Reviewer's report

Title: Evaluating Adverse Drug Event Reports in Administrative Data of Emergency Department Patients: A Validation Study

Version: 7 Date: 6 August 2013

Reviewer: Daniel Budnitz

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Discretionary revision: The addition of specificity calculations in the revision are useful. However, in reviewing the revision, it's noted that while the primary objective of the manuscript is to calculate sensitivity of admin codes for identifying ADEs and it is calculated and reported in the abstract and methods and sensitivity of previous studies is discussed in the discussion, the actual term "sensitivity" is not used to describe the primary findings (From the abstract "15 (6.8%, 95% CI 4.0-11.2%) adverse drug events were documented..."). Readers might wonder why the familiar term sensitivity is not used, particularly when the term "specificity" now is used?

Final discretionary revision: As the manuscript now reports specificity as well as sensitivity (although the term is not used explicity), readers might also wonder about PPV and NPV. Of note, it appears the PPV of admin codes that clearly link the event to the culprit medication is 45.5% (15/33) and the PPV of admin codes indication a very likely/likely/possible relationship to a medication 27.2% (62/228). These PPV findings would seem to also be quite supportive of the manuscript conclusions that admin data alone may not appropriate as a stand-alone means of identifying the ADEs (as defined in this study).

Level of interest: An article of importance in its field

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