Reviewer's report

Title: Residual risk of transfusion-transmitted infection with human immunodeficiency virus, hepatitis C virus, and hepatitis B virus in Korea from 2000 through 2010

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Reviewer: Albert Farrugia

Reviewer's report:

i commend your use of the window-period/incidence model to calculate up to date residual risks of blood transfusion in Korea. In common with many other developed blood systems, you have found that the highest risk is that of hepatitis B. Please consider the following points and ensure they are reflected in your discussion:

1. Please comment on the choice of the chemiluminesce for the screening of HBV, when use of the triplex NAT may be expected to halve the window period to what is observed with your assay, thus decreasing the residual risk (Assal et al Transfusion 2009).

2. Similarly, note the use of individual donor NAT in decreasing HBV risk as exemplified for Spain by Gonzalez et al in Transfusion 2006.

3. Given the HBV residual risk and the number of transfusions reported, some hepatitis B transmissions are occurring in Korea. Is there any surveillance and haemovigilance system in place to monitor these and detect infection in patients?

4. Please comment further on the effect of HBV vaccination in relation to the residual risk, and link this to the donor demographic in relation to age.

5. Korean recovered plasma is fractionated by the Korean Green Cross. What is the risk of fractionated derivatives for HBV transmission ie can you related the residual risk to the manufacturing processes’ capacity to eliminate HBV.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I provide consultancy services to the blood industry world wide. I am not aware that any of my activities influence my comments on this manuscript.