Reviewer's report

Title: Prevalence and determinants of osteoporosis in patients with type 1 and type 2 diabetes mellitus: a cohort study

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Reviewer: Andrea MONTAGNANI

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The manuscript entitled "Prevalence and determinants of osteoporosis in patients with type 1 and type 2 diabetes mellitus: a cohort study" by Leidig-Bruckner et al. describes osteoporosis prevalence and determinants of bone mineral density in patients with type 1 and 2 diabetics. However, the manuscript suffers of several flaws that limit its relevance.

Major Compulsory Revisions

1. The Authors should better explain how they adjusted BMD values for age. We suggest to use Z-score values that more comparable such parameters between two so different populations.

2. Figure 2 does not make sense. It is misleading to match the osteoporosis prevalence in two populations so different for age.

3. The study observes so few fractures events to say something about fracture risk. For such a reason the Authors should not state any conclusion about fracture risk in their population. Moreover, in the discussion section the Authors should underline that in general populations, and namely in patients with diabetes, bone density is only one of several determinants of fracture risk. Honestly the authors list some important limits of their study design and the lack of an adequate control group. Therefore, we suggest avoiding to make deduction about fracture risk with only 14 fractures of which none specifically vertebral or femoral.

4. The work does not seem to add any new data to literature about the relationship between diabetes mellitus and osteoporosis

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

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