Reviewer's report

**Title:** An administrative data validation study of the accuracy of algorithms for identifying Rheumatoid Arthritis: The influence of the reference standard on algorithm performance

**Version:** 2  **Date:** 8 April 2014

**Reviewer:** Alain Saraux

**Reviewer's report:**

"This manuscript try to define the best algorithm detecting RA on an electronic medical database. It is concise and clearly written.

**Major comments:**
- The main difficulty for this study is to avoid a circular reasoning. This algorithm identify patients considered by physicians as RA (for example to justify reimbursement of treatment) but some of them could have another disease. I suggest to add a sentence in the limit chapter about the limit of the reference standard.
- The major limit is the validation of the algorithm in only one database in a single country.

**Minor comment**
- Table 4: I do not understand the interest of the abbreviation "Rx" in the foot note

**Level of interest:** An article of importance in its field