Reviewer's report

Title: People with diagnosed HIV infection not attending for specialist clinical care: UK national review

Version: 2
Date: 4 April 2015

Reviewer: Nicola Zetola

Reviewer's report:

This is very clearly written study with a sound and appropriate methodological approach to describe the characteristics of adults with diagnosed HIV infection not reported to be attending for clinical care in the UK. The authors achieve this goal by analyzing a rich database containing information regarding the HIV infected patients diagnosed in the system, and information related to their linkage to care. A nested case-control analysis was conducted to compare those who had remained in the UK in 2011 while not attending care with individuals who received specialist HIV care in both 2010 and 2011. This study provides highly valuable information for the literature.

Close to 75,000 adults living with HIV infection in the UK in 2010 were found in the database. Of them, only 3500 were not reported as seen for clinical care or have died 2011. This suggests that less than 5% of patients were not linked to care indicating that the UK system is highly successful. Indeed, the first sentence of the authors’ conclusion is that retention in the UK specialist HIV care asked. While this might be true the way in which information is presented might be misleading. This study, as any other one using public health database, has intrinsic limitations which are appropriately discussed by the authors. However, in the opinion of this reviewer, one of those limitations needs to be emphasized and the results may need to be tempered and interpreted that context. The true number of HIV-infected people living in the UK who is not care cannot be estimated from these data. Given the importance of this limitation further emphasis discussion might be required (and it is encouraged). Perhaps, the conclusions also need to be tempered.

Outcomes were available for 64% of those not reported as seen for clinical care. Their multivariate analyses shows that individuals remaining in the UK and not attending care were more likely to be treatment naïve than those in care, but duration since HIV diagnosis was not significant. Missing opportunities for linkage to care as indicated by HIV/AIDS-related hospitalizations were observed among non-attenders.

The use of public health databases to monitor HIV related outcomes, including linkage to care has been successfully used in the past. The HIV database of Public Health England (PHE, formerly Health Protection Agency) and Health Protection Scotland (HPS) is particularly robust and complete.

An important difference to be made is that of a patient being seeing within the
system in a patient retain in the system. Few indicators have been tried in the past as indicators of the quality of the system as well as indicators of the difference between the initial visit and retention within care. One of those being time to CD4 cell count, time to HIV viral load, the use of a minimal number of visits to consider a patient has retained in care, time to ART initiation, and perhaps the most useful one time to complete viral load suppression. Given that the main outcome of the nested case-control study performed by the authors is not receiving care, the distinction between an initial visit and proper engagement in care is important. While the elders may decide on whether reporting those indicators could be beneficial to their study, this reviewer would encourage them to provide a very clear and explicit definition regarding what was consider retention in care.

The extended case-control analysis to investigate the impact of clinical factors on retention is valuable. Similarly, the nested case-control study is appropriate and useful. If available, and to assess the degree of a potential selection bias, it would be valuable to show demographics and characteristics of the population not included in the analysis.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

None