Reviewer's report

Title: Referral from Primary Care and to Aftercare in a Tertiary Care University Hospital in Japan

Version: 1 Date: 20 November 2005

Reviewer: Naoki Ikegami

Reviewer's report:

General
Results from the use GIS analysis to analyze the spatial distribution of inpatients are interesting and confirm previous reports that revealed that residents living in communities near a tertiary hospital tend to use its resources more.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. "Primary care" does not include inpatient care. Since the authors' objective lies in providing evidence that people living near the tertiary hospital tend to be admitted as inpatients for less complex conditions, they should redo the analysis after differentiating the subjects into those who were provided with secondary care, and those provided with with tertiary care. According to their hypothesis, patients living proximal should have a higher proportion of conditions needing secondary care; or have come without referral. The DPC diagnosis could perhaps be used to dichotomize.

2. Clarify the calculation and implications of LOSSDS analysis. Were the SD scores for LOS calculated for each DPC group? If so, how were they combined to come out with GIS map plotted. The authors' hypothesis appears to be that if the LOS were longer than the average, then it must be due to problems in referral to aftercare. But there are other factors that could also lead to these results. Is it sufficient just be dividing the SD of the DPC (I imagine it is the SD of the LOS of the DPC).

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Clarify whether "Paediatric ward" includes surgical specialties.

2. Clarify whether it is just for hospitals (P4, 3rd line from bottom), or clinics and hospitals (P5. 2nd line in the third paragraph).

3. Table 1 and its legend
   Should be "Characteristics of inpatients"
   LOSSDS should be spelled out
   "Number of admissions" is redundant
   "Number of patients" should be "Number of actual patients"
   "Referral to aftercare" should be "Referral on discharge"

4. Fig 2
   Y axis should be "Cumulative total number of inpatients"
   The black dots and white dots are incorrect. The black dots should be "other general hospitals".

Discretionary Revisions (which the author can choose to ignore)
1. Consider the admissions for emergency care. The lack of emergency care could lead to admissions to tertiary care for minor conditions.

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.