Reviewer's report

Title: Evaluating the Impact of Onsite Diabetes Education Teams in Primary Care on Clinical Outcomes.

Version: 0 Date: 11 Oct 2018

Reviewer: Matthew Menear

Reviewer's report:

This is an interesting article describing the impacts of integrated diabetes educator teams on clinical outcomes in patients with type 2 diabetes visiting primary care clinics in an urban region of Ontario. The authors extracted data from clinics' electronic medical records and used a historical cohort design to compare outcomes in patients referred vs. not referred to onsite educator teams. Educator teams have been implemented in Ontario and provide education and self-management supports in a collaborative care model. However, documenting the impacts of these teams is important and this study therefore addresses an important gap in knowledge.

The article is well written and I have only minor concerns about the study and the paper in its current form.

- Abstract: the authors should mention the study design in their methods section and not only in the conclusion

- Setting: the authors should specify whether this study took place in an urban or mixed urban-rural region. Judging from the clinics involved I would guess that it was urban only.

- Participants: the authors should be clearer about how many patients were initially eligible for the control condition and how randomization allowed them to arrive at 284 patients.

- Participants: patients in the control group were not referred by their PCP to the educator teams. Could patients self-refer to these services, and could some patients in the control group been exposed in other ways (e.g. through home visits) to these services?
- Data collection: the authors state that data on patient comorbidity was collected but this was not presented in Table 1. How was this variable defined? The authors claim to have used this variable in a propensity score analysis but again the details are not provided. Given the influence of comorbid conditions (e.g. cardiovascular diseases, mental health conditions) on diabetes self-management and outcomes it is surprising that this variable was not considered in the main GEE models.

- Statistical methods: the authors refer to "delivery care model" as one of the characteristics considered in GEE models. Does this refer to the "Site and Grouping" variable or to something else?

- Results - Tables and Figures: Please include the comorbidity variable in Table 1 and add a legend for the figures indicating which groups are intervention and control.

- Discussion: the authors argue that the effect of diabetes educator teams was greater for glycemic control than other outcomes because glycemic control is fundamental to the management of diabetes and likely to have been treated more aggressively by physicians and teams than other cardiovascular risk factors. However, the intervention described by the authors seemed to have a broader focus on diabetes self-care, lifestyle habits, diet, etc. Thus, outcomes other than glycemic control should have been impacted by the intervention but ultimately weren't. What implications does this have for the services provided collaboratively by physicians and diabetes educators?

- Limitations: The authors omit some notable limitations to their study. First, the degree of exposure of patients in the intervention group to the educator teams is unknown. The specific number of contacts that these patients had with diabetes educators is not provided. Similarly, exposure to the diabetes educators who offer self-management supports to patients should result in a series of behavior and lifestyle changes as part of the pathway towards improved clinical outcomes. With a historical cohort design and access to limited data collected from EMRs, the authors were not able to present data on self-care behaviours, diet, exercise levels, etc. which would have reinforced our understanding of the proximal impacts of diabetes educator teams.
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?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal