

From Fragmentation to Integration: A Heuristic Evaluation of Jeeva's AI-Ready Platform as a Real-World Clinical Trial Solution

Shruti Chopra, PhD¹; Varsha Srivastava, PhD¹; Vandana Yadav, MS¹; Stan Kachnowski, PhD, MPA¹

¹Healthcare Innovation and Technology Lab (HITLAB)



ABSTRACT

Clinical trials face persistent challenges, including high costs, participant recruitment barriers, fragmented systems, and data quality issues. Additionally, they are increasingly complex, requiring integrated digital solutions to improve efficiency, data quality, and participant engagement. Jeeva Clinical Trials is an AI-ready, unified, cloud-based platform designed to modernize clinical research by integrating study setup, participant management, eConsent, data capture, and monitoring into a single ecosystem. HITLAB conducted a heuristic evaluation using Jakob Nielsen's usability principles to assess platform effectiveness. Findings indicate strong usability, workflow alignment, and scalability, with opportunities for refinement in navigation, dashboard clarity, and collaboration tools. The platform shows strong potential to streamline clinical trial operations while improving data quality, efficiency, and participant engagement.

OBJECTIVES

- Evaluate usability using Nielsen's 10 heuristics.
- Assess alignment with real-world clinical workflows.
- Identify strengths in digital trial management.
- Provide actionable recommendations for optimization

STUDY METHODOLOGY

- Framework: Jakob Nielsen's 10 Usability Heuristics
- Approach: Structured expert evaluation
- Scenario: Real-world clinical trial workflows
- Persona evaluation: Needs affordable, effective therapy; motivated by survival and quality of life; focused on overcoming treatment resistance.

RESULTS

Key Strength

- AI-enabled, protocol-aligned workflow automation reducing administrative burden (up to 70%)
- Clean, intuitive interface with organized dashboards for at-a-glance insights
- Strong security framework with two-factor authentication (OTP via SMS/email)
- Compliance-ready features supporting regulatory requirements and data protection
- Multi-device accessibility (web, mobile, tablet) for flexible usage
- Pre-configured templates for participant communication and study workflows
- Real-time data validation with clear error messages to reduce entry errors
- Scalable architecture for multi-site, multi-country studies
- Support for rare disease studies, registries, and long-term follow-up
- In-platform help resources, user manuals, and support links for onboarding

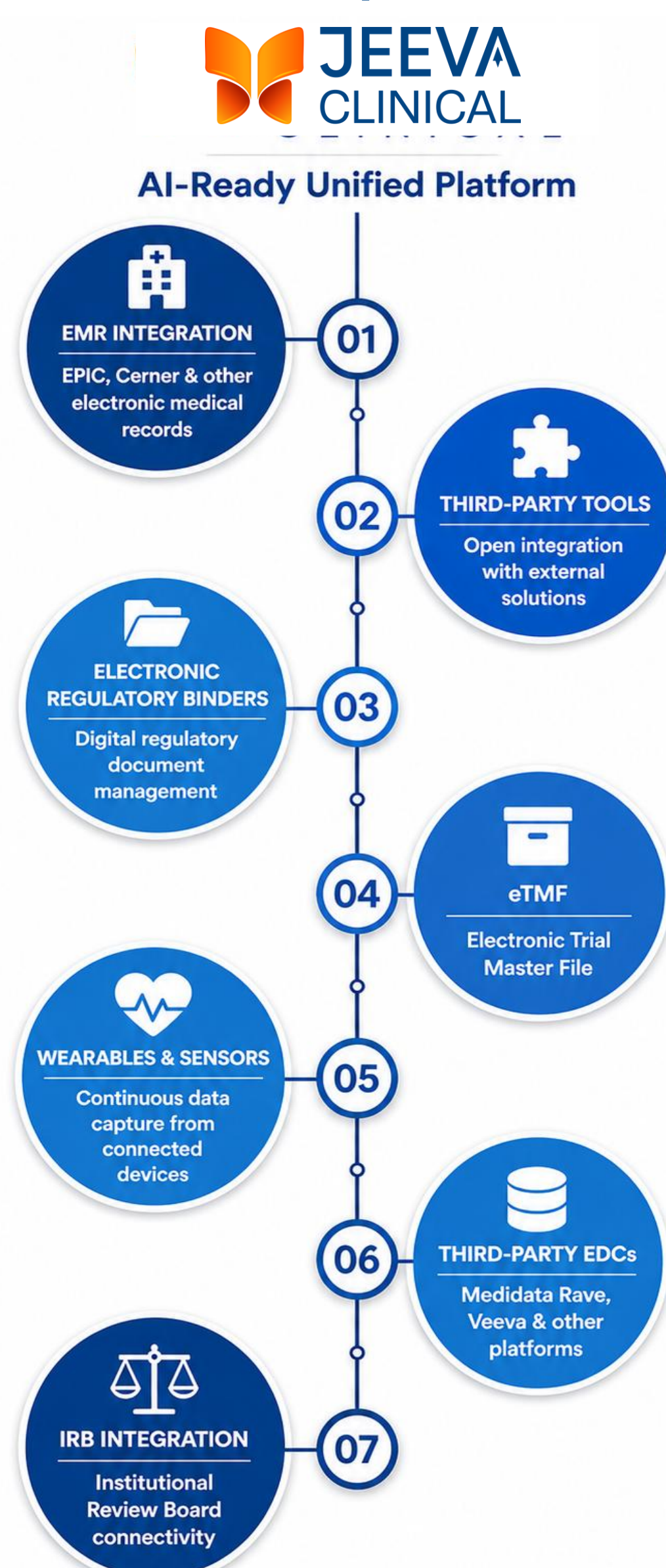
Heuristic Evaluation Results

- 5 / 5 **Help & Documentation:**
Offers strong help support with user manuals and links
- 4 / 5 **Match Between System & Real World:**
Aligns with real-world clinical workflows and terminology
- 4 / 5 **Consistency & Standards:**
Maintains consistency in design, layout, and terminology
- 4 / 5 **Error Prevention:**
Reduces errors through validation and automated alerts
- 4 / 5 **Recognition Rather Than Recall:**
Essential actions and information are readily visible
- 4 / 5 **Flexibility & Efficiency of Use:**
Supports efficiency with multi-role, multi-device scalability
- 4 / 5 **Aesthetic & Minimalist Design:**
Uses a clean, minimalist, and readable interface
- 4 / 5 **Help Users Recognize, Diagnose, Recover from Errors:**
Provides clear error messages for easy recovery
- 4 / 5 **Visibility of System Status:**
Clear dashboards provide real-time visibility of system status
- 4 / 5 **User Control & Freedom:**
Enables smooth navigation and centralized control

Jeeva's AI-Ready Unified Platform Ecosystem

Jeeva Clinical Trials is an AI-assisted eClinical software platform designed to simplify, streamline, and automate clinical trial operations for emerging biopharma and MedTech sponsors. The platform offers an integrated suite of tools, including Electronic Data Capture (EDC), eConsent, eCOA, patient recruitment, decentralized trial management, and real-time monitoring, all within a single unified system. With multilingual support across 100+ languages, a patient-centric design enabling remote participation, and compliance with HIPAA, GDPR, and FDA 21 CFR Part 11, Jeeva aims to reduce clinical trial timelines, cut operational costs by up to 70%, and advance health equity by expanding access to underrepresented global populations.

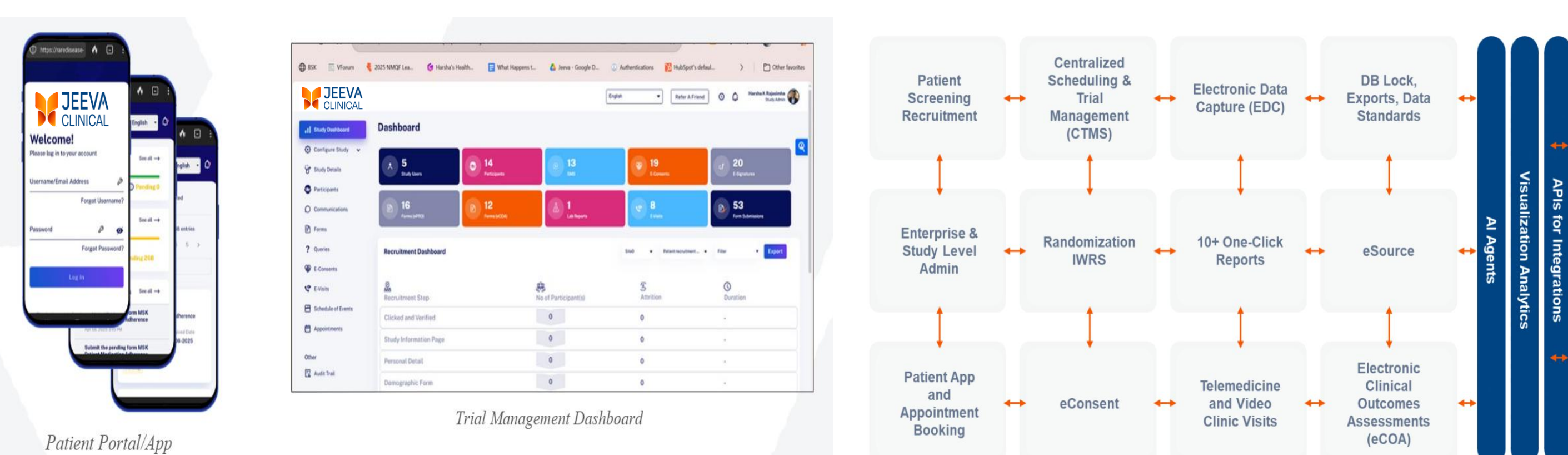
Core Capabilities



Agentic AI Framework For Clinical Data Management



Seamless End-to-End Software Solution



Proven Success in Delivering at Scale!

| | | |
|----------------------------|---------------------------------------|------------------------------------|
| 22 Clients 15 Partners | Transparent & Trusted | 12+ Grants & Awards |
| 40,000+ Users, Patients | 150+ Publications, Articles, Blogs | 1,000,000+ Data Points Captured |

| | | | |
|--|--|--|--|
| Faster Time to Market • First Patient First Visit • 2-4 weeks configuration | Operational Efficiency: Save Staff Time • AI and Workflow Automation • Remove manual repetitive tasks | Improved Patient Retention and Compliance • Achieve global DEIA in clinical trials • Minimize missed medication, errors | Horizontal & Vertical Scalability/ Flexibility • Any trial type and disease area • N-of-1 or population scale studies |
|--|--|--|--|

Compliance Programs Supported



Partners



Client testimonials

Jeeva replaced 3 tools with one Unified Solution for our clinical research workflows.



Jeeva Solution is aligned with our vision to make CAR-T cell therapies universally affordable.



Phase 1a/b 5 year clinical trial for head and neck cancer with MD Anderson cancer center with Jeeva unified software + clinical data management solution with AI Agents



Jeeva™ is a 'game changer' for our Rare Disease Clinical Research.



CONCLUSION

- HITLAB's evaluation confirms that Jeeva Clinical Trials is a robust, user-centered platform that effectively supports modern clinical research.
- Its unified architecture, AI-driven workflows, and patient-centric design position it as a future-ready infrastructure for decentralized, hybrid, and global clinical trials, with strong potential to improve efficiency, equity, and research outcomes.
- Overall, Jeeva demonstrates strong usability and operational efficiency, with targeted refinements enhancing scalability and user trust



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