

Molecular diagnostics can help improve treatment outcomes: Experts

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Mumbai: At the 25th Annual National Conference of Indian Society of Critical Care Medicine, CRITICARE 2019, experts voiced the need for introducing advanced molecular diagnostics in patient care to promote early and timely diagnosis.

Gaining spotlight on the three-day event, expert scientist Dr Aparna Kotekar, Head of Molecular Department at iGenetic Diagnostics, brought into focus how molecular testing can help detect over a hundred different pathogens within 8 hours from blood and various other samples including sputum, pus, synovial fluid etc.

Conventional diagnostic approaches using microbiology culture has a much longer turnaround time which can range from two to five days and viruses cannot be cultured in most labs. Molecular testing is much faster and in addition to bacteria and fungi, it can also identify most of the viruses that are prevalent in critical care settings.

“In an ICU scenario, a patient is prescribed broad-spectrum antibiotics and drugs to prevent

various viral, bacterial or fungal infections. In case of an infection, the patient condition deteriorates rapidly. A two- to five-day delay in identifying the pathogen through culture method is a crucial loss of time. Meanwhile, the patient's condition is maintained through continuously feeding of broad-spectrum drugs. Also, bacteria are difficult to detect if antibiotic treatment had already started. Virus detection requires special infrastructure which are not offered by conventional labs. Overuse of drugs can develop resistance to drugs. In comparison, molecular testing is a superior diagnostic approach. Sensitivity is as high as 80%, detection rate is 50% compared to 20% in microbiology, viral detection is possible, and antibiotic drug resistance can be tested on the same molecular platform, within the same turnaround time, using the same patient sample," explained Dr Aparna Kotekar, Head of Molecular Department at iGenetic Diagnostics.

The importance of molecular diagnostics was deliberated upon with experts from the medical fraternity including Dr. Subramanian Swaminathan, Senior Consultant for Infectious Diseases, Dr Subba Reddy, Critical Care Specialist, and Dr Sachin Jadhav, Senior Consultant Hematologists. The expert panel concluded that molecular diagnostics is an essential tool for improving patient care.

"Both patients and the hospital would benefit from molecular diagnostic. Patients can benefit from targeted treatment, better clinical outcomes, lower cost of treatment and length of hospital stay, and prevents antibiotics usage," said Ms Arunima Patel, Founder and MD, iGenetic Diagnostics.

Critcare 2019 was held at the Renaissance Mumbai Convention Center Hotel, Mumbai from 1st to 3rd February 2019. The convention showcased the latest innovations in critical care and had a range of scientific workshops. The event was attended by over 2500 doctors from across the country.