Reviewer’s report

**Title:** Completeness of Registration of HIV and Hepatitis B and C Coinfection in The Danish National Hospital Registry, 1995-2004

**Version:** 2 **Date:** 2 January 2008

**Reviewer:** Morten Frisch

**Reviewer’s report:**

In their reply to my Major Compulsory Revision suggestion the authors argue that for ethical and discretionary reasons it would be almost impossible to obtain the necessary permission to get data about all HIV (+ HBV and HCV) diagnoses for patients in the DNHR database. Specifically, on p. 8 in the revised manuscript, the authors state that they were not able to compute the predictive value of HIV diagnoses in the DNHR since we did not have permission from the Danish Data Protection Agency to identify HIV cases recorded only in the DNHR (p. 8). If the authors have attempted to obtain such a permission but were denied it they should more explicitly state so in the article to inform the reader that such validation studies can not be undertaken. As currently stated, it seems that the authors did not ask for such permission. Considering the overt relevance of such a data validation endeavor I find it unlikely that such a request for data by serious HIV researchers would be denied. Such permissions and subsequent data extracts are usually obtainable at a limited cost within few months from the time of application. If needed, the entire analysis could be performed after removal of personal identifiers in the merged DNHR and DHCS data.

The reason why I find this technically rather simple extension important is that, in its current form, the paper does little but document that close to 100% of HIV diagnoses established in eight HIV centres in Denmark are also retrievable in the DNHR registry. This is little surprising. In fact, this figure should be 100% due to mandatory reporting of all discharge diagnoses following all hospital admissions in Denmark. Consequently, as is, the article does not address the claimed purpose of the study, i.e., to assess the Completeness of registration of HIV infections and HBV and HCV coinfections in the Danish National Hospital Registry (DNHR) covering all Danish hospitals. (Title, Abstract, Background). The study is currently limited in its ability to address anything but the Retrievability in the Danish National Hospital Registry of HIV infections and HBV and HCV coinfections known in eight Danish HIV centres. Unfortunately, this measure, retrievability of already known HIV diagnoses, is of limited use to future users of DNHR data on HIV, because no information is provided about a) the validity of unselected HIV diagnoses in the DNHR (e.g. coding errors), or b) the proportion of HIV patients in the DNHR who are diagnosed and followed in departments that do not prescribe antiretroviral therapy (i.e., departments outside the eight centres). Put simple, the question about what proportion of DNHR data on HIV patients in Denmark represents valid HIV diagnoses remains unanswered.
If the paper is accepted in its present form, I suggest that the authors change the title of their paper to "Retrievability in the Danish National Hospital Registry of HIV infections and HBV and HCV coinfections known in eight Danish HIV centres" to better reflect its actual scope. However, I warmly recommend that the authors extend this potentially very useful article and submit an application for DNHR data about all HIV diagnoses during the specified calendar period to the Danish National Board of Health to address the issues of validity, specificity, PPV and completeness as suggested above and in my initial review.

**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:** 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