

Catching Readmission Risk Before Patients Walk Back Through the Door



The Problem

Readmission Risk Hiding in Disconnected Data

A patient gets discharged. Two weeks later, they're back in the ED. Nobody saw it coming — not because the signals weren't there, but because they were scattered across systems nobody was cross-referencing: EHR notes, medication history, social determinants, follow-up scheduling, prior visit patterns.

Care coordinators are managing hundreds of discharges a week with no way to manually connect those dots for every patient. A hospital doesn't have one big miss; it has dozens of small, disconnected signals — a missed follow-up call, a medication conflict, a high-risk diagnosis history — that compound quietly until the patient is back in a bed.

The Solution

Intelligent Correlation Analysis with IDA

IDA turns fragmented patient data into a continuous readmission-risk detection system.

Instead of waiting for a return visit, IDA analyzes hundreds of variables across EHR, pharmacy, scheduling, and post-discharge data — medication conflicts, missed follow-ups, comorbidity patterns, social risk factors — to flag which patients are trending toward readmission, while there's still time to intervene.

IDA doesn't replace care coordination teams — it gives them a ranked, evidence-backed worklist, so outreach focuses on the patients most likely to bounce back, not just the ones easiest to reach.

Key Capabilities



Correlation Engine

Detects subtle combinations of clinical, medication, and follow-up scheduling anomalies that predict readmission — even across disconnected hospital systems.



Machine Learning (Random Forest)

Scores patients by readmission risk and clusters them by likely driver (medication conflict, missed follow-up, social risk factors, comorbidity).



Validation Playground

Lets care coordination teams test and tune risk models visually, no data science team required.



Ranked Insights

Surfaces the top drivers of readmission by unit, condition, or discharge cohort, so outreach targets the real cause.



Human + Machine Intelligence

Pairs predictive scoring with clinical judgment, so flagged patients get the right care team attention before they end up back in the ED.

The Results

Data-Driven, Proactive Care Coordination

Tangible Outcomes

- ✓ **Early Intervention:** Flags rising readmission risk before the follow-up window closes, instead of after a return visit.
- ✓ **Targeted Follow-Up:** Routes flagged patients to the right response — med reconciliation, coordinator outreach, or social work referral — based on the actual driver.
- ✓ **Smarter Decisions:** Leadership gets a clear, ranked view of which units, conditions, or discharge cohorts are driving the most readmissions.
- ✓ **Protected Reimbursement:** Catching risk earlier helps avoid HRRP penalties without resorting to blanket, resource-heavy outreach for every discharged patient.

The Takeaway

IDA shifts readmission management from a reactive, after-the-fact penalty conversation to continuous, proactive risk detection. By revealing which patients are at risk and why — not just confirming it after they're back in a bed — IDA helps hospitals protect both patients and margin.

Readmission Risk By the Numbers

14%

average 30-day readmission rate across all causes in the US

1 in 5

elderly patients readmitted within 30 days of discharge

8.1%

of hospitals face CMS penalties of 1%+ in FY2026, up from 7% in FY2025

\$17.4B

spent by Medicare annually on unplanned hospital readmissions