SoundHound AI
AMELIA®

CASE STUDY

BETTER CARE IN 120 DAYS: THE FIRST AI AGENT FOR PATIENT ACCESS

With Allina Health™

Contents

Meet "Alli"

The AI Agent for Patient Access

In an industry defined by growing patient needs, labor shortages, and legacy infrastructure, health systems find themselves under pressure to modernize patient access without compromising quality. This is where artificial intelligence comes in.

According to the 2024 Gartner® Generative AI use-case guide for healthcare providers, there are two primary sector motivations for adopting Generative AI and AI agents: 1) improving productivity, and 2) increasing patient satisfaction.

Source: Gartner, Generative AI Use-Case Comparison for Healthcare Providers, 2024

Allina Health, a nonprofit health system serving the midwest, has proven the value of such adoption. On SoundHound AI's Amelia Platform, Allina Health built and deployed their first AI agent to redefine patient access: Alli.

Alli helps streamline the health system's massive patient care operations outside of the clinician's room, which range from appointment management to critical queries. **From a volume standpoint alone, Allina Health's Customer Experience Center (CEC) handles:**

OVER
20M
CONTACTS
Per Year

OVER
500K
INBOUND CALLS
Per Month

OVER
150K
OUTBOUND CALLS
Per Month

In a short 120-day tenure, Alli mitigated the impact of rising call volumes without increasing headcount. From there, Alli quickly demonstrated broader value—enhancing patient service, improving agent productivity, and laying the foundation for scalable, human-centered AI.

Alli in Action: Replacing IVR With AI Agents

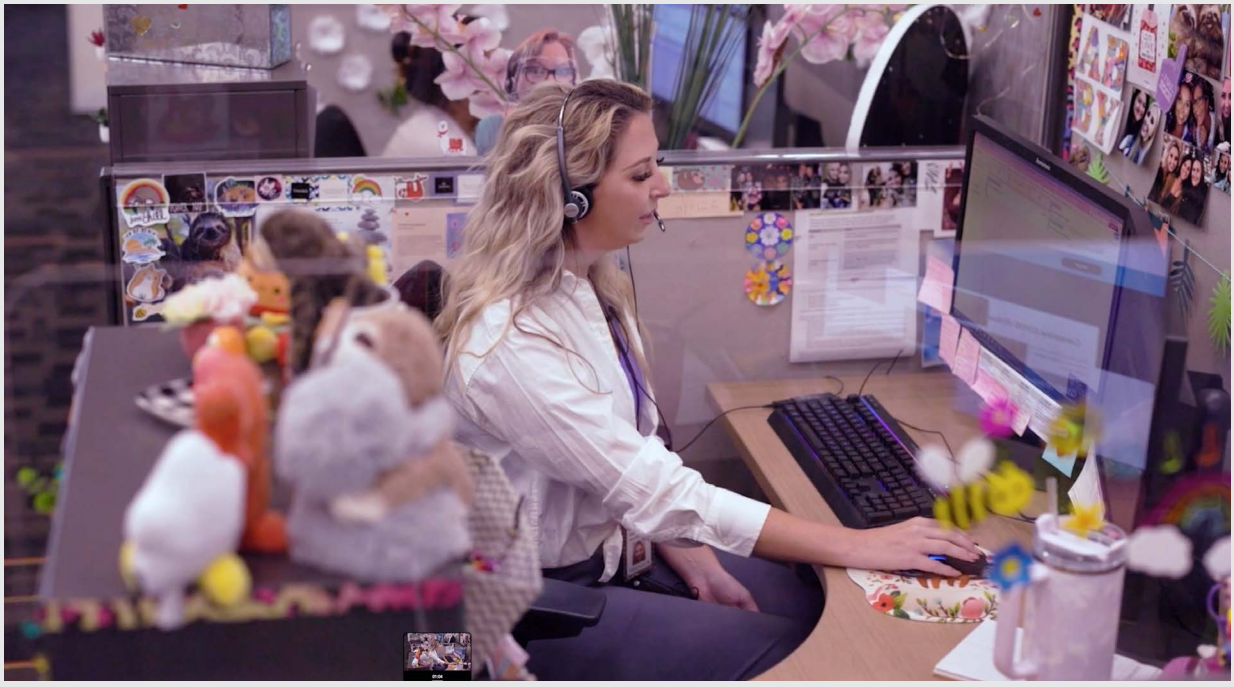
Traditional IVR systems fall short of the flexibility needed to properly serve patient access needs, which frustrates patients. They rarely deliver resolutions without escalating to a human, exacerbating the patient queue without improving resolution efficiency for the call center.

Autonomous AI agents change that paradigm.

Built on the Amelia AI Agent platform, Alli goes beyond guiding patients—she takes action on their behalf. By identifying user needs, integrating directly with the Epic electronic health record (EHR) system, and resolving tasks without human intervention, she delivers a true leap beyond IVR and drives measurable service improvements.

Alli also reflects Allina Health's brand voice, making her well-suited to deliver compassionate, high-quality care at scale.

> "We customized Alli to reflect the same compassion and care patients encounter when interacting with other members of the Allina Health care team."
>
> — Dominica Tellarico, Chief Operating Officer, Allina Health

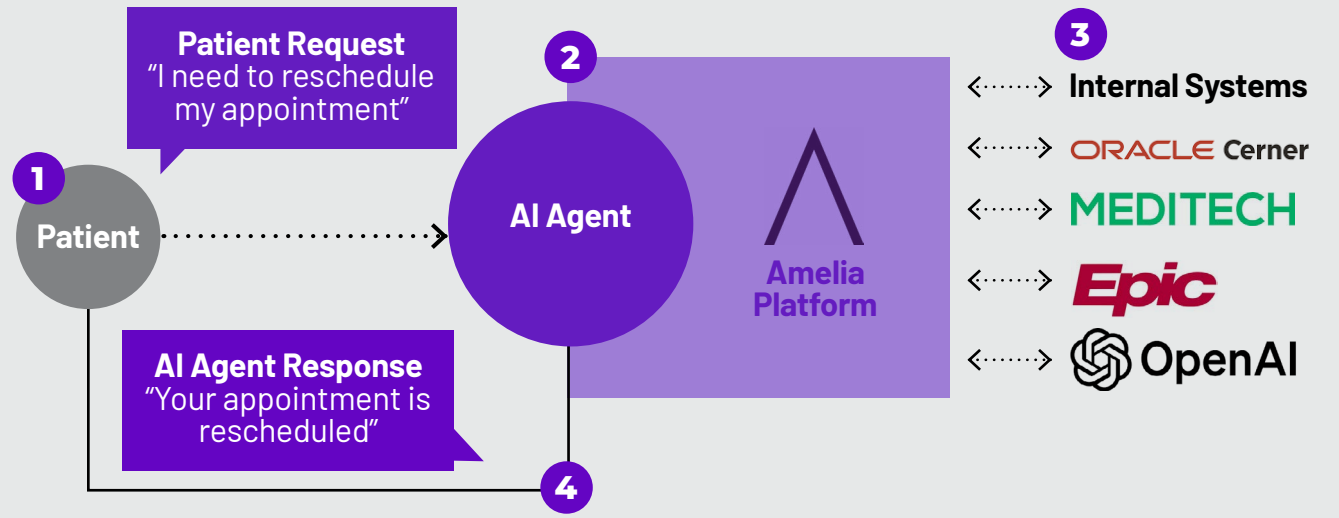


What Are AI Agents?

An AI agent is software that makes decisions and takes action to achieve a goal. It leverages GenAI to understand, respond, and complete tasks along the way. When built right, AI agents operate as digital teammates that work on behalf of patients, customers, and employees.

How an AI Agent for Patient Access Works

Constructed on the Amelia AI Agent platform



1. Patient requests assistance via the health system's call or chat channel
2. AI agent identifies the goal and builds a workflow to complete
3. AI agent connects to back-end systems to complete the patient request
4. AI agent replies in natural language to confirm the request is done

Healthcare AI agents built on Amelia stand out for their end-to-end capability and real-world readiness. They combine advanced LLMs (like OpenAI or Gemini) with deterministic logic, the ability to act autonomously, and smart escalation—layered with native healthcare integrations and real-time voice recognition. For Allina Health, this enables Alli to resolve complex tasks independently, adapt to patient needs in context, and collaborate fluidly with human agents when needed.

Successful Implementation in 90 Days: A Blueprint

Many healthcare organizations face slow rollouts and siloed deployments when implementing AI. Allina Health defied that trend, launching Alli in under 90 days by prioritizing cross-functional collaboration, clear scope, and specific requirements.

Like any successful AI deployment in healthcare, implementation required a thoughtful balance between: 1) choosing the right partner, 2) planning a phased build, 3) ensuring data security, and 4) leveraging continuous improvement.

Choosing a Partner

Choosing the right implementation partner is critical to success in an evolving technical space. Typically, it is best to assess a potential healthcare implementation on the following factors:

Healthcare Experience: Deep understanding of healthcare workflows, plus adherence to HIPAA, HITECH, and other regulatory standards

Integration Capabilities: Proven ability to connect with EHR systems (e.g., Epic, Oracle Cerner), patient portals, and backend IT infrastructure

Speed to Value: Able to build a clear roadmap for fast deployment, including pilot phases, training, and optimization timelines

Ongoing Support: Dedicated post-launch support with data-driven improvement cycles to refine workflows and boost outcomes

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Ultimately, Allina Health chose SoundHound AI based on these and additional critical factors:

Experience in and beyond healthcare. "We were impressed by SoundHound AI's extensive experience in health and non-healthcare spaces such as financial services, including their ability to handle those repetitive, low complexity tasks," says Dr. Dave Ingham, Allina Health's Chief Digital and Information Officer. Additionally, SoundHound AI's deployment team was composed of Epic veterans, who previously spent nearly a decade at the EHR software company.

Organizational alignment. "This is not just a contact center project or an IT project," says Jeff McCool, SoundHound AI's Executive Director, Healthcare Conversational AI Strategy. "We have operations leadership involved, IT, infrastructure, and patient leadership throughout the duration of Alli."

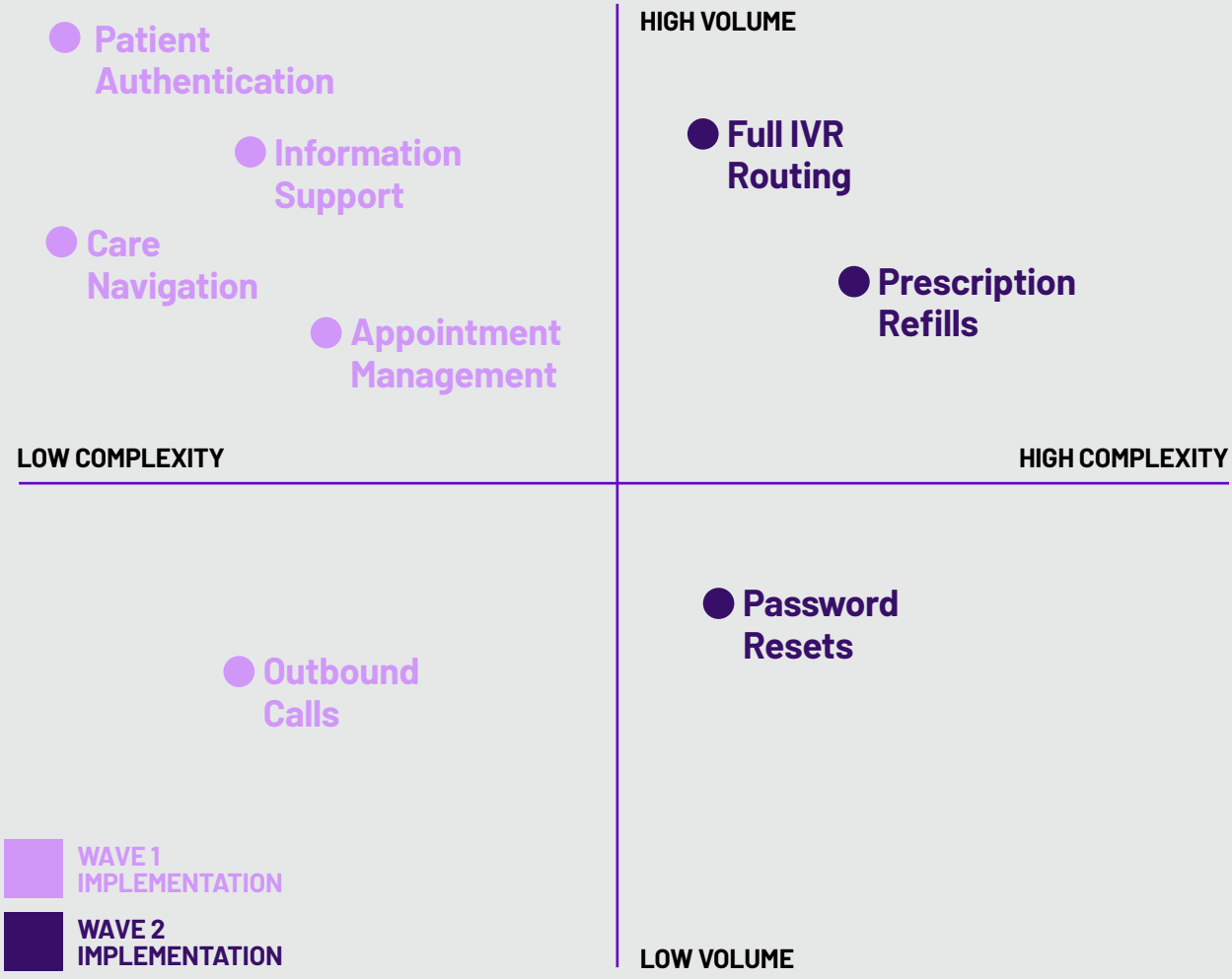
1 Discovery & Current State Analysis (Days 1–10)

The project began with a deep dive into Allina Health's patient experience. The teams analyzed patient questions and staff communications to identify high-impact use cases. Epic integration requirements were also validated to ensure the Amelia Platform could securely edit patient data.

Keys to Success:

- ✓ **Engage** both clinical and operational stakeholders early to capture frontline insights
- ✓ **Prioritize** use cases based on volume, complexity, and readiness (visual below)
- ✓ **Validate** technical prerequisites (e.g., API access, security policies) up front

To move fast, the team first deployed Alli to focus on patient authentication and appointment management capabilities—the high-impact, high-volume use cases with low implementation complexity:



2 Conversation Design & Experience Mapping (Days 11–35)

SoundHound AI's Conversational Architects partnered with Allina Health to design the conversation logic. Using LucidChart, they mapped every possible patient interaction, including Epic and other integration points within each flow.

Keys to Success:

- ✓ **Use real call data** to shape utterances and intent libraries
- ✓ **Design for empathy and clarity**, aligning tone with the health system's brand
- ✓ **Include escalation logic early** to ensure seamless fallback to human support

3 Development & Integration (Days 36–90)

With designs approved, engineers built Alli's NLU, business logic, and Epic integrations. Alli was connected to key Epic APIs to enable patient identification, appointment confirmation, cancellation, and rescheduling.

Keys to Success:

- ✓ **Leverage Epic's API documentation** and test environments to accelerate development
- ✓ **Use modular, reusable components** to support future use cases
- ✓ **Maintain joint QA sessions** to validate integration logic against real data

4 Testing, Refinement & Go-Live (Days 91–120)

Allina Health validated Alli through real-world testing, including edge cases. A phased rollout followed, starting with select clinics and expanding system-wide based on performance and readiness.

This agile co-development model enabled continuous testing and refinement. As Alli gained traction, agents and leaders alike asked for more capabilities—organically accelerating adoption.

Keys to Success:

- ✓ **Test** both "happy paths" and edge cases using real patient queries
- ✓ **Monitor** early performance closely and iterate quickly on conversational tuning
- ✓ **Roll out** in waves to ensure support teams are equipped to manage feedback and adoption

Outcomes Over First 120 Days

The healthcare industry demands results. In less than four months, Alli delivered measurable improvements to patient access and operational performance—without requiring additional labor.

Quantifiable Results

Alli quickly delivered the expected operational efficiencies for patient calls, easing the burden on care teams and improving access. Key performance gains included:

23%

improvement in service levels

48-Second

reduction in average call response time

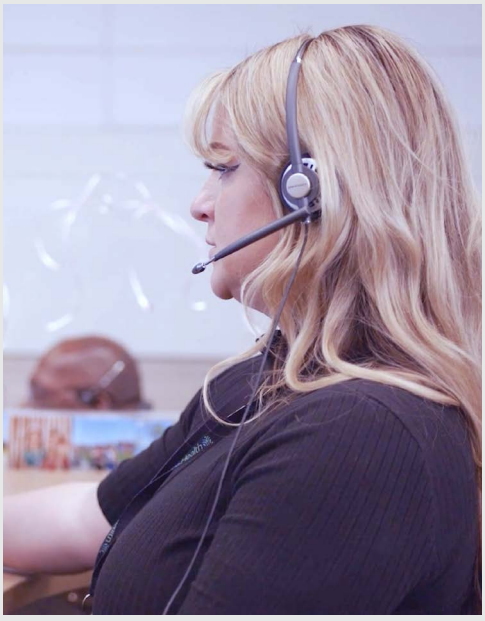
80%

of calls resolved in under 45 seconds

5-10 Seconds

saved per call through smart workflows

> "I've been here for 24 years, and it's been the best 120 days (of implementation) here. Alli delivered immediate value."
>
> — Minda Garcia, VP, Customer Experience Center



In a time of tight margins and tight labor markets, early results like these offer a compelling case for successful healthcare AI investment.

The improvement doesn't stop here. Allina Health has used live interaction data from day one to continuously optimize Alli, rapidly updating models, workflows, and integrations. Weekly reviews of call transcripts and categorized intents enabled near real-time optimizations.

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