

Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jhep.2018.09.012>.

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Reply to: “Hip fracture risk in patients with alcoholic cirrhosis: Do comorbidities and complications matter?”

To the Editor:

We thank Luo and colleagues for their interest and comments on our study.¹

While we agree that diabetes may influence hip fracture risk, we have not presented specific estimates for patients with diabetes (nor for patients with any other comorbidity likely to affect the risk of bone fracture). Rather, we acknowledge the impact of comorbidity by adjusting our risk estimates for the Charlson comorbidity index, an established scoring system for comorbidity. The Charlson index includes diabetes in its scoring system, and is a reasonable way of accounting for the effect of diabetes and up to 20 other comorbidities at the same time.² Regarding the effect of antidiabetic medication specifically mentioned, the cited review³ concluded that a small increased fracture risk is apparent among patients on Glitazones (Hazard ratio across reviewed studies ranged from 1.35 to 1.71). Less than 5% of type 2 diabetes patients in England and Denmark are reported to be on these medications, hence this is unlikely to have affected our estimates of risk unduly.^{4,5}

We agree that fracture risk may be lower in patients with compensated as opposed to decompensated cirrhosis. However, our study did not aim to explore the differences in risk among people with “early stage” cirrhosis as implied by Luo and colleagues. Rather we focused on patients with clinically diagnosed cirrhosis in both England and Denmark. Our approach to identifying cirrhosis cases was based on a method that has been previously validated,⁶ to identify the mix of cirrhosis cases in both countries. Consequently, our study includes clinically diagnosed

patients with either compensated or decompensated cirrhosis, and our cohort therefore represents the case mix seen in clinical practice in the UK and in Denmark.

Finally, with reference to the authors’ request to further understand the balance of demographic characteristics between the cirrhosis and control group, we would suggest they look at Table 1 of our manuscript in which both demographic and clinical characteristics of all Danish and English patients included in our study are displayed.

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Conflict of interest

The authors declare no conflicts of interest that pertain to this work.

Please refer to the accompanying [ICMJE disclosure](#) forms for further details.

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