

# When Every Minute Matters

Getting the Right Clinical Signal  
Into the Right Hands

**AleraHealth**



## **Drew Shuping, Senior Vice President of Security and Data Analytics**

Drew Shuping is an analytics and AI leader with a passion for applying technology to solve real-world problems. A proud graduate of NC State University, he earned a rare triple major in Computer Engineering, Computer Science, and Electrical Engineering, followed by a Master's degree in Predictive Analytics from Northwestern University. His career spans designing computer vision systems for inventory tracking, building real-time telemetry analytics for professional motorsports, and contributing to autonomous vehicle software.

Drew's true passion lies in healthcare, where he has developed predictive models to anticipate adverse health events, streamlined emergency room logistics, and applied real-time sentiment analysis to improve health insurance call center operations. With a strong focus on cybersecurity in healthcare analytics, he ensures that innovation goes hand in hand with protecting sensitive patient data. Today, he is advancing AI assistants that integrate into dashboards, enabling teams to ask natural language questions and uncover insights instantly.



## **Patrice Clayton, Vice President of Network Operations**

Patrice Clayton is a healthcare executive specializing in network expansion and population health management. With a focus on sustainable growth and improved access to care, she has a proven ability to lead cross-functional teams through complex strategic initiatives and operational improvements.

Known for building high-performance cultures and strong stakeholder relationships, Patrice bridges the gap between organizational goals and community needs. As a Ph.D. candidate studying medical mistrust, she applies a research-driven lens to patient engagement and health equity, ensuring that healthcare delivery is both scalable and inclusive.

# Learning Objectives

- How leading organizations are using **ADT, claims, and pharmacy data** to surface high-risk events in an **actionable and timely** manner
- Where traditional **care management workflows break down** - and how to fix them
- How to **structure and prioritize** clinical alerts so teams can act **quickly and effectively**
- What it takes to connect data, workflows, and care teams to **reduce total cost of care**

# The Challenge: Too Much Data, Not Enough Signal

Care managers support the most complex patients in the healthcare system — yet they spend precious time manually searching for information they need right now.

ADT feeds, claims, pharmacy records, and clinical notes contain **critical intelligence** — but without the right tools, that intelligence is buried in noise.

More data does not mean better care — unless it can be transformed into **simple, specific, and timely alerts** that help care managers act in time to make a difference.



"We're ready to scrub the data." #betterdata

# Two Layers of Clinical Intelligence

- The platform delivers alerts through two distinct, complementary systems — each designed for a different kind of signal and a different level of urgency
- **ADT Alerts** — surface the moment a patient has an inpatient admission or emergency encounter; real-time event notifications delivered immediately as a banner alert to the responsible care manager
- **CDS Alerts** — apply a configurable rules engine across ADT and claims data to identify critical clinical situations, classified by severity: High, Medium, and Low
- *Together, they ensure care managers are never the last to know when a patient needs immediate attention*



When a member is admitted to the hospital or presents to an emergency department, an ADT notification fires immediately – and a banner alert reaches the responsible care manager in real time. No rules required. Just immediate awareness of the moments that matter.

# CDS Alerts: Severity Determines the Response

1. **HIGH Severity** — Triggers an immediate banner alert to the care manager. Requires prompt outreach. These are the moments where delayed response has direct clinical consequences.
2. **MEDIUM Severity** — Alert surfaces in the care manager's workbook for follow-up review. Clinically significant, but does not require immediate interruption.
3. **LOW Severity** — Logged in the workbook for monitoring and periodic review. Part of ongoing caseload awareness, reviewed during scheduled workflows.

*“Not every alert demands immediate interruption — but every alert demands a response. Severity tiers ensure the right level of urgency reaches the right care manager at the right time.”*

# What the CDS Engine Monitors

Severity

High

Medium

Low

Suicidal  
Ideation /  
Attempt / Self-  
Harm

High ED  
Utilization

Behavioral  
Health  
Diagnosis

Diabetes  
Diagnosis

Asthma  
Diagnosis

Opioid  
Prescription

Sickle Cell with  
Crisis

Antibiotics  
Pattern

Asthma  
Exacerbation

Multiple Opioid  
Rx

SDOH  
Diagnosis

Vaping / E-Cig  
Use

# Spotlight: High-Priority CDS Alerts

- **Suicidal Ideation / Attempt / Self-Harm** — A CDS rule monitoring both ADT feeds and claims data for matching diagnostic criteria. Fires immediately on detection; triggers a banner alert requiring same-day care manager response.
- **High Emergency Department Utilization** — Two or more ED visits within 2 days triggers a high-severity CDS alert. Escalating tiers (3+ in 14 days; 5+ in 30 days) ensure recurring utilization patterns are never missed.
- **Why these two?** — Both represent moments where an immediate care manager response can directly prevent escalation, readmission, or tragedy. These are the alerts where every minute matters.

# CDS Alerts Detail

Clinical Decision Support Alerts

Care Team

[Any]

<input type="checkbox"/>	Member	Alert Message
<input type="checkbox"/>	KASANDRA STEUBER	High ED utilization (3+ visits) over
<input type="checkbox"/>	KASANDRA STEUBER	Antibiotics prescribed for membe
<input type="checkbox"/>	LORINE OKUNEVA	Multiple Antibiotics (3+ in 6 mon
<input type="checkbox"/>	LORINE OKUNEVA	Asthma Dx from ADT: Moderate p
<input type="checkbox"/>	LORINE OKUNEVA	Asthma Rx from Claims: Clarispra
<input type="checkbox"/>	LORINE OKUNEVA	BH Dx from Claims: Mixed recept
<input type="checkbox"/>	LORINE OKUNEVA	Diabetes Dx from Claims: Type 1 c

Search Dismiss Selected

### Clinical Decision Support Message Detail

Alert Display: Asthma Dx

Alert Message: Asthma Dx from ADT: Moderate persistent asthma, uncomplicated

Alert Category: Clinical	Alert Source: ADT	Event Date: 09/13/2023	Receipt Date: 09/14/2023
Code Type: ICD10	Code Value: J4540	Code Description: Moderate persistent asthma, uncoi	Severity: Medium
Service / Prescribing Provider: ESTHER, CHARLES (UNCHCS)	Place of Service: Outpatient	Medicaid ID: 653732567E	

Close

# How Care Managers Receive Alerts

## ■ WORKBOOK ALERTS

*Queued for review*

- MEDIUM severity CDS alerts
- LOW severity CDS alerts
- Surface in the care manager's workbook table for review during scheduled care management workflows

## ■ BANNER ALERTS

*Immediate notification – requires acknowledgment*

- All ADT alerts: admissions, ED visits, discharges
- All HIGH severity CDS alerts

The screenshot shows a user interface for a care team. At the top, there is a navigation bar with 'Care Team' and a user profile 'at CMAUAT'. Below this, a yellow banner alert reads: 'ZULAUF MARYJANE - 984420629Q: High Severity Clinical Decision Support Message Received'. A 'Member Menu' is visible on the left, with 'Clinical Decision Support' selected. The main content area is titled 'Member Clinical Decision Support Messages for ZULAUF MARYJANE - 984420629Q' and includes a sub-header: 'The following Clinical Decision Support Messages have been received for this Member.' Below this is a filter section with dropdowns for 'Category' (All Categories), 'Severity' (All Severities), and date pickers for 'Start Date' (03/03/2023) and 'End Date' (08/30/2023). A search icon is also present. The main data is presented in a table with the following columns: Alert Message, Alert Category, Alert Display, Event Date, and Severity.

Alert Message	Alert Category	Alert Display	Event Date	Severity
High ED utilization over the past 2 days	Clinical	High ED Utilization	8/30/2023	High
High ED utilization over the past 2 days	Clinical	High ED Utilization	8/30/2023	High

# Meet Maria: Your Embedded AI Assistant

- MARIA — Medical Analysis Research Intelligent Assistant — is an AI assistant embedded directly within the ONEInsight platform, available inside the dashboards where care managers already work, without switching applications or context
- She draws on the same **unified data foundation** that powers the platform — population-level data, ADT events, claims data, condition flags, pharmacy data, and member demographics — enabling her to answer questions grounded in actual member data
- Maria is not a traditional chatbot — she is a *population health intelligence partner* built to help care management teams find patterns, surface gaps, and act on the data they already have

# Ask Maria!

Answers reflect your current dashboard filters

What would you like to explore first?

08:03 PM

what insights can you provide me about this population to help guide my exploration?

I'll pull together a broad overview of the ADT data to surface key metrics: total ED visits, date range, readmission rates, top agencies, admission time patterns, and acuity distribution.

## Population Overview – Key Insights

### Scale & Utilization

- This is a **high-volume population**: 23,825 ED visits across 8,932 unique members over roughly 12 months, meaning the average member is visiting the ED **~2.7 times** in the year — a strong signal of a complex, high-need group.
- Monthly volume averages **1,985 visits**, but the **March 2026 peak of 2,612 visits** (31% above average) is worth flagging — worth investigating whether that reflects a seasonal surge, a data anomaly, or a specific event driving volume.

### Readmission Rates — The Biggest Red Flag

- The readmission cascade is striking: **27.2% at 7 days → 34.6% at 14 days → 43.7% at 30 days**. Nearly half the population is returning within a month. This suggests care transitions and post-ED follow-up are breaking down — a prime area for intervention targeting.

### After-Hours Access

- **52.9% of admissions occur after hours**, meaning the majority of ED use is happening when primary care and outpatient options are typically unavailable. This strongly points to **access gaps** as a key driver of ED dependency.

### Where to Dig Next

- I'd prioritize looking at **which members are driving repeat visits** (the top utilizers) and whether the **high readmit rates cluster around specific diagnoses, agencies, or acuity tiers** — that's likely where your highest-impact intervention opportunities live.

08:04 PM



### Related questions:

Which members are driving the highest repeat ED visits, and do these high-utilizers cluster around specific Acuity Tiers, Age Groups, or diagnoses that could help prioritize intervention targets?

Ask a question about your data...

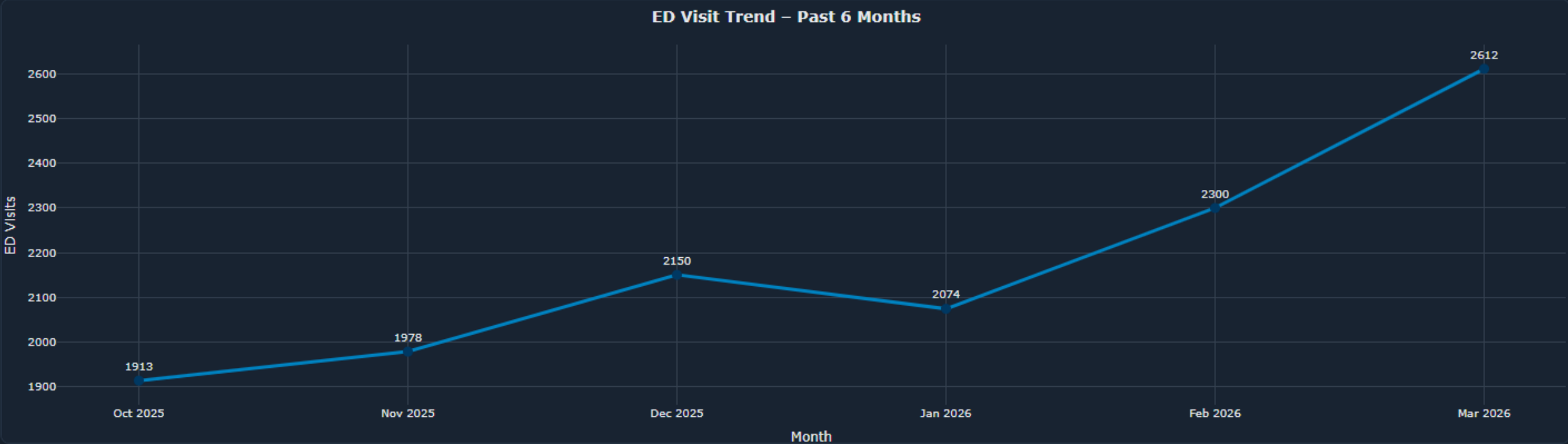
# What Maria Can Do

1. **Natural Language Analytics** — Ask Maria questions like “Which agencies have the highest rates of behavioral health conditions?” or “Show me comorbidity patterns among our high-ED-utilization members” and receive immediate, data-grounded answers
2. **Pattern Recognition & Population Insight** — Maria surfaces connections humans might miss. When asked to analyze members with complex heart disease and severe mental illness, she identified that ED visits spiked when temperatures exceeded 110°F — and suggested screening that cohort for housing instability
3. **Visualization & Cohort Analysis** — Maria generates charts, geographic maps, and tables on demand — breaking complex populations into actionable cohorts and showing care management teams exactly where to focus their limited resources

can you plot the trend of ED visits over the past 6 months?

### ED Visit Trend – Past 6 Months

- +36.5% increase from Oct 2025 → Mar 2026
  - Only dip: Jan 2026 (176 vs. Dec), then resumed upward
  - Mar 2026 is the peak at 2,612 visits
- ⚠ The consistent upward trend warrants investigation into drivers — seasonality, population growth, or access issues.



# Alerts surface the signal. Maria helps you act.

*“Alerts tell you which patients need attention right now. Maria helps you understand why — surfacing the population trends, care gaps, and condition patterns behind those alerts. Together, they give your care management team not just a signal, but the strategic context to act on it.”*

# What Maria Is Learning Next

Today, Maria responds when you ask. The next phase: Maria *monitors the data foundation continuously* – surfacing signals before us humans think to ask

1. **Pre-defined Pattern Monitoring** – Maria will watch for specific conditions we configure: agency-level ED utilization spikes, rising cohorts of unmanaged high-risk members, gaps in care across a population segment, and more – alerting care management leadership when defined thresholds are crossed
2. **Emergent Discovery** – Beyond rules we define, Maria will analyze the data foundation for anomalies and correlations we *did not explicitly build her to find* – surfacing unexpected relationships between conditions, geographies, social determinants, and utilization patterns that no rule would have caught

*The goal: shift care management from reactive to proactive – knowing what's changing in your population before it becomes a crisis.*

# The Impact: Intelligence That Drives Action

*The Alerts Engine transforms raw data into clinical intelligence – enabling care managers to reach the right patient at the right moment, with the right information, before a crisis escalates.*

Alera Health – ONEInsight Clinical Intelligence Engine



Q&A