Reviewer's report

Title: Impact of different pack sizes of paracetamol in the United Kingdom and Ireland on intentional overdoses: a comparative study

Version: 1 Date: 12 April 2011

Reviewer: Oliver Morgan

Reviewer's report:

- Major Compulsory Revisions

1. In the last paragraph of page 9 and top of page 10, the authors report a statistically significant higher median number of tablets taken among persons #35 year old age group in England compared to Ireland. However, examination of Table 2 shows that the median number of tablets in England was 26 and in Ireland was 24. Is this a clinically significant difference? Similarly, the authors report that a statistically significant smaller number of tablets were taken by females #35 years in England vs. Ireland, but the difference was just one tablet. In both these instances, no increased risk was observed in other age groups. In my opinion, the authors have over-interpreted these statistically significant findings in sub-group analyses.

2. Given the point above, and that this is an ecological study (comparing two countries) without time trend data for the pre- and post-intervention periods, I think the author’s conclusions that “the findings are compatible with smaller packs of paracetamol sold through Irish pharmacy and non-pharmacy outlets being associated with smaller overdoses in England …” to be wildly overstated. I do not think that that data presented here show any clinically or epidemiologically important differences between the two countries.

- Minor Essential Revisions

1. On page 11 the authors discuss “peaks in the numbers of tablets”. This language is confusing. Perhaps saying overdoses in multiples of 10 were more frequently reported.

2. The first paragraph of page 14 is not clear and it is hard to understand what the authors wish to say.

- Discretionary Revisions

3. I had a look on Google for the National Research Committee of the Faculty of Public Health Medicine (presumably now the Faculty of Public Health), but could not find anything. Is this the correct or current name of this ethics committee?

4. On page 9, the paragraph after the Table 2 placeholder reports findings from both countries combined. It would be helpful to clarify that in the text as some of the later results are presented by country.