

Type

Analytic Accelerator

Status

Analytic Services

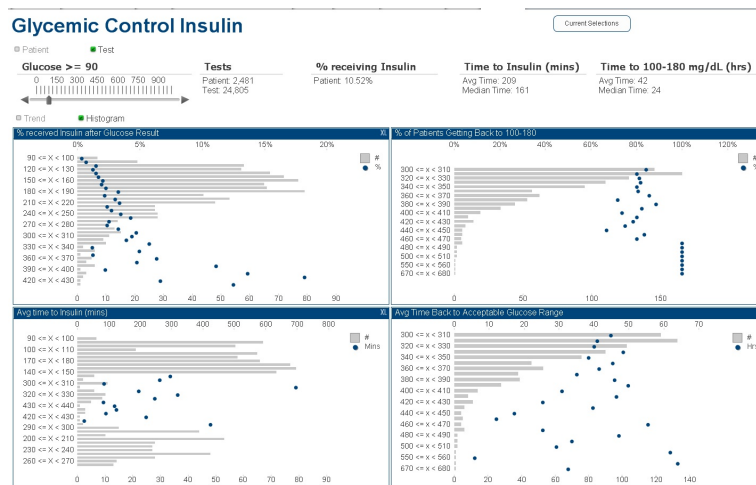
Revised

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Technical Description

The **Glycemic Control in the Hospital Analytic Accelerator** provides data and visualizations to help teams anticipate, prevent, detect, and manage dysglycemia (hypo- and hyperglycemia) in hospitalized patients. It can be deployed as a standalone application or combined with other accelerators focused on specific conditions or procedures—for example, CABG, COPD, Diabetes—to enrich understanding of the whole patient and ensure best practice care across the continuum.

Note that this application, like all Health Catalyst analytic accelerators, is implemented in a custom way; organizations identify their own areas of focus, process aims, and outcome goals. For this reason, the appearance and functionality of the application may differ from what is presented here.



The Glycemic Control in the Hospital application delivers insights to support best-practice management of blood glucose.

Background

Organizations typically choose to focus on glycemic control for these reasons:

- **It's a common challenge.** Epidemiologic studies show that glycemic control in hospitals is inadequate. Up to 40% of inpatients have blood glucose levels outside of recommended ranges.
- **It affects patient outcomes.** Poor glycemic control is linked to increased morbidity and mortality. Hyperglycemia contributes to increased infection risk, poor wound healing, hypotension, and impaired renal function and immune response; hypoglycemia can cause serious neurologic and heart problems.
- **It affects a hospital's bottom line.** Improving inpatient glycemic control can reduce expensive complications, shorten hospital stays, improve reimbursements, and increase revenues with appropriate payment for care provided and resources expended.

Accelerator Overview

Drive a focus on glycemic control in the hospital—and deliver better clinical and financial outcomes

The **Glycemic Control in the Hospital Analytic Accelerator** supports a disciplined, data-driven approach to assessment and care of dysglycemia in hospitalized patients. Typical implementations focus on early assessment for blood glucose problems, standardized inpatient monitoring and care, and care transitions.

Benefits and Features

- **Access meaningful views of quality of care and its impact.** The application dashboard summarizes perioperative glucose measurements and outcome metrics related to glucose management. It can also present average glucose measurements, time to insulin, time to euglycemia, and incidence of hypoglycemic events.
- **Focus your team on what matters most.** Outcome metrics typically include mortality, 30-day readmission, LOS, ICU LOS, and cost per case. Typical process metrics include compliance with standard monitoring and care practices and percentage of patients whose care transitions met all elements of appropriate checklist or protocol. The result? Your team understands the priorities, helps reduce variation, and can solve problems that stand in the way of improvement .
- **Do more than monitor: understand.** Detailed analytics provide dynamic data exploration, real-time filtering, and drill-down to patient-level detail. A Pre-op tab identifies HbA1c averages for patients with diabetes, identifies patients at risk for diabetes or prediabetes, and tracks glucose testing rates based on patient risk factors—enriching your understanding of your patients and the appropriateness of the care they receive.
- **Compare and contrast.** A Compare tab lets you review patient and care variables—demographics, variation in care, performance in different units, etc.—to determine what's working and not working to improve outcomes. This feature also allows you to gauge the ROI of improvement work in particular areas: what could you achieve if every unit and provider standardized to match your best performance?

Use Cases

- **The physician champion** for diabetes improvement uses the application to learn how many patients with diabetes had an HbA1c documented on admission for surgery. Seeing that the number is low—and that this is an obstacle to proper assessment and care for these patients—he launched an initiative to improve pre-admission documentation and management of A1c in patients with (and at risk for) diabetes. He used the application to track compliance and review the results: better care of patients with diabetes, increased identification of unknown diabetes, and improved clinical and financial outcomes.
- **The population health director and medical director** in a large hospital system observe that the post-surgical readmissions have been creeping upward over the previous years—and suspect that poor glycemic control may be a factor. They use the accelerator to confirm their hunch, and then to explore compliance with monitoring and care protocols and guide a plan to intervene.
- **A clinical educator** accesses the application to identify units and clinicians that need additional education to improve adherence to standard of care.

Data Sources

This product may leverage one or more of the following sources:

- EMR - Clinical
- Claims
- Finance/Costing
- Other:

Patient satisfaction sources

Additional clinical sources: laboratory, e.g.

Key Measures

- Mortality rate
- Length of Stay (LOS): ICU, overall
- Complications
- Readmissions
- Cost-per-case
- Untimely surgical cancellations
- Patient satisfaction

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