Evaluation of ESwab a New Multipurpose Liquid Swab Transport System for Aerobic and Anaerobic Bacteriology

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INTRODUCTION

The Network of The Chester County Hospital (CCH) is like many small community hospitals in this country; the core of CCH (and most other community hospitals) is the in-house bacteriology laboratory that provides the majority of the hospital’s diagnostic testing. The Core Laboratory at CCH receives an average of 1000 bacteriology specimens each week (40%) for aerobic and anaerobic culture. No single swab serves all our needs and we would like a more versatile multipurpose swab.

METHODS

COMPARATIVE VIABILITY STUDY

Test organisms

<table>
<thead>
<tr>
<th>Organism</th>
<th>Becton Dickinson CultureSwab (BDS)</th>
<th>Starplex StarSwab (STS)</th>
<th>ESwab</th>
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<tbody>
<tr>
<td>Haemophilus influenzae</td>
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<td>Staphylococcus aureus</td>
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<td>Moraxella catarrhalis</td>
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<td>Streptococcus pneumonia</td>
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Especially for Aerobic and Anaerobic Bacteriology

1. MATERIALS

- Copan Diagnostics Inc. (Corona, California) which supports aerobic and anaerobic bacteria. ESwab is unique and comprises a culture. No single swab serves all our needs. Liquid Stuart is not suitable for maintaining anaerobic bacteria and Amies Agar culture. No single transport serves all our needs and we would like a more versatile multipurpose swab.

2. TEST PROTOCOL

- Preparation of cfu of 4 strains of SP. ES maintained in the transport device before proceeding to the next step.

3. RESULTS AND CONCLUSIONS

- This initial work is very exciting as it opens up the possibility for multiple test analysis from one swab transport device. The ability to maintain aerobes in comparison with Becton Dickinson CultureSwab (BDS) and Starplex StarSwab (STS) Liquid Stuarts could allow us to perform our rapid Strep assays. Consequently ESwab might allow The Chester County Hospital network to standardize on one swab for all our current and future bacteriology needs.

4. CONCLUSIONS

- In summary, for aerobic and anaerobic bacteria, Copan ES Liquid Amies performed well in comparison with Becton Dickinson Liquid Stuart and we would recommend it for our laboratory.

5. REFERENCES

- Copan ES Liquid Amies
- ESwab
- Becton Dickinson CultureSwab
- Starplex STA Amies Agar Gel

- The conclusion of further studies will be available soon.