Up-to-date systematic reviews: the best strategy to select medical care

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Results of new research studies should be considered for changing practices only when all other studies addressing the same or similar questions are taken into account (1). The most comprehensive way of achieving this is through systematic reviews. Systematic reviews locate, identify and appraise all studies addressing a specific question and are acknowledged as the gold standard in guiding decisions for research and practice. Cochrane systematic reviews are unique in that they are published electronically and regularly updated. The authors of these systematic reviews must update the Cochrane reviews for which they are responsible on a regular basis to appraise new studies, respond to comments received and review new methodological developments to determine the need for revision. For example, between 1995-1997 18 out of 36 Cochrane reviews included in 1995 Issue 2 of The Cochrane Library versus 1 out of 39 non-Cochrane systematic reviews (published in other journals) were updated (2). Of the 481 reviews appearing in *The Cochrane* Library 1998 Issue 4, 65 had at least one trial added since initial publication and 7 primary outcome measures in these reviews changed in significance (3). This can be achieved only through the electronic and periodical nature of The Cochrane Library and RHL.

Fourteen out of 70 reviews included in RHL No.5 were updated in 2002. For example, in RHL No.3 published in 2000, the Cochrane review on antenatal care for low-risk women included only one trial from developing countries and eight from industrialised countries. Inclusion of the results of "The WHO Antenatal Care trial (4)," in the systematic review doubled the number of women participated in these trials with majority of them in diverse settings in developing countries. The RHL commentary (5), on this review now makes a clear case for the implementation of the new antenatal care model in various settings, which is likely to cost less and equally effective compared to the standard western model consisting of nine or more visits.

Another striking example is the review on anticonvulsants for pre-eclampsia. In RHL No.5 the review concluded that the evidence was not strong enough for worldwide implementation of this treatment. In June 2002, the Magpie trial including more than 10,000 women with pre-eclampsia was published (6). The results indicated that magnesium sulphate administration to women with pre-eclampsia more than halves the incidence of eclampsia and there is a clinically important reduction in maternal deaths. Since there was not enough time to publish the updated review for this issue, we withdrew the review and placed the summary of the latest results until the review is updated. If this review had been published in a print journal those accessing that version could have easily been misled.

In other instances updates help to keep us informed about the current state of research and plan for research protocols more efficiently. For example, the number of trials included in the vaginal misoprostol for induction of labour review increased

from 26 in 2000 to 45 in 2002 but the conclusions remained the same. If all the trialists (or institutional review boards) were to look at the latest cumulative evidence they could easily see that most of those new 19 trials were actually unnecessary.

The effect of misoprostol on preventing postpartum haemorrhage is another example of the need for keeping reviews up-to-date. This is an active research area with controversies and emotions. Considering the results of recent, mostly small, underpowered studies (there have been 3 such trials included and 6 awaiting assessment in 2002) independently gives a biased picture compared to reviewing all trials in this area (7).

RHL editorial policy is to keep all information as up-to-date as possible. In keeping with this principle, we removed four Cochrane reviews (3 breastfeeding reviews and one on postnatal social support) that were included in earlier issues of RHL because they were not updated despite the existence of new information.

We hope that, in the current environment of ever-increasing numbers of publications, yearly updates of RHL will continue to keep our readers well aware of the most upto-date practices in reproductive health. The long term commitment required to keep the reviews up-to-date highlights the need for additional support. We need new blood, new partners in this effort. We ask our readers to come forward to assist in updating the reviews that are of interest to them by becoming co-reviewers and join our global network of partners by contacting us at E-mail: rhlauthors@who.int

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