Amplidiag® Easy, an automated solution for routine diagnostic screening

A complete evaluation by the Leicester Royal Infirmary

The Amplidiag® Easy (Mobidiag UK) is an automated system for nucleic acid extraction and PCR set up for moderate to high throughput volume screening of gastrointestinal pathogens and antibiotic resistances directly from stool samples. The Leicester Royal Infirmary (LRI) has recently evaluated the system. “We were attracted to evaluating the Amplidiag® Easy as a way to modernise our enteric laboratory, with a streamlined molecular multiplex screening approach, to simplify workflow and improve turnaround time of our enteric samples,” states Dr Chris Holmes, Clinical Scientist at LRI, who led the evaluation.

Testing for multiple enteric pathogens using conventional culturing methods is known to be time consuming and carries an ever-present risk of missing clinically important pathogens, such as non-0157 verotoxigenic *Escherichia coli*. “Another appealing feature is the Amplidiag® Easy’s ability to run several different panels to screen for most major enteric bacterial, viral and parasitic pathogens, or combinations, with the option of screening for carbapenem and colistin resistance genes,” Chris Holmes continues.

Multiplex PCR can also increase the speed of testing samples and reporting of negative results, allowing clinicians to make earlier decisions on patient management. For example, with faster results the wards can react quicker to prevent potential outbreaks by moving positive patients into isolated side rooms. Likewise, patients that are not infected can potentially be discharged sooner. Quicker diagnoses may also allow earlier tailoring of antibiotics, thus reducing the cost and time of prescriptions, but most importantly it will improve patient outcomes.

In the case of LRI, the use of automated sample processing could free up biomedical scientists to work up the more critical positive samples while the automated instrument works in the background. Paul Bird, Trainee Clinical Scientist, who performed much of the practical work, states: “During the evaluation we found the Amplidiag® Easy to be very user friendly due to its simple instructions and easy to follow software on the touch screen monitor. The touch screen set up gives a step-by-step process for adding all reagents, consumables and samples making loading simple.” Chris Holmes sums up the evaluation: “The results showed comparable performance to routine methods with the benefit of detecting additional pathogens that are not covered by these routine methods. We are confident that this machine could be installed into any laboratory and workers of all ability and experience, even those with little molecular diagnostic experience, could load, run, extract and maintain the machine with minimal training.”

Mobidiag offers solutions answering needs for fast, reliable and cost-efficient diagnostics solutions for detection of most relevant bacteria, viruses, parasites and antibiotic resistances for all laboratories requirements, no matter their size, throughput and centralised/decentralised organisation. For more information, visit mobidiag.com.