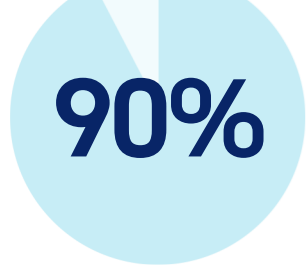


BREAKING DOWN KEY TECH TRENDS FOR CLINICAL TRIALS IN 2025

2025 is drawing near and the sad truth is: **MOST CLINICAL TRIALS STILL FAIL**



90% of clinical drug development fails



7.5 YEARS on average to complete a successful clinical trial



\$1.1 BILLION to develop one successful drug

The stakes are high, and the need for innovation has never been more urgent. Let's look at some key technology trends in 2025 that are set to solve these long-standing puzzles.

1 | AI's Undeniable Role in Accelerating Clinical Trials

What's happening: AI/ML is speeding up key steps of clinical trials:



Patient recruitment
AI can analyze vast datasets to identify ideal participants faster—those that benefit from the trial, adhere to its protocol, and remain until completion.



Predictive modeling
Machine learning algorithms simulate countless scenarios in seconds, allowing researchers to predict drug outcomes even before human trials.



Clinical trial design
AI supports adaptive trial designs by continuously analyzing real-world data, adjusting protocols, and optimizing variables based on patient responses.

What you can do

- + Implement AI to automate tasks like site selection and trial monitoring.
- + Use machine learning models to predict patient dropout rates and optimize recruitment strategies.
- + Incorporate real-time data analysis to identify trends and potential issues earlier in the trial.

2 | Greater Adoption of Sensors and Wearables

What's happening: Wearables are reshaping the way we collect data through its real-time, patient-centric methodologies. And in 2024, we've seen companies take that a step further: using AI to analyze the vast data from these devices.



What you can do

- + Integrate wearable device data into your CTMS to get continuous, real-time insights on patient health.
- + Develop dashboards that make wearable data easy for clinicians to track and analyze.
- + Ensure that your CTMS can securely store and manage the vast amount of data wearables generate, keeping everything compliant.

3 | Decentralized Clinical Trials (DCTs) Gain Huge Support

What's happening: The FDA recently released draft guidance supporting DCTs to enhance diversity and address varying medicinal needs. With the rising acceptance of telehealth, even pharma giants are also expanding into DCTs.

What you can do

- + Update your CTMS to manage remote patient monitoring and data collection from decentralized locations.
- + Use telemedicine integrations to track patient progress and maintain direct communication throughout the trial.
- + Ensure compliance by implementing tools that aggregate data from diverse sources, maintaining consistency with regulatory guidelines.



4 | Big Shift to Cloud-Based Clinical Database Systems

What's happening: Cloud platforms are making it easier to manage trials across multiple locations, with built-in security and flexibility.



What you can do

- + Migrate your CTMS to a cloud platform for real-time access to trial data, no matter where your teams are.
- + Implement cloud storage to scale up your data management capabilities as your trials expand globally.
- + Use cloud-based collaboration tools to keep all stakeholders on the same page, from researchers to regulators.

5 | Blockchain Holds The Future of Trial Data

What's happening: Blockchain now offers a new level of security for the life sciences industry by making trial data decentralized and tamper-proof, ensuring compliance with privacy regulations.

What you can do

- + Integrate blockchain to create secure, transparent logs for clinical trial data exchanges.
- + Use it to track and audit data flow in real time, ensuring compliance with FDA and EMA standards.
- + Enhance patient trust by offering a tamper-proof system for managing consent forms and personal data.



SPECIFIC STEPS YOU CAN TAKE TODAY

AI Start using AI-driven tools to automate data entry and patient recruitment.	Wearables Use wearables to collect real-time patient data and gain better insights into trial progress.	DCTs Adapt your system for remote trials with telemedicine and remote data collection.
Cloud Move your trial management to the cloud for greater flexibility and collaboration.	Blockchain Apply blockchain to protect patient privacy and secure your data.	

KMS Healthcare is here to help you implement these trends in your clinical trial solution. Reach out to discuss how we can support your journey.

Contact KMS Healthcare at:

- 🌐 kms-healthcare.com
- ✉ info@kms-healthcare.com

