Introduction

Diagnostic bacteriology is highly dependent on the type, time and severity of collection, transport, and storage procedures. It is well established that evaluation of results from collected clinical samples or specimens of fluids, is better when contamination is minimized. The type of specimen collection device is of great importance as the swab may be the most critical collection device. Swabs are made of materials ranging from absorbent foam to flocked materials, and laboratory techniques to collect and preserve specimen samples vary. The newer liquid swab systems can be used for up to 48 hrs to transport specimens. The ESwabs (Copan Diagnostics) are nylon flocked transport system and the ∑-Transwab manufactured to enhance specimen collection and release. The ESwabs (Copan Diagnostics) are nylon flocked transport system and the ∑-Transwab (Medical Wire & Equipment): soft polyurethane absorbent foam.

Methods:

Diagnosis of bacterial infection in patient samples largely depends on specimen collection and transport to the laboratory. The primary goal is to preserve the viability of the organisms at the time of collection and to maintain the viability of the microorganisms. The specimen collection techniques and transport to the lab depend on the type of specimen collection device. Swabs are made of materials ranging from absorbent foam to flocked materials. Swabs are not only used for specimen collection but also for transport to the laboratory. In this study, the study was performed in Caritas Baby Hospital, Bethlehem, PALESTINIAN TERRITORY, OCCUPIED

Materials and Methods

Bacterial Strains:

- Escherichia coli (ATCC 25922), Enterococcus faecalis (ATCC 29212), Staphylococcus aureus (ATCC 29213), Streptococcus agalactiae (ATCC 19615), S. pyogenes (ATCC 12331), C. albicans (ATCC 10211), C. parapsilosis (ATCC 14053) and C. albicans (ATCC 41504) and C. parapsilosis (ATCC 22019)

Transport Swab Systems:

- ∑-Transwab
- ESwab

Results

Conclusions

- ∑-Transwab failed to maintain both Neisseria species tested past 6 hours at Room Temperature
- Both systems maintained the viability of both Candida species tested.
- Similar results were obtained after using the rods or 106 to 107 colony forming units
- Overall, the ESwab outperformed the ∑-Transwab for the maintenance of fastidious aerobic bacteria

Reference


