Reviewer’s report

**Title:** Unnecessary Use of Fluoroquinolone Antibiotics in Hospitalized Patients

**Version:** 1  **Date:** 4 March 2011

**Reviewer:** Senthil Lingaratnam

**Reviewer’s report:**

The article is well-written. Overall, a reasonable study, but could be improved by offering further clinical insights.

- **Major Compulsory Revisions**

**Methods**

1. **Page 4, paragraph 1** - Additional relevant details regarding the hospital setting are required:
   - Is fluoroquinolone prophylaxis routinely administered within particular services e.g. for prevention of febrile neutropenia in oncology?
   - Has Drug Usage Evaluation been performed to indicate how frequently FQs are prescribed at this institution?
   - Are there hospital clinical policies/guidelines regarding FQ prescribing (e.g. use of FQ for management of UTIs)? Is antibiogram data available to inform current FQ susceptibility of gram-negative organisms at this site?

2. **Page 4, paragraph 2** – It is unclear if the same patient could be selected on >1 occasion during the study period? If so, this would contribute to bias in results/outcomes.

**Results**

3. Data are sound. However there is obvious omission in detail regarding prescribers - For example, what is the seniority of clinicians and their associated departments/wards? It would be very beneficial to know if unnecessary prescribing was performed by a particular group. Or if this data was not collected, then it should be specified as a limitation.

4. **Table 3** - 'Resistant organism colonization or infection'...Does this mean MRSA? VRE? (please specify) What is “Other”?; Does “Allergy” refer to allergy to FQs?

There appears to be some discordance between information in text and table: adverse effects associated with colonization by resistant pathogens is 8% of all regimens within text; but resistant org colonisation/infection in table equates to 11%. Does the differnce of 3% relate to infection?

**Discussion**
5. I believe the greatest study limitation is the potential confounding by co-use of other antibiotics. Did the authors consider focussed analysis of FQ monotherapy to assist in minimising this problem?

- Minor Essential Revisions

Results

6. 1st Paragraph: “The figure” – Should this be “Figure 1”?

7. Page 5, paragraph 3 - Because of the potential for subjectivity in assessing necessary/unnecessary prescribing, it would be helpful to cite examples of how this was assessed for some common syndromes or clinical scenarios.

- Discretionary Revisions

Methods

8. Similar to point 5 above (page 4, paragraph 1) additional details about hospital setting:

- If available, baseline resistance rates to E.Coli or gram negatives will be useful information to report.

Discussion

9. Some comment regarding proposed methods for enhancing FQ stewardship would help the reader - should FQ use be restricted? Would academic detailing of prescribers be of value? Has implementation of electronic decision support been considered (See: Yong MK et al J Antimicrob Chemother 2010 56:1062-9; Buising KL et al. J Anticrob Chemother 2008; 62:608-16)?

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

Quality of written English: Acceptable

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

Declaration of competing interests:

My role as a research officer in my junior years (2007) was enabled and part-funded by an unrestricted grant from Roche Pharmaceuticals. I declare that I have no other competing interests.