Reviewer’s report

Title: A Polypill for primary prevention of cardiovascular disease: A feasibility study of the World Health Organization

Version: 2 Date: 10 June 2010

Reviewer: Matthew G Law

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Major Compulsory Revisions

1. I don’t understand why changes in variables from baseline aren’t analysed (Table 3). This would be a more powerful endpoint. The statistical methods do say that changes in variables were compared, but this doesn’t look the case in Table 3.

2. The lack of confidence intervals is a major omission

3. I think this trial does raise some very interesting questions about how you would design a large polypill trial in developing countries. If you recruit a high risk population, as in this study, there is clearly a risk that by having the control arm patients in regular follow-up that they will get given what are known effective interventions (as in this pilot). Even in your placebo control, regular monitoring of blood pressure and lipids would result in the same treatment interventions. So it seems to me that the options are either not to monitor (as suggested by Wald and Law), or to recruit a low risk population (in which treatment on risk factors would be much less prevalent). This really isn’t discussed at all, which is a pity.

4. The authors conclusion - "we did not detect the anticipated CVD risk factor improvements..." - seems a bit harsh to me. You did see major improvements in BP, TC and 10-year CVD risk - the problem is you treated the controls as well and got similar improvements in those patients!

5. I don’t like the p-values in Table 1. I thought the consensus these days was that these are uninterpretable, and shouldn’t appear?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I was involved to some extent in plans for a polypill RCT in HIV-infected patients.