Reviewer's report

Title: Outbreak of Clostridium difficile PCR ribotype 027 - the recent experience of a regional hospital.

Version: 2 Date: 8 January 2014

Reviewer: Marya D Zilberberg

Reviewer's report:

Thank you for the opportunity to review this paper.

General impression: The paper is interesting, but unfocused. The authors describe the characteristics, interventions and outcomes of 53 patients with CDI during a period of time that included a multi-month outbreak in 2012 at a single center in Portugal. They further describe a subset of 22 patients who underwent further investigation, a portion of whom tested positive for ribotype 027. Since the study is a research article, it is unclear to me what the research question is. The bulk of the paper is spent on a descriptive analysis of all 53 cases detected. There are comparisons, but none is adjusted for confounders. Furthermore, there are several ways in which the authors subdivide the cohort, and this is confusing. Is the primary interest death vs. no death? Or is it the 027 ribotype vs. other? The countefactuals seem to shift. The conclusions authors draw do not seem valid in the absence of adjustments for confounding. Yet their sample size is too small to permit meaningful adjustments. Care needs to be taken on what is reported and the strength of the conclusions drawn. The Discussion is also a bit thin, as there are plenty of data to compare this study to. Figures 2A ad 2B are confusing – don’t you want to report the severity itself, not just how many had markers of severity collected or what they were? Seems that this would be more useful.

The paper needs to be much more focused before it can be reviewed cogently. I suggest that you report it either as an outbreak investigation and how it was addressed or as a descriptive study of those infected with the 027 ribotype.

Level of interest: An article whose findings are important to those with closely related research interests

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 have received research and consulting funding from Optimer and Cubist.