Reviewer's report

Title: Cost of Managing Complications Resulting from Type 2 Diabetes in Canada

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Reviewer: Ken Redekop

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Accept after discretionary revisions

The aim of this study was to estimate average costs in Canada for complications relating to diabetes, divided to whether or not the complication was recent (i.e., first year costs = event costs, subsequent yearly costs = state costs). It is stated that such an overview of diabetes complications costs in Canada has never been performed in such a comprehensive fashion. This is a well-written manuscript which describes the issues involved in cost estimation and winds up with cost estimates for use in economic evaluations studies for Canada.

Discretionary revisions
1) The background section focuses primarily on the total economic burden of disease and less on the rationale behind developing useable estimates of average per-patient complication costs for Canada. The authors might want to consider giving one example of how the so-called key pieces in the 'complex economic puzzle' can help to improve the quality of research in this area: oral antihyperglycemics, antihypertensives, new DFU treatment options.

2) Table 2 provides a summary of all of the cost estimates created. [Perhaps indicate yearly costs in title and indicate distinction between event costs (first year costs) and state costs (subsequent yearly costs).] Enticing to some readers is the use of these values without adequate insight into the data and assumptions used to derive these estimates. While much but not all of the information used to reach these estimates can be found in the text, presentation in the form of additional tables might encourage insight into how data was used and when assumptions were made. For example, cost estimates for the various complications could be put into separate tables (e.g., one table for macrovascular complications, one for nephropathy, etc.) where costs are broken down into cost components.

3) As well, no attempt is made in Table 2 to convey the degree of uncertainty around the estimates shown and this may be inherently difficult. Nevertheless, given what the authors themselves observed (i.e., reliance on US resource use data, likely underestimation of some estimates such as foot ulcers)(pages 19 and 20), perhaps there is some way to indicate this uncertainty (e.g., use of extra tables, comments at end of Table 2).

Competing interests:
None declared.