Reviewer's report

Title: Survey of glycemic control among patients in China with type 2 diabetes mellitus

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Reviewer: Juliana Chan

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In this multicenter, cross-sectional survey, the authors reported the pattern of usage of OAD, insulin and GLP1 receptor agonists in 238,639 Chinese type 2 diabetic patients recruited from 606 clinics in China. Approximately 30% of patients were at A1c goal<7% which deteriorated with increasing disease duration except for the first year. The usage of insulin also increased with increasing disease duration although patients who performed SBGM had a lower A1c than those who did not.

This is a fact finding paper which adds to the existing knowledge that patients with long disease duration were more likely to have poor glycemic control despite intensification of treatment including the use of insulin. While patients who performed SBGM had lower A1c, they were also more likely to have long disease duration. While this survey has examined a large number of patients recruited from a large number of sites, which thus has representative value, the results can be better analysed and presented to give more insights and improve readability.

Major compulsory revisions
Please define type 1 diabetes. Tables 3 and 4 contain a large amount of information without any statistical analysis to support the statement that increased disease duration was associated with poor glycemic control. The author may consider categorizing patients into groups (e.g. <1 year, >=1-5 years, >=5-10 years and >=10 years) and compared the proportions of patients attaining A1c goal and patterns of drug usage.

Given the large number of subjects and possible confounding effects of age, sex, disease duration, BMI, complications, SBGM, insulin usage, number of OAD, GLP1 receptor agonist on attainment of A1c goal, logistic regression analysis should be performed.

According to the questionnaire, a lot of information has been collected including reasons for insulin, complications and comorbidities which should be included in table 1 to give readers a better perspective regarding the profile of these patients. These data should be presented in men and women separately.

The paper is too long with many repetitions between the result section and tables. In general, results, table, text and diagram are complementary and the author should summarize key findings in the results and discuss the results in the
discussion section.

The authors have not adequately reviewed and cited the large body of literature relevant to this study, some of which have been performed in Asia (e.g. Tong PC et al. Diabetes Res Clin Pract 2008). The IDMPS survey which detailed the pattern of drug usage and patient education in real life setting is another important reference to cite.

Minor essential comments.

The title and abstract did not reflect the objective and conclusion of the study, it is more appropriate to use a title, such as glycemic control in Chinese T2D patients receiving oral drugs and injectables.

There was no formal statistical analysis of many of the comparisons. For example in table 2, given the large number of patients in each treatment group, formal statistical analysis could be performed before and after adjustment for age, sex and disease duration.

**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 that I have no competing interests'