WHITE PAPER

The hidden crisis in early-phase cancer trials: A challenge to be bold, creative and fearless

A KEY QUESTION

How can early-phase oncology clinical trials be reimagined to balance scientific rigor, patient inclusivity and operational sustainability in the face of mounting complexity and systemic strain?

KEYWORDS Oncology Trials, Patient Recruitment, Eligibility Criteria, Regulatory Complexity, Data Management

Introduction

Early-phase oncology clinical trials are the cornerstone of advancing cancer treatment, offering hope to patients for whom conventional therapies have failed. However, the conduct of these trials has become increasingly unsustainable for clinical sites, institutions, investigators and site staff. Globally, academic institutions are under increasing pressure, staff shortages, burnout and diminishing funding. This impacts their ability to support continued demand for reducing study delivery timelines, while increasing complexity of oncology early-phase clinical research. The sophistication of study protocols, coupled with the intricate nature of advanced therapies, combinations and ever-tightening regulatory demands, is straining the system and teams contributing to early-phase development to its breaking point.

This paper explores these challenges with a critical lens, examines their interdependencies and suggests solutions that demand collaboration from all stakeholders—sponsors, institutions, clinical sites, contract research organizations (CROs), regulators and insurers, to ensure that oncology early-phase clinical research remain viable and, most importantly, centered on the cancer patients who need access to advanced therapies through clinical trials most.

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The cancer patient recruitment dilemma

One of the most pressing issues in early-phase oncology trials is patient recruitment. The strict inclusion and exclusion criteria required for safety and scientific rigor severely narrow the pool of eligible participants. **While U.S. data suggest only about 7.1% of oncology patients enroll in clinical trials, global participation rates are even lower ranging from 2% to 8%, particularly in low- and middle-income countries.**[1] This highlights a failure to engage with the broader cancer patient community. Structural barriers, ranging from lack of access to trial sites, limited awareness of clinical trials as an option at the point of care among healthcare providers, and insufficient infrastructure, exacerbate disparities in oncology trial participation. This has consequences not only for patient access to cutting-edge cancer treatments but also for the generalizability of trial data. **Increasing global inclusion will require investment in trial site networks outside traditional academic hubs and expanding outreach to underrepresented regions.**

Early-phase oncology studies today aim to do far more than determine safety. They are increasingly expected to answer complex scientific questions about mechanism of action, biomarkers, target engagement and early efficacy signals across diverse patient populations. This happens under intense time pressure, as companies race to outpace two to three competitors working in the same disease space. The challenge lies in balancing scientific thoroughness with the urgent need for go/no-go decisions. Multi-layered data collection, from genomic profiling to imaging to real-world evidence, must be analyzed rapidly and cohesively, underscoring the need for streamlined data pipelines and AI-driven insights.

Additionally, trial protocols often exclude patients with comorbidities or certain prior treatments, further limiting access. The resulting delays impact not only timelines but also the trust patients and clinicians place in the clinical trial system and processes. Eligibility criteria often require patients to have an Eastern Cooperative Oncology Group (ECOG) performance status of 0 or 1. However, in real-world settings, many patients present with ECOG 2 or higher due to disease burden or comorbidities, especially in the early phase setting where patients are likely to have tried other treatment options. This rigid criterion excludes a substantial portion of the cancer population who may still benefit from novel therapies. It's time to challenge the assumption that only the "fittest" patients can or should be included. Modern trial designs must reflect real-world populations by re-evaluating performance thresholds and making room for those with manageable comorbidities, without compromising safety or data integrity. Beyond performance status, early-phase trials often include exclusion criteria that are no longer scientifically justified. Requiring creatinine clearance levels above arbitrary thresholds, mandating fresh tumor biopsies or excluding patients based on prior exposure to certain therapies may unnecessarily restrict enrollment. These criteria, often based on historical precedent rather than clinical relevance, need re-examination. Eliminating overly conservative restrictions can expand access without compromising trial quality, particularly if paired with robust risk mitigation strategies and safety monitoring. Broader eligibility criteria, discussed with sites and patient organizations, to be always considered where scientifically feasible, could also open doors to a larger and more diverse patient population.

The potential solution also lies in rethinking recruitment strategies. Addressing site resource demands in administration, Patient ID, recruitment and ongoing management is key. Technology to support administration such as Veeva Vault©, Advarra® Study Collaboration Portal, and leveraging artificial intelligence and machine learning, should be leveraged to analyze electronic health records and identify eligible participants more efficiently. However, even this must be accompanied by patient-centric engagement efforts, such as educating the public about the benefits of clinical trials and offering support systems to address logistical challenges like transportation or financial burdens.

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The regulatory maze

Regulatory oversight is essential from protocol design inception on endpoints, starting dose evaluation to target patient population, together with ongoing patient safety and efficacy monitoring, all with the focus on speeding up decision making about continued clinical trial study execution. Yet the complexities of navigating the initial consultation, and study approval process often result in prolonged delays. Clinical trial sites face a labyrinth of requirements from multiple bodies, including regulators like the FDA, competent authorities in various regions, Institutional Review Boards (IRBs) and additional internal institutional committees and boards. The increasing stringency of these requirements, while well-intentioned, can burden trial sites with excessive documentation, extended timelines and additional costs.

A more collaborative and streamlined regulatory approach is needed to mitigate these challenges. Regulators should actively engage with sponsors, sites and CROs during trial design to streamline compliance. Pre-approved templates and harmonized guidelines could reduce redundant efforts, allowing sites to focus on trial execution rather than navigating bureaucratic hurdles during project's startup process. Adaptive trial designs with multiple stages of development (Phase I-III) covered by one trial and protocol that incorporate flexibility without compromising safety could also pave the way for a more efficient approval process.

As an example, new clinical trials regulation introduced in the UK, effective on 28th of April 2026 called The Medicines for Human Use (Clinical Trials) (Amendment) Regulations 2024 paves the way for such solutions. The main advantages introduced by a new UK law are simplified approval procedures for low risk trials, increased transparency, accelerated study approval and decreased bureaucracy thanks to introduction of combined review—a flexible system allowing application for ethics and regulatory approval at the same time. The system allows a notification scheme for some clinical trial initial applications and amendment and previously separate applications for MHRA and ethics approvals would be combined into a single review application.

Data management overload and increased data demand for faster decision-making

The explosion of data generated in early-phase oncology trials is another critical challenge. From genetic sequencing to biomarker analysis, the volume and sources of data and information is staggering, requiring advanced systems for storage, data integration, analysis and reporting. Trial sites often lack the infrastructure or expertise to handle this data effectively, leading to delays in assessing treatment efficacy and safety.

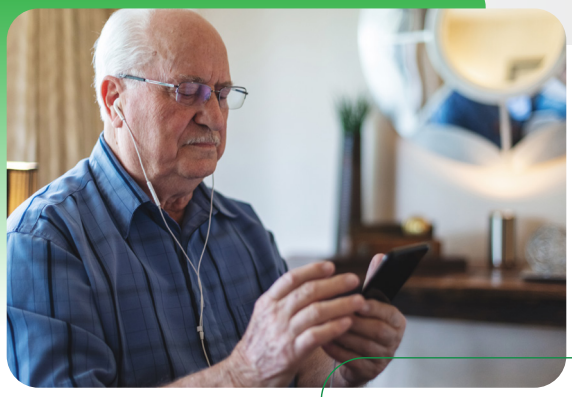
Investments in robust data management platforms are non-negotiable. Sponsors must provide sites with the tools and training required to manage complex datasets. Decentralized trials and remote monitoring can further alleviate some of the pressure, allowing sites to focus on patient care while still meeting data collection demands. Even at the earliest stages of development, we must embrace advanced tools for data collection and analysis. Digital biomarkers, remote patient monitoring and patient-reported outcomes (PROs) can enrich our understanding of drug effects in the real world. Traditionally, these tools have been reserved for later-phase studies, but their inclusion earlier could improve trial design, capture more holistic endpoints and support regulatory decisions with richer, more dynamic datasets. Regulatory authorities and sponsors must support the integration of these technologies and ensure interoperability with traditional data systems.

Diverse trial models, such as umbrella, basket and platform studies, have become the norm in Oncology. These designs reflect the biological complexity of cancer and our evolving understanding of molecular subtypes. However, they also demand a radical shift in how we design, implement and manage trials. Sites must navigate multiple cohorts, dynamic protocols and frequent amendments. Sponsors must ensure that flexibility doesn't come at the cost of feasibility or operational overload. This evolution calls for stronger collaboration across all trial stakeholders and a proactive, adaptive infrastructure.

Unsustainable costs and resource strains

The financial sustainability of early-phase trials is becoming increasingly precarious. Negotiations between sites and sponsors can take months, delaying study initiation and stretching limited resources. Additionally, the low number of patients enrolled in these trials often makes them economically unviable for institutions. Site staff, already overwhelmed with administrative tasks and communication with stakeholders, are leaving in droves, citing burnout and inadequate support as key reasons.

This financial strain must be addressed collaboratively. Sponsors should offer scalable budgets that account for the unique demands of early-phase oncology trials, including covering overhead costs and providing incentives to retain experienced staff. Insurers could play a role by ensuring coverage for trial-related procedures, reducing the financial burden on patients and sites.



The funding crisis: Investor hesitation and the decline of early-stage biotech

A growing and deeply concerning challenge is the erosion of funding for early-phase oncology trials. Investors, particularly venture capital companies, are becoming increasingly risk-averse, hesitating to support smaller biotech firms conducting high-risk, early-phase trials required to bring their innovative products to cancer patients. This shift is driven by long development timelines, regulatory uncertainty, a lack of immediate return on investment and political climate.

As a result, many groundbreaking oncology projects are stalled or abandoned due to insufficient capital. This trend threatens to stifle innovation and delay life-saving cancer treatments. A potential solution involves the creation of alternative funding models, such as government-backed grants, collaborative public-private partnerships and incentive-based investment structures supported by all parties involved in the development or profiting from the advances in cancer treatment. Pharmaceutical companies already play a greater role in funding and supporting early-stage biotech firms, recognizing that these smaller players are often the true pioneers of disruptive cancer therapies.

To counter investor reluctance, regulatory bodies could introduce even more transparent fast-track approval pathways and clear guidance on requirements for highly promising early-phase trials. This would reduce perceived risks and encourage financial backing by shortening the time to market. Furthermore, **biotech firms must rethink their communication strategies, shifting from traditional investor pitches to compelling impact-driven narratives,** supported by proactive regulatory discussions, that showcase their value and potential to revolutionize cancer treatment.

A call for creativity, courage and radical change

The challenges facing early-phase oncology clinical trials are vast and interconnected. Addressing them requires a collective effort from all stakeholders. However, incremental change is no longer sufficient. Radical transformation is needed, including:

1. **Disrupting the funding model:** Introducing regulatory incentives and tax benefits for investors who back high-risk, high-reward oncology startups
2. **Revolutionizing patient recruitment:** Integrating real-world data and AI-driven patient matching into clinical trial enrollment
3. **Rethinking regulatory oversight:** Moving towards adaptive regulatory frameworks that evolve in real-time based on emerging trial data
4. **Decentralizing early phase trials:** Leveraging digital solutions such as eCOA, telemedicine, home-based clinical trial services monitoring and regional trial hubs to expand access
5. **Shifting clinical research into community-based settings:** Community oncology practices are closer to where most patients live and receive care, yet they often lack the infrastructure or support to participate in complex early-phase research. Bridging this gap requires targeted investment in training, technology and regulatory support to democratize access to trials and ensure broader representation

Conclusion

We challenge all stakeholders, sponsors, regulators, investors, CROs and institutions, to be bold, creative and unafraid to disrupt the status quo. Fortrea is doing just that. Our oncology solutions integrate AI-driven recruitment, decentralized trial models and strategic site selection to accelerate development and expand access. The future of oncology research depends on our collective willingness to take risks, challenge outdated systems with adoption of innovation and approaches that prioritize patient access. Now is the time to act decisively, not cautiously.

Cancer patients and their families are waiting, and their lives depend on our ability to deliver transformative solutions today, not tomorrow.

By aligning clinical execution with commercialization goals, Fortrea helps sponsors deliver impact where it matters most—faster, smarter and globally.
Learn more about our complete ecosystem of oncology solutions

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