Reviewer’s report

Title: Identification and characterization of vaginal lactobacilli from South African women

Version: 1 Date: 19 August 2012

Reviewer: Ming Zeng

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Reviewer’s comments:

The manuscript entitled “Identification and characterization of vaginal lactobacilli from South African women” by Pendharkar et al. reports their work of isolation and characterization lactobacilli strains from South African women. In their work, 40 female vaginal swab samples were collected from Soweto, a township on the outskirts of 35 Johannesburg, South Africa, and then were lab analyzed in Sweden. Thirty-four Lactobacillus flora positive samples were obtained out from 40. Lactobacillus species were identified in 19 out of 21 healthy women, three out of five women with intermediate microflora and eight out of 14 women with BV. They observed that L. crispatus, L. iners, L. jensenii and L. gasseri were the predominant species in this group of women. They also conclude that the presence of L. crispatus was associated with normal vaginal microflora and a healthy status of women, they also find that high level hydrogen peroxide-producing lactobacilli were more often isolated from healthy women than non-healthy (intermediate/BV) women (P=0.089). In general, the topic is of some interest and should be encouraged.

However, it is improper to conclude whether Lactobacillus colonization/hydrogen peroxide production was connected with health status with only 40 samples. A larger number of clinical samples (consider different groups of age and menstrual period) is required and sufficient data should be provided to support the conclusion.

Some specific concerns and suggestions are as follows:

1. The authors should go through the paper carefully and check the details, word misspelling and misuses should be avoided. The manuscript would benefit greatly from editing by an expert in writing scientific English. Manuscript need to be prepared carefully before submitting to the journal.

2. Material/chemical/instrument/software information employed in the study should be provided, include manufacturer’s name, location and software’s versions.

3. Since other researchers may repeat or reference your work, detailed information eg. medium recipe (or cite from references), storage condition should be provided.

4. Line 124-126, since the researchers were dealing with live microorganisms,
making sure they were properly handled and stored within limited transportation time before cultivation is critical to maintain the minor bacteria populations. It is good that the researchers start cultivation of the samples upon arrival at the laboratory within 48 hours to avoid loss of bacteria species. However, the period from sampling to arrival to the lab, namely the transportation time and storage condition (4oC, 37oC or RT), is important and can directly lead to reduction of bacteria species.

All in all, the present form of the manuscript cannot merit the strict publication standard of BMC Infectious Diseases. The reviewer suggests the authors enlarge the sample number and include reasonable analysis in the revised version.

Therefore, I cannot recommend this paper for publication on BMC Infectious Diseases. Major Compulsory Revision is required before acceptance.

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

**Quality of written English:** Not suitable for publication unless extensively edited

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

**Declaration of competing interests:**

I declare that I have no competing interests.