



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Microbiology Research Journal
Manuscript Number:	2013 BMRJ 4327
Title of the Manuscript:	CORRELATION OF H2O2 PRODUCTION OF LACTOBACILLUS SPECIES WITH NUGENT SCORES OF YOUNG NIGERIAN WOMEN

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The authors have responded favourably to most of the reviewer's comments but the manuscript can not be accepted until some major issues are resolved. Major comments: Line 104 The spearman should not compare the mean of production but rather look if there is a correlation between each individual Nugent score and the amount of hydrogen peroxide produced. This is to compensate for the low number of producers in BV group. TABLE 1 In table 1, the number of producers for facultative and anaerobic lactobacilli is included but the total of facultative and anaerobic for each score is not. So we don't know where this 20% in line 179 come from. The authors should thus include the total of aerobe or anaerobe or the proportion of producer for each category. For exemple for anaerobic lactobacilli, BV: 1 (20%) or 1/5. For facultative lactobacilli, BV 4(40%) or 4/10 Line 122-125 Is that significant by any statistical test? TABLE 2 Include standard deviation when possible. Line 95 In which broth the bacteria were grown? MRS? Line 169 to 185 The discussion has been improved but the part on anaerobic vs aerobic is based on very few isolates and is extremely speculative. What would be these anaerobic lactobacilli? Line 182-185 particularly contains a conclusion not demonstrated by the present study and by any other published study. The authors can not make such a conclusion based on this small	We used spearman to compare Nugent scores with individual amounts of hydrogen peroxide. There was no significant relationship $r = -0.375$, $r = 0.449$ for both Facultative and Strict Anaerobes (Line 133) Done. Total aerobes and anaerobes in each category now included. In line 179, we stated that most of the anaerobic lactobacilli isolated from women with BV did not produce H₂O₂. Most here translates to 75% and not 20%.(Lines 123 and 189 respectively) χ^2 showed statistically significant difference between the proportions of H₂O₂ producers between negative and intermediate Nugent scores and also between intermediate score and BV score, and regression analysis showed an inverse relationship between Nugent scores and proportions of hydrogen peroxide producers. (Line 117-119) Done (Line 139-140) Yes, MRS (Line96) The limitations of the study have been included to show that it is not possible to draw such a



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number of isolates in each group. Without the species level it is very difficult to make such affirmations. Maybe it is more related to the species than the production of hydrogen peroxide. According to the reviewer’s results, the lactobacilli that are the most sensitive to oxygen are <i>L. crispatus</i>, and <i>L. crispatus</i> is generally associated with non BV status. <i>L. iners</i> has been more associated to intermediate score but it does not grow on MRS agar or broth (only blood agar) so I doubt those isolates were <i>L. iners</i>. The authors must discuss the limit of their study. The results of Table 2 (amount of H₂O₂) should also be briefly discussed. Minor comments: There is still many grammatical and editorial mistakes and the reviewer only mentions a few below. Abstract <u>Proportion of hydrogen peroxide producing Lactobacillus</u> by Nugent score were 70%... “Majority of the strains” This is not precise give percentage in parenthesis “”fifteen women without BV <u>were</u> used” “Lactobacilli were isolated...” capital L Line 28 “Lactobacilli are the predominant <u>bacteria</u> in the vagina...” Line 30 “...regulate the growth of other vaginal <u>species</u>”. Line 89 “based on Gram <u>staining</u> and catalase...” Line 111 (one from <u>each</u> woman)	conclusion. Done (Line 166-169) corrected Done (Line 20) Done (Line 20) Done (Line 20) Done (Line 28) Done(Line 31) Done (Line 90) Done (Line 112)
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