

## **Plagiarism**

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## 1. Policy statement

The Cochrane Collaboration takes measures to prevent, detect, and address plagiarised content in Cochrane Reviews. See <u>Box 1</u> for a definition of plagiarism.

#### Box 1. Definition of plagiarism

"Plagiarism is the use of others' published and unpublished ideas or words (or other intellectual property) without attribution or permission, and presenting them as new and original rather than derived from an existing source. The intent and effect of plagiarism is to mislead the reader as to the contributions of the plagiarizer. This applies whether the ideas or words are taken from abstracts, research grant applications, Institutional Review Board applications, or unpublished or published manuscripts in any publication format (print or electronic)."

Source: www.wame.org/resources/publication-ethics-policies-for-medical-journals#plagiarism [1]

This policy relates to the Methodological Expectations of Cochrane Intervention Reviews (MECIR) reporting standard 22 (<a href="https://www.cochrane.org/editorial-and-publishing-policy-resource/mecir">www.cochrane.org/editorial-and-publishing-policy-resource/mecir</a> [2]).

## 2. Special circumstances for Cochrane Systematic Reviews

There are special circumstances when similarity in text is expected in Cochrane Systematic Reviews by the nature of the type of work. These special circumstances may result in text similarity software, such as CrossCheck (<u>Table 1</u>), finding a high level of similarity of the Cochrane Review text with text from other article(s). High levels of similarity would not always be considered plagiarism.

Table 1. Special circumstances that will generate high levels of text similarity between Cochrane Systematic Reviews, versions of Cochrane Systematic Reviews, and other articles

Special circumstance	Text similarity expected?
Similar methods sections	Yes, Cochrane Reviews can be expected to have a high percentage of overlap in the methods section because of standardized methods. This is unlikely to cause concern unless text is copied verbatim and without correct citation
Cochrane Review Group-specific template used for text in one or more sections	Yes, if an author uses a Cochrane Review Group template for one or more sections (e.g. background, methods), and states

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	that a template has been used, a high percentage of overlap would be expected and should not cause concern
	See ' <u>Use of text templates</u> ' below for details
Protocol to review, review to update, etc.	Yes, a high percentage of overlap would be expected between certain sections of these versions (e.g. background, methods) and should not cause concern
Generic protocol (i.e. two or more reviews based on one protocol)	Yes, a high percentage of overlap would be expected between certain sections of the protocol and the reviews that follow the protocol (e.g. background, methods). This should not cause concern, but it should be clear to the reader that the same text is used across a series of linked reviews
Split and merged reviews (i.e. review either split into two or more reviews, or two or more reviews are combined into one review)	Yes, some overlap would be expected between the different reviews. This should not cause concern, but it should be clear to the reader that the same text is used across a series of linked reviews
Similarities with published studies (e.g. trials described in the characteristics tables/risk of bias tables)	Yes, some overlap would be accepted here. Authors should follow the guidance (see 'Avoiding plagiarism') to avoid the possibility of plagiarism
Co-publication of a Cochrane Review (including Protocol and Updates) or republication in official Cochrane journals or derivative products	Yes, a high level of overlap would be expected. This should not cause concern as long as the co-publication was agreed according to the policy (www.cochrane.org/editorial-and-publishing-policy-resource/co-publication [3])
A non-Cochrane systematic review is converted to a Cochrane Review	Yes, a high level of overlap may be expected. This should not cause concern as long as the co-publication was agreed according to the policy (www.cochrane.org/editorial-and-publishing-policy-resource/scenarios-addressed-policy#ConvertingToCochrane [3])

## 3. Avoiding plagiarism

A Cochrane Review is expected to be an original piece of academic work produced by the listed authors. Material copied from other sources may be used but should always be acknowledged. If direct quotes of more than a few words of original material are included, these should generally be indicated both by using quotation marks **and** by citing the source (citation alone is not enough). See examples in <u>Table 2</u>.

**Table 2. Examples of correct citation** 

Citing	The study was successful (Griffin 1990); it confirmed previous findings (Howes 1995).
Paraphrasing: using own words and making the source clear from the reference	It is the responsibility of systematic review authors to ensure the review conforms to Cochrane reporting guidelines including: declaring any potential conflicts of interest, that the review is free from plagiarised material and that all contributors are acknowledged (Wager 2011).
Using text verbatim	Wager and colleagues proposed that authors should "ensure that contributors are properly acknowledged, that potential conflicts of interest are declared, and that the review does not contain plagiarized material" (Wager 2011).



In <u>Table 2</u>, we state "It is the responsibility of systematic review authors to ensure the review conforms to Cochrane reporting guidelines including... (Wager 2011)." These are our own words, and the source is clear from the reference. If we wanted instead to use a sentence directly from the Wager paper, we would have had to do so by using quotation marks, constructing a different sentence citing the reference in brackets immediately afterwards. For example:

Wager and Wiffen proposed that authors should "...ensure that contributors are properly acknowledged, that potential conflicts of interest are declared, and that the review does not contain plagiarized material" (Wager 2011).

Citations should be placed as close as possible to the quotation or statement from the original source. For example, if a paragraph includes two quotations, the appropriate citation should be inserted immediately after the relevant quotation and not placed together at the end of the paragraph or section. See the <u>Cochrane Style Guide</u> [4] for information about references and citing references in the text.

Cochrane Review Groups are encouraged to bring the plagiarism policy to the attention of authors early in the review development cycle, such as when authors propose a title for a Cochrane Review.

#### 3.1. Use of text templates

As Cochrane Review Groups have evolved, there has been an increasing use of templates that ensure methods are clearly presented. However, the result is that reviews may include material that is similar or identical to that in other reviews, to an extent that might not be permissible in articles published in other journals. For example, reviews may use standard methods resulting in similar text and some Cochrane Review Groups encourage the use of standard introductory passages (e.g. to describe a condition or intervention).

Therefore, protocols and reviews that include template text should include a statement acknowledging the use of templates, such as "The background and methods section of this protocol/review is based on a standard template used by Cochrane [insert name] Review Group". This statement may be appropriate to include in the 'Acknowledgements' section.

#### 3.2. Cochrane Overviews of reviews (Cochrane Overviews)

"Cochrane Overviews of reviews (Cochrane Overviews) are Cochrane Reviews designed to compile evidence from multiple systematic reviews of interventions into one accessible and usable document" (see the <u>Cochrane Handbook for Systematic Reviews of Intervention, Chapter 22</u> [5]). Authors may wish to reuse text from the original systematic reviews in a Cochrane Overview. In this circumstance, authors should follow the standard guidance to reference source material. A high percentage of overlap with other source content (e.g. a Cochrane Review) may occur, but will not cause concern if the text has been cited appropriately.

# 4. Detecting plagiarism using CrossCheck

<u>CrossCheck</u> [6] is a partnership between CrossRef, a not-for-profit collaboration between publishers, and iParadigm's text matching software, <u>iThenticate</u> [7]. CrossCheck provides an extensive database of scientific, technical, and medical content (including material behind journal paywalls which would not be available from a simple internet search). When a document is checked in CrossCheck, it is compared with the content of this database, which is made up of published and unpublished documents, including over 40 million research articles, conference proceedings, and e-books from scientific, technical, and medical publishing.

## 4.1. Getting started with CrossCheck

Cochrane Review Groups are encouraged to use CrossCheck through the licence held by the



publisher of The Cochrane Library, John Wiley & Sons. Wiley provides each Cochrane Review Group with access to CrossCheck (free of charge). Managing Editors can contact Gavin Stewart (<a href="mailto:gstewart@wiley.com">gstewart@wiley.com</a> [8]; Associate Editor, Wiley) for a user name and password.

#### 4.2. What and when to check

Cochrane Review Groups are encouraged to, at minimum, check at least a portion of text for all protocols and reviews (including updates) when initially submitted to the Cochrane Review Group.

There are different stages in the editorial process where CrossCheck screening could occur (see <u>Table 3</u>). Cochrane Review Groups may wish to screen more than once, or they may wish to screen at a particular time, such as before peer review, or where the writing styles varies within a single document.

Table 3. Different stages in the editorial process where CrossCheck screening could occur

Stage	Document	Recommended sections to screen <sup>a</sup>
Title	All Review Proposal Forms	All text excluding references
Protocol	Initial submission of protocol	Background <sup>b</sup> , Methods <sup>b</sup>
	All resubmissions of revised protocols	As above
	Substantively updated protocols (i.e. new citation version)	As above
	Final version for publication	Screening not recommended at this stage
Review	Initial submission of review	Abstract, Plain language summary, Background <sup>b</sup> , Methods <sup>b</sup> , Results, Discussion, Authors' conclusions  Omit (1) matches to the published protocol from the similarity report and (2) references
	All resubmissions of revised reviews; or review 'amendments'	Where changes have been made to the text
	Updates (initial version and revisions)	Abstract, Plain language summary, Background <sup>b</sup> , Methods <sup>b</sup> , Results, Discussion, Authors' conclusions  Omit (1) matches to the published protocol; (2) published previous versions of the review from the similarity report <sup>c</sup> ; and (3) references
	Final version for publication	Screening not recommended at this stage

<sup>&</sup>lt;sup>a</sup> While it is possible to check an entire document for similar text, sections of a Cochrane Review, such as the methods, characteristics of studies tables, and references sections, are likely to give a high similarity score due to the nature of their content.

<sup>&</sup>lt;sup>b</sup> Some Cochrane Review Groups may recommend the use of template text for the Background or Methods section. If so, the authors should have made a note of this within the protocol or review. See <u>Section 2</u> ('Special circumstances for Cochrane Systematic Reviews') for more information.

c It is possible to do this in CrossCheck; see <u>Table 5</u>.



#### 4.3. How to check

CrossCheck provides a similarity score, which indicates the total amount of text that matches text in other sources. There are two steps to using CrossCheck: (1) an automated step in which CrossCheck runs the online comparison; and (2) a manual step for someone in the Cochrane Review Group to interpret the report results and decide on next steps; see <u>Table 4</u>. These two steps combined can take from 5 minutes to 2 hours, but it is usually around 15 minutes. CrossCheck provides a list of resources for using the software: <u>www.ithenticate.com/resources/customer-training/</u> [9].

**Table 4. Overview of CrossCheck process** 

Table 4. Overview of crossences	( process
Automatic process	CrossCheck finds and highlights overlapping text between manuscript and published material
	A similarity score is generated
Manual process	CrossCheck report reviewed
	Determine severity of plagiarism
	Decide on action to be taken

Once logged into CrossCheck, there is the option to submit different file types for screening. It is not recommended to submit the full version of the document because it may be very long and will include sections that have little value in being screened (e.g. references); see <u>Table 3</u>. Therefore it may be easier to select specific sections of the protocol or review to be screened. There are three possible approaches:

- 1. Prepare a new document by cutting and pasting specific sections of text into a new document and save as one of the following file types: plain text, MS Word, PDF, RTF, PostScript, HTML, or XML.
- 2. Use the Cut and Paste upload option in CrossCheck.
- 3. In RevMan and if you have software installed to print to PDF, select the required sections and print and save as a non-RevMan PDF file type. CrossCheck does not accept RevMan file types (i.e. \*.rm).

By default, CrossCheck includes the optional settings to exclude quotes (i.e. text within quotation marks), reference lists, and/or "small matches" of text to avoid false positives in the similarity index. However, while it is possible to request references to be excluded from comparison using CrossCheck, this does not always happen and it is preferable to upload a file without this section. It is not always advisable to exclude "small matches" to text because small matches could be direct quotes that need quotation marks and citations.

CrossCheck has an option to include a simultaneous Internet search (called "websearch" in CrossCheck) in addition to the standard iThenticate database search. This extends the CrossCheck comparison to include content not included in the iThenticate database, such as Wikipedia, and presents the collated results. This option should be used routinely.

When matches are identified in a report, CrossCheck has an option to exclude one or more matching sources. As described in Table 1, a high percentage of overlap would be expected between a protocol and review, and a review and an update. This functionality allows the user to exclude the protocol or original review, for example. This functionality may become less useful as the number of times a Cochrane Review is updated as the number of exclusions that need to be made increases. See <u>Table 5</u> for the types of CrossCheck reports where this functionality is available.

Cochrane Review Groups should agree which editorial staff member(s) should be responsible for running the CrossCheck reports, interpreting the results, and deciding on next steps. For example, an Assistant Managing Editor/Managing Editor, Trials Search Co-ordinator or administrative assistant



could run a document through CrossCheck and generate a report. The results of the report should be considered by the Cochrane Review Group's Managing Editor and/or Co-ordinating Editor and any action to be taken decided upon.

#### 4.4. CrossCheck reports

There are different modes of reporting in CrossCheck (see <u>Table 5</u>) some of which display different information. The Document Viewer is the default setting and shows the best matches for text in a submitted document (<u>Figure 1</u>). The Document Viewer report has two pieces of information that will guide the editorial team to have no cause for concern or to decide if any action is needed:

- It highlights any overlapping text and shows you where it comes from, and how many words are overlapping in each instance (number of words is more informative than the percentage overlap, which is also provided). The editorial team can review all instances within the document.
- The Document Viewer report will include a similarity index score. CrossCheck's similarity index should not be used as an absolute measure of whether significant overlap exists, but rather as a signal to have a closer look at the text. The score is a percentage of text that it has identified as an overlap with one or more other sources. A low score means less overlap and a high score means more overlap.

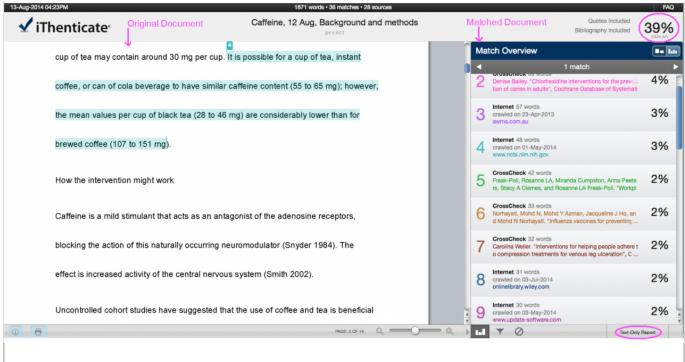
For further information on using CrossCheck, please see the official <u>CrossCheck user manual</u> [10]. An <u>additional user guide has been prepared by IEEE</u> [11]. For further information about the similarity score, see the <u>iThenticate website</u> [12].

Table 5. Types of CrossCheck reports (www.ithenticate.com/training/dv-walkthrough [13])

Document Viewer	Default report; a detailed report that uses colour coding to compare texts, and hyperlinks to allows user to review
	matches. You can exclude particular sources in this mode.
Similarity report	Displays matching sources side-by-side with sampled text. You
	can exclude particular sources in this mode.
Content tracking	Enables users to see if matches were manually excluded, or if there are more than one match for the sample, and ranking of proportional match in the report. You can exclude particular sources in this mode.
Summary report	Same information as the similarity report, but it displays matching sources above the document
Largest matches	Ranks sample according to the word count and percentage of words that match a string of words.

Figure 1. Example CrossCheck Document Viewer		





This CrossCheck Document Viewer report shows the document being checked on the left side, highlighting matching text (in this example in red, blue and green), and the context of the matching text in the match document (Spirit MJ et al) on the right side. In this example the highlighted text in red and green match other sources than the text in blue and are not shown.

The "Document Viewer" is the chosen reporting mode. Clicking on the "Text-Only Report" button will change the display to other reporting modes, which are detailed in <u>Table 5</u>.

The "Similarity Index" applies to the entire document being checked and indicates the percentage of text from the entire document which overlaps with identifies sources (matched documents) and is shown in the upper right hand side of the report.

## 4.5. Figures and images

Editorial teams should be aware that CrossCheck will not identify any plagiarized figures or images, such as line drawings and photographs. See section on <u>figures and tables</u> [14] for details about copyright and identifying the copyright of figures in Cochrane Reviews.

# 5. What editorial teams should do in cases of suspected plagiarism

The <u>Committee on Publication Ethics</u> [15] (COPE) has published guidance, in the form of a flowchart, on how to deal with suspected plagiarism. This flowchart has been adapted, with permission, to The Cochrane Collaboration's editorial process. Editorial teams with a case of suspected plagiarism should follow the process outlined in the flowchart in <u>Figure 2</u>. As shown in the flowchart, there is no arbitrary threshold that should be used to signify plagiarism, rather the nature of the duplicated material is as important as the incidence.

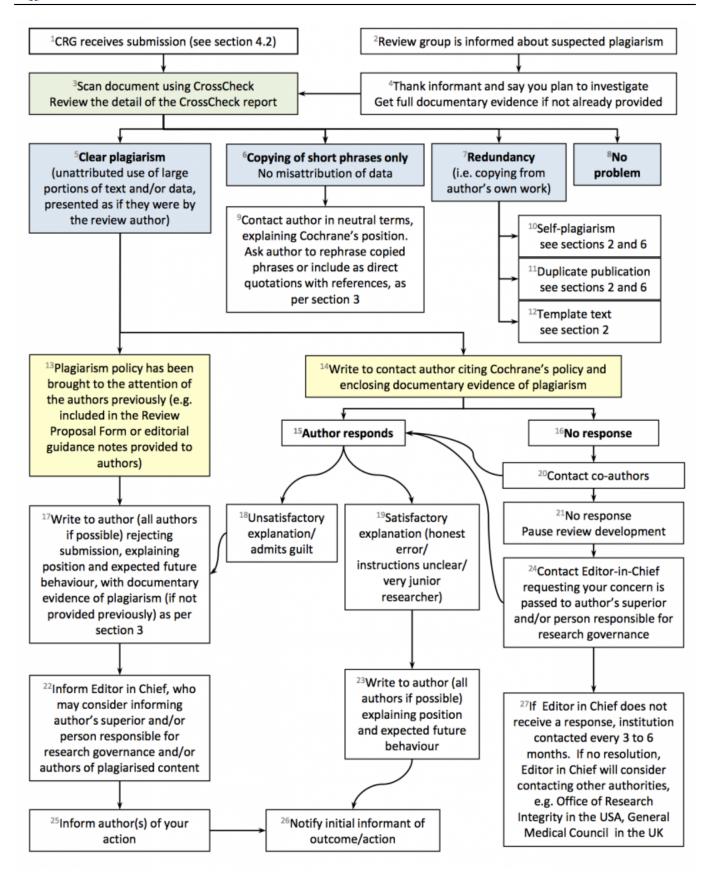
As described in the flowchart, once overlapping text has been identified, the severity of overlap will dictate the action to be taken. Common reaction from authors when confronted with accusations of plagiarism can range from indifference to anger and panic. Make your decisions thoughtfully. Sharing the similarity report can be useful for discussion with authors if it adds value to the discussion and understanding of the issue. Be educational rather than punitive.

It is good practice to ensure that the Co-ordinating Editor and Contact Editor (if used) for a review are informed in cases of overlapping text and correspondence with authors. When authors make changes in response to an editor's feedback, a member of the editorial team should check the



revised manuscript when resubmitted to confirm the revisions are sufficient.

Figure 2. Flowchart: what to do if plagiarism is suspected



Adapted with permission from COPE from the flowchart: "What to do if you suspect plagiarism: Suspected plagiarism in a submitted manuscript [16]".

#### 5.1. Substantial and/or repeat instances of plagiarism



Cochrane Review Groups should follow certain steps if they identify one of the following: (1) high levels of clear plagiarism within one review that the Co-ordinating Editor would like to draw to the attention of the Editor in Chief; (2) repeated instances of plagiarism at different stages of a review; or (3) from the same author(s) in different reviews.

As noted in the flowchart (Figure 2), it may be appropriate to report author(s) to academic institutions. This action, and any other very serious consequences must be discussed and undertaken in consultation with the Editor in Chief. The Editor in Chief will, however, consider situations on a case-by-case basis and decide on an appropriate course of action.

#### 5.2. Recording information about cases of suspected plagiarism in Archie

Storing CrossCheck reports: Editorial teams can record similarity scores with notes of what was checked in the History section of the review workflow. If relevant, copies of similarity reports may be saved in the workflow files.

Recording actions taken: Editorial teams should consider whether to record as a note any action against an author in their Archie person record, sharing the note within their entity or with a specific administrative role. Notes should be as factual as possible, noting what has occurred and the actions taken, as opposed to judgmental. For example, it would be appropriate to write, "A paragraph of text was copied verbatim from a separate article without acknowledgement of the original text. The author was asked to explain the reason for this and make appropriate changes before resubmitting." It would be inappropriate to write, for example, "Author often plagiarises text".

Instances of serious plagiarism will be escalated to the Editor in Chief (see <u>Section 5.1</u>). The Editor in Chief will monitor whether cases occur with the same authors or groups of authors, and will take appropriate action.

## 6. Authors reusing text from their published works

An author may wish to reuse text from another publication that he or she has authored. To avoid the possibility of suspected plagiarism (see <u>Box 2</u>) and/or the possibility of violating copyright of the other work published by the author, the author should follow the practices outlined above (see section 3, '<u>Avoiding plagiarism</u>') or seek permission to republish content under copyright. Editorial teams should work with authors, where this may have occurred in a review, to ensure that text has the correct attributions.

This applies predominantly to articles other than Cochrane Reviews. It is expected that authors of a Cochrane Review will reuse substantial parts of their protocol in the Cochrane Review that follows, for example, and this is one of the special circumstances outlined in Section 2. These special circumstances do not equate to plagiarism.

#### Box 2

Authors reusing text from their published works without proper attribution and/or copyright clearance may be known asduplicate publication, multiple publication, overlapping publications, redundant publication, repetitive publication, self-plagiarism, or text recycling (Wager 2014).

Source: Wager E. Defining and responding to plagiarism. Learned Publishing 2014;27(1):33-42.

The <u>Committee on Publication Ethics</u> [15] (COPE) has published guidance, in the form of a flowchart, on how to deal with suspected redundant publication in a submitted manuscript. Editorial teams may wish to refer to this or discuss a particular situation with the Editor in Chief.

# 7. Managing reports of suspected plagiarism in articles published in the CDSR

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If editorial teams are alerted to suspected plagiarism in articles, including Cochrane Reviews, published in the *CDSR*, refer to the COPE flowchart for "Suspected plagiarism in a published article" (see <u>publicationethics.org/resources/flowcharts</u> [17]) and inform the Editor in Chief. The Editor in Chief may withdraw/retract the publication as a result.

## 8. About this policy

The following group of people contributed to the development of this policy: Ann Jones, Anna Hobson, Gavin Stewart, Harriet MacLehose, Karin Dearness, Laura Prescott, Liz Wager, Paul Garner, Peter Tugwell, Phil Wiffen, Ruth Brassington, Sera Tort. The starting point for this policy was text drafted by Liz Wager and Phil Wiffen on publication ethics, including plagiarism.

Contact: Harriet MacLehose (HMaclehose@cochrane.org), Cochrane Editorial Unit

Important changes: Important update
Describe change: Section added to resource.

Date of change: 11 September 2014

Source URL: <a href="http://community.cochrane.org/editorial-and-publishing-policy-resource/plagiarism">http://community.cochrane.org/editorial-and-publishing-policy-resource/plagiarism</a>

#### Links:

- [1] http://www.wame.org/resources/publication-ethicspolicies-
- [2] http://www.cochrane.org/editorial-and-publishing-policy-resource/mecir
- [3] http://community.cochrane.org/%22http%3A/%252F
- [4] http://www.cochrane.org/training/cochrane-style-resource/cochrane-style-guide
- [5] http://handbook.cochrane.org/chapter 22/22 over
- [6] http://www.crossref.org/crosscheck/index.html
- [7] http://www.ithenticate.com
- [8] mailto:gstewart@wiley.com
- [9] http://www.ithenticate.com/resources/customer-tra
- [10] http://community.cochrane.org/help.crossref.org/#home
- [11] http://www.ieee.org/documents/CrossCheck\_User
- [12] http://www.ithenticate.com/plagiarism-detection-bl
- [13] http://www.ithenticate.com/training/dv-walkthrough
- [14] http://www.cochrane.org/editorial-and-publishing-p
- [15] http://publicationethics.org
- [16] http://publicationethics.org/files/u7140/plagiarism
- [17] http://publicationethics.org/resources/flowcharts