Reviewer's report

Title: Clinical characteristics of Pneumocystis pneumonia in non-HIV patients and prognostic factors including microbiological genotypes

Version: 1 Date: 23 December 2010

Reviewer: John Frean

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Minor essential revisions

Abstract: Results para, In 17. Should read ‘A dihydropteroate synthase mutation associated with TMP/STX resistance was found in...’ etc

Background, para 2, In 10. Lower parasite burden may result in negative microscopic examination – it is not inevitable.

Methods, data collection, para 1, and Table 2, footnote: it is not clear whether prednisone or prednisolone equivalents are used. Also spelling error in prednisolone in footnote. Table 2 footnote: Fisher’s needs a capital letter; trimethoprim-sulfamethoxazole does not.

Results, clinical characteristics, para 1. Should read ‘......weekly for 2 weeks, respectively.’ to make it clear that the 2 patients received different regimens.

Results, clinical characteristics, para 1. Change to ‘mycobacterial’

Discussion, para 1, In 18: hyphenate or compound ‘under diagnosis’

Ln 19: should read ‘Azoulay et al. found that PCR in non-HIV patients had only a 51.5% positive predictive value [4]; therefore PCR alone....’ etc

Discussion, para 2, In 7: I think the authors mean that the incidence of inflammatory diseases is higher than that of acute leukaemia or transplantation?

Discussion, last para: presumably the clinical relationship is between genotype and outcome?

Discretionary revisions

Not mentioned is that the major limitation of retrospectively associating PCP infection with outcome is the heterogeneity of the underlying clinical conditions and stage of disease, factors which are not controlled for. These must be major confounders of cause of death. The mortality rate in the 54 patients with (presumably) clinically-suspected PCP and ground-glass opacities but negative PCR results would be interesting to compare with the PCR-positive group.

Results, clinical characteristics, para 1: Was therapeutic use of TMX/SMX for bacterial infections checked for, or is it not widely used in Japan for this purpose?
**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