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Why Point-of-care Diagnostics is Booming?

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Point-of-care diagnostics (POCD) play a pivotal role in the healthcare sector. Over time, it has gained significant attention for rapid diagnosis of various life-threatening or infectious diseases like cancer, diabetes and infectious diseases, as well as for monitoring patientsâ?? health conditions. POC devices are regarded as efficient diagnostic options to prevent delays in treatment, a crucial aspect in preventing high mortality rate and transmission of infectious agents



The POCD market is poised for significant growth due to the increasing prevalence of chronic diseases which need long-term care and frequent monitoring, and rapidly growing demand for cost-effective and innovative POC diagnostic products. Furthermore, the COVID-19 pandemic has created a paradigm shift in the POC testing scenario in India. It has driven research focused on the development of testing strategies which can be rapid and economical, and can be implemented in the community as a point-of-care testing. The pandemic has accelerated the decentralisation trend in testing. Reaching closer to patients outside of laboratories, hospitals, homes enables a faster response to clinical needs.

The developing healthcare infrastructure, the rising focus towards product innovation and efficient POC diagnostics kits for patients, and the increasing patient population along with growing cases of chronic disease will promote growth of the market. We believe this market can grow near to 18 per cent year-on-year.

Recently, 'The Lancet Commission on Diagnostics' report mentioned that globally, nearly half of the population does not have access to essential diagnostics for many common diseases such as diabetes, hypertension, HIV, and tuberculosis. POC diagnostics, which are often characterised by being independent of laboratory infrastructure and being highly affordable, can greatly improve the accessibility of diagnostics.

In India, where there is an uneven distribution of healthcare resources and infrastructure, the use of POC tests is growing as an important tool to increase diagnostic coverage of the population. In our country, we face major challenges in assessing rural and underserved patients' healthcare needs and in providing them with timely quality healthcare at the point-of-care. This is also a critical challenge in metropolitan areas where the hospital and primary healthcare facilities are overburdened. Hence, POC diagnostics are vital for a quick and affordable way to reach larger populations for better healthcare.

Advancements in POC devices

There is a growing recognition that POC diagnostics can help in the reduction of burden on healthcare systems as they are designed to have applications in the clinical settings as well as in remote places. While innovative point-of-care diagnostic devices hold great promise to improve quality of and access to primary healthcare delivery in India, it is imperative to introduce new innovations that have scale-up potential.

POC diagnostic devices used for monitoring Glucose, ECG, blood pressure, etc. have tremendously aided clinical and personalised healthcare. Technological advancements have led to the development of several innovative POC diagnostic devices for different applications. Recent advancements in the field of biosensing technology, microfluidics, and paper-based diagnostics will improve the quality and efficiency of diagnostics. Scientists and entrepreneurs have made a huge impact on the development of next-generation POC diagnostic devices, which are based on the latest technologies such as Artificial Intelligence (AI), Internet of Things (IoT) etc. POC technologies with smart Information and communications technology (ICT) hold tremendous hope for sustainably managing resources and improving healthcare delivery in rural areas. Further, these technological advances can make diagnostic tools affordable and accessible in India.

Some companies are developing POC tests and machines, but most are importing them from China and other countries. Mylab has a dedicated centre of excellence for POC testing and we are constantly endeavouring to raise the game by introducing high quality diagnostics through point-of-care. Towards this, we have recently launched CoviSwift, which is the world's first point of care high throughput solution for COVID-19. It is the first POC testing solution that can be used at small labs, in-hospital labs, airports, villages and allow gold standard testing at high throughputs anywhere. We have also partnered with Hemex Health in the US to develop POC for diagnosis of a large number of infectious and vector borne diseases.

Key growth drivers

- Development of indigenous rapid point of care tests with better sensitivity and specificity
- Software and algorithms for interpretation of test results without the need for expert technician
- The ability to manufacture PoC diagnostic tests at scale, respond to rapid rises in demand like pandemics, and keep the cost of manufacturing low are crucial
- Use of technologies such as AI and Machine Learning to make POCT cheaper, faster, and easier to check for quality control.
- Connected POC diagnostic devices to ensure flow of data from devices to national health grid

The successful developments in POC testing will continue to hasten the diagnosis of many critical diseases. However, the POC diagnostic devices need to be integrated within the health system and need to be more personalised data-centric, which can benefit the primary healthcare system and place India on the course for attaining full universal health coverage.

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