Reviewer’s report

Title: Predictive Factors of Urinary Tract Infections among the Oldest Old in the General Population. A Population Based Prospective Follow-up Study.

Version: 3 Date: 27 January 2011

Reviewer: Lindsay Nicolle

Reviewer’s report:

This is an interesting and well done study which explores aspects of symptomatic urinary tract infection occurring in a population based group of elderly individuals in the Netherlands. The strength of the study is being population based and generalizable to all elderly patient groups.

Some issues with the study include:

1. The authors have used a physician diagnosis together with urinalysis findings for diagnosis. Symptomatic urinary tract infection is over-diagnosed in elderly populations given the high prevalence of asymptomatic bacteriuria and propensity to interpret nonlocalizing clinical deterioration as “urinary infection” in more impaired patients. The authors acknowledge this in the full paragraph on page 14 as a potential limitation of their study, but they should discuss this a little more fully and particularly note that the estimates of urinary infection in this population are likely overestimates.

2. The observed associations with urinary tract infection are consistent with all other studies in older populations. In their discussion, the authors should note that none of these associations appear to be modifiable. They could also be more critical with respect to the practical implications of their observations. The majority of elderly individuals with urinary tract infection experience complicated urinary tract infection, and there is no evidence that any interventions such as estrogen, cranberry or other probiotics, or prophylactic antimicrobial therapy will prevent complicated urinary infection.

3. With respect to considering potential interventions, the individuals with frequent recurrent infections which would be of greatest interest. What proportion of these elderly individuals experienced more than two infections a year?

4. Table 1 could be incorporated as another column with Table 2.

5. Page 9, the authors note that seven participants died from urinary tract infection. This is 2.8% of all patients who died during follow-up, which is a high mortality attributable to urinary tract infection. Is there specific information with respect to these seven deaths and how they were directly attributable to urinary tract infection?

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.