

Interpretation of Vaginal Specimens for Bacterial Vaginosis

Tables and guidelines extracted from “Alberta Guideline for Laboratory Processing and Interpretation of Vaginal Specimens for Bacterial Vaginosis” by Deirdre Church and Beverley Miller - Calgary Laboratory Services, Calgary Zone, Alberta Health Services published in Connections; Fall 2011.

Table 1. Nugent Scoring Criteria for the Microscopic Diagnosis of Bacterial Vaginitis

No. <i>Lactobacillus</i>	Score	No. <i>Gardnerella/Bacteroides</i>	Score	No. curved gram negative bacilli	Score	N-Score
≥30	0	0	0	0	0	0
5-20	1	<1	1	<1	1	3
1-4	2	1-4	2	1-4	1	5
<1	3	5-20	3	5-20	2	8
0	4	≥30	4	≥30	2	10

N-Score = Sum of the scores for the presence/absence of *Lactobacillus*, *Gardnerella/Bacteroides*, and curved gram negative bacilli

Table 2. Guideline for Microscopic Cellular Analysis of Vaginal Smears for BV

Microscopic Cellular Components	Adult Women (>13≥55 yrs.)	Post-Menopausal (>55 yrs.) ^b
Nugent Score (N-Score) ^a	Yes	Yes
Clue Cells ^{a,c,d}	Report presence of Clue cells	Report presence of Clue cells
Polymorphonuclear cells (PMNs) ^e	Report moderate (3+) or heavy (4+) amounts	Report moderate (3+) or heavy (4+) amounts
Epithelial cells	No	No
Non-Sufficient Quantity of Vaginal Sample	Report insufficient sample to assess for vaginitis. Immediate recollection required.	Report insufficient sample to assess for vaginitis. Immediate recollection required.

a. See Table 1 for Nugent Scoring Criteria (N-Score).

b. Post-Menopausal Women (>55 yrs.) should have an additional comment added to all vaginal smear reports: “Results may not be reliable in post-menopausal women. Correlate with the clinical picture.”

c. Look for and report the presence of Clue cells if the N-Score ≥4. If the N-Score is indeterminate (i.e., 4-6) then additional fields should be examined for Clue cells before reporting.

d. If the N-Score is indicative of BV (i.e., 7-10) then report Clue cells only if found as part of the routine microscopic exam.

e. Report the presence of 3+ to 4+ PMNS.

REPORTING

- **N-Score ≤ 3** = Report “*Smear negative for Bacterial Vaginosis*”
- **N-Score 4-6 and no clue cells** seen = Report “*Gram stain shows altered vaginal flora. Results are indeterminate for Bacterial Vaginosis*”
- **N-Score 4-6 and clue cells** seen= Report: “*Presence of Clue cells suggest transition of vaginal flora towards Bacterial Vaginosis; repeat testing of another vaginal smear is recommended.*”
- **N-Score ≥ 7** : Report “*Smear consistent with Bacterial Vaginosis.*”
- **Report the presence of 3+ to 4+ PMNS.** Add an additional comment “*Presence of purulence suggests the presence of another infection and/or inflammatory condition. Correlate with clinical picture. Testing for N. gonorrhoeae, C. trachomatis and T. vaginalis may be indicated.*”