

CEU Report on Review Quality

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Contents

1. Background	3
2. Changes to screening	3
3. Activities aimed at learning and quality development	4
4. Performance data	5
5. Persistent sources of variation in quality	6
6. Recommendations	6

1 Background

This paper presents a report on recent CEU activities aimed at improving the quality of published reviews and some reflections on the quality of reviews coming through the screening team within the CEU since the launch of the integrated quality strategy¹. It highlights areas where we continue to see problems with implementation of methods and reporting, provides observations that help to explain why some issues have persisted, and puts forward recommendations that will help the CEU and the wider organisation to deliver the quality strategy.

2 Changes to Screening

The integrated quality strategy committed the CEU to move from screening all new reviews after sign off, in favour of a referral system. This was intended to encourage CRGs to nominate reviews for screening about which they had concerns, or those they thought would merit support in dissemination.

A small number of CRGs request regular input in sign-off decisions where Co-ordinating Editors are authors or where the group is in transition, for example through changes in leadership. The team also receives referrals from the Copy Edit Support service where concerns have been identified during the copy editing process.

In addition to the 'on demand' screening service, there are two further sources of reviews for screening. One CEU senior editor joins the Cochrane UK weekly call that reviews abstracts that have been signed off in the preceding week (the *Analysis of Review Group Outputs for decisions on dissemination and promotion* or 'ARGO') meeting). This meeting routinely identifies quality issues in review Abstracts.

In addition, we now only consider reviews for press releases if they have been screened by the CEU team. This adds substantially to the workload of the team but ensures that all reviews being considered for media dissemination are thoroughly appraised prior to publication, and has also occasionally identified substantive methodological issues that have required correction prior to publication. This process also enables us to identify high impact reviews and plan dissemination earlier in the process. It has also strengthened opportunities to work collaboratively with CRGs and the Cochrane Communications and External Affairs Department (CEAD) to disseminate evidence from Cochrane Reviews more effectively.

The team is therefore requested to screen reviews that would otherwise not have come into the screening process. Irrespective of the referral source, the CEU screening team present their findings to a broader group of CEU editors, the Methods Co-ordinator and the manager of the Copy Edit Support service every week. This forum has identified widespread concerns across a large number of reviews, many of which had not originally been referred by the CRG to the CEU team, but had nonetheless been submitted for copy editing. Rather than rely on copy-edit support as an additional layer of quality assurance we feel that this highlights the need for better recognition of key quality issues within the CRGs, and an appreciation of the distinction

¹ <http://editorial-unit.cochrane.org/sites/editorial-unit.cochrane.org/files/uploads/Cochrane%20Quality%20Assurance%20and%20Editorial%20Process%20Integrated%20Plan%2010%20FEB%202016.pdf>

between technical and copy editing, so that where appropriate, CRG teams can recognise when a review requires further work, or needs to be referred to the CEU for screening.

The move to screening by referral has reduced the number of reviews screened, but has altered the nature of the screening process. Between January and August 2016, 109 reviews and protocols were screened. This compares with 202 and 275 over the equivalent period in 2015 and 2014 respectively.

By inviting CRGs to refer reviews the CEU team is able to provide more timely input and has enabled the team to provide input into protocols and reviews being updated. The team feel that the changes have ensured that screening has become more supportive and focussed on CRG needs than it was previously.

The workload of the CEU team is therefore now heavily weighted towards problematic reviews, many of which exhibit substantial problems. Despite screening fewer reviews, the increase in complexity of those reviews, plus the increased attention given to reviews that are the object of media dissemination activities has meant that there have been limited opportunities to focus on developing guidance and other initiatives to improve quality. It is clear from conversations with colleagues from a number of CRG editorial bases that this mirrors quite closely their pattern of work.

Our experience also highlights the lack of opportunity to spot and address these problems earlier in the editorial process. We have managed to undertake 'in time' screening sessions with one CRG on a monthly basis, and a second CRG has requested help in moving this forward with their editorial team. When required, we have also held one to one calls with CRGs and review authors, to discuss the screening report for a specific review in person. Our experience has shown that this verbal discussion will resolve the quality issues quicker than circulating a written word report between the CRG, the review authors, and CEU team. We welcome the opportunity to work more collaboratively in this manner but doing so creates issues of scalability since we are unlikely to be able to roll this out individually to all of the remaining CRGs. In the future, such development activities will need to be focussed on fewer, larger groups or networks to ensure that the work is sustainable.

Most of the reviews referred for screening occur when editors are seeking advice about a problem, would like an independent view on a particular issue or have found it difficult to obtain methodological peer review. In some cases we have been approached to support a rejection decision, or following screening the CRG editors have decided to reject the review on the grounds of insufficient methodological quality.

3 Activities aimed at learning and quality development

Table 1 summarizes the editorial training activities undertaken by the team since the mid-year meetings in April:

Editorial Training Activity	Date	CEU Editor
Face to Face Training on 'CEU Screening' for the Stroke CRG Editors training day	April 2016	Nuala Livingstone
Presentation on the MECIR standards for the Learning and Support Department	April 2016	Toby Lasserson
Support for the GRADE Editor training resources for the Cochrane Learning and Support Department	April 2016	Newton Opiyo
Training sessions around screening with editors from	April 2016	CEU Quality Editors

Editorial Training Activity	Date	CEU Editor
Breast Cancer Group		team
Face to face training session on 'common errors in writing up a Cochrane Review' as part of the School of Education (QUB) systematic review training day	May 2016	Nuala Livingstone
Editorial training for the Cochrane Oral Health Group	June 2016	Toby Lasserson
Pilot editor clinic for the Development, Psychosocial and Learning Problems Group	June 2016	Toby Lasserson Nuala Livingstone
SoF and GRADE workshop during the 'Cochrane in Ireland' conference	June 2016	Nuala Livingstone
Training sessions around screening with editors from Anaesthesia, Critical Care and Emergency Medicine Group	June 2016 August 2016 September 2016	CEU Quality Editors team
Webinar for Cochrane Learning Live on "Common errors and best practice when writing a review protocol"	June 2016	Nuala Livingstone
Face to Face Training on 'CEU Screening' for the Schizophrenia CRG Editors training day	July 2016	Nuala Livingstone
Pilot editor clinic for the Airways Group	July 2016	Toby Lasserson Nuala Livingstone
Support for the LIXA (Learning Initiative for Experienced Authors) webinar on the subject of planning GRADE methods and SoF tables in Cochrane reviews	July 2016	Newton Opiyo
Training sessions around screening with editors from Incontinence Group	September 2016	CEU Quality Editors team
Drafted the operational guide to CEU review screening	October 2016	Nuala Livingstone
Second paper in the Screening Notes series, looking at common issues with Summary of Findings tables	October 2016	Newton Opiyo
Support for the Cochrane UK editor training day	October 2016	Toby Lasserson

4 Performance data

The change in emphasis of the screening work initiated in September 2015 means that the reviews undergoing screening is no longer representative sample of reviews at sign off: many are further from completion than in previous years, and understandably they exhibit more problems than would be expected to be found post sign off by the Co-ordinating Editors. This means that it is impossible to compare the findings from screening reports with those produced prior to September 2015 on a 'like for like' basis. In addition, following feedback from CRGs, and in order to simplify the messages, we have moved away from using global labels of 'major' or 'minor' amendments on reports in favour of listing items as 'must' or 'should' address. The changes have had important benefits in terms of the utility and timeliness of our screening but the downside is that we do not have comparative performance data, and in addition, we no longer have a comprehensive assessment of all new reviews. Our proposed changes to the pattern of work will ensure that in 2017 we re-establish more useful post sign-off performance data across the organisation.

As indicated above, recent experience of screening has persuaded us that quality problems with Cochrane Reviews are not limited to a small number of groups. Having worked with the 'high risk' groups, we believe that in each case processes or changes have been put in place that will begin to address the challenges.

However, in all of these groups and many others, continued monitoring is required. This has resulted in the CEU proposing two further changes to be enacted as part of the Structure and Function programme.

Firstly, we are proposing an increase in transparency in relation to quality issues identified in reviews that have been signed off for publication by CRG teams. Secondly, and allied to this, we propose to develop and institute a peri-publication check of all Abstracts, Plain Language Summaries, and Summary of Findings tables, leading to an aggregate score (out of 10) for each review. The check will also be used to identify examples of good practice and complex reviews.

5 Persistent sources of variation in quality

The sources of variation in quality we continue to see revolve around three main areas:

- implementation of methods
- interpretation of findings
- consistency and completeness of reporting in summary versions.

We commonly continue to see issues relating to a variable grasp of judging risk of bias and assessment of its impact on review findings, appropriate use of subgroup analysis, analysis of data from studies with non-standard designs such as cluster or crossover randomised trials, and studies with multiple treatment arms. The implementation of GRADE and Summary of Findings tables remains an area where we believe that targeted support (e.g. early piloting and independent review) is needed to promote learning.

Capacity is a contributory factor to the variation in review quality. We are aware that many groups would like better access to methodological support and the team would like to be in a position to provide an earlier, scalable solution. We recognise that the proposal for a Methods Support Team within the Structure and Function proposals, and the proposals to support wider involvement in the review production process by 'geographic' groups such as Centres and Fields (paper 2) also represent potential solutions for this.

The high volume of protocols and reviews relative to available resources within some CRGs suggests that for some Groups there are too many reviews that need input from too few available experts. This environment is inevitably going to place stress on internal quality assurance processes. We are looking to explore how we might effectively address these tensions in the planned pilot that separates production from editorial process.

6 Recommendations

In line with the Structure and function (paper 1) we will:

1. Develop an agreed rejection policy and process to help address continuing issues around volume and capacity. A rejection policy will support more sustainable, effective editorial process and provide greater impetus to produce better and more impactful reviews. We believe that an assertive policy will need to be clearly communicated to ensure that authors' expectations are actively managed.
2. Increase the transparency of quality assessments within the Cochrane community
3. Develop and implement a peri-publication check on abstracts and Summary of Findings tables accompanied by ongoing more detailed cyclical audits with a validated tool on published content.

4. Continue to work with colleagues within CRG teams and the Learning and Support Department to ensure that learning resources and opportunities are available for editorial teams, including 'real-time' screening sessions. We will deliver these in a sustainable manner, usually working with 'groups of groups' or networks.
5. Continue to provide an 'on demand' screening service and we will also screen high priority reviews from the Cochrane-wide prioritisation list and reviews being considered for media dissemination.