Reviewer's report

Title: Tobacco smoking as a prospective risk factor for depression and poorer quality of life in heart disease

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Reviewer: Peter de Jonge

Reviewer's report:

I do see the relevance of this paper, which addresses the potential effects of tobacco use on risk of depression and reduced quality of life. However, I do see some serious limitations that I feel need to be discussed before this manuscript could be considered for publication.

Major compulsory revisions:

The design that has been used is somewhat awkward: is there any reason why you have chosen not to repeat the MINI assessment after 3 months? Why the switch to HADS?

Why was HRQOL only evaluated at T3 and not at T1? This seems to me a bit arbitrary.

Most importantly, however, I am not quite convinced that what the authors report as a potential effect of tobacco use is really an effect. Table 1 clearly shows that smokers differ from non-smokers in many ways that may have affected their results. To solve this, the authors have chosen in their analyses to statistically control for confounders in a single model. Unfortunately, since this is the only model they present, it is unclear how much of the observed associations can be explained by these confounders. I would prefer to see an analysis in which adjusted and unadjusted results are shown. More importantly however this still does not solve the problem that many of the smokers were already depressed before the cardiac event. There are quite some indications that about half of the post-MI depressions were already existing before the MI. Given that depression increases the risk of smoking or failing to quit smoking, this is probably the most important confounder to take care of. Or perhaps even, first select patients who were not depressed and evaluate whether smoking affects the risk of incident depression.

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.