Reviewer’s report

Title: Sequence analysis of genes mediating extended-spectrum beta-lactamase (ESBL) production in isolates of Enterobacteriaceae in a Lagos Teaching Hospital, Nigeria.

Version: 2
Date: 25 February 2015
Reviewer: Delphine Girlich

Reviewer’s report:

Major comments:

The introduction is not well documented, poorly written. It should emphasize the predominance of the CTX-M-type ESBLs in the world and give some data about the situation in Nigeria in terms of ESBLs and carbapenemases dissemination.

Materials and methods

Bacterial isolates

Which clinical sample (urine, blood, rectal swabs)? What hospitalization unit? 38 among how many isolates were ESBLs?

One month is too short; the date of the study is too old (2011). A more recent study would be more relevant.

PCR amplification

This part should begin with the blaTEM, blaSHV, blaCTX-M specific primers, all others primers are not adequate for this study. Moreover, the isolates have been selected for the presence of ESBLs, all PCR experiments with primers specific for the detection of carbapenemases genes are then useless, unless carbapenemases would have been detected, but apparently this is not the case. Noticeably, the authors give sequence of primers specific for the detection of carbapenemases that are only produced in Pseudomonas spp. (AIM, SPM…), inappropriate in this study.

Detection of insertion sequence, ISEcp1 without any combination of primers with ESBLs genes has no relevance.

Results

Many precisions are needed in this part

38 ESBLs = 30 CTX-M-15 and what about the 8 others? The results are not clearly written. NB: TEM-1, TEM-2, SHV-1 and SHV-11 are not ESBLs…

What is exactly the result of this experiment « Metallo-β-lactamase (MBL) production was screened for by EDTA-synergy test, modified Hodge test, and E test MBL strips (bioMerieux)»?

Level of interest: An article of insufficient interest to warrant publication in a
scientific/medical journal

**Quality of written English:** Not suitable for publication unless extensively edited

**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