Reviewer’s report

Title: Risk factors for poor tuberculosis treatment outcome in Finland: a cohort study

Version: 1 Date: 8 February 2007

Reviewer: Donald A Enarson

Reviewer’s report:

General

This is a well done study that contributes important insights into the quality of care of a rare disease that affects vulnerable groups in relatively wealthy countries. It is important in that it highlights the importance of maintaining competence to provide service to these vulnerable groups.

---------------------------------------------------------------

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)

Abstract

1. Results line 5: I expect ‘conversely’ should read ‘inversely’

2. Conclusions: Some comment should be made about the ‘systems’ components (the relation of adverse outcome to the type of service providing care). It may not be certain that adverse outcomes associated with advanced age and with comorbidity might be reduced by earlier case detection.

Page 9 para 2: ‘conversely’ should read ‘inversely’.

---------------------------------------------------------------

Discretionary Revisions (which the author can choose to ignore)

Methods

Para 2:
No mention is made of whether species identification for Mycobacterium tuberculosis was carried out in every case (presumably it was but this should be stated). If this was and there is information available, it would be interesting to know how many cases were rejected because cultures isolated other mycobacteria (a significant problem where tuberculosis is rare).

Para 3:
It is interesting to know why 33 patients were excluded when they were still on treatment at 12 months. Was this because they were not adherent? Was it because they had resistant isolates? International (outside Europe) recommendations for evaluation of such patients (if they had susceptible isolates) is that they should be classified as defaulters.

Para 3:
It is probably not correct (from a cohort point of view) to exclude the patients who were not treated. It is understandable that some might have died before treatment had begun (in which case, other studies have classified them as ‘diagnosis after death’ and this group can account for as much as one-half of all deaths from tuberculosis). It is particularly important to know more details concerning the 3 patients who were left without treatment. This is an especially important group as far as transmission of infection is concerned. Did they refuse treatment (presumably)? If so, are there any characteristics that might suggest why (for example
substance abuse or psychiatric illness)?

Was any attempt made to determine if death was due to, contributed by or coincidental with the tuberculosis? Certainly there is a great likelihood in such an aged population is that death might be simply coincidental.

Results
Table 3 certainly indicates system issues related to death that might be included in the conclusions for the abstract. This needs caution, however, because if the patient had comorbidity and this comorbidity was the actual cause of death, the relation of type of service providing care and death may be biased.

The relation of adverse outcome and death with treatment group B is interesting and important. It is, however, not clear to me if treatment groups are defined by ‘intent to treat’ (prescription made at the start of treatment) or the actual treatment given. This is important for two reasons. First, group B is clearly less efficacious and not the internationally recommended approach to treatment and second, if the latter scenario is the case, it is possible that the regimen was changed for some reason (?drug intolerance) which may be a reflection of comorbidity (liver disease, cancer) or risk factor (alcoholism) which could be the real explanation of the adverse outcome. (This is actually covered well in the discussion).

Discussion
First para: This paragraph outlines the important issues raised above concerning systems factors and should be reflected in the conclusions of the abstract.

What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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