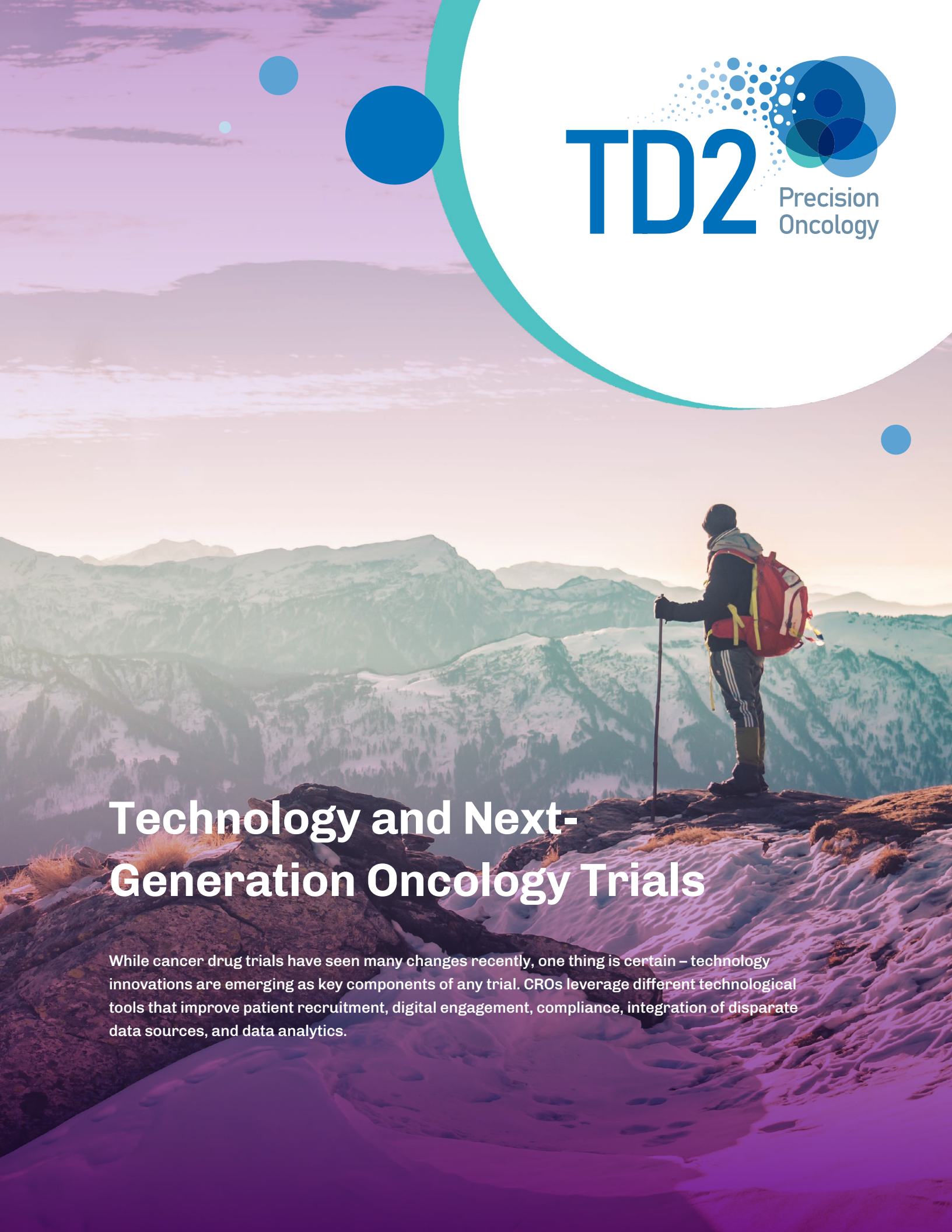

TD2 Precision Oncology

Technology and Next-Generation Oncology Trials

While cancer drug trials have seen many changes recently, one thing is certain – technology innovations are emerging as key components of any trial. CROs leverage different technological tools that improve patient recruitment, digital engagement, compliance, integration of disparate data sources, and data analytics.

The process of speeding the aggregation and analysis of complex data sources isevolving in the next-generation age of technology and clinical trials, especially as scenarios like COVID-19 increase the demand for remote monitoring of trials and telemedicine like never before. But how exactly does technology impact – and improve – these aspects of an oncology trial?

A New Age of Recruitment

Studies suggest that less than five percent of oncology patients participate in clinical trials, which makes the strategy for patient enrollment critical. There must be a combination of push and pull strategies. Social media can play an important role, as patients may communicate about their personal experiences on a trial and companies can advertise their clinical trials on these platforms. However, the pull strategy is equally, if not more important to ensure recruitment of not just any patient, but the right patient. Artificial intelligence and natural language software tools can assist CRO's and oncologists with the identification of patients that have already been prescreened against a study protocol inclusion and exclusion criteria.

Disease-specific searchable databases and healthcare applications are beneficial for physicians since they allow physicians to quickly review protocols, refer patients and share information with other healthcare professionals involved in their patients' care. If a potential patient is selected and decides to move forward with the trial, apps and telehealth services can also be used for obtaining e-consent.

Changes in Patient Engagement and Compliance

Tablets and various applications are used in later stages of trials to complete telehealth tasks remotely involving scheduling and clinical team interactions, such as prioritizing events. Procedure-specific apps can also be created for actions like imaging and helping patients communicate more effectively regarding specific concerns. Tablets are also being used to continue patient engagement throughout a trial. They can be pre-loaded and updated remotely with educational and support group information, questionnaires, and helpful information for the patient.

Overall study compliance has also changed due to travel limitations and accessibility to medication. Automatic dispensing devices, smart pill boxes and wearables with integrative data capture have all made the clinical trial process possible away from the main trial site. In addition, many companies provide professional car services, flights, and hotel accommodations when travel is necessary as well as pop-up sites closer to patients' homes when possible.

Automatic and interactive medication dispensing devices for oral medications have been shown to significantly increase oral compliance, and some of the more sophisticated technologies can also push information to solicit valuable information from the patient in real time.

New Methods for Gathering and Analyzing Data

Disease-specific Electronic Medical Record (EMR) systems are also helping oncologists generate patient-specific treatment plans in real time and at point-of-care. In a research setting, intelligently designed systems like these can assist with patient engagement, treatment adherence, side effect monitoring and better overall communication between the patient and oncologist.

Combined with software tools that can seamlessly integrate and mine the extremely valuable data collected by these custom EMR systems, patients can be more easily identified as candidates for clinical trials. If utilized throughout the course of a clinical trial these software tools can also help identify exceptional responders and use that data to find other patients who match their profile. This leads to the ultimate goal of developing drugs that benefit patients.

eClinical solutions and software platforms that are responsible for data integration and study dashboards can provide the critical component of real-time, customized data visualization. In early phase oncology trials, a missed sign of efficacy or safety can be the difference between a successful drug program that makes it to market and a drug that fails.

Ready to Get Started?

Through the use of these and many other technologies, TD2's team of experts aims to save you time, money and resources throughout your oncology clinical trial and helps manage the process, bringing your drug to market faster. As a TD2 client, you'll get exclusive access to the latest technology innovations, and an integrated and diverse suite of expertise and tools to successfully guide you through the drug development process.

Contact us to get started today

TD2 Precision Oncology

Contact

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