

Enabling virtual clinical trials and the application of AI/ML to deliver personalized medicine

Senior Executive Information Exchange Salon
June 29, 2021 | 5pm EST/ 2pm PST

Patient and data-centricity have become the foundational attributes of modern medicine. Virtual clinical trials, also called remote or decentralized trials, are emerging as a notable method for conducting clinical research. They are designed with patient-generated data in mind and use digital technologies like apps, online platforms, and remote monitoring devices to recruit, engage, monitor, and observe patients and study trial outcomes. This improves trial accessibility, reduces administrative costs, and lowers the patient drop-out rate.

While traditional clinical trials have been the primary method for collecting evidential data for advancing medical research, today, researchers have the opportunity to extract and analyze routine patient data to optimize treatments and improve clinical decision-making in a short time. AI-enabled technologies are being applied at all stages during and after clinical trials, namely, trial design, trial setup, trial conduct, study closeout, and post-market surveillance.

As digital simulations and personalized medicine advance, AI will lead in-silico trials. The use of technology will increasingly be leveraged to enable faster enrolment of more representative groups, monitor patients remotely in their typical environment, and lessen the financial, time, and inconvenience burden patients incur.

AI-enabled trials and personalized medicine will significantly alter how research is conducted and knowledge is generated. It will not only lead to faster, safer, more efficient, and substantially less expensive clinical trials. But, it will also help fulfill the ambition of biopharma to improve patient experiences and more fully embedding patient-centricity across the whole R&D process.