Reviewer’s report

Title: Cancer diagnosed by emergency admission in England: an observational study using the General Practice Research Database

Version: 1 Date: 16 April 2013

Reviewer: Alex Dregan

Reviewer’s report:

Thank you for the opportunity to review an interesting research on cancer diagnosis by emergency admission in England. The authors are to be commended for their effort in documenting important patient-level risk factors for cancer diagnosis through emergency admissions. The authors use appropriate language and methodology. The authors may wish to consider the following suggestions in order to improve the quality of their manuscript.

Major Compulsory Revisions

Please describe whether the study considered practice up-to-standard (UTS) date in deciding practice inclusion criteria. This is an important validity check as only UTS practices are assumed to provide research quality data.

Unless I’m mistaking, I believe the deprivation status in CPRD is at practice not patient level - please verify and adjust text accordingly.

On page 8, please describe the final model following stepwise regression - which variables were retained

Page 13, first paragraph, Discussion: I suggest the authors revise the sentence about crude analyses findings given that adjusted analyses pointed to different results

Minor Essential Revisions

Please explain the choice of 0.2 for the p-value in the retention model (why not choose the significance level at 0.05?)

The authors may wish to add information about the non-emergency group in the Methods section - how were this identified? how representative of the primary care population.

Page 12 of the Results section - I believe the figures in brackets in the last two sentences of the paragraph should include the number of emergency admissions representing 3.3% and 12.3% rather the total number of emergency and non-emergency admissions, respectively.

Page 15 last paragraph: "...patients who had new cancers that were not their first-ever diagnosed cancers." - rather confusing sentence. Please verify.
Discretionary revisions
Page 8, please define study entry as either date of emergency admission or start of study.
Page 10, first paragraph - please state that years refers to years of age (..15 and 44 years of age...)

**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:**
I declare that I have no competing interests