Reviewer’s report

Title: Tuberculosis and homelessness in Montreal: A retrospective cohort study

Version: 5 Date: 2 September 2011

Reviewer: Nobukatsu Ishikawa

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Review comments by Nobukatsu Ishikawa

“Tuberculosis and homelessness in Montreal: a retrospective cohort study”

Major revisions:

Abstract

1. “ten potential locations” in the lines 7 and 8 under Results part on page 4 need to be more clearly and concretely described what they mean.

Background

1. The population in Montreal, the estimated annual TB incidence or TB notifications among homeless people should be described either in the Background part or in the Study setting of the Methods part.

2. “the broader population” in line 1 under Background part on page 7 needs to be described more explicitly.

Methods

1. Study design is not clearly mentioned although the title implies it is a cohort study. The study design needs to be described explicitly in the Methods part.

2. “a non-parametric test” in line 3 on page 8 needs to be specifically described indicating what kind of non-parametric test was applied in the present study context.

3. The process of geo-coding for the homeless people should be further described in detail in the Geo-coding and mapping part on page 9. What kind of addresses or locations of the homeless people were encoded for this study, i.e., the addresses the homeless people stay at night, the addresses the homeless people in day time, and so forth?

4. “What kind of analysis was applied by using the Arc GIS to do what?” needs to be described clearly in the Geo-coding and mapping part on page 9.

5. No analysis was conducted for epidemiological survey to investigate the contact history among those who shared genotyping patterns? If yes, describe what kind of data were used and how were they analyzed in Methods part.
Results
1. Are all 20 homeless TB patients mentioned in the incidence of TB part culture positive or all forms of TB? It seems to be all forms of TB patients as described in the following next part. But it says all of them are culture positive patients in Genotyping results part. All of the homeless TB patients identified are culture positive pulmonary TB patients? No culture negative pulmonary TB patients are identified? No extra-pulmonary TB patients, either?

2. The terms of “smoking”, “alcohol use”, and “drug use”, which appear in the last sentence in the “Demographic and clinical characteristics of homeless patients” part, have not been defined anywhere in the manuscript. The terms need to be defined in advance somewhere in Methods part.

3. The possible transmission route and locations were described from 20 homeless TB patients, not both from the homeless and from the non-homeless. It is better to describe the possible transmission route and locations from all those who belong to the clusters irrespective of the homeless status because it is possible to have common transmission between the homeless and the non-homeless (i.e., general people) who share the genotyping patterns. The authors are requested to describe the possible transmission route and locations from this point.

Discussion
1. The authors are requested to further discuss about the impact of high possibility of the on-going transmission among homeless people to general people, which is briefly described in lines 7 through 9 under Discussion part on page 13. The paper listed below may help to discuss further about it.

2. Recognizing the possible transmission route and locations among homeless TB patients in Montreal, do you recommend any interventions as suggested in line 3 through 5 on page 15 in addition to strengthening further infection control measures in hospital setting? If so, describe them.

Minor revisions:
Abstract
1. The abbreviated words such as RFLP in Methods part and OR, CI in Results part need to be fully spelled out whenever they appear first time.

2. “from 1996-2007” in the line 2 and 6 on page 4 should read as “from 1996 to 2007”.

Background
1. “may frequent crowded” in the line 8 under Background part should read as “may be frequently crowded”.
2. “poorly ventilated physical environments” in the line 9 under Background part should be rephrased for it's not clear what it means.

Methods
1. “Mycobacterium tuberculosis” in line 5 under Study setting on page 7 should read as “Mycobacterium tuberculosis (M. tuberculosis)”.

2. “Mycobacterium tuberculosis” in line 7 on page 8 should read as “M. tuberculosis” for this word has already appeared.

3. A title like “Ethical consideration” should be put between the first and the second phrases on page 9 to make the manuscript style consistent.

Results
1. “from January 1, 1996 – September 11, 2007 ” in line 11 on page 9 under Results part should read as “from January 1, 1996 to September 11, 2007 as mentioned above.”