Reviewer’s report

Title: Community-onset bloodstream infection with multidrug-resistant organisms: a matched case-control study

Version: 1 Date: 18 November 2013

Reviewer: Pieter Depuydt

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Dr. Ching Jou Lim et al present a monocentric retrospective report on the microbial etiology of community-onset bacteremia admitted through the emergency department of a large tertiary urban hospital over a ten years period. Their main findings are 1) increasing incidence of multidrug-resistance, which is 2) partially explained by exposure to healthcare-associated microbial flora as defined by Friedman et al and 3) partially due to increasing incidence of MDR E. coli in young people not exposed to the healthcare environment. The authors did not find an association between MDR and adverse outcome, except from a small increase in hospital stay.

Major compulsory revisions:

None

Minor essentially revisions:

The authors should clarify a few issues.

I suppose that in the matched cohort, MRSA cases were matched with MSSA cases; or is MDR MRSA (as defined in the methods) matched with 'susceptible' MRSA?

How were non-fermenters, such as Acinetobacter, with high intrinsic resistant matched with their susceptible counterparts?

The authors should lmore explicitly mention the variables entered in the multivariate analysis (e.g. what exactly is meant by 'biologically plausible'). Have multiple models been tested, and what were the predictors entered in these models?

While the discussion gives a nice overview of the available literature published on the matter, I feel that it should be condensed a little more.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

I declare that I have no competing interests

Pieter Depuydt