Reviewer's report

Title: Younger Type 2 Diabetic patients have poorer glycaemic control: a cross-sectional study in a Primary care setting in Singapore

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Reviewer: Soon H Song

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This cross-sectional study assessed the prevalence and characteristics of type 2 diabetes subjects with suboptimal diabetic control defined by HbA1c >8% whose care were delivered in primary care. From 688 subjects, 25.4% had HbA1c >8% and within this group, a variety of factors was observed to be associated with poor control such as younger subjects, long diabetes duration, insulin treatment and poor compliance.

Interesting study but there are major concerns which have to be addressed.

Comments:

(1) The main analysis was confined to those with HbA1c >8%. The authors observed that younger subjects were more likely to have poorer control in this group. What were the characteristics peculiar to the younger group that contributed to the poorer control - longer diabetes duration, poorer compliance, ethnicity etc? The authors should analyse the data to clarify this issue. The current analysis does not answer this question which has public health importance. Also, what is the proportion or odds ratio of younger vs older subjects in the lower HbA1c categories? Were younger subjects less likely to have good HbA1c in these categories? (major compulsory revision)

(2) Following on from above, to fully justify the claim that younger subjects are at increased risk of poorer glucose control, the whole study population of 688 should be analysed according to different age group categories to determine the glucose levels along with the various relevant risk factors. Is there any trend of higher HbA1c with lower current age in the whole study population? Did the younger subjects tend to be associated with certain risk factors? With the current analysis, the observation is based on a small skewed poorly controlled diabetic population and does not really support the authors conclusion. (major compulsory revision)

(3) It would be more useful to show the mean age for the younger vs older subjects rather than just expressing this information in age ranges. (major compulsory revision)

(4) Systemic sampling recruitment method was used with every other subject invited to participate in this study. The authors did not explain why this technique was used. I thought it would be more advantageous to recruit all suitable subjects
to increase the study population rather than alternate subjects? (Major compulsory revision)

(5) Does living in HDB flats (along with the number of rooms) reflect lower socio-economic status? The definition of lower to higher socio-economic strata should be defined, particularly for the benefit of non-Singaporean readers. (Major compulsory revision)

(6) A total of 688 subjects were included in the final data analysis. However, the total number of subjects in table 1 were less than this figure. Can the authors explain this discrepancy? Were there any missing data? (Major compulsory revision)

(7) Those who monitored blood glucose had poorer control than those who did not. Is there any explanation for this? (Major revision)

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

Quality of written English: Acceptable

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

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