Cochrane Injuries Group Prioritisation Strategy

The Cochrane Injuries Group links with a variety of stakeholders, including healthcare providers, policy makers, researchers, patients, members of the public, editors and authors. As a result, we receive many suggestions for potential topics for Cochrane systematic reviews. Since the resources of the editorial base are limited it is important that we focus our time and energy on reviews most likely to result in important health benefits to patients and the public.

Our reviews can improve public health in a variety of ways:

1. By identifying cost-effective interventions that can be provided within the NHS and healthcare services internationally. For example, our systematic review of the use of tranexamic acid in bleeding trauma patients\(^1\) shows that this drug can save lives at very low cost.

2. By identifying useless or harmful interventions that should not be provided. For example, our systematic review of the use of such starch solutions in the management of critically ill patients\(^2\) showed that starch solutions worsen patient outcomes. This review contributed importantly to starch solutions being withdrawn from use in the NHS\(^3\).

3. By identifying treatment uncertainties that can be resolved in controlled trials. For example, our reviews of the intensive care management of severely head injured patients show that few of the interventions currently used have been shown to improve patient outcomes. These reviews have resulted in the conduct of many important NIHR funded clinical trials. In this respect, we do not believe that systematic reviews without any included trials (so called ‘empty reviews’) are unimportant. If the question is an important one for patients and the public we see no value in censoring the uncertainty.

4. By identifying substandard research practice that needs to be addressed by the authorities. For example, we identified that the only two included trials in the original version of our review of high dose mannitol therapy for traumatic brain injury\(^4\) were fabricated.

With these “pathways to patient benefit” in mind, we prioritise reviews if they meet the following criteria:

- Does the review address a health technology that is or has the potential to be used in the NHS?
- Does the review address a question that is important for patients and their doctors?
- If the review is likely to reveal an uncertainty, is this uncertainty important and is there any prospect of reducing the uncertainty by conducting more or better research?
- Is there already a systematic review on the topic, and if so, what ‘added value’ would a Cochrane review bring?
- Does the review team have the experience, expertise and capacity to deliver a high-quality review within the next year?

We maintain strong interest in formal methods of research prioritisation such as value of information analysis. However, these approaches, although based on sound principles are not sufficiently mainstream to be used for prioritisation at present.

Prioritisation meetings:
The editorial team will hold prioritisation meetings on a regular basis and each year will select the ten most important topics for new reviews or updating. This will allow us some capacity to take on urgent reviews on an ad hoc basis. Unforeseen circumstances such as research fraud, new health issues and natural disasters sometimes raise important review questions and we need to have the capacity to
respond to such circumstances. We will have the capacity to respond to such urgent issues through five additional reviews each year.

The prioritisation meeting will be preceded by external consultation with stakeholder groups, patients and their representatives, online communities and the Group’s external editors. We will engage with other prioritisation activities (such as the James Lind Alliance) and NICE guidance development in order to establish which topics need to be addressed by a Cochrane review. Our trials search coordinator will search for studies on these topics so that the expected value of information can be taken into account during prioritisation.

We will publicise the topics selected in order to attract feedback, collaboration, and funding.

Choosing priority topics for new reviews:
All suggested topics for Cochrane systematic reviews will be assessed by the editorial team in terms of how they might lead to improvements in patient care. This necessarily involves making judgements. For example, we believe that it is more important to identify treatment uncertainties when there is the willingness and ability to resolve the uncertainty through the conduct of new research.

As well as considering the importance of the review topic, we consider the ability of the review team to complete the review in a timely and efficient way and to keep the review updated. Again this involves making judgements. For example, we often receive suggestions for topics from researchers who seem to be more focused on building their CVs than improving patient care. Any previous experience with the lead reviewer or review teams is therefore taken into account in our prioritisation process.

Prioritising updates:
To date, decisions about which reviews should be prioritised for updating have been made by the editorial base without any formal criteria. However, Takwoing, Hopwell, Tovey and Sutton recently developed a decision tool that we have adopted in place of the previous approach to prioritisation. The decision tool consists of three main criteria: clinical question answered or no longer relevant, new relevant factors to consider, and availability of new studies. We plan to use the decision tool to help identify reviews most sensitive to change and in this way we hope to minimise unnecessary updating and waste of resources. We do not think there is a need to create a new system as an expert team worked to develop this tool.
### Outline of the prioritisation exercise for review updates

_A summary of the approach described in Takwoingi Y et al. BMJ 2013;347:f7191_

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
<th>Flag</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the clinical question already answered by the available evidence?</td>
<td>If it is expected that there will never be any further information that could change the findings of the review, the current evidence is deemed conclusive, or that the clinical question is deemed no longer relevant, this should be noted.</td>
<td>“Current question; no longer being updated”</td>
</tr>
<tr>
<td>Is the clinical question deemed no longer relevant?</td>
<td></td>
<td>“Historical question; no longer being updated”</td>
</tr>
<tr>
<td><strong>Step 2:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any new factors relevant to the existing review?</td>
<td>These might include:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Information from existing included studies—for example, information about new treatment regimens, population subgroups, harms, economic data, or outcome measures, including data from ongoing studies or previously missing data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• New methodology—for example, new statistical techniques, or changes in methodological guidance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Response to feedback from users of the review</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inclusion in policy decision making or clinical practice guidelines—for example, it might be important to update a review to include it in a new clinical guideline. If any such factors (termed updating signals) are identified, then a judgment is made on whether a signal for updating is likely or unlikely to change the results or conclusions of the review.</td>
<td></td>
</tr>
</tbody>
</table>
### Step 3

| Are there new studies? | If new studies are identified that are relevant to the primary outcome on which the conclusions of the review are based—and thus could be included in the main meta-analysis of this outcome in the review—then the statistical prediction tool can be applied.  

The probability (given as a percentage) of this new evidence changing the conclusions of the systematic review is based on the size and number of new studies added.  

A threshold probability of around 50% is suggestive of the need to update a systematic review, but any threshold can be chosen.  

If the new studies identified are not eligible to be included in a meta-analysis but still provide new information, then a judgment will need to be made about their likely effect on the conclusions of the review. |

---

### Step 4 - Documentation and presentation of decisions

| To provide clarity and transparency for readers, the decision made at each step of the tool should be carefully documented together with reasons for the decisions. | If an updating signal is deemed unlikely to change the conclusions of a systematic review, then the decision can be made not to update the review.  

If a signal is deemed likely to change the conclusions of a systematic review, and there is a review team available, the review should be updated as soon as possible. | Decisions (citing any new studies) can be documented in the “What’s new” table.  

Flags can be:  
“Current question; considered to be up to date.”  

“Priority for updating” (If a review team is not currently available.) |
Multicomponent updating decision tool for prioritising systematic review updates

Takwoingi Y et al. BMJ 2013;347:f7191


5 Takwoingi Y, Hopewell S, Tovey D, Sutton AJ. A multicomponent decision tool for prioritising the updating of systematic reviews. BMJ 2013;347:f7191