Reviewer’s report

Title: Massive single visit cervical pre-cancer and cancer screening in eastern Democratic Republic of Congo

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Reviewer: John Condon

Reviewer’s report:

This paper describes a pilot of a short, intensive screen-and-treat strategy for cervical screening (implemented as two one-week screening campaigns) in a resource-poor environment in which there is no prospect of a permanent cervical screening program. The paper describes the rationale for the screen and treat strategy, its implementation (including recruitment process and clinical service), and basic demographic characteristics of the women screened and their screening results. The paper is clearly and concisely written. Data collection was limited but appropriate. Statistical analysis was appropriate for the available data. The screening program was apparently implemented effectively, demonstrating that, in this hospital at least, this strategy is feasible.

Overall, this is a well written paper that provides important information for cervical screening and similar health initiatives in Democratic Republic of Congo and other very resource-poor areas. It is a useful contribution to the public health literature, particularly for resource-poor countries for which reliable evidence is scarce.

There are several aspects of the paper that need to be improved.

1. The research questions for the research component of the project are not articulated. There appear to have been three research questions relating to: the feasibility of the screen and treat strategy; the prevalence of CIN/SCC in this population; and risk factors for CIN.SCC in this population. The research questions and the study design to investigate each question should be explicit.

2. The feasibility question is addressed in regard to the organisation of and resources required for the campaigns, recruitment strategy and number of participants, and clinical processes. However, there is no mention of cost or impact on routine services (which are presumably highly over-worked).

3. It is quite an achievement that 644 women (440 from within Goma) screened over nine days, but there is no mention of the size of the population eligible for screening or of the participation rate in the eligible population; is there any (even approximate) information available of the size of the adult female population of Goma?

4. The context in which these campaigns arose is also important, as is what the pilot study indicates about the potential sustainability of the screen and treat strategy. Who initiated this program and why? Was it a local or external priority? Could it have been conducted
without the input of the Australian gynaecologist? If not, was there a training component for local staff and has the experience of these two campaigns made it locally sustainable? Was there a substitution strategy of training nurses or others to do the screening (such as those mentioned in the Discussion), instead of relying only on (rare) gynaecologists? Has the experience of these two campaigns resulted any plans to use this strategy in Goma or elsewhere in DRC?

5. The finding that 39.75% of women reported abnormal cervical bleeding in the previous year is overlooked. This is mentioned in the 'Results' (L185) as "A majority of the patients did not report a history of abnormal bleeding (60.25%)…", but is 40% prevalence of abnormal bleeding in a one-year period unusual? There is no further discussion of why this might have been so commonly reported; was the abnormal bleeding a motivator for these women to seek screening (the paper did not mention asking about the reason for attending), in which case the prevalence of cervical abnormalities in participants would overestimate (because of selection bias) prevalence of cervical abnormalities in the Goma population.

6. The association of abnormal cervical bleeding with prevalence of CIN/SCC is discussed as the proportion of women with/without CIN/SCC who reported bleeding (L203). The cervical pathology might be causing the bleeding, but it is the abnormal bleeding (not the cervical pathology) that a woman might notice and act on. Consideration of the predictive value of abnormal bleeding to indicate cervical pathology (neoplastic or inflammatory) is needed, particularly with 40% of screened women reporting abnormal bleeding (although this might also be affected by selection bias).

Minor corrections

7. The two screening campaigns are sometimes described as a program, sometimes as a pilot (e.g. L101 & L106); this should be consistent.

8. L690 "... reduced prevalence..." and L72: "...cervical cancer prevalence...": should this be "incidence" rather than "prevalence"? Reference 4 reports incidence and mortality rates, not prevalence. I have not checked references 3 and 5.

9. L72-73: cervical cancer incidence in developing countries is reported in ref 4 as 17.8 per 100,000, not 15.7 (ref 4 table 1).

10. The numbers included in the text of the Results section should be considerably reduced. There are too many numbers included in the text, most of which duplicate the numbers reported in the Tables. This unnecessarily reduces the clarity and flow of the text.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?
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No

Are the conclusions drawn adequately supported by the data shown?
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