



The evidence base for trachoma interventions

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SAFE is a policy based on common sense and practical know-how. It includes all the things we know contribute to blindness from the disease and the strategy is to interrupt the pathway to sight loss at several different stages.

It is, however, worth examining the evidence which underlies this policy. Like so often in politics and planning, policies are made first and then evidence is sought to support them afterwards. This is not a strictly evidence based approach.

There are Cochrane reviews either underway or published on all four components of SAFE.

Surgery for trichiasis

Trichiasis is one of the most important components of the blinding process. That something has to be done about abrading lashes is without doubt. However, there have been no trials on whether surgery is more effective than simple epilation, though epilation has been found less effective than using tape to pull the lashes away from the globe. Another, perhaps more important, question is which operation is the most effective, simplest and cheapest to perform with the least complications.

A Cochrane review will soon be published addressing these questions but needless to say, like is so often the case, there are few good quality studies which adequately address this question.

Other important questions are about measures to improve uptake of surgery – can the operation be safely performed in the community and can paramedical staff be successfully trained to do the surgery. These questions are included in the systematic review which will soon be published in the Cochrane library.

Antibiotics for active trachoma

A Cochrane review has been published for two years on this question and is currently being updated. Despite the growing confidence in the safety and effectiveness of azythromycin, there are few trials addressing the question and none show a convincing advantage over existing treatments. This reflects the nature of the studies and the difficulty in conducting large trials on at-risk communities. Before and after studies such as the one recently published in the *New England Journal of Medicine* (abstracted on page 61) provide such convincing evidence

of effectiveness that it may now be difficult to ethically conduct new trials. It is a shame that these trials have not been conducted since studies without a comparator group mean that the effect size cannot be estimated. We can only know that treatment is effective but not by how much. This also makes it difficult to build models of cost-effectiveness.

More evidence is needed however. Dosage, frequency, targeted versus mass treatment, means of distribution, safety monitoring and resistance are questions highlighted in an important *Lancet* review last year (Kuper H, Solomon AW, Buchan J, Zondervan M, Foster A, Mabey D. A critical review of the SAFE strategy for the prevention of blinding trachoma. *Lancet Infect Dis.* 2003 Jun;**3**(6):372-81. Abstract included in Issue 49 of the *Community Eye Health Journal*).

Face washing

Improved personal hygiene and regular washing of the hands and face of children are common sense interventions which are hard to evaluate in trials. Two have been found by reviewers who published a review on the Cochrane library last year on this subject. One was a randomised controlled trial in which three villages were randomised to separate interventions while another previously unpublished trial was found in which children were individually allocated to topical tetracycline, face washing, face washing and tetracycline, and no treatment. Neither of these studies demonstrated convincing evidence of effectiveness. Clearly more research is needed in this area.

Environmental interventions

A Cochrane review on this topic will shortly be published. Out of 285 citations, only one trial addressing this issue in the form of a cluster randomised controlled trial was found. Some indication that health education may have some impact was found in this study but no other studies were found answering questions on the many other potential environmental interventions including latrines, fly control, water supply and garbage disposal.

The *Lancet* review concluded that much more research is needed to reinforce the SAFE strategy on all aspects but especially in interventions for facial cleanliness and environmental improvement. These latter may be as effective as expensive antibiotics and have the advantage of improving many other aspects of quality of life.

ABSTRACTS

Face washing promotion for preventing active trachoma

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BACKGROUND: Trachoma remains a major cause of avoidable blindness among underprivileged populations in many developing countries. It is estimated that about 146 million people have active trachoma and nearly six million people are blind due to complications associated with repeat infections.

OBJECTIVES: The objective of this review is to assess the effects of face washing on the prevalence of active trachoma in endemic communities.

SEARCH STRATEGY: We searched the Cochrane Central Register of Controlled Trials – CENTRAL (which contains the Cochrane Eyes and Vision Group trials register) on The Cochrane Library (Issue 2, 2004), MEDLINE (1966 to February 2004), EMBASE (1980 to February 2004), the reference lists of identified trials and the Science Citation Index. We also contacted investigators and experts in the field to identify additional trials.

SELECTION CRITERIA: We included randomised or quasi-randomised controlled trials, comparing face washing with no treatment or face washing combined with antibiotics against antibiotics alone. Participants in the trials were people normally resident in endemic trachoma communities.

DATA COLLECTION AND ANALYSIS:

Two reviewers independently extracted data and assessed trial quality. Study authors were contacted for additional information. Two clinically heterogeneous trials are included, therefore a meta-analysis was considered inappropriate. **MAIN RESULTS:** This review includes two trials with data from a total of 2560 participants. Face washing combined with topical tetracycline was compared to topical tetracycline alone in three pairs of villages in one trial. The trial found a statistically significant effect for face washing combined with topical tetracycline in reducing 'severe' active trachoma compared to topical tetracycline alone. No statistically significant difference was observed between the intervention and control villages in reducing ('non-severe') active trachoma.

The prevalence of clean faces was higher in the intervention villages than the control villages and this was statistically significant. Another trial compared eye washing to no treatment or to topical tetracycline alone or to a combination of eye washing and tetracycline drops in children with follicular trachoma. The trial found no statistically significant benefit of eye washing alone or in combination with tetracycline eye drops in reducing follicular trachoma amongst children with follicular trachoma.

REVIEWERS' CONCLUSIONS: There is some evidence that face washing combined with topical tetracycline can be effective in reducing severe trachoma and in increasing the prevalence of clean faces. Current evidence does not however support a beneficial effect of face washing alone or in combination with topical tetracycline in reducing active trachoma.

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