**Abstract**

Dietetic sensitivity was noted with the number of cells collected and released by swabs as the swabs were in contact with the exudate. An ideal swab product system has the ability to absorb exudates from the collection site and release fibers into the test system. The purpose of this study is to determine the physical and morphological characteristics of NeoRay, NeoRay, NeoRay Flash and NeoRay Microswab products of Puritan Medical Products and the NeoRay flock of Sipan (Digna) implications.

**Materials and Methods**

- **Swabs**: While swabs were placed in water as a positive dilution and the weight gain determined to compare percent absorption. The absorption of exudate by material was determined by evaluation if absorption was the result of swelling of swabs and not the release of bacteria. The ability of swabs to collect and release bacteria was evaluated in a model system by removing exudates in a polyvinyl brand suspension with or without washing. The ability of swabs to collect and release bacteria was evaluated by using expression of 5 organisms, proliferation, and aggregation. 5, P. aeruginosa, 5, E. coli, 5, S. pyogenes, 6, S. aureus, and 6, B. fragilis.

**Results**

- **Data Analysis**: A statistical analysis of the results obtained was conducted by using ANOVA. The recovery of all non-aerobic bacteria was significantly higher than that of positive bacteria.

**Conclusions**

- The results demonstrated the overall superiority of Puritan Medical Products' NeoRay flock swabs and paved the way to increase the diagnostic sensitivity of clinical tests by collecting and removing a significantly larger number of bacteria.

**Materials and Methods**

**Results**

**Table 1. Absorbance characteristics of fibrin.**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Culture Medium</th>
<th>Culture Conditions</th>
<th>Absorbance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neisseria gonorrhoeae (ATCC 43069)</td>
<td>7% C + 12% BSA, 5% CO2</td>
<td>24 h, 37°C</td>
<td>69%</td>
</tr>
<tr>
<td>Bacteroides fragilis (ATCC 25285)</td>
<td>7% C</td>
<td>24 h, 37°C</td>
<td>57%</td>
</tr>
<tr>
<td>Staphylococcus aureus (ATCC 25923)</td>
<td>7% C</td>
<td>24 h, 37°C</td>
<td>53%</td>
</tr>
</tbody>
</table>

**Figure 1. One-way ANOVA of the recovery of bacteria by swab type.**

The recovery of all bacteria by swab type is significantly different from one another. The ANOVA test revealed that the highest recovery of all airborne bacteria was the NeoRay flock has the highest recovery of 8,157, which is followed by the NeoRay flock (3,000), followed by the NeoRay flock (1,400) and finally the NeoRay flock (536).

**Figure 2.** One-way ANOVA of the recovery of bacteria by swab type.

The recovery of all airborne bacteria was significantly different from one another. The ANOVA test revealed that the highest recovery of all airborne bacteria was the NeoRay flock has the highest recovery of 8,157, which is followed by the NeoRay flock (3,000), followed by the NeoRay flock (1,400), and finally the NeoRay flock (536).

**Figure 3.** Comparison of the results obtained from the NeoRay flock swab and the NeoRay flock swab.

The NeoRay flock swab is superior to the NeoRay flock swab in all respects, as it has the highest recovery of 8,157, followed by the NeoRay flock (3,000), followed by the NeoRay flock (1,400), and finally the NeoRay flock (536).