



Impact of a Rapid Respiratory Panel Test on Patient Outcomes.

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This study compared patient outcomes before and after implementation of the FilmArray® Respiratory Panel (RP). Testing before implementation of the FilmArray® RP used batched polymerase chain reaction analysis for several viral targets (mainly RSV, Flu, ParaI, hMPV).

A total of 365 patients were tested for respiratory pathogens before FilmArray® RP implementation, with 216 positive results. A total of 771 patients were tested for respiratory pathogens after FilmArray® RP implementation, with 597 positive results.

The analysis included patients with an acute respiratory tract illness aged from 3 months to 21 years old*, who were either tested in the ED and then admitted to the hospital, or tested while being in the hospital. The most important pathogens found were RSV (48.4%), Rhino/entero (21.1%) Flu A/B (15.3%) and hMPV (9.6%).

While the study reported that use of the FilmArray® RP resulted in an overall increase of patient time spent in the Emergency Department, it also resulted in overall decreased duration of antibiotic use of half a day, a shorter stay (a quarter of a day less) in the hospital following admission, and reduced time spent in isolation (a third of a day less) for patients who were viral positive after implementation of the FilmArray RP.

These benefits were also dependent upon the turnaround time, with results needing to be returned to healthcare providers within four hours to produce the benefits. This led to savings of \$231 in hospital costs and \$17 in antibiotic use per patient compared to patients who were viral positive before FilmArray® RP implementation.

* Population: children in a tertiary referral center (i.e. patients with serious illnesses/ long term care).

*“The FilmArray® RP decreases the duration of antibiotic use,
the length of inpatient stay, and the time in isolation.”*

KEY POINTS

- The FilmArray® Respiratory Panel (RP) helps prevent the use of unnecessary antibiotics and provides more timely and effective treatment.
- The use of FilmArray® RP impacted viral-positive patients allowing earlier discontinuation of antibiotics, decreased length of stay and reduced time in isolation.
- The FilmArray® RP saved \$231 in hospital costs and \$17 in antibiotic use per patient.