



Clinical Chemistry Analyzer Market on the Rise: What's Driving Demand?

To capture new demand, clinical labs should note advancing technology and rising disease mortality

Sep 19, 2024 SCOTT WALLASK, BA

Smaller. More sensitive. Automation friendly.

Welcome to the current state of the blood and clinical chemistry analyzer market, where influencing factors include evolving technology, increased disease incidence, and billions of dollars at stake.

Judging by the exhibition floor at the Association for Diagnostics & Laboratory Medicine (ADLM) 2024 annual meeting and lab expo, many companies—from established giants to fledgling startups—are either already in the analyzer market or want a piece of it.

Medical laboratories that are evaluating new clinical chemistry and hematology analyzers should consider these features:

- Greater ability to integrate with automated systems
- Artificial intelligence's role in interpreting results
- Increased ease of use at the point of care

More vendor-neutral automation choices

On the show floor, there were several examples of clinical chemistry and blood analyzers that plug into other vendors' automated systems.

A1C analyzers are largely moving toward trackless automation systems to allow labs to scale their efforts and provide more hands-off operations, said Priya Sivaraman, PhD, a senior product manager at Tosoh Bioscience.

This year at ADLM, Tosoh touted its G8 high-performance liquid chromatography analyzer's new integration with Sysmex's XN-9000 hematology automation system, which Sivaraman noted was one of several automation options for labs.

Indeed, at least 41 of the nearly 900 vendors on the ADLM expo hall floor promoted automation hardware and services.

In July, Inpeco launched a new total lab automation system called FlexLab X, which integrates with 30 different analyzer lines and 12 specialties.

Such vendor-neutral setups give labs more purchasing power because they are not locked into deals for one line of analyzers from a single seller, said Markus Gross, global marketing director at Inpeco.

This type of automation "openness" should appeal to clinical labs, said J.L. Bedini, MD, head of the core laboratory at Clinic de Barcelona and a customer of Inpeco.

"The trend will be for analyzers and automation to be more open," Bedini said. "If you are able to buy an automation system and use different analyzers that you need on that system, it's helpful."

"A lab's needs change often," he added. "With analyzers, I prefer to have the best of everything rather than buy from one vendor."

AI and point-of-care testing will steer analyzers

The core technology behind clinical chemistry analyzers isn't changing, said Stephen Harding, PhD, vice president of research and development at The Binding Site, part of Thermo Fisher Scientific. Instead, expect AI to have a growing influence on the results that analyzers produce.

"If we start thinking about where we will go in the next three to four years, the world is going to be dominated by higher sensitivity systems, such as mass spectrometry and next-generation flow cytometry and cell staining," Harding said. "The higher the sensitivity, the more reliant it will be on AI solutions to interpret."

"Whilst clinical chemistry analyzers will be faster with higher throughput and use the same technologies ... the revolution that's coming will be around sensitivity and AI interpretation," he added.

Other observers at ADLM noted the amount of startup analyzer manufacturers that have their eyes on the point-of-care market.

In some cases, new analyzers are not much bigger than a laptop computer, making them easy to locate in point-of-care locations such as clinician's offices and urgent care centers.

Breaking into the blood and clinical chemistry analyzer market will take a level of finesse from startups, given the established competition. For those smaller firms, innovation may need to occur outside the technology, perhaps in the manufacturing process or in staff training, to help entry into the market.

The roots of clinical chemistry analyzer market growth

In part, growth in the analyzer market stems from public health concerns: [Deaths are on the rise](#) from chronic diseases detected by blood and clinical chemistry analyzers.

For example, the [American Heart Association](#) noted in a 2024 update that global deaths related to ischemic heart disease rose 72 percent from 1990 to 2021, while deaths associated with stroke increased 47 percent during the same period.

"[Analyzer market] growth is owing to the increasing prevalence of chronic disorders, such as cardiovascular and liver disorders, which result in increasing patient admissions to healthcare facilities," [Medical Buyer](#) noted in a July 2024 article.

While it's hard to put an exact value on the current analyzer market and where future sales are heading, information from three research firms reveals a general range:

- The clinical chemistry analyzer segment is estimated to be worth from \$13 billion to \$14 billion currently and expected to increase to \$17 billion (and perhaps as high as \$20 billion) by the end of the decade, according to analyses from [Markets and Markets](#), [Data Bridge Market Research](#), and [Mordor Intelligence](#).
- The hematology analyzer segment is valued from \$5 billion to \$6 billion now, and it will rise to \$8 billion to \$9 billion within six years, [Markets and Markets](#), [Data Bridge](#), and [Mordor](#) noted.

According to these estimates, in total, blood and clinical chemistry analyzers may soon bring in close to \$30 billion in annual sales revenue.

For labs, a possible shift in purchasing power

For clinical laboratory managers, two key points stand out:

First, with so many analyzers available on the market and an expected push to sell more, educated lab leaders may find themselves at a buying advantage when considering these purchases.

Second, by following the money, it's clear that vendors see opportunity in rising cases of illness like cardiovascular disease. Laboratories should likewise review their own business plans to ensure they fully capture a segment of patient care that appears to be overflowing with demand.