ARTICLE

AI can find the patients—but can humans reach them?

A KEY QUESTION

If AI can rapidly identify eligible patients for ophthalmology clinical trials, what strategies must sponsors, CROs and research sites adopt to overcome human and operational barriers and fully realize AI's potential in patient recruitment?

KEYWORDS Artificial Intelligence, Patient Recruitment, Ophthalmology, Workflow Optimization

Bridging the human gap in AI-driven ophthalmology trials

Picture this: An AI platform scans through thousands of images and hundreds of imaging biomarkers in minutes, and identifies tens of precise eligible patients for your study. What used to take weeks of manual searching now happens faster than you can finish your morning coffee. AI systems demonstrate 63% eligibility rates compared to 40% for traditional Electronic Health Records (EHR) searches, with combined approaches achieving 86% precision.[1]

But here's the reality check—many sites can't act on these insights effectively.

This article, co-authored by Brian Guthrie, Director of Strategic Delivery and Growth in Ophthalmology at Fortrea and the team at Amaros, **explores the critical "last mile" challenge in AI-driven trials:** Human implementation. From overburdened site coordinators to rigid workflows and under-resourced clinics, the human element remains a significant barrier to realizing AI's full potential in patient recruitment. Drawing on real-world experience and shared knowledge, we'll examine how sponsors, CROs and sites can better align people, processes and platforms to unlock the true value of data insights in ophthalmology trials.

The algorithms are ready. The question is: Are sponsors, CROs and sites prepared to work together to bridge this gap? And more importantly, how can we help them succeed?

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The AI promise vs. reality gap

AI delivers unprecedented capabilities: Amaros's EvidenceEngine achieves five-times more patient identification, 50% fewer screen failures and five-times faster recruitment.* Meanwhile, Fortrea provides predictive analytics for site selection and protocol optimization.

While these technologies deliver remarkable results, human workflows haven't caught up. Infrastructure limitations persist at trial sites, where IT systems are often managed by coordinators rather than specialists. There's frequently a lack of incentives to identify more patients faster, everyone is overworked and AI can feel intimidating—sometimes seen as competitor rather than collaborator.

Study coordinators:
"27 patients identified – now what?"

Sarah,** a study coordinator at a busy ophthalmology practice, receives an AI-generated list of 27 eligible patients for a new retinal trial. It's Tuesday morning, and she has exactly two hours allocated to patient identification activities this week. The traditional approach would require 40–60 hours to manually pre-screen these patients, conduct outreach and schedule a visit. The math doesn't add up.

Many study coordinators struggle with dual-role challenges—serving as both research staff and IT support without proper technical training. This creates bottlenecks that slow modernization efforts and limit AI adoption effectiveness. It all feels intimidating and overwhelming.

This scenario plays out across research sites daily. We see coordinators' workloads pushing them toward reactive reviews—patients with visits in the current or following week—instead of proactive identification and outreach.

The solution isn't just better technology; it's reimagining workflows entirely. Successful sites implement automated patient engagement systems and allocate additional staff resources during peak recruitment periods rather than expecting existing teams to absorb exponentially increased workloads.

When Amaros experts work closely with site staff, they guide teams through step-by-step activation processes, establishing preferred communication methods and staying connected throughout trial selection. This hands-on approach transforms AI from an overwhelming addition to a collaborative platform.

Principal investigators:
"Balancing science with reality"

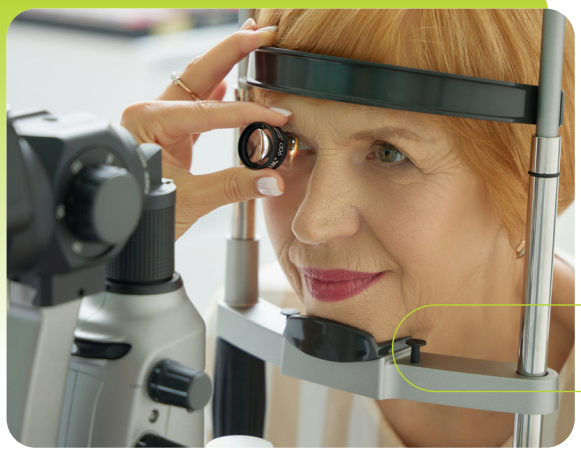
Dr. Martinez** leads a research program using AI-driven patient identification. Success came only after learning to balance scientific enthusiasm with operational reality.

"We initially overestimated our capacity," Dr. Martinez explains. "The AI found more eligible patients than we'd ever seen, but our infrastructure couldn't handle the volume without compromising quality."

Balancing enrollment pressures with quality standards while managing increasingly complex protocols requires strategic thinking. Rather than setting arbitrary targets, sites can use AI insights to establish realistic goals based on actual capabilities.

Several studies from Amaros illustrate this evolution. For example, traditional manual searches identified six potential patients over three weeks. EvidenceEngine identified 33 qualified candidates in minutes. Rather than contacting all 33 immediately, the site then developed a phased approach, prioritizing patients based on visit schedules and engagement likelihood.*

This strategic approach maintains enrollment quality while maximizing AI's efficiency gains—faster recruitment without overwhelming resources or compromising care standards.



Clinic administrators:
"Research without disruption"

For **Dani,**** a clinic administrator, AI represents both opportunity and operational challenge. When AI suddenly identifies many new eligible patients, her first thought isn't excitement—it's logistics. How will increased research visits affect patient flow in an already packed schedule? Where will she find examination rooms when the clinic is operating at capacity? And who will train her staff on new AI workflows when everyone is already stretched thin?

Patient flow disruption can affect the entire practice's revenue stream. Space constraints mean research activities compete with regular patient care for limited resources. Staff training requires time nobody has, and workflow changes risk introducing errors into established processes.

The most successful implementations don't wait for studies to begin before site activation. Forward-thinking administrators leverage AI proactively, gaining competitive advantages in sponsor selection and resource planning through cloud-based data centralization and staff training.

Smart administrators address challenges through proactive scheduling optimization and dedicated resource allocation. They create incentive structures that reward efficient patient identification and establish clear protocols for AI collaboration rather than viewing it as a threat.

The key insight: AI integration succeeds when it enhances existing workflows rather than replacing them entirely.

Healthcare executives:
"Show me the ROI"

Healthcare boardroom conversations have shifted from "Should we invest in AI?" to "How do we implement it effectively?" But executives still need concrete evidence amid competing technology investments and regulatory compliance concerns.

The numbers tell a compelling story. Sites using integrated AI approaches see dramatic improvements: Patient identification time drops from around 2–3 weeks of time, to 2–5 minutes, coordinator hours per study decrease from 40–60 hours to 0.5–1 hour and screen failure rates decline by 50%.*

ROI extends beyond efficiency metrics. Successful AI implementation positions organizations competitively for sponsor collaboration, enables participation in complex trials and creates sustainable growth models.

Executive success requires viewing AI as infrastructure investment, not technology expense. Organizations that integrate thoughtfully—with proper workflow design, staff training and performance monitoring—see compounding returns as capabilities expand.

The path forward: Human-AI collaboration in action

The future of ophthalmology trials isn't about replacing human expertise with AI—it's about amplifying human capabilities through intelligent collaboration. When AI handles time-intensive patient identification, coordinators focus on relationship building and quality care delivery. When predictive analytics inform protocol design, investigators concentrate on scientific innovation rather than operational logistics.

Leading organizations share common characteristics: They invest in both technology and people, design workflows around collaboration rather than replacement and measure success through patient outcomes rather than just efficiency metrics.

Implementation starts from day one. During site selection, Fortrea's operations team gains critical site knowledge and discusses support options like Amaros's precision intelligence. Each site where Amaros is deployed incorporates this into their recruitment plan, with ongoing monitoring and clinical research associate (CRA) collaboration to maximize utilization.

Ready to bridge the gap between AI capability and human implementation? The technology exists. The question is whether your organization is prepared to transform how it approaches clinical research.

Contact Fortrea to design studies that maximize both AI efficiency and human expertise in your ophthalmology trials.

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Contact Amaros to activate your site and explore Research Intelligence, Practice Intelligence, RWE Intelligence and Commercial Intelligence services.

*Based on Amaros' internal data.
**All personas used are fictious, based on experience and insights of the authors.

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