00443-0/fulltext, https://www.ncbi.nlm.nih.gov/pubmed/22424281.
    a. When submitting to the CJC for publication, the author block in the main paper should list primary panel members only followed by the text, "*For a complete list of panellists and collaborators see appendix A". A separate document listing all PP, SP, and/or any other contributors must also be submitted on the CJC submission site.
2. **Primary and secondary panel member recognition in the main author block of the publication**.
3. **Primary panel member recognition in the main author block of the publication, with secondary panel members recognized in the acknowledgements section of the publication**, which appears at the end of the publication.

Length restrictions

Due to space constraints in the Canadian Journal of Cardiology, it is important to adhere to set page and word count limitations. Guidelines generally have multiple chapters with 20-40 references per chapter and are a maximum of 10,000 words in length.

Due to space constraints, major guideline updates must be planned well in advance and publication coordinated with the CJC Editor. For more information on CJC publication options, see ***Appendix C: Editorial information and tips for CJC publication***.

Timelines for completion

Timelines for manuscript completion are established between the Guidelines Committee and the Chairs at the outset of each project. Timelines are set with the understanding that manuscripts must be completed, submitted, and approved by CCS Council prior to consideration of presentation at CCC and publication in CJC. Guidelines are typically completed and submitted for publication in the CJC (in print or online) within 15-18 months of project initiation and sooner, when possible. Project delays will be evaluated on a case by case basis. Consistent or multiple delays may result in cancellation of the project and reconsideration of the topic at a later date with new co-chairs and panel members.

Regular project status reporting to CCS Council:

In preparation for each tri-annual CCS Council meeting, the CCS will ask co-chairs for a project status update. This routine check-in helps CCS ensure that projects are on track for timely completion and creates a forum for Chairs to liaise with Council if issues have arisen which may affect project status.

Manuscript Review and Approval Process

Co-chair and primary panel review

CCS statements go through several levels of internal review and, as a result, receive expedited review from the CJC. Therefore, it is important that the co-chairs ensure that draft statements receive a

thorough peer review and editing review. This can be done by the co-chairs or can include members of the primary panel or secondary panel. Draft manuscripts must be well written, consistently formatted, concise and free of errors before submission to the CCS Guidelines Committee. The Guidelines Committee is an approval committee, not a peer review committee.

Secondary panel review

The secondary panel's role is to provide feedback and guidance on drafts and provide a wider perspective on the topic. Secondary panels do not vote on recommendations but can be invited, at the discretion of the primary panel, to comment on draft recommendations. Once the draft manuscript is prepared, it must be circulated to the secondary panel for review and comment. Comments from the secondary panel are addressed by the co-chairs and/or writing leads and the manuscript is revised as required.

Primary panel sign off

Primary panel members are required to submit a formal signoff on manuscripts prior to the manuscript being submitted to the Guidelines Committee for review and recommendation to Council for approval.

Sign-off articulates that there is consensus among the panel members about all manuscript content. It is the responsibility of the co-chairs to disseminate and collect sign off forms and then submit to CCS. Final manuscripts will not be approved by Council until sign off has been obtained from the full panel.

Guidelines Committee approval

All guidelines must be reviewed and approved by the CCS Guidelines Committee prior to approval by Council

Once the primary panel has signed off on the manuscript, it is circulated to the CCS Guidelines Committee for review and commenting. Manuscripts must be well written, consistently formatted, concise and free of errors before submission to the CCS Guidelines Committee. The Guidelines Committee is an approval committee, not a peer review committee.

The Guidelines Committee members review the manuscript and provide comments/questions to the Guidelines Committee Chair. The Guidelines Committee Chair reviews and compiles the comments and questions and requests clarifications and/or revisions from the co-chairs. The Guidelines Committee review process usually takes about 3 weeks.

Optional posting of manuscripts for CCS member-only comment

From time to time, when desired by primary panels or by Council, once the Guidelines Committee has completed a review of the final manuscript, the manuscript may be posted for one week on the CCS member-only website. Members will be alerted by email that the opportunity exists to review and comment. All feedback will be provided to the co-chairs for review. Members reviewing the manuscript must sign a non-disclosure and confidentiality agreement.

CCS Council approval

Once the manuscript is approved by the Guidelines Committee, it is presented to CCS Council/Executive for approval to present at CCC and publish in the CJC.

Presentation at the Canadian Cardiovascular Congress (CCC)

Guidelines presentations are a major draw the CCC and since 2012, the Guidelines Committee prefers to have them presented in a workshop or blended workshop format. Co-Chairs will be asked to submit a workshop proposal in the Call for Science and the Guidelines Committee will work with the co-chairs, CCS staff and the CCC Scientific Program Committee to find a suitable session and format for presentation

Guidelines will not be eligible for presentation at CCC unless the Guidelines Committee and Council have approved the final manuscript a minimum of 30 days in advance of the meeting.

Publication in the CJC and Copyright

All guideline projects initiated by the CCS are the intellectual property of the CCS and will be published and disseminated via the Canadian Journal of Cardiology, hosted at www.onlinecjc.ca. Once guidelines manuscripts have been approved by the CCS Council, co-chairs are responsible for submitting the final manuscript to the CJC for publication.

CCS guidelines are published exclusively in the CJC unless the CCS Council and the Editor in Chief of the CJC have pre-approved co-publishing.

Links to published manuscripts will be posted on www.ccs.ca, and any associated organization's website. All CCS guidelines are open access at www.onlinecjc.ca. CCS guidelines are published exclusively in the CJC unless the CCS Council and the Editor in Chief of the CJC have pre-approved co-publishing.

The standard CJC word count limits are 10,000 words for Guidelines.

Additional information on the CJC publication process and options is available in ***Appendix C: Editorial information and tips for CJC publication***.

CCS guidelines use standardized title formats and a standardized disclaimer statement as specified by the Editor in Chief of the CJC.

All final manuscripts will include the CCS Guideline Disclaimer Statement in an introductory section as follows:

> *This statement was developed following a thorough consideration of medical literature and the best available evidence and clinical experience. It represents the consensus of a Canadian panel comprised of multidisciplinary experts on this topic with a mandate to formulate disease-specific recommendations.*

These recommendations are aimed to provide a reasonable and practical approach to care for specialists and allied health professionals obliged with the duty of bestowing optimal care to patients and families, and can be subject to change as scientific knowledge and technology advance and as practice patterns evolve.

The statement is not intended to be a substitute for physicians using their individual judgment in managing clinical care in consultation with the patient, with appropriate regard to all the individual circumstances of the patient, diagnostic and treatment options available and available resources. Adherence to these recommendations will not necessarily produce successful outcomes in every case.

The disclosure information of the authors and reviewers is available from the CCS at www.ccs.ca

Copyright

Appendix A: Guideline Development Summary

1. Topic Approval and Co-Chairs Appointment

- Topic suggestions are received, reviewed and selected through the annual "Call for Topics" each November to January.
- The formal request to initiate a guideline must come from the CCS membership and must be approved by CCS Council.
- The CCS will not consider developing a guideline when work on the manuscript has already been initiated and/or writing groups have already been formed, prior to project approval by CCS Council.
- Co-chairs are appointed by Council and are considered as the Co-chairs of that specific topic until an update to the topic is approved.
- Co-chairs must disclose conflicts of interest at the outset of the project and should have no relevant conflicts of interest related to the topic throughout the duration of the development process.
- CCS does not accept industry support for the development of guidelines.

2. Primary and Secondary Panel Formation

- Primary and secondary panel members are volunteers and are selected by the co-chairs.
- The primary panel is the main writing committee for the guideline and is comprised of members with expertise in the topic area.
- Secondary panel members provide feedback and guidance on drafts and provide a wider perspective on the topic.
- The CCS strives for 50% +1 of primary panel members to have no relationships with industry; therefore, conflicts must be identified early in the process to achieve the necessary panel composition.
- Panels need to be geographically robust and have significant (>50%) representation from within the CCS membership.
- Consideration in the selection of panel members is given for criteria including clinical expertise, geographic representation, multidisciplinary balance, professional writing and guideline development experience, willingness to participate actively in the content development process, ability to meet deadlines, etc.
- Multidisciplinary panels are encouraged and panel members with specific expertise may be sought from other specialty societies as appropriate.
- Level of participation required for authorship recognition should be decided and disclosed to panel members at the time of invitation.

- Authorship recognition for secondary panel members is at the discretion of the co-chairs and should be decided early in the process and disclosed to secondary panel members at the time of invitation.

3. Manuscript Development Timelines

- Guidelines are typically completed and submitted for publication in the CJC (in print or online) within 15-18 months of project initiation and sooner, when possible.
- Timelines for manuscript completion are established between the Guidelines Committee and the co-chairs at the outset of each project with the understanding that manuscripts must be completed, submitted, and approved by CCS Council at least 30 days in advance of presentation at CCC and publication in CJC.
- A liaison from the Guidelines Committee is assigned to support the co-chairs as needed in the development process and will routinely check in to ensure the development is on target with respect to procedures, format, manuscript length, and timeline etc.
- CCS staff provides administrative support to the co-chairs conference calls, panel invitations, COI collection and material dissemination etc.
- Project delays will be evaluated on a case by case basis. Consistent or multiple delays may result in cancellation of the project and reconsideration of the topic at a later date with new co-chairs and panel members.

4. Evidence Review, Consensus and Recommendation Development

- CCS strongly suggests using the AGREE II Instrument as a tool for guiding development and assessing the quality and methodological transparency of guidelines.
- Research questions should be formulated in PICO format and search criteria should be formally documented.
- Review of the literature and evidence should focus predominantly on the results of randomized clinical trials and systematic reviews. In the absence of such data, recommendations can be based on the results of large cohort studies or smaller clinical studies.
- Unpublished data cannot be used to shape CCS guideline recommendations.
- All CCS guidelines must use the GRADE Scale for rating the strength of recommendations and the quality of evidence.
- All applicable evidence should be critically appraised and GRADED and recorded in evidence tables if possible. CCS may be able provide assistance in terms of a librarian or GRADE expertise for larger guidelines.
- For more information on the CCS GRADE Process please see the CCS Framework for Application of GRADE in Guideline Development
- It is becoming increasingly important to evaluate the evidence for differences according to sex (and gender), to determine whether the quality of evidence is the same for both sexes,

and to provide sex-specific recommendations where possible. Additional details on the evaluation process are outlined in *Sex-specific considerations in guidelines generation and application* by Tannenbaum, Norris and McMurtry

- Recommendations must be developed and finalized by informed consensus.
- At the outset of the project, the co-chairs and primary panel members must agree on their definition of consensus. At a minimum, consensus must be at least two thirds majority of the voting panel.
- Panel members with a significant conflict must recuse themselves from voting on related recommendations.
- To ensure consensus on recommendations, a voting process is employed that allows panel members to agree/disagree with comments/or recuse. Contentious recommendations may take multiple rounds of voting. CCS staff can assist with the setup, administration, distribution and collation of voting surveys and results.

5. Manuscript Format

- Manuscripts should be organized into chapters or sections.
- The text needs to transmit the logical basis for the panel's recommendations. It should NOT be a general review of the literature followed by some conclusions.
- Recommendations must follow the CCS defined format and wording for GRADE.
- Recommendations should be organized into thematic blocks, with the text associated with the recommendation-block providing the underlying logic of the committee.
- Specific key literature should be cited as needed to clarify the basis for each recommendation for the reading audience.
- To control length, only directly-relevant papers should be cited. Multiple citations for the same statement should be avoided unless they are all really important to support the statement.
- Guidelines are a maximum of 10,000 words in length including all elements (title page, abstract, text, references, tables, and figure legends).
- Display materials (figures and/or tables) are extremely important and lend to the usability of the information.
- CCS guidelines use standardized title formats and a standardized disclaimer statement as specified by the Editor in Chief of the CJC.

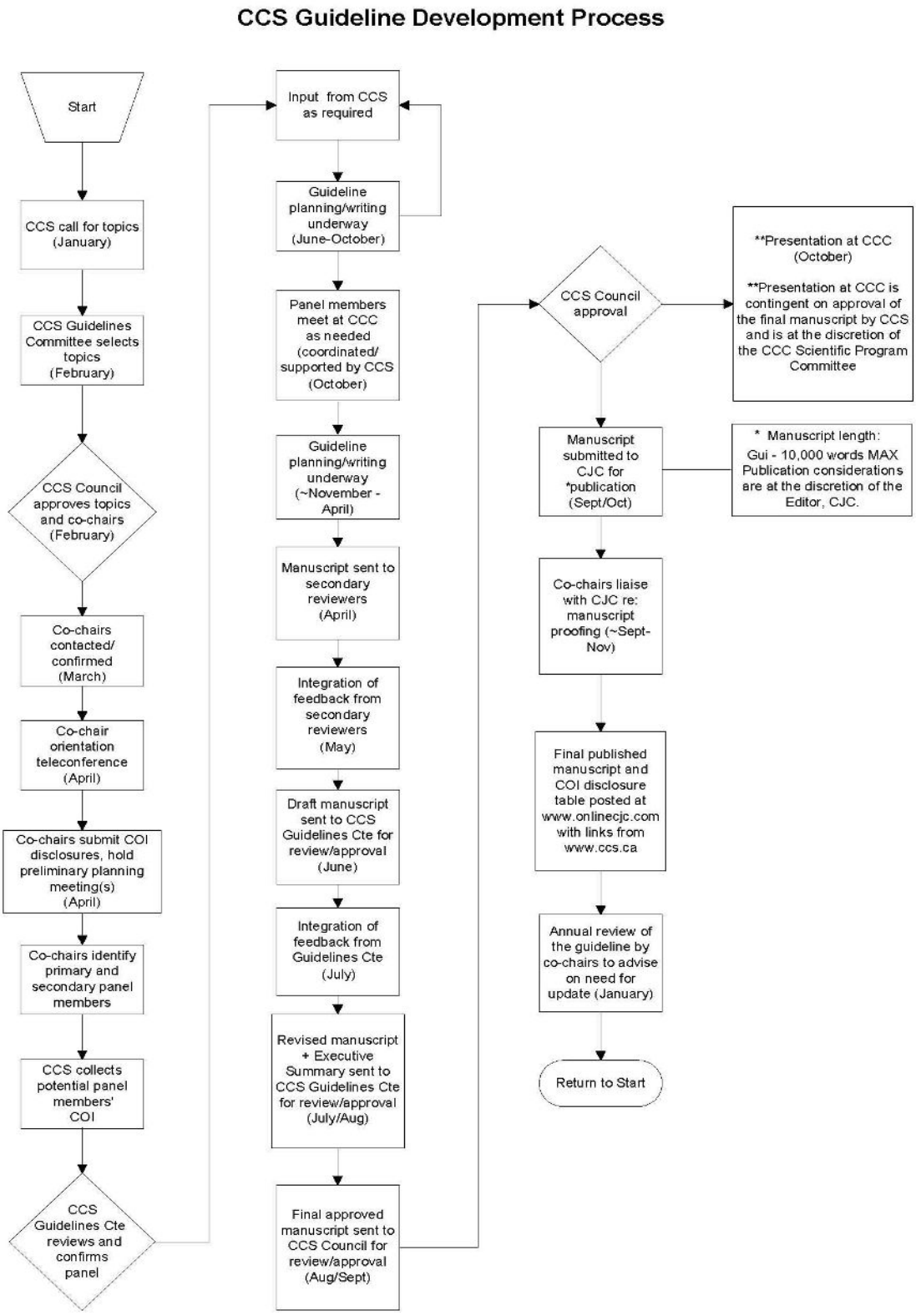
6. Manuscript Review Process and CCS Council Approval

- Once the draft manuscript is prepared, it must be circulated to the secondary panel for review and comment. Comments from the secondary panel are addressed by the co-chairs and/or writing leads and the manuscript is revised as required.
- Once finalized, the primary panel members are required to submit a formal signoff on manuscripts prior to the manuscript being submitted to the Guidelines Committee for review. Sign-off articulates that there is consensus among the panel members about all manuscript content.
- After primary panel sign-off, the manuscript is submitted to the CCS Guidelines Committee for review and commenting. The Guidelines Committee review process usually takes about 3 weeks.
- Once the manuscript is approved by the Guidelines Committee, it is presented to CCS Council/Executive for approval
- The manuscript is approved by Council, it can be presented at CCC and submitted to the CJC for publication.

7. Presentation at CCC and Publication in the CJC

- Content of guideline manuscripts is considered embargoed until publication, with the exception of presentation at CCC.
- Guidelines presentations are a major draw at the CCC and since 2012, the guidelines are presented in a workshop or blended workshop format. Co-chairs will be asked to submit a workshop proposal in the Call for Science and the Guidelines Committee will work with the co-chairs, CCS staff and the CCC Scientific Program Committee to find a suitable session and format for presentation.
- Co-chairs submit the manuscript to the CJC through the standard submission process. As CCS developed documents, they do NOT undergo peer review but are reviewed by the CJC editor or designate.
- The CCS owns the copyright for all CCS guidelines and manuscripts until published. Once published in the CJC, the copyright is owned by the publisher, Elsevier.
- CCS guidelines are published exclusively in the CJC unless the CCS Council and the Editor in Chief of the CJC have pre-approved co-publishing.
- CCS guidelines use standardized title formats and a standardized disclaimer statement as specified by the Editor in Chief of the CJC.

Appendix B: Development Process Flowchart



Appendix C: Editorial information and tips for CJC publication

Thank you to the CJC Editor-in-Chief, Dr. Stanley Nattel for preparing the following information.

Word count limits:

The standard CJC Word Count limits are 10,000 for a Guidelines paper.

What to do if it looks like you might need to exceed the word count limit:

-**Consider publishing the paper in an industry-funded Supplement:** Papers in Supplements are not necessarily subjected to the standard word-count limits. Publishing in a Supplement may also create an opportunity to publish invited review articles on the theme of the Guidelines, which could open some interesting opportunities. Because Supplements need to be funded by industry, a reasonably-likely funding source(s) will need to be identified. Ideally, these should be brought to the attention of the Editor-in-Chief as early as possible in the process, because such funding is often time-consuming to negotiate and concretize. If the negotiation process begins only when the paper is submitted to the journal, it may result in delays to publication.

-Rare exceptions to the word-count limits can be granted by the editor. If a specific guideline committee wants to know whether their document can be considered for an exception to the standard word-count limits, they should send a request (including a draft of the paper) to the Editor-in-Chief of CJC and state their case.

-Use Supplementary Material files for non-essential materials. Supplementary Materials sections contain information that readers should be able to access but do not necessarily need to be in the main printed paper. Supplementary Materials can include text (e.g. extra background, methods details, etc), figures and tables. All Supplementary Materials should be merged into a single PDF, which readers can access via a link from the electronic version of the paper (the link is also provided in the printed version). NB. Supplementary Materials sections are very different from Industry-sponsored Supplements. Industry-sponsored Supplements are special issues of the journal for which costs are covered by industry, but which look like a regular issue and are published both in print and online. Supplementary Materials contain the extra stuff that can't be accommodated within the print version of a specific paper, and are accessible online-only as a PDF with a link from the main paper.

Approach to text:

The principal goal of a Guidelines paper is to inform the medical community about the recommendations of an expert panel on controversial clinical management issues.

The importance of various components of a Guidelines paper are (in descending order):

1. The recommendations;
2. The supporting display material;
3. The accompanying text.

The text of a Guidelines paper needs to transmit the logical basis for the committee's recommendations. It should NOT be a general review of the literature followed by some conclusions.

In general, the recommendations should be organized into thematic blocks, with the text associated with the recommendation-block (generally preceding it, but can also follow depending on the stylistic choice of the authors, as long as consistency is maintained within a document) providing the underlying logic of the committee. Specific key literature should be cited as needed to clarify the basis for each recommendation for the reading audience. To control length, only directly-relevant papers should be cited- in particular, multiple citations for the same statement should be avoided unless they are all really important to support the statement.

Recommendations:

Per CCS policy, the GRADE System should be used to characterize the strength of recommendations and quality of evidence, with the descriptors following each recommendation. The recommendations should be organized in thematic blocks and numbered consecutively 1, 2, 3 etc. within each block. Recommendations should be as clear and instructive as possible. Avoid qualifiers like "usually, consider, generally, often etc" in wording the Recommendations. The purpose of a guideline recommendation is to provide clear and specific advice to physicians about how to handle challenging practice issues. Qualifiers leave them uncertain about how to apply the recommendation. Nuances can be expressed in Values and Preferences or Practical Tips.

Display materials:

Display materials (figures and/or tables) are extremely important. Many readers look only at the abstract and display materials, and then go to the text if they want to look at something specific in more detail. Therefore, significant effort should go into conceiving and creating good display material. Note that CJC reproduces colour figures free of charge for Guidelines. Management algorithms and flow charts summarizing clinical decision making are often particularly useful in Guidelines papers.

Information about review and publication:

CCS Guidelines that are approved by CCS Council following evaluation and feedback from a secondary panel are not generally sent out for external review. They are reviewed by the Editor-in-Chief of CJC, with rapid turnover. Revisions are often requested, and they may occasionally be extensive. Careful adherence to the suggestions in this document should help to minimize any revisions needed. All accepted CJC papers (including Guidelines) undergo prompt electronic publication – the average delay from acceptance to electronic publication on the CJC website (and other Elsevier platforms like ScienceDirect) is presently 7 weeks. Articles are generally listed on PubMed within about a week of electronic publication. CJC publishes papers electronically as corrected proofs, so the time from acceptance to electronic publication includes the time needed for copyediting, typesetting, transmission of proofs to the authors and return by the authors of corrected proofs. PLEASE NOTE THAT ONCE A PAPER IS PUBLISHED ELECTRONICALLY AS A CORRECTED PROOF, IT CAN NO LONGER BE CHANGED. Therefore, it is important to be careful when correcting the proofs. Any errors that are noticed in the electronically-published version can only be handled with an erratum in a subsequent issue. Electronic publication can be accelerated in special cases – if a need for this is felt to be present, the Editor-in-Chief should be contacted. Print publication of general articles in CJC takes a varying amount of time, typically several months from acceptance. Publication of CCS Guidelines is prioritized.