Reviewer's report

Title: Asymptomatic Bacteriuria, Antibiotic Use, and Suspected Urinary Tract Infections in Four Nursing Homes

Version: 3 Date: 25 May 2012

Reviewer: Trevor Van Schooneveld

Reviewer's report:

The authors present an interesting and well analyzed study of the treatment of UTI in 4 long-term care facilities.

Minor Essential Revisions:
1. Paragraph 3 mentions urine studies, how frequent were uninalysis and urine culture. Did all patients have a urine culture? If no culture was obtained they do not technically meet criteria for asymptomatic bacteriuria. If not all patients were cultured this means in the text and in Table 3 these patients do not have asymptomatic bacteriuria but are just asymptomatic for symptoms of UTI. Labeling should be adjusted to reflect this.

Discressionary Revisions:
1. Background:
Paragraph 1 final 3 sentences are a bit difficult to follow. Consider revising.

2. Methods:
Independent Variables: First paragraph, last sentence states that you included indicators for depression and others. Suggest list the tools utilized to assess these conditions. “Residents were assessed using ADL Hierachy Scale, etc....” Were all patients assessed using these tools? It seems unusual to take a depression score and dicromatize to presence of any symptoms or no symptoms. Why was this score not analyzed similar to CPS and ADL scoring or dicromatized based on score that equates to depression? Consider addressing this. Second paragraph states assessed for multiple courses of antibiotics, over what time period?

3. Results:
There seems to be some repeating of what is in the tables, consider making text more concise and referring to tables. Paragraph 2 mentions “early loss and mid-loss” ADL’s. These are not previously defined and unclear what this means or if is relevant. Was the information in the final paragraph an actual analysis done or were the characteristics empirically assessed. Please clarify.

4. Specific Questions:
Was urinary catheter use assessed? This is a risk factor for both UTI and asymptomatic bacteriuria.
Were any protocols for appropriate urine studies or treatment of UTI present in any facility which may influence treatment decisions?

Variations in antibiotic use between LTCF can be driven by case mix at the facility. Was there any assessment of this?

Variation in prescribing rates has been noted between both LTCF and individual physicians within a facility. The authors should consider highlighting this in their discussion and including these 2 citations: Mylotte JM and Neff MN. Am J Infect Control. 2003;31:18-25 and Mylotte JM and Keagle J. J Am Geriatr Soc. 2005;53:1117-22.

The discussion may benefit from commenting on the negative results which were that confounders of the diagnosis of UTI or factors which might predispose to treatment such as ADL or cognitive dysfunction and depressive symptoms were not associated with inappropriate treatment.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare I have no competing interests