When suspecting bacterial gastroenteritis, culture is the standard procedure for diagnostics. In recent years, molecular methods for gastrointestinal pathogens have quickly emerged. Amplidiag® Bacterial GE is a multiplex real-time PCR kit designed to detect the most common bacteria causing gastroenteritis. The PCR assay panel includes eight pathogen targets: four pathovars of each serotype.

Our results showed that for the eight targets the specificity reached 100% after a 60 MLST populations. An algorithm is also proposed to help microbiologists in their interpretation, in particular to limit the over-interpretation of co-infections due to the presence of multiple gene targets.

The use of Amplidiag® Bacterial GE PCR directly on strains needs to be adapted. Our results showed that for the eight targets the specificity reached 100% after a sequence analysis.

**DISCUSSION – CONCLUSION**

This study demonstrates that Amplidiag® Bacterial GE kit is a valuable tool in the detection of all diverse populations of E. coli, Shigella and Salmonella causing diarrheal infections. This work helps the microbiological interpretation of multiple positive analytes in a single specimen and highlights the necessity of monitoring the potential for agent evolution. A culture-based approach is still necessary for specific pathogens to ideally complete virulence potential, culture base susceptibility tests for the need of surveillance and outbreak detection.

**References**