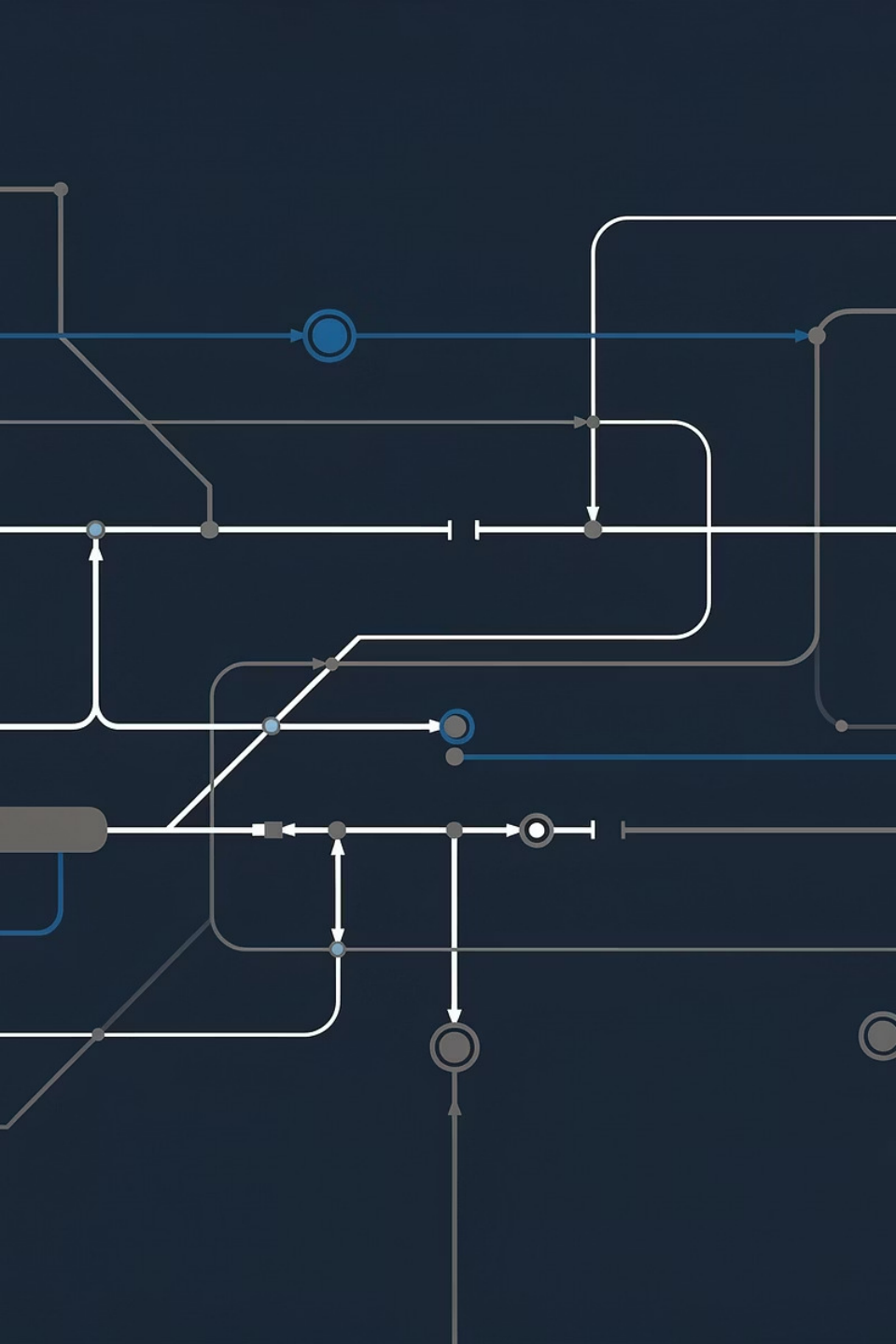


AI-First Risk and Recovery Orchestration for Medically Complex Neurorehab

A workflow-native clinical AI platform for enterprise neurorehab care coordination

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The Problem

Transition failure

Recovery risk spikes after discharge. Medically complex neurorehab patients often deteriorate during transitions of care, when follow-up is fragmented and early warning signs are easy to miss.

Reactive workflows

Current workflows are reactive. Readmissions, missed follow-up, and early functional decline are often recognized late, after the best window for intervention has passed.

Fragmented solutions

Existing solutions are too narrow. Most tools focus on a single event or a single site of care, rather than managing recovery across teams, settings, and time.

❏ **Bottom Line:** Health systems need earlier visibility and better coordination before recovery failure becomes readmission or decline.

The Stakes in Numbers

12.3%

30-Day Readmission

All-cause 30-day readmission after inpatient rehabilitation in a cohort of 454,378 Medicare beneficiaries. Potentially preventable readmission was 5.3%.

25.3%

Medically Complex Inpatient Rehab

Thirty-day readmission in a medically complex inpatient rehabilitation sample. In the highest-risk quartile, about 34% were readmitted within 30 days.

28–45%

Spinal Cord Injury

Readmission rate in individuals with spinal cord injury during the first year post-injury and post-rehabilitation. In one study, 36% of first readmissions occurred within 30 days of discharge from an inpatient rehabilitation facility.

❏ **Bottom Line:** Recovery failure is common, concentrated, and often visible early enough to act.

Competitive Landscape

Readmission & Care Management AI

Innovaccer

Predictive analytics and workflows for 30-day readmission reduction. Strong on utilization risk and care coordination.

Gap

Not positioned around neurorehab recovery or functional decline.

Transitions of Care Platforms

PointClickCare and Aidin

Support discharge intelligence, discharge planning, and post-acute transitions. Strong on discharge planning and coordination across settings.

Gap

Not positioned as longitudinal neurorehab recovery platforms.

Digital Neurorehab Solutions

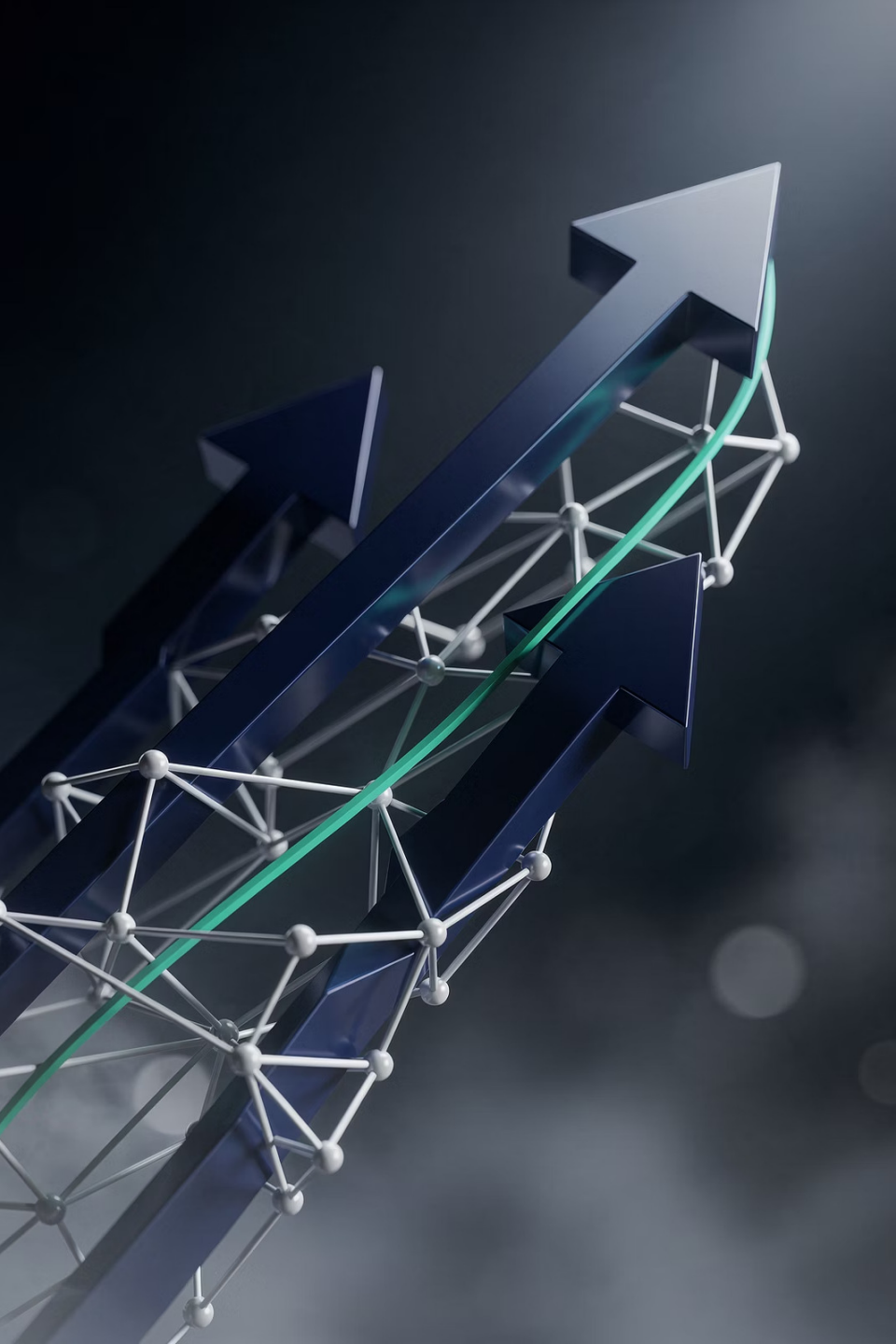
Constant Therapy Health and MindMaze

Strong on therapy delivery, digital neurorehab, and patient engagement. Closer to the neurorehab use case than general care-management tools.

Gap

Not positioned for enterprise recovery orchestration across sites and transitions of care.

 **Bottom Line:** Neurorehab lacks an enterprise platform that turns risk prediction into coordinated action across care transitions.



A Better Way to Manage Recovery



See Risk Earlier

Identify patients at rising risk of readmission or functional decline before deterioration becomes obvious.



Coordinate Action, Not Just Prediction

Turn risk signals into concrete next steps such as outreach, therapy adjustment, earlier reassessment, or clinical escalation.



Manage Recovery Across Transitions

Support continuity across teams, sites, and care settings instead of treating recovery as a series of disconnected episodes.



Bottom Line: This is not another passive risk score. It is a workflow-native platform for earlier intervention and better coordination across neurorehab recovery.

Who Buys, Who Benefits

1

Who Buys

Large integrated delivery systems, multi-site rehab networks, and health-tech / SaMD companies serving those organizations.

2

Who Uses It

Rehab physicians, care coordinators, nursing, therapy teams, and transition-of-care staff.

3

Who Benefits

Patients, caregivers, and payer-aligned systems that need earlier intervention, better coordination, and fewer avoidable setbacks.

❏ **Business Case:** The business case is stronger coordination for a high-risk population, better targeting of scarce rehab resources, and fewer preventable failures across transitions of care.

How the Platform Works



1. Inputs

Longitudinal EHR data, Rehab assessments, Utilization and therapy patterns, Other routine clinical and operational data.



2. Risk Engine

Predicts 30-day readmission risk, Flags early functional decline risk, Continuously updates risk during transitions of care.



3. Workflow Output

Surfaces elevated-risk patients, Highlights key contributing factors, Routes signals into care coordination workflows.



4. Clinical Action

Prioritize outreach, Adjust therapy intensity, Schedule early reassessment, Escalate to clinical review.

A small white icon of a document with a checkmark, followed by the text: **Bottom Line:** The platform is designed to move from fragmented data to timely action, not just from data to prediction.

Data Strategy

Core Data Inputs

- Longitudinal EHR data
- Rehab assessment scores
- Utilization and therapy patterns
- Admission, discharge, and follow-up data
- Other routine clinical and operational data

Data Risks That Matter

Incomplete longitudinal follow-up

Variable rehab documentation across settings

Bias from access barriers and care fragmentation

Privacy and HIPAA constraints across sites

Label quality, especially for functional decline

📌 **Bottom Line:** The goal is not just more data. It is reliable, clinically meaningful data that can support fairer prediction and safer deployment at enterprise scale.

Implementation Strategy

01

Embed in discharge planning

Risk assessment starts before the patient leaves the hospital or rehab setting.

02

Route signals to the right team

Elevated-risk patients are surfaced to care coordinators, rehab clinicians, and transition-of-care workflows.

03

Trigger targeted intervention

The platform supports outreach, therapy adjustment, early reassessment, or escalation to clinical review.

04

Monitor and refine in practice

Performance, subgroup effects, and workflow impact are tracked over time to improve deployment.



Bottom Line: The goal is not to add another alert. It is to strengthen coordination at the point where recovery most often breaks down.

Stakeholders, Value, and Adoption Risks

Care Teams

Value

Earlier identification of high-risk patients and better prioritization of follow-up, therapy adjustment, and escalation.

Adoption Risks

Alert fatigue, unclear ownership, limited transparency, and skepticism about whether the model reflects real clinical workflow.

Patients and Caregivers

Value

Earlier support, better coordination, and fewer avoidable setbacks during recovery.

Adoption Risks

Privacy concerns, fairness concerns, and uncertainty about whether a high-risk flag will lead to useful help.

Health Systems and Payer-Aligned Organizations

Value

Better coordination for a high-risk population, more targeted rehab use, and fewer preventable failures across transitions of care.

Adoption Risks

Implementation cost, data integration challenges, uneven site performance, and pressure to demonstrate measurable value.

❏ **Bottom Line:** Adoption will depend on more than model performance. Each stakeholder must see clear value, realistic workflow fit, and credible safeguards.

Regulatory Considerations

Clinician-Facing Decision Support

The initial product is positioned as decision support for rehab teams and care coordinators, not as an autonomous clinical decision-maker.

Risk Depends on Intended Use

Regulatory requirements will depend on the final intended use, risk profile, and how much independent clinical judgment remains in the loop.

Validation and Monitoring Are Core

A credible path requires prospective validation, transparent deployment, and ongoing monitoring for drift, subgroup performance, and unintended harm.

❏ **Bottom Line:** The goal is to launch as a clinically useful, regulated-care-ready platform with human judgment still at the center.



Why Now

Clinical workflows are ready for better orchestration

Health systems already have fragmented data, rising neurorehab complexity, and growing pressure to reduce avoidable utilization.

AI can now drive action, not just analytics

The opportunity is no longer only to predict risk, but to connect risk signals to real clinical workflows and earlier intervention.

Enterprises need solutions that fit regulated care

Health-tech buyers are looking for clinically credible, workflow-native platforms that can scale across sites and survive real implementation friction.

📌 **Bottom Line:** The timing is right for a platform that brings prediction, coordination, and enterprise execution together.

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