Reviewer's report

Title: Effect of lifestyle intervention for (pre)diabetics in real-world primary care: propensity score analysis.

Version: 2 Date: 4 June 2011

Reviewer: Nefyn Williams

Reviewer's report:

Main Comments
The authors report a retrospective cohort study of a lifestyle intervention for those with diabetes or pre-diabetes. The research question is defined but the stated aims could be written clearer. The methods are appropriate and well described. The data appears sound apart from my comments below. Discussions & conclusions are balanced & supported by the data. Limitations of the work are stated. I have made some suggestions for clarifying the title and some of the grammar.

Major Compulsory Remarks
1. Method, statistical analysis, paragraph 1, line 7. ‘We only used those patients for analysis who had at least one measurement of the particular outcome measure...’ So please report in the results the number of patients who had to be excluded because outcomes were not reported.

2. Results, paragraph 2 and Tables. The physical activity outcome is categorical but is reported and analysed as if it is a continuous outcome. It would be better to report the numbers in each category, or the numbers that exercise at least for half an hour 5 or more days per week. The t test is not appropriate for this outcome

Minor Essential Revisions
1. The title is confusing, change to ‘diabetics and prediabetics’ or ‘patients with diabetes and impaired glucose tolerance’

2. Report study type in abstract and under study design in methods section

3. Text under ‘study design’ sub-heading is actually describing the ‘setting’

4. Background 3, last sentence. Please state aim of study more clearly. ‘The aim of the study was...’

5. Methods, lifestyle programme, paragraph 2, lines 6 & 7. Please state how physical activity and motivation to change lifestyle was assessed.

6. Method, statistical analysis, paragraph 2, last 2 sentences. ‘This quasi-experimental...during intervention’ These two sentences overstate the value of controlling the matching, please delete them.

Discretionary Revisions
1. Abstract, results section line 1. ‘There was no significant difference in any outcome measure between either group.’

2. Background paragraph 2, line 1. ‘Paradigm shift’ is a bit strong, what about ‘change in emphasis’

3. Background paragraph 3, line 9. ‘Therefore, information about their real-world...’

4. Methods, lifestyle programme, paragraph 2, lines 8 & 9. ‘Patients could not participate if they had three or more diabetic complications, or polypharmacy (defined how?) or hypertension above...’

5. Methods, participants, paragraph 2, line 2. ‘registerd with SGE on...’

6. Methods, participants, paragraph 2, line 4. ‘Subsequently, we examined all...’

7. Methods, participants, paragraph 2, line 5. ‘for analysis’

8. Methods, outcome measures, paragraph 1, line 10. ‘Fasing glucose was measured in capillary blood...triglyceride in venous blood.’

9. Results, paragraph 2, lines 6 & 7. ‘Similar results were found for fasting glucose...between either group.’

10. Results, paragraph 2, line 9. ‘between either group.’

11. Results, paragraph 2, line 10. ‘compared with the control group.’

12. Discussion. Personally I prefer sub-headings with: summary of results, strengths and weaknesses, comparison with other studies, implications for practice, policy and future research’

13. Discussion, paragraph 2, line 4. ‘similar trend to the results...’

14. Discussion, paragraph 3, line 3 & 4. ‘Different aspects...in a trial setting’ is not clear, please clarify.

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

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

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