Reviewer’s report

**Title:** The Use of Filter Paper as a Transport Medium for Hepatitis B Assays

**Version:** 1  **Date:** 27 November 2011

**Reviewer:** Lia Lewis-Ximenez

**Reviewer’s report:**

1. Is the question posed by the authors well defined? yes
2. Are the methods appropriate and well described? No,

**SPECIMEN COLLECTION**

a. What was the specimen collection plan?
b. specify specimen’s volume
c. specify filter paper thickness and which Reeve Angel (201, 202, 230, etc) filter paper used.
d. Instead of “ambient air” substitute for “ambient temperature”
e. How long was the paper dried?
f. What is considered ambient temperature (15o to 20o C?) as most laboratories have central AC.
g. Was silica gel desiccants placed in plastic bags during storage? Inform if yes or no.
h. At what temperature was the dried paper stored?

**DISC RE-HYDRATION AND ELUTION**

i. Keep to metric (1/32 of an inch??)
j. How was the lost volume calculated?

k. Why were samples rehydrated as most studies simply elute dry fluid sample, and what are the references for this procedure? A list of authors that have used DPS samples for other diagnostic tests: Plantier J-C et al, AIDS 2005, 19:391–397, Brambilla D et al, J Clin Microbiol. 2003 May; 41(5): 1888–1893. Cassol S et al Journal of Clinical Microbiology, Nov. 1997, p. 2795–2801 reconstituted DPS with sterile water and also diluted unspotted plasma with identical volume to approximate. This was not mentioned in your study.

l. Why did volume vary??

**SPECIMEN SOURCE, STABILITY and UNIFORMITY**

m. Specimen source information should be described in the Specimen Collection section

n. measurements (substitute Fo for Co page 6)
3. Are the data sound? Yes.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? The manuscript must improve in standardizing the results. Authors use EDTA to describe plasma and whole blood. I suggest authors inform the anticoagulant used to collect plasma and whole blood in the material and method section, and omit EDTA elsewhere, as the authors use it irregularly. The results are quite confusing. I suggest the authors to rewrite this section.

5. Are the discussion and conclusions well balanced and adequately supported by the data? No

6. Are limitations of the work clearly stated? No

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? No, The authors should update literature and discuss their findings with that of other authors.

8. Do the title and abstract accurately convey what has been found? No

   The title underestimates the study, Suggestion: Hepatitis B assays in serum, plasma and whole blood on filter paper.

   Many studies assessed the efficacy of dried blood and plasma for serological testing, but very little has been published on serum samples.

9. Is the writing acceptable? Yes, although there are few errors, especially in the 1st paragraph of Discussion (temerature, bellow).

   I find the article quite interesting as it has overlooked many different aspects of filter paper specimen collection (different type of biological specimens, humidity) and has used the same specimen in different presentations (with or without filter paper). However, the manuscript needs to improve its format for a clearer understanding. The weakest part of the article was the Material & Method section which must be described in much more detail to allow other investigators to understand and repeat protocol used.

   In spite of requiring major improvements I think it is worth publishing after the changes have been made.

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