Spectrum of Enteropathogens detected by the FilmArray® GI Panel in a Multicentre Study of Community-acquired Gastroenteritis.


This quarterly point-prevalence study analyzed stool samples received at ten participating European clinical microbiology laboratories. Performance of the FilmArray® Gastrointestinal (GI) Panel was compared to conventional techniques.

A total of 709 specimens from the ten participating countries were submitted for the study on four specified days. Specimens were collected from patients of all ages with community-acquired gastroenteritis. Specimens were routinely tested according to local laboratories’ standard operating procedures, and then each laboratory transferred aliquots to a central laboratory for testing with the FilmArray® GI Panel.

The FilmArray® GI Panel detected at least one organism in 384/709 (54.2%) specimens, compared to 128/709 (18.1%) when testing was performed using conventional techniques. Of the positive specimens received, 268/709 (37.8%) yielded one organism, and 116/709 (16.4%) yielded multiple organisms. The most commonly occurring co-infection was Campylobacter with EPEC, followed by triple infection with EAEC, EPEC, and ETEC*. With the exception of Entamoeba histolytica and Vibrio cholerae, all 22 of the pathogens targeted by the FilmArray® GI Panel were detected at least once.

Overall, this study demonstrates that multiplex screening can optimize the yield from stool specimens and may improve the timeliness of diagnosis compared to conventional microbiological techniques.

* EAEC = enteraggregative E. coli; EPEC = enteropathogenic E. coli; ETEC = enterotoxigenic E. coli.

“We conclude that multiplex screening can optimize the yield from stool examinations, [and] can dramatically improve the timeliness of diagnosis.”