Reviewer's report

Title: Antibiotic Resistance Patterns in Escherichia coli Urinary Isolates from Male versus Female Outpatients

Version: 1 Date: 23 August 2012

Reviewer: Marion Murphy

Reviewer's report:

General Comments
This article is well written but I do have concerns.

Major compulsory revisions
The question posed by the authors is not well defined.
The Introduction is too short and does not provide even background to the topic or reasoning for the study to be conducted. Urinary tract infections are typically considered complicated in males because they are more likely to be associated with anatomic or functional abnormalities compared to females (male urinary tract has many natural defences to infection). The bacteria is still the same regardless of gender and therefore if prescribers are choosing 2nd and 3rd line agents due the complicated nature of male urinary tract infections then surely this is an education issue. Regardless, as UTIs are far less common in males, should it not be advised that antibiotic susceptibilities be conducted and antibiotics prescribed accordingly, particularly as UTI data is not generalizable to all regions.

Although significant differences were found between males and females, it is lacking valuable additional patient level data such as prior antibiotic use, presence of catheters, pregnancy etc. Without this information, I don’t think this research adds to the current literature available.

The authors state in the discussion that UTIs in males are generally considered to be complicated and that is ‘may lead clinicians to consider males at higher risk of antibiotic-resistant UTIs,’ is there literature to support this statement? In the UK/Ireland guidance, expert consensus is that longer courses of antibiotics should be used for males because they are likely to have a complicating factor but that the choice of antibiotic is the same across the genders.

The discussion section deals with the limitations only, which highlights the shortcomings of the research. Interpretation is difficult ‘in the absence of other clinical relevant risk factors.’

A suggestion for the data would be to conduct time series analysis and to look at antibiotic consumption over the same time period if no patient level data was available.

More specific comments
Pg 6: Line 4-5 How were clinically significant differences defined? Previous
literature perhaps?
Is there a reason why no susceptibility was conducted for cephalosporins?
How can ampicillin susceptibility be equivalent to amoxicillin-clavulanate? This was confusing.

Minor Essential Revisions
Pg 6: Line 13-15 This does not make sense- should it read that susceptibility was ‘not’ routinely performed?

**Level of interest:** An article of limited interest

**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.