

## Comparative Performance of Two Liquid Amies Transport Systems for the Recovery of Fastidious Bacteria Following the CLSI M40a Swab Elution Protocol at Room Temperature

### ABSTRACT

**Objective:** To compare the performance of Puritan's liquid Amies transport medium with HydraFlock® swab, non treated (**P**) ( Puritan Medical Products Company LLC), to Copan ESwab™ transport system containing a treated flocced swab (CT) and ESwab™ transport medium with COPAN standard FLOQSwab (CS) (Copan Diagnostics Inc.). **Method:** Viability tests were performed using Swab-Elution Method (CLSI M40a) on swabs held at RT for 0, 24 and 48h. Six ATCC strains on an ongoing study were tested including two *N.gonorrhoeae* (NG), one *N. meningitidis* (NM), two *H.influenzae* (HIN), and one *S.pneumoniae* (SPN). Nine swabs of each brand were inoculated by absorbing 100µL of an approximate  $1.5 \times 10^7$  CFU/ml organism suspension. After incubation, 100µL from each of three swab/devices from each of the three swab types was serially diluted 10-fold in 0.9ml sterile saline. 100µL of each dilution was pipetted onto appropriate agar plates and incubated under optimal conditions for subsequent colony counts. After 48hrs incubation, colony counts for each swab cultured at each time point were recorded. An average CFU count was then determined from each triplicate set of swabs and each incubation period. Performance was compared for each swab type with the 0hr counts at the dilution that produced 30 to 300 - 500 colonies. **Results:** All three swab types produced comparable CFUs at 0hr. **3/6** strains were recovered from (**P**) after **48hrs** incubation **NM (1/1), HIN (1/2), and SPN (1/1)** and **5/6** strains after **24 hrs**. 3/6 strains were recovered from (**CT**) after **48hrs** incubation **NM(1/1), HIN(1/2), and SPN(1/1)** and **3/6** strains after **24 hrs**. **2/6** strains were recovered from (**CS**) after **48 hrs** incubation **NM(1/1) and SPN(1/1)** and **2/6** strains after **24hrs**. **Conclusions:** In general, based on this limited study, all three flocced swabs appear to perform comparably. Treating the flocced swabs does not appear to influence the recovery of these fastidious organisms. Further study with more isolates and different strains may be required to detect a significant difference in performance between these two systems.

Puritan's new EnviroMax Plus foam tip swab is highlighted in the Oct/Nov issue of Food Safety Magazine. Select the link below to read the full article.

**Source:** <http://www.foodsafetymagazine.com/article.asp?id=4815&sub=sub1>