Reviewer's report

Title: Analysis of prices paid by low-income countries - how price sensitive is government demand for medicines?

Version: 2 Date: 4 March 2014

Reviewer: Ellerie Weber

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Major Compulsory Revisions:

(1) The authors are lacking data on a main variable – marginal cost – that is crucial to the Ramsey equation and allows identification of price elasticities. The authors use instead the price of the relevant generic drug in the market as a proxy. There are a few comments about this tactic:

(i) As I am not intimately familiar with this literature, and therefore do not know if there is prior evidence or support for using generic prices as a proxy for marginal cost. Any references about this would be useful to the reader.

(ii) As the authors acknowledge (p 13), generic price can’t be a great approximation to MC, as it causes them to drop 49 of the 139 observations. The authors do sensitivity analysis, but only by varying the generic price by 5 and 10 percent. This is fine, but it may also be interesting and perhaps useful to calibrate the marginal costs that would give elasticities that seem out of line with the literature.

(iii) The authors should show some information about the countries/prices/molecules for the 49 observations that were dropped. Are these all the same molecule? Highest price molecules? From any particular therapeutic category? The reader could benefit from understanding whether something systematic is going on there.

(2) The authors provide little information about regulatory or market differences in the 16 countries in their data. To the extent that it is possible, it would be nice to know – for example – what fraction of the market is covered by government procurement, whether the country has national or compulsory health insurance, or even what the gini coefficient is for the country.

(3) The authors should discuss why the appropriate element of interest here is of price elasticity and not income elasticity.

(4) The authors should do a more thorough job of explaining how their paper differs from (and contributes to the literature) given the existence of a recent publication by Danzon, Mulcahy & Towse (2013, Health Economics). Obviously, the authors here are estimating price elasticities, whereas the DMT paper is not, but both papers are fundamentally interested in the relationship between income and pharmaceutical prices.
Minor Essential Revisions:
(1) The abstract says the data is from 2006, while the body of the paper says the data is from 2003.
(2) It would be nice to see Table 3 in a scatterplot-type form that shows a more comprehensive picture of income and price.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests