ABSTRACT

COPAN’S TRANSPORT MEDIUM (UTM-RT) AND FLOCKED SWAB FOR RSV/FLU COLLECTION

Background: The “gold standard” specimen for viral respiratory testing is a nasopharyngeal (NP) aspirate or wash collected by respiratory therapists or physicians. A new collection device, a “flocked” swab (Copan Diagnostics Inc., Corona, California), was recently introduced that allows for collection and release of additional patient material. This new design would allow the collection of the specimen by nursing staff.

Design/Method: Specimens were collected as follows: Gently pass the swab through the nose and into the posterior nasopharynx. Rotate the swab on the nasopharyngeal membrane 5-6 times and allow it to remain in place for 10-15 seconds. Remove the swab and repeat the procedure in the other nares. Remove the swab and snap it off inside the UTM tube.

Results: The incidence rate of RSV and Flu during peak months did not decrease significantly from previous years, indicating that the quality of specimen has remained consistent. The incidence of indeterminate or unreadable results did not increase over previous years. An internal survey indicated that the new flocked swabs were comfortable, showed a high degree of patient tolerance, and were well accepted by nursing staff collecting NP samples.

Conclusions: The use of the flocked swab/UTM combination appears to have had no negative impact on the Binax test systems. However, the impact of their use on the medical staff and patients has been substantial. Specimens are now collected without the need for NP aspirations of the patients. This has had a positive effect on the medical staff. The 1 mL fill UTM is advantageous in that it minimizes the media dilution effect of the sample for rapid tests and allows reflex culture.

METHODS

Specimen Collection: Specimens were collected as follows (Figure 1):

1) Gently pass the swab through the nose and into the posterior nasopharynx.
2) Rotate the swab on the nasopharyngeal membrane 5-6 times and allow it to remain in place for 10-15 seconds.
3) Remove the swab and repeat the procedure in the other nares.
4) Remove the swab and snap it off inside the 1.0 mL Mini UTM tube (Figure 2).
5) Transport the specimen to the lab for testing at ambient temperature.

Binax Procedure:
1) Vortex Flocked Swab and UTM.
2) Remove Binax device from pouch just prior to testing and lay flat on work bench.
3) Fill pipette by firmly squeezing the top bulb and placing pipette tip into sample. Release bubble while tip is still in sample. This will pull liquid into pipette. Make sure there are no air spaces in the lower part of the pipette.
4) SLOWLY (drop by drop) add entire contents of pipette (100-µL) to the MIDDLE of this pad by squeezing the top bulb.
5) Immediately peel off brown adhesive liner from the test device. Close and securely seal the device.
6) Read results in window 15-minutes after closing device.

RESULTS

RSV: The incidence of indeterminate or unreadable results did not increase over previous years. The incidence rate of RSV did not dramatically decrease from previous years, indicating that the quality of specimen has remained consistent. (Chart One)

Influenza A or B: The incidence of either Influenza A or B is consistent with the previous year. (Chart Two)

User Survey: A user survey was distributed to individuals routinely collecting specimens with the Flocked swabs. The response was consistently favorable. The survey also included many unsolicited comments indicating the patient’s found the collection “comfortable”.

CONCLUSION:
The use of the flocked swab/UTM combination appears to have had no negative impact on the Binax test systems. However, the impact of their use on the medical staff and patients has been substantial. Specimens are now collected without the need for NP aspirations of the patients. This has had a positive effect on the medical staff. The 1 mL fill UTM is advantageous in that it minimizes the media dilution effect of the sample for rapid tests and allows reflex culture.