Reviewer's report

Title: U.S. medical resident familiarity with national tuberculosis guidelines

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Reviewer: Elisabeth BOUVET

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This paper is dedicated to the assessment of US medical resident familiarity with national tuberculosis guidelines. A survey based on 20 questions was administered to 131 medical residents during a single teaching conference in 2005. The residents belonged to urban medical centers from Baltimore and Philadelphia. The authors considered that a good knowledge in tuberculosis guidelines is essential in a perspective of tuberculosis control in the US.

The 20 question survey was divided into 5 categories: transmission of M. tuberculosis, diagnosis and management of latent tuberculosis infection, diagnosis of active tuberculosis, toxicity of anti tuberculosis therapy and HIV and tuberculosis co-infection. The study was tested first by a panel of 17 infectious disease physicians with 8 tuberculosis experts. The median percent of survey questions answered correctly in this group is 90%. One question was deemed ambiguous and consequently omitted from the data analysis.

Results show that medical residents are not familiar with diagnosis and management of latent tuberculosis as median score was only 40% in this category. Questions on transmission get the best score (90%). The 3 other categories had an intermediate level of knowledge.

This work is well presented, methodology is good and discussion is well presented and interesting. A very interesting and quite paradoxical result is that the lowest median scores were observed in the group of residents who had directly cared for the greatest number of patients. Several explanations could be given and particularly that in developing countries where residents have travelled and seen many patients with tuberculosis, US tuberculosis guidelines are not used and applied.

Finally, the impact of the lack of tuberculosis knowledge among residents in the management of patients with active or latent disease is unknown.

The only point of discussion I could object is that bad score on latent infection questions may reflect the confusion of experts on latent tuberculosis infection and the real lack of solid data concerning the meaning of a positive tuberculin skin test. Moreover the poor validity of tuberculin skin test in the diagnosis of infection could be emphasized. The authors should have present the new tests based on interferon gamma as a part of solution to this problem.

An other point concern the classification of questions according to the types of knowledge = knowledge of guidelines and knowledge of scientific data. It could be possible to divide into 2 categories of knowledge. And it is not equivalent for a resident to be poor in guidelines awareness and weak in scientific proven data on transmission or drug toxicity ...

Finally, don't understand why there is no question on treatment of active tuberculosis except toxicity. My opinion on this paper is very favourable. I think that the topic is pertinent and original and that methodology is very smart. I think that it is suitable for publication without modification or only minor ones with an answer to my precedent questions.