An Intelligent Conversational Agentic

Patient Adherence Platform

Utilizing Large Language Model (LLM) reasoning and autonomous tool-calling to optimize clinical throughput and therapeutic consistency

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The Problem

The Empty Chair Problem

30%

of infusion chairs sit empty

Infliximab Adherence

<70%

modifiable through digital intervention

Market Size

$100B

infusion center industry

Infliximab infusions – high volume, high margin, low adherence

Clinical Importance of Infliximab Adherence

Infliximab is a cornerstone IV biologic for immune-mediated inflammatory diseases and the most commonly administered intravenous medication in US infusion centers for chronic, non-cancer conditions.

CONSEQUENCE OF NONADHERENCE

2-3×

risk of hospitalization in Crohn's disease

ECONOMIC IMPACT

~90%

higher medical costs in nonadherent patients

Maintenance dosing: Every 8 weeks after induction. Delayed dosing increases risk of antibody formation and loss of response.

Non-adherence: Predictable & Modifiable

Logistical Friction

Travel burden, long waits, inflexible scheduling

Medication Concerns

Safety fears, low perceived necessity

Psychosocial Vulnerability

Anxiety, depression, lower health literacy

Treatment Burden

Adherence declines with longer therapy duration

Socioeconomic Barriers

Limited insurance, reduced access to support

What Improves Adherence?

Targeted interventions can increase adherence by

15-30%

achieving up to 90% adherence rate

✓ **Patient Education**

Clear explanation of disease and therapy benefits

✓ **Behavioral Supports**

Reminders and feedback loops

✓ **Cognitive-Behavioral Approaches**

Addressing beliefs, fears, and perceived necessity

✓ **Continuous Communication**

Personal, ongoing patient engagement

Evidence: Digital Behavioral Nudges Work

"Systematic A/B testing of digital messaging cut hospital no-show rates"

Berliner Senderey et al., PLoS ONE 2020 | Large-scale RCT with 150K patients

33%

Reduction in no-shows

↑

Advanced cancellations

KEY INSIGHT #1

Messages emphasizing accountability reduced no-shows by 33%

KEY INSIGHT #2

Strategic framing increases lead time to fill clinical slots

An Intelligent Conversational

Agentic Patient Adherence Platform

Utilizing Large Language Model (LLM) reasoning and autonomous

tool-calling to optimize clinical throughput and therapeutic consistency

✓ GenAI-Enabled

✓ Human-in-the-Loop

✓ Behavioral Science

MVP: Scope and Integration

Low-Risk, High-Value GenAI-Enabled Scheduling Workflow

AI orchestrates and personalizes communication – it does not make autonomous clinical decisions

Seamless Integration

Integrates with existing systems and workflows

Human-in-the-Loop

Staff retain final authority over all decisions

Data-Driven

Leverages demographics, adherence, clinical history

A/B Testing

Test behavioral nudge strategies continuously

Patient-Facing Workflow

STEP 1
Patient schedules appointment

STEP 2
Pre-visit nudge 7 days before

STEP 3
Confirm or reschedule

STEP 4
Final staff confirmation

Delivery Channels

📱 Health System App

💬 SMS

📞 Voice Interface

Confirms
No further action

Reschedules
Offered available options

Cancels
Staff notification with context

Revenue Opportunity

MARGINAL REVENUE

$1,000

per returned infusion

CAPTURE RATE

40%

of missed infusions

Scaling the Model
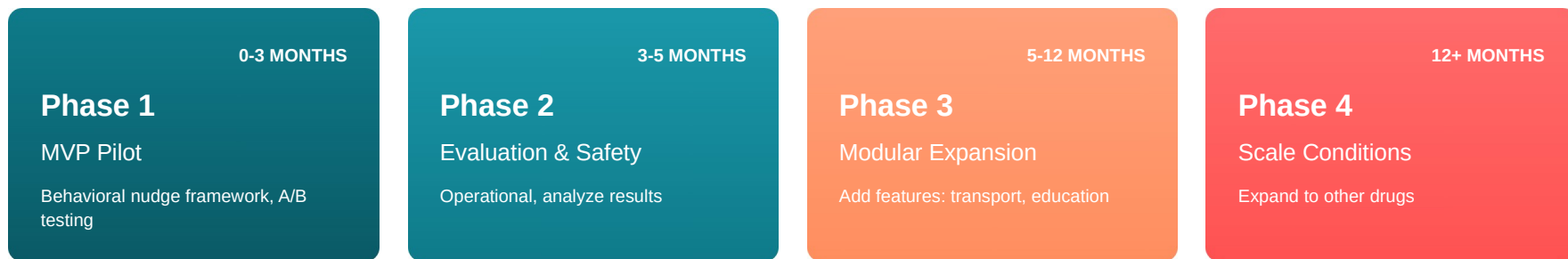
500

patients

$240K

1,000

patients

$480K

9,000

patients

$4.3M

Key Insight: At $480 per patient/year, ~208 patients generate $100K annually

Implementation Roadmap

0-3 MONTHS

Phase 1

MVP Pilot

Behavioral nudge framework, A/B testing

3-5 MONTHS

Phase 2

Evaluation & Safety

Operational, analyze results

5-12 MONTHS

Phase 3

Modular Expansion

Add features: transport, education

12+ MONTHS

Phase 4

Scale Conditions

Expand to other drugs

Pilot Success Criteria

≥20%	≥40%	≥60%	+5-10%	0
Opt-in Rate	Sustained Engagement	Appointment Confirmation	Arrival Rate Improvement	Safety Events

Phased rollout prioritizing safety, measurability, and workflow integration

Why This Matters

Transform Unused Capacity Into Revenue

While improving patient outcomes and experience

Low-Risk, High-Leverage
No disruption to workflows

Scales Across Use Cases
Multiple drugs and conditions

Better Patient Experience
Improved outcomes

The $100B infusion market is growing. This platform converts empty chairs into revenue while serving as a plug-and-play feature suite.

Thank You

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