Reviewer's report

Title: Somatic health among heroin addicts before and during opioid maintenance treatment: a retrospective cohort study

Version: 3 Date: 30 August 2007

Reviewer: Jodie Trafton

Reviewer's report:

General

The authors have greatly improved this manuscript with revision. The methodology is better described and much more transparent, making the study results much easier to interpret. The background section and discussion has also been improved and the added context better frames the study data.

I agree with the authors' statement that this is a topic that should be of general interest to clinicians. Opioid dependence is a widespread global problem with consequences for clinicians in many fields of medicine (i.e. general practice, infectious disease, mental health) and public health, and decades of research suggest that OMT is by far the best treatment for this disorder. This treatment is still underutilized in many areas and is often not thought of as a medical treatment, beyond preventing HIV infection. It is notable that the medical consequences that OMT may impact are much broader than reducing HIV infection, especially in areas like the town studied, where HIV infection is rare.

Strengths of the study are the attempt to include all OMT patients in a town over the entire period since a program was instituted, and the length of time studied. Weaknesses include the small patient number, and potential study error due to difficulties in executing the methods (e.g. inability to locate patients or patient records, and difficulty in categorizing disease incidents based upon retrospective record review). The ability to detect large differences in health care incidents and utilization in this small sample attest to the large effects of OMT on health outcomes.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The formatting on Table 2 is completely off (the numbers do not line up with the headers). This needs to be corrected. Additionally, several numbers have multiple decimal points.
Table 5: I would change wording on *** to Patients had zero episodes during both time periods.

Sentence associated with the first reference to [46]: Could you clarify whether HIV prevalence is 1-2% in heroin users or the overall population?

Methods, last sentence of study population section: Could you clarify whether the 5 years mentioned is a sum of the periods spent out of OMT for the 3 patients discussed? If so, I would recommend rephrasing this sentence, perhaps as: Three patients temporarily terminated OMT and then restarted. Incidents and healthcare utilization that occurred while the 3 patients were between OMT care episodes (a combined period of 5 years) were counted as pre-OMT.

Discretionary Revisions (which the author can choose to ignore)

1. I would recommend removing the data and analysis of incident severity from the tables (3 & 4) and manuscript. Given the very poor inter-rater reliability, it is not clear that incident severity can be accurately determined from medical record review. Thus, there is concern that this data may be more misleading than helpful. Notably, these data and analysis are not needed to fulfill the main aim of the manuscript.

If the authors are partial to this analysis, I would still recommend removing it from the tables and referring to it briefly in the text. The authors could explain that they attempted to score incidents based upon severity, but this could not be reliably executed based upon medical record review. Nevertheless, analysis of data from a single rater suggested that incident severity, in addition to incident number, decreased during OMT.

Because the authors do a good job of explaining the poor reliability of the severity ratings, it is not essential that they remove this data, but I think it would strengthen the manuscript and help prevent misinterpretation to do so.

2. The manuscript would greatly benefit from thorough copy editing by a native English speaker. There are numerous instances of awkward phrasing and terminology throughout the manuscript. Some examples: Table 1: OMT medicament should be OMT medication, “Dead during OMT” should be “Died during OMT”; Abstract, last sentence of results: would be better written as, “Patient’s experienced a reduction in substance-related incidents regardless of ongoing substance use, however there was a trend towards greater reductions in those without ongoing abuse.”

3. It is still unclear how “extensive” versus “no or not extensive” substance use was coded. I’m also not sure that this is the best terminology. Was the determination based upon frequency or quantity of substance use or just based upon the psychosocial consequences of use? If the later, you might consider calling the categories “problematic use” versus “abstinence or non-problematic use”. “Extensive” sounds like it refers to a quantity/frequency measure.
4. I would recommend removing the discussion about the post-OMT period. Existing evidence suggests that OMT should be considered a long-term, potentially life-long treatment. Thus, successfully treated patients may never have a post-OMT period. I do not think it is a weakness that your study did not include a post-OMT period, but perhaps instead a sign that you are studying a well-implemented OMT program. As written, this paragraph seems to imply that OMT should be ended at some point. The paragraph should be either deleted or carefully revised to make it clear that although it is not necessarily encouraged, some patients do end OMT treatment, and it would be interesting to examine their outcomes in other studies.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

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.