Reviewer’s report

Title: What works for whom in the management of diabetes in people living with dementia: a realist review

Version: 0 Date: 10 May 2017

Reviewer: Sean Dinneen

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Summary: the authors describe a "realist review" of the literature on the management of diabetes in people living with dementia (PWLD). The aim of the review was to identify "programme mechanisms" to improve the management of diabetes in PLWD and identify areas needing further research. The project was delivered in 4 phases including a phase in which the scope of the review was defined, a phase involving retrieval and synthesis of evidence and 2 phases in which the theories and hypotheses generated from the literature were tested and refined. The latter involved qualitative work. Eighty nine papers were identified including studies involving PLWD and diabetes and people living with one or other condition. Six potential mechanisms whereby interventions might work (or not) were identified. These included attitudes towards PLWD, person-centred care planning, providing tailored and flexible care, continuity of care, family engagement and use of technology.

Major comments: this is an excellent paper which I enjoyed reading. The methodology is thorough and backed up by a published protocol describing the planned methods. In addition the reporting of the work is framed around a CONSORT-type set of standards for realist reviews called RAMESES. The following comments reflect the perspective of a "jobbing diabetologist" interested in and working in this area (clinically) but not overly familiar with the (research) methodology.

(1) the authors comment that very few RCTs have been published in this area. It would be useful to reflect on why this is the case and on the quality of the RCTs that were included in the review. I assume that the work presented in this paper is going to inform the development of a (complex) intervention. If this is the case it would be helpful to clarify how the authors see that work developing based on the findings of the review.

(2) a lot of the terminology used in the description of the results is not familiar terminology. In particular the term CMO is hard to decipher. It would be helpful if this term could be explained more clearly or (preferably) if an alternative term could be used.

(3) a lot of the conclusions of this realist review could be applied more broadly to diabetes care in any age setting. We are being encouraged (for example by ADA/EASD guideline writers)
to deliver a more personalised approach to medication choice in diabetes care; continuity of
care and incremental change is always sought after in chronic disease; an emphasis on
holistic approaches and quality of life as an important patient outcome is true for young
adults just as it is for older adults. The authors may want to reflect on this and consider
mentioning it in their discussion.

(4) the term "frailty" is hardly mentioned in the review and yet in the gerontology literature it
seems to be increasingly used to try to understand and frame approaches to care delivery in
older people with diabetes. I would be interested in the authors' thoughts on how their work
and their findings relate to the evolving literature on frailty.

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

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