Reviewer's report

Title: The relationship between depressive symptoms, health service consumption, and prognosis after acute myocardial infarction: a prospective cohort study.

Version: 1 Date: 29 May 2008

Reviewer: Urmimala Sarkar

Reviewer's report:

Major compulsory revisions

Abstract: in the background, you say you explored “the relationship between depressive symptoms, health service cardiovascular consumption, and prognosis following acute myocardial infarction (AMI),” but you really only looked at the relationship between depressive sx and health care utilization, adjusted for CV risk. You should clarify.

You should include your mortality negative result in the abstract.

Intro: Please clearly state your research question and hypothesis

Methods:

Depression measure: Your 9-item BCDRS scale has never been validated before, and adding in 3 items that were not in the BCDRS and calling it the 12-item BCDRS seems like a stretch to me. If this is a novel measure (and I think it is), you need to provide much more detail- which of the 12 previously validated questions or domains were missing, how different were the replacement questions, and how this use of the BCDRS differs from previous studies. Since this is your main predictor, I need more information.

Do you have the means to administer the 12-item BCDRS to a subset of patients and compare it to the 9-item version? That would be a reasonable validation in my mind.

You also found some patients that were depressed by all three of your measures, others depressed according to 1 or 2. Please provide more detail about how you handled this.

Why do you need multiple depression measures? If you have 3 substandard measures, that still does not equal one good measure in my mind.

Demographics: this was patient self-report- say so explicitly

NonCV risk factors: Why did you use a novel method for dealing with co-morbidities rather than the Charlson or Elixhauser index?

Outcomes: Please explain WHY you chose these outcomes.

Statistical analysis: the term “adverse prognostic events” is unclear to me. Please rephrase.
Results

p. 15 Why did you adjust for ER visits in your analysis of predictors of hospital re-admission? It seems really obvious to me- depressed pts are more likely to go to the ER, and once cardiac patients get to the ER, they are very likely to be admitted. If you adjust for ER use, of course you won’t see a difference in re-admissions.

It wasn’t clear to me until the end of the Results section that you actually used the 9-item, never validated scale as your depression measure throughout. I think you need to do further validation of this measure if you intend to use it, and you should certainly be clear that the other 2 measures were only used in sensitivity analyses.

Discussion

I think you need to overall be more nuanced. As you note, prior studies have linked depression to mortality among cardiac patients, and I don’t think your study is sufficient to refute this.

You also don’t mention somatization as an aspect of depression, or suggest that the health-seeking behavior seen among depressed patients may be because their depression is undertreated. These are important considerations, in my opinion.

Your lack of a gold-standard measure for depression symptoms is a limitation that you need to mention.

Minor essential revisions

Methods

Health systems context: Does Canada have healthcare disparities by race, education, income? Your statement implies that there is equal access, when in fact all you provide is that there is no financial barrier to equal health care access. It’s an important distinction.

Data source and study sample: put in % as well as raw numbers for deaths and refusals.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare I have no competing interests