Reviewer's report

Title: Clinical features and predictors of mortality in community- and hospital-acquired Legionnaires' Disease: A Danish historical cohort study.

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Reviewer: Roberto Esposito

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.. The main criticism concerns the terminological confusion. The term legionellosis encompasses all diseases caused by Legionella species, whereas Legionnaires' disease is a synonym of Legionella pneumonia, not just of Legionella infection. Consequently, it is not correct to say "wide ranges of disease manifestations have been reported, ranging from a self-limiting flu-like illness." (page 3). If only the cases of pneumonia were considered, it is rather surprising that in 20% of the hospital-acquired cases the initial x-ray was normal (page 7; but in page 10 authors say that "20% of community acquired cases did not have abnormalities on chest x-ray at symptom onset"). In this context it is impossible, in my opinion, to compare the cases studied by the authors with those of Benin et al. (CID 2002; 35: 1039-46). The definition of "case patient" by Benin et al., in fact, was "a person with pneumonia that was diagnosed by chest radiography and.". In conclusion, it should be clearly stated whether all the patients had a pneumonic illness or some of them could had only a febrile nonpneumonic disease like Pontiac fever.

2.. Although in Denmark a restrictive antibiotic policy exists, it is singular that in 26.7% of hospital-acquired episodes the initial antibiotic therapy (Table 2) was "penicillin monotherapy". Probably, not penicillin but another beta-lactam drug was used.

3.. The classification of cases of Legionella infection as definitive and presumptive should be clearly explained, together with the diagnostic laboratory methods used. Were PCR and Legionella urinary antigen test always evaluated, as it seems suggested in page 10?

Declaration of competing interests:

I declare that I have no competing interests in relation to this paper.