Reviewer’s report

Title: Examining assumptions regarding valid electronic monitoring of medication therapy: development of a validation framework and its application on a European sample of kidney transplant patients

Version: 2 Date: 5 December 2007

Reviewer: Alistair W Stewart

Reviewer's report:

I have been asked to do a short statistical review of this manuscript.

A variety of simple and complex analyses have been used in this manuscript. There is little description of these analyses but what is given indicates that the appropriate methods have been used. The level of description of the statistical methods is adequate.

Minor Essential Revisions

In Table 4 the rows entitled 'Self-report (1-7)' and 'Collateral Report (1-3)' are, at best confusing and may be wrong. If the 1-7 is the ranges of self-report then there is an error. Although self-report is referred to as a 7 point scale 8 points are used 0-7. In the table the mean is less than 1, the value given as the minimum point of the scale. For both measures using a mean and standard deviation to describe the data is quite uninformative. I suggest that the percentage in the most commonly used category be given as this contains almost all the information. (I was unable to find any combination of numbers participants having 1, 2 and 3 such that the mean was 1.12 and the sd was 0.35.)

Discretionary Revisions

In Table 3 the estimates and their errors (and odds ratios and CI's) for 'Exposure' and 'Bottle size' are of little use. The scale of these variables is such that, using 3 decimal places, the important digits can not be see. I would suggest both variables be scaled, bottle size could be measures as 100 cc rather than in cc's and that the units of exposure be changed too (I was unable to see what units were being used).

What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

'I declare that I have no competing interests'