Reviewer's report

Title: Treating cutaneous leishmaniasis patients in Kabul, Afghanistan: cost-effectiveness of an operational program in a complex emergency setting.

Version: Date: 28 September 2006

Reviewer: Charles King

Reviewer's report:

General
The approach in this paper is standard for cost-effectiveness analysis, and adheres to appropriate simulation techniques for sensitivity analysis of the outcomes. The paper is rather flat in its thesis and Discussion, however, and could be improved by additional exploration of variation in different aspect of the analysis of CL care.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The CEA here is fairly straightforward. The authors have micro-costed their treatment program, and applied operational data (with uncertainty analysis) to the outcomes. One problem is the rigid adherence to the Global Burden of Disease Program’s assignment of DALY weights to the utility of the treatment and cure. As mentioned in some detail in the discussion (page 9), the DALY weighting system is controversial and relatively arbitrary. However, the analysis presented in the Results section does not formally include an assessment of the impact of alternative DALY weight estimates on the outcomes of the study. A chart or graph of this impact would be appropriate to include in the paper.

For instance, in areas endemic for cutaneous leishmaniasis, there is often the practice of inoculating young girls on skin patches away from the face, in order to intentionally induce cutaneous infection where it ultimately will not show. The child will then develop immunity and hopefully avoid later facial infection and disfigurement, thereby reducing her marriage prospects. No matter what we feel about this practice, it implies a very high social weight given to CL that is not captured in the current DALY rankings. In economic analysis, the utility (usefulness or satisfaction) of a transaction must be defined by the person who receives the benefit of the transaction, and not by the vendor nor by the price per se.
Here, in this study, our utilities are GBD DALY weights that were assigned by focus groups who were not experienced with many of the diseases they categorized. The cultural phenomenon of intentional CL inoculation, and (as the authors have mentioned) the potential for ostracism due to facial disfigurement implies a high lifetime disutility for CL in cultures where it is prevalent. Have there been any patient preference surveys on CL? If not, it would be appropriate to liken facial CL to advanced elephantiasis, which can also become an ostracizing outcome late in disease. The authors could recalculate their outcomes based on alternative DALY burdens that are chosen based on the DALY weights for similarly severe stigmatizing diseases (leprosy, advanced elephantiasis) then the reader would have an idea of what the proportionate economic impact would be if patient-preference or social factors were better taken into consideration in the DALY burden assigned to CL.

2. Are there likely economies of scale based on clinic size and population served? and are there likely to be economies of scope in multispecialty vs. primary care clinics? Can the authors estimate the leverage obtained by reduction in transmission due to human reservoir treatment (page 10)?

3. If cost per DALY averted is $407, above the generally accepted threshold of $150, does that mean we should not treat CL? The Discussion is not really clear as to what alternatives are available for solving this problem, and the overall effect of the paper seems only half-hearted. It is wrong to say that something 'is not cost-effective'(p.11, Conclusion). Rather, it is only more or less cost-effective than a comparison strategy. If no comparison is explicitly given, the implication is that the comparison strategy is to do nothing. Since other CHE interventions have not been analyzed in this way, we are left with very limited scope for comparison. However, it would be useful to recommend where CL treatment would stand on the priorities for treatment in a CHE recovery operation.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. The authors have not justified their choice to use triangular distributions for variation in their input parameters (Table 2), and this rationale should be included in the methods or results section.
2. It would be appropriate to include a 'tornado diagram' to indicate the relative influence of each parameter on outcomes.
3. on page 7, line 5, the phrase 'The majority of staff did only recieve an incentive...' does not make sense and should be revised.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests