



Implementation of Filmarray® Respiratory Viral Panel in a Core Laboratory Improves Testing Turnaround Time and Patient Care.

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This study evaluated the turnaround time for testing performed 24/7, in the core lab, using the FilmArray® Respiratory Panel (RP). A direct fluorescence assay (DFA) that detects 8 viral agents was used as the reference method for this evaluation.

A total of 2,537 specimens from pediatric patients were tested using the FilmArray® RP during the 4-month study period ending in April 2012. A total of 1,399 DFAs for respiratory viruses were performed during the previous year in the same time period. The FilmArray® RP detected rhinovirus in 20% of samples and coronaviruses in 6% of samples. These viruses would not have been detected with DFA.

During the study, 63% samples tested positive with FilmArray® RP. The most frequent pathogens were Rhino/entero (20%), RSV (18%), FluB (10%), hMPV (7%), FluA (6%), Coronavirus (6%).

Compared with the reference method, use of the FilmArray® RP reduced turn-around time for respiratory virus testing from about 6-7 hours to about 90 minutes. The reduced turn-around time allowed for timely (within 3 hours) administration of appropriate therapy (oseltamivir) for pediatric patients that tested positive for influenza. In addition, the system's ease-of-use allowed the testing to be performed 24 hours a day, 7 days a week in the central laboratory without the need to batch samples or to send them to a specialized laboratory.

“Detection of other viral agents is valuable because clinical suspicion of viral respiratory tract infections can be confirmed, additional workup and therapy can be avoided, and clinicians and parents can be reassured.”

KEY POINTS

- Patients tested with the FilmArray® Respiratory Panel (RP) were placed into cohorts effectively.
- By using the FilmArray® RP, patients were given appropriate treatment in a timely manner.
- The FilmArray® RP resulted in a potential savings of 900 hours in ED boarding room time.