Glytec

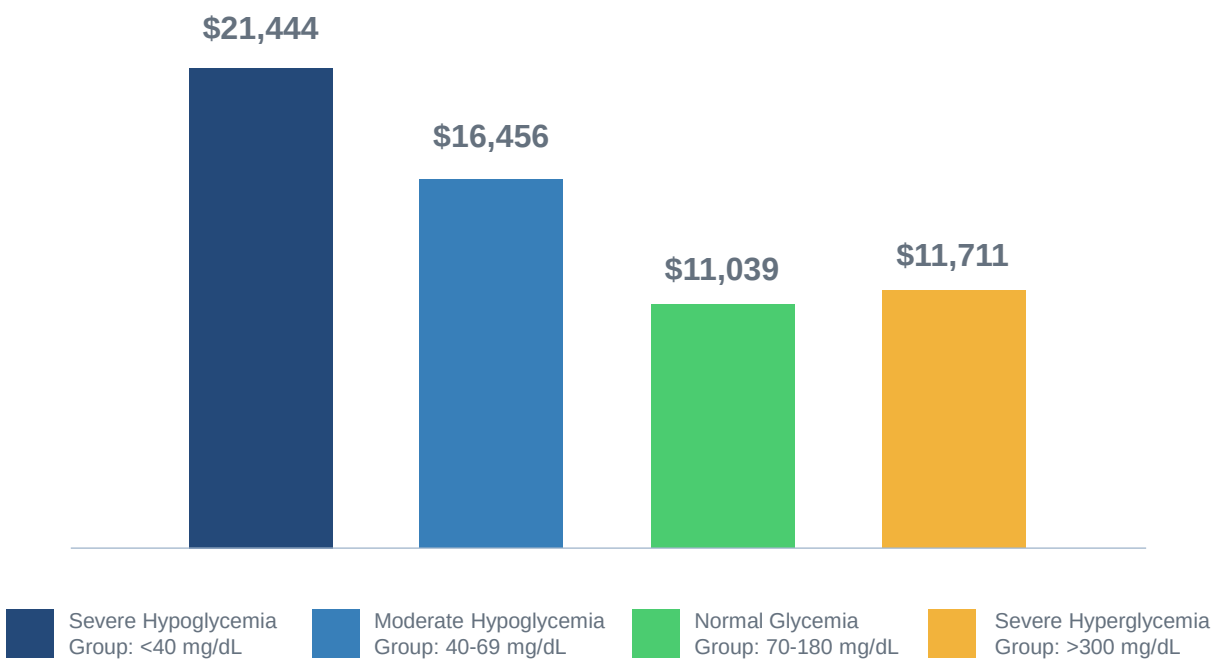
Evidence Sampler

Table of Contents

Reducing Cost of Care

Poor glycemic management can be a major driver of costs at hospitals. Both hypo- and hyperglycemia lead to increased cost of care.

Without eGMS



Financial Implications of Poor Glycemic Management & Improvement Strategies for Optimal Outcomes

M Gaines, D Tanton, R Pratley
IHI Annual National Forum on Quality Improvement in Health Care, Dec 2018

To identify the financial impact of poor glucose control, the diabetes leadership team at Florida Hospital System evaluated the prevalence and risk of hypoglycemia and hyperglycemia in 43,659 patients admitted to 7 hospitals over a 12-month period.

READ FULL STUDY »

Reducing Cost of Care

Poor glycemic management can be a major driver of costs at hospitals. Both hypo- and hyperglycemia lead to increased cost of care.

With eGMS

Financial Results of Converting From Sliding Scale to Basal Bolus Insulin

Hypoglycemic Event Savings	$7,141,356
Length of Stay Savings	$2,579,200
TOTAL Annualized Savings with eGMS	**$9,720,556**

Glytec's eGMS is proven to reduce cost of care.

Safely Converting From Sliding Scale to Basal Bolus Insulin Across an Entire Medical Center via Implementation of the eGlycemic Management System

R Newsom, C Patty, E Camarena, T Gray, R Sawyer, B Brown, R McFarland
American Diabetes Association Scientific Sessions, Jun 2017

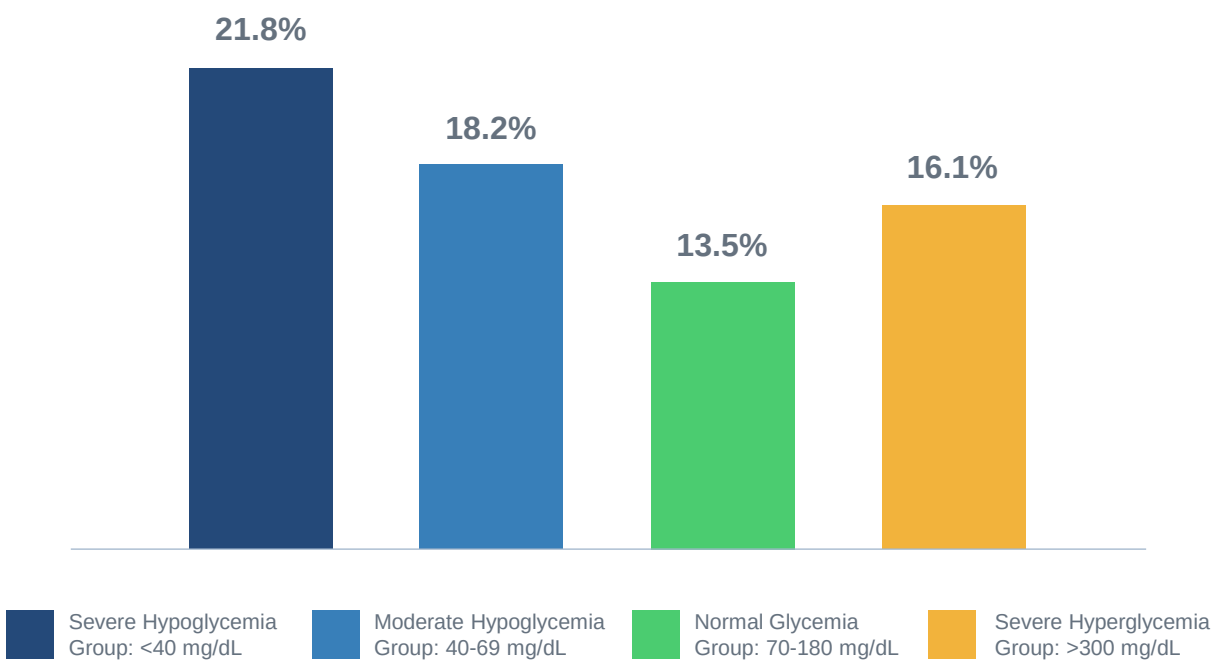
This retrospective quality improvement case study compared IV and SubQ insulin 'usual care' to that of the nurse-directed, computer-guided Glucommander™ solution at a 610-bed regional medical center.

READ FULL STUDY »

Reducing Readmissions

Readmission rates are a key hospital quality indicator, and high readmission rates can lead to penalties from CMS under the Hospital Readmissions Reduction Program (HRRP). Hypo- and hyperglycemia lead to increased readmission rates.

Without eGMS



Financial Implications of Poor Glycemic Management & Improvement Strategies for Optimal Outcomes

M Gaines, D Tanton, R Pratley
IHI Annual National Forum on Quality Improvement in Health Care, Dec 2018

To identify the financial impact of poor glucose control, the diabetes leadership team at Florida Hospital System evaluated the prevalence and risk of hypoglycemia and hyperglycemia in 43,659 patients admitted to 7 hospitals over a 12-month period.

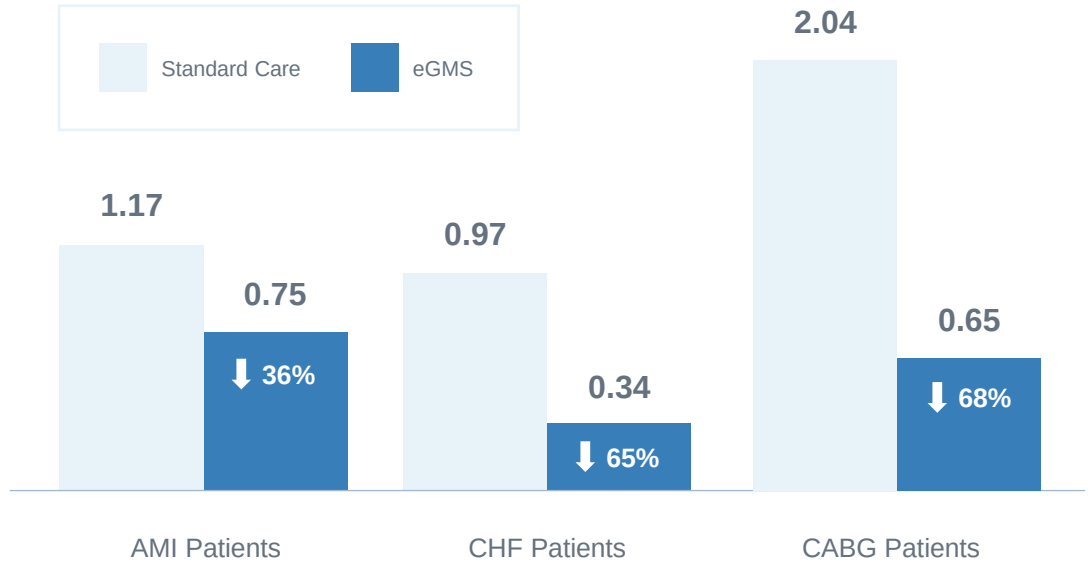
READ FULL STUDY »

Reducing Readmissions

Readmission rates are a key hospital quality indicator, and high readmission rates can lead to penalties from CMS under the Hospital Readmissions Reduction Program (HRRP). Hypo- and hyperglycemia lead to increased readmission rates.

With eGMS

Risk-Adjusted Readmission Rates



Glytec's eGMS is proven to reduce readmissions.

Relationship Between Glycemic Control Using eGMS and Readmission Rates in Cardiovascular Patients Hospitalized with AMI, CHF or Undergoing CABG During the Implementation of a System Wide Glycemic Initiative

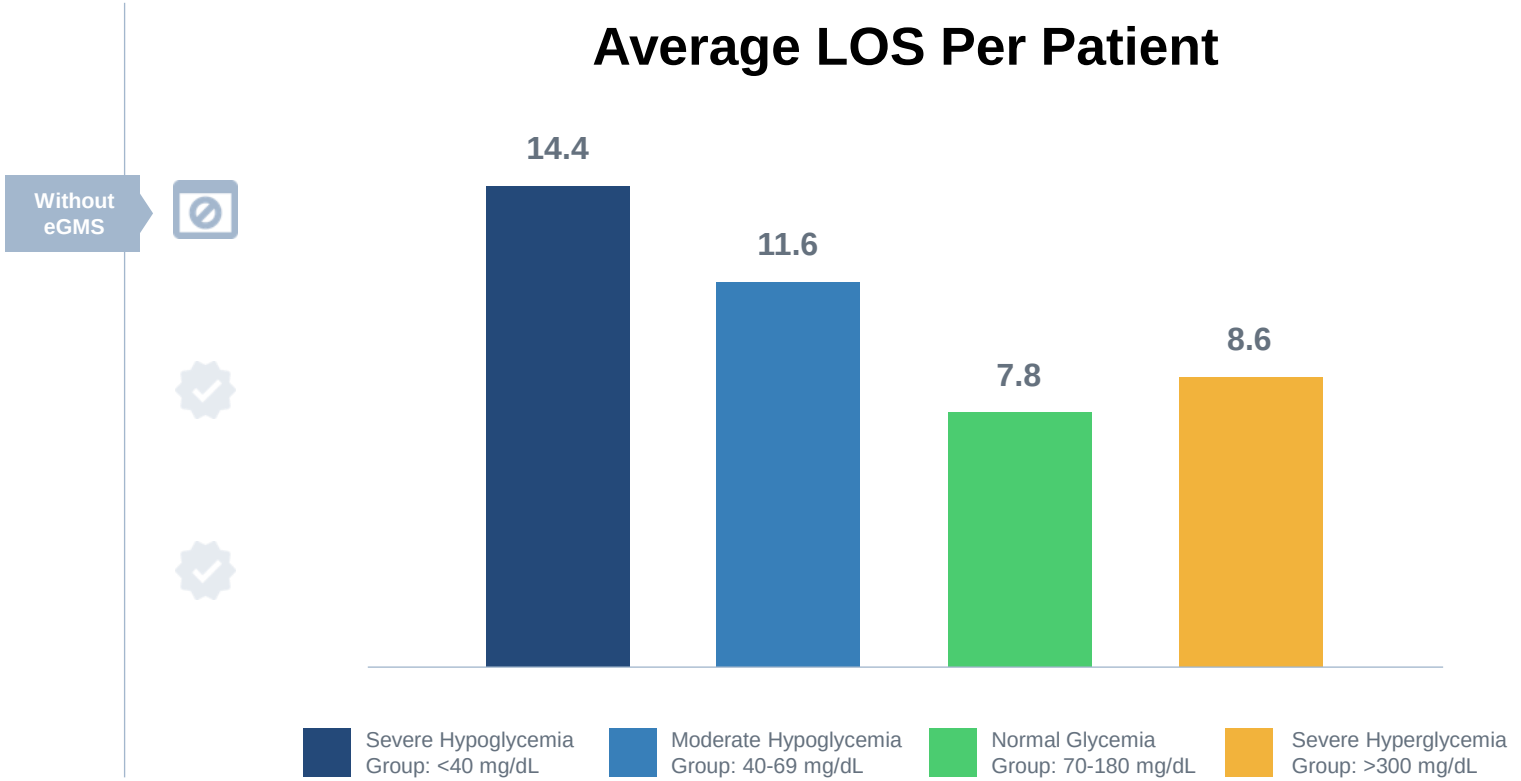
A Mumpower, S Hou, T Parsons, R McFarland
Annual Diabetes Technology Meeting, Nov 2016

This retrospective study evaluated 3198 patients with AMI, CHF or undergoing a CABG procedure who were admitted to a 13-hospital health system over a 12 month period, comparing those treated using standard care to those treated using Glytec's eGMS.

READ FULL STUDY »

Reducing Length of Stay

High average length of stay (LOS) can be an indicator of increased infection risk and poor quality of treatment. Hypo- and hyperglycemia both lead to increased length of stay.



Financial Implications of Poor Glycemic Management & Improvement Strategies for Optimal Outcomes

M Gaines, D Tanton, R Pratley
IHI Annual National Forum on Quality Improvement in Health Care, Dec 2018

To identify the financial impact of poor glucose control, the diabetes leadership team at Florida Hospital System evaluated the prevalence and risk of hypoglycemia and hyperglycemia in 43,659 patients admitted to 7 hospitals over a 12-month period.

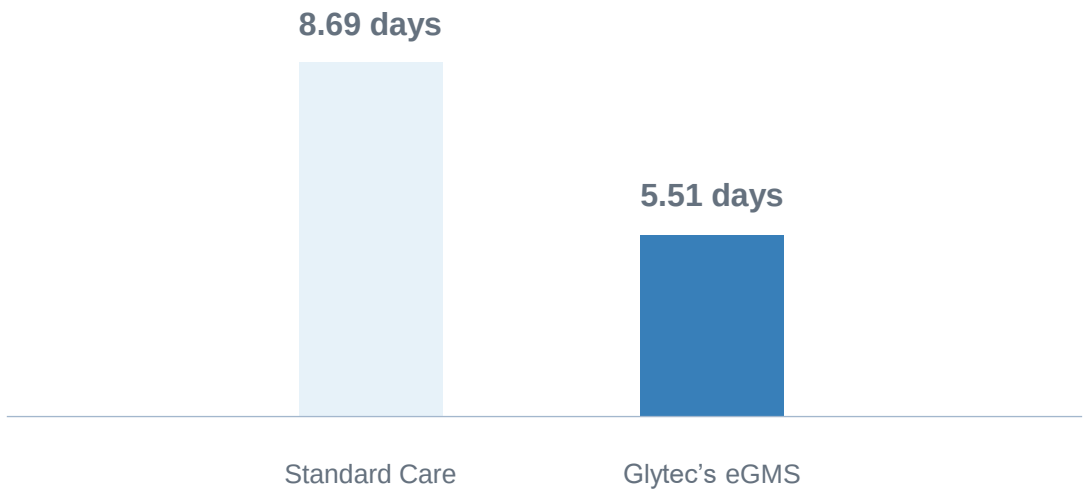
READ FULL STUDY »

Reducing Length of Stay

High average length of stay (LOS) can be an indicator of increased infection risk and poor quality of treatment. Hypo- and hyperglycemia both lead to increased length of stay.

With eGMS

Average Total Length of Stay for Insulin-Requiring Patients



Glytec's eGMS is proven to reduce length of stay.

Safely Converting From Sliding Scale to Basal Bolus Insulin Across an Entire Medical Center via Implementation of the eGlycemic Management System

R Newsom, C Patty, E Camarena, T Gray, R Sawyer, B Brown, R McFarland
American Diabetes Association Scientific Sessions, Jun 2017

This retrospective quality improvement case study compared IV and SubQ insulin 'usual care' to that of the nurse-directed, computer-guided Glucommander™ solution at a 610-bed regional medical center.

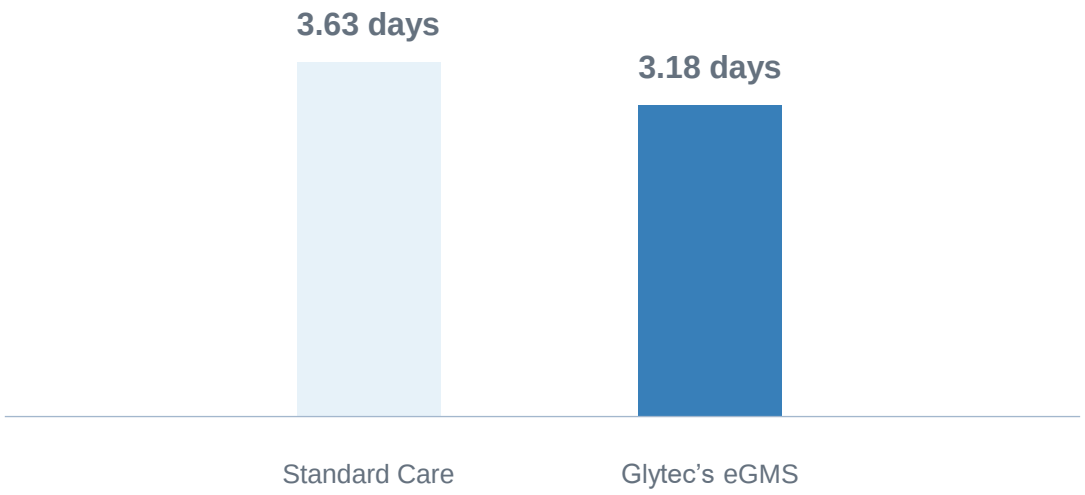
READ FULL STUDY »

Reducing Length of Stay

High average length of stay (LOS) can be an indicator of increased infection risk and poor quality of treatment. Hypo- and hyperglycemia both lead to increased length of stay.

With eGMS

Average Total Length of Stay for Insulin-Requiring Patients



Glytec's eGMS is proven to reduce length of stay.

Risk of Hypoglycemia During Insulin Infusion Directed by Paper Protocol Versus Electronic Glycemic Management System in Critically Ill Patients at a Large Academic Medical Center

M Rabinovich, J Grahl, E Durr, R Gayed, K Chester, R McFarland, B McLean
Journal of Diabetes Science and Technology, Jan 2018

This retrospective review compared 54 critically ill patients ≥ 18 years old that received insulin infusion from March to May 2015 (paper-based protocol group) and October to January 2017 (eGMS group).

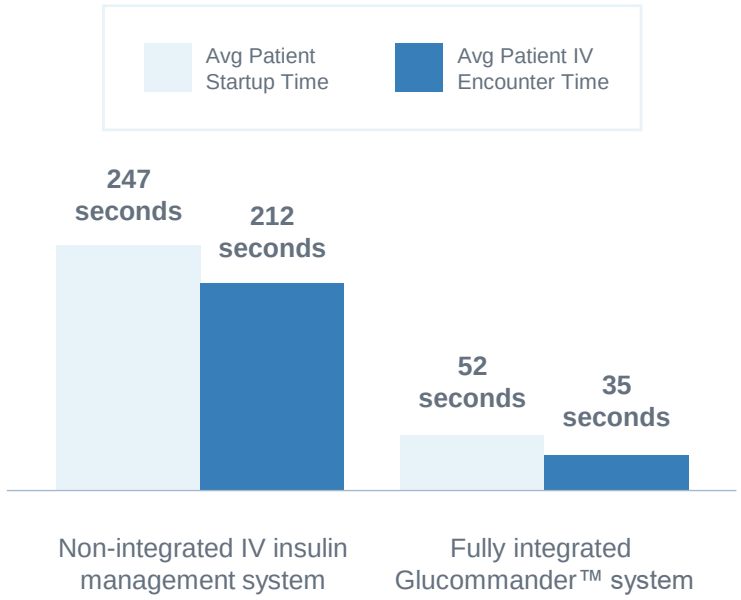
READ FULL STUDY »

Saving Clinicians Time

Saving time on insulin management tasks reduces overall workload and allows clinicians to focus on other aspects of patient care.

With eGMS

Timed Interface Comparison



Results show that with the use of the fully integrated Glucommander™ system...

- Up to 72 minutes per nurse per patient were saved for patients using IV insulin.
- An additional 3 minutes were saved per patient starting IV insulin drips.
- There was a 79% reduction in startup time.
- There was an 83% reduction in IV encounter time.

New Interfaces for eGlycemic Management System Save Nursing Time and Improve Patient Outcomes: Time and Motion Nursing Study

M Mabrey, J Clark, J Burks, R McFarland, H Hebblewhite, A Williams
American Association of Clinical Endocrinologists Scientific & Clinical Congress, May 2014

The study examined nursing time needed for patients requiring IV insulin treatment in critical care units of a 635-bed tertiary care hospital.

READ FULL STUDY »

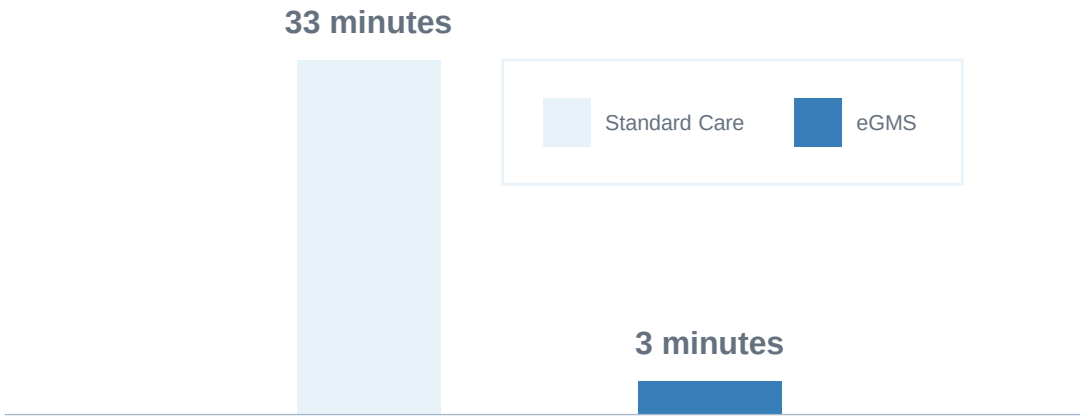
Glytec's eGMS is proven to reduce time spent on insulin titration.

Saving Clinicians Time

Saving time on insulin management tasks reduces overall workload and allows clinicians to focus on other aspects of patient care.

With eGMS

Time Spent on Glucommander™ Insulin Adjustments and Edits



Total Minutes Per Provider Per Shift with a maximum of 9 insulin-requiring patients

Glytec's eGMS is proven to reduce time spent on insulin titration.

Safely Converting From Sliding Scale to Basal Bolus Insulin Across an Entire Medical Center via Implementation of the eGlycemic Management System

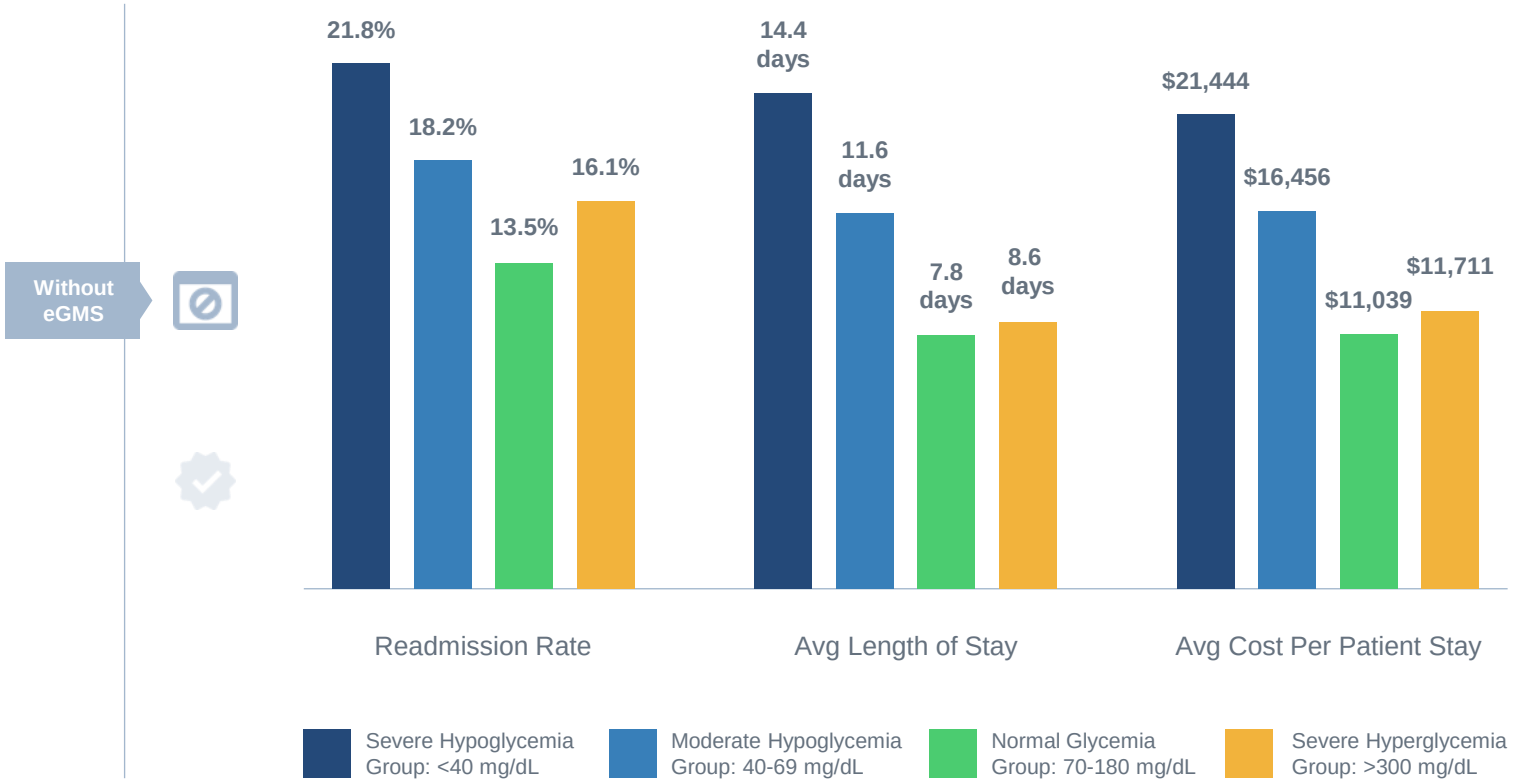
R Newsom, C Patty, E Camarena, T Gray, R Sawyer, B Brown, R McFarland
American Diabetes Association Scientific Sessions, Jun 2017

This retrospective quality improvement case study compared IV and SubQ insulin 'usual care' to that of the nurse-directed, computer-guided Glucommander™ solution at a 610-bed regional medical center.

READ FULL STUDY »

Reducing Hypoglycemia

Hypoglycemia leads to increased cost of care, length of stay, readmissions, and mortality. It is also the third-most common adverse drug event among Medicare patients. A CMS measure for hypoglycemia is currently going through the approval process.



Financial Implications of Poor Glycemic Management & Improvement Strategies for Optimal Outcomes

M Gaines, D Tanton, R Pratley
IHI Annual National Forum on Quality Improvement in Health Care, Dec 2018

To identify the financial impact of poor glucose control, the diabetes leadership team at Florida Hospital System evaluated the prevalence and risk of hypoglycemia and hyperglycemia in 43,659 patients admitted to 7 hospitals over a 12-month period.

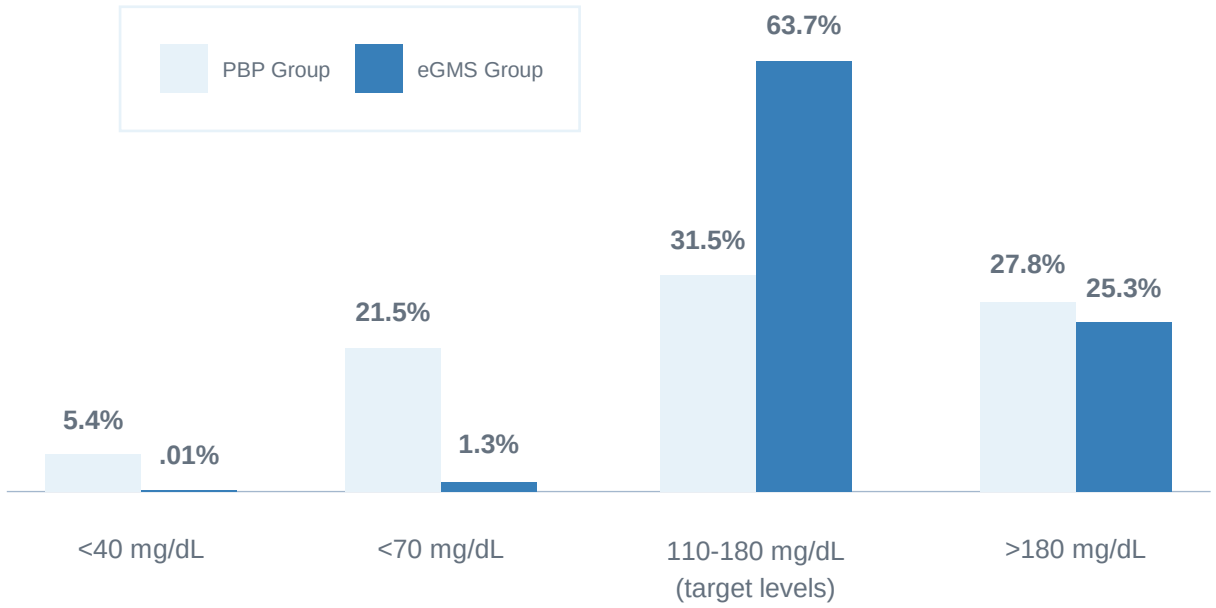
READ FULL STUDY »

Reducing Hypoglycemia

Hypoglycemia leads to increased cost of care, length of stay, readmissions, and mortality. It is also the third-most common adverse drug event among Medicare patients. A CMS measure for hypoglycemia is currently going through the approval process.

With eGMS

Percentage of Patient Days in Glucose Range



Glytec's eGMS is proven to reduce the incidence of hypoglycemia.

Risk of Hypoglycemia During Insulin Infusion Directed by Paper Protocol Versus Electronic Glycemic Management System in Critically Ill Patients at a Large Academic Medical Center

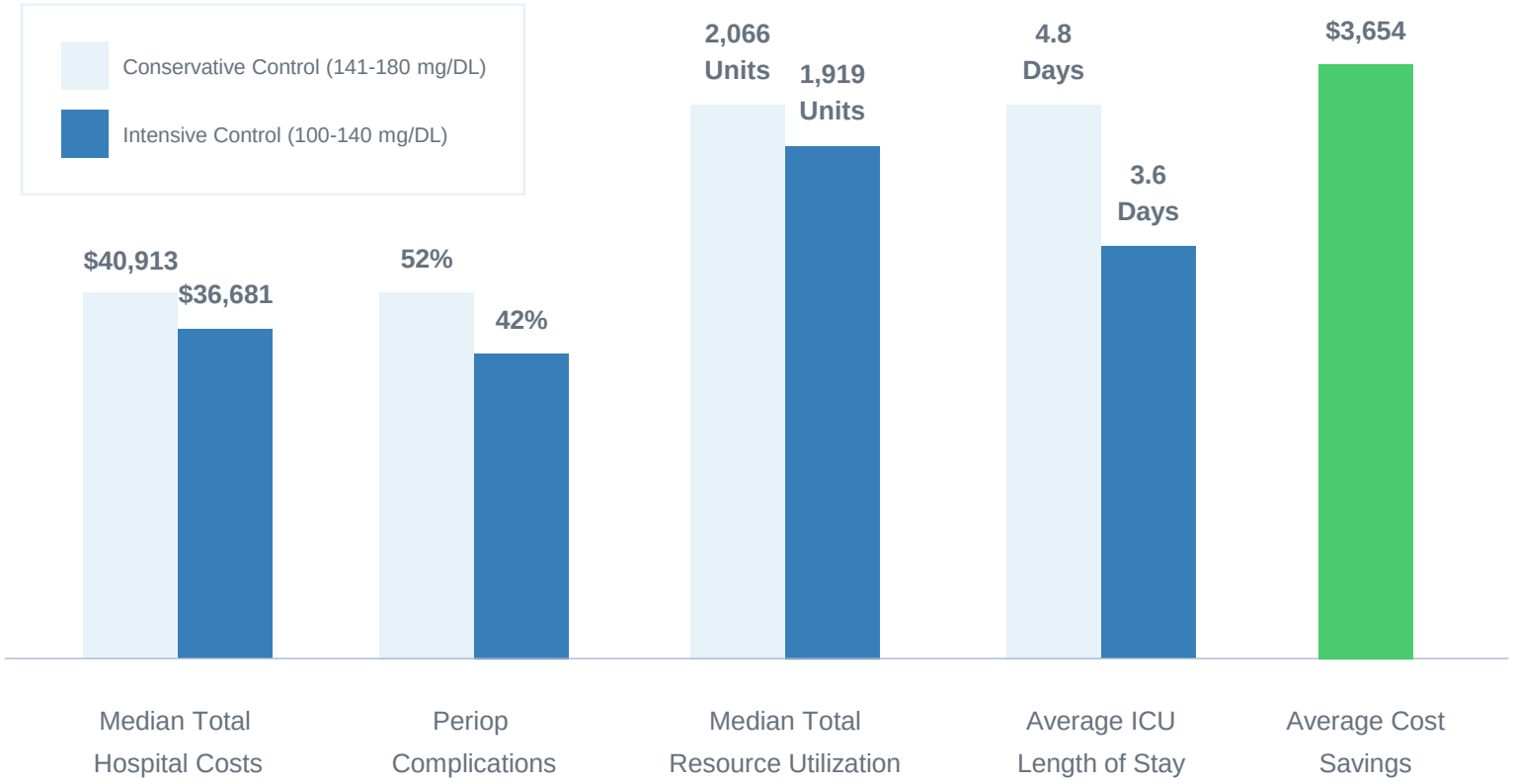
M Rabinovich, J Grahl, E Durr, R Gayed, K Chester, R McFarland, B McLean
Journal of Diabetes Science and Technology, Jan 2018

This retrospective review compared 54 critically ill patients ≥ 18 years old that received insulin infusion from March to May 2015 (paper-based protocol group) and October to January 2017 (eGMS group).

READ FULL STUDY »

More Evidence

Reducing CABG Surgery Cost, Complications, and Resources



Hospitalization Costs and Clinical Outcomes in CABG Patients Treated with Intensive Insulin Therapy

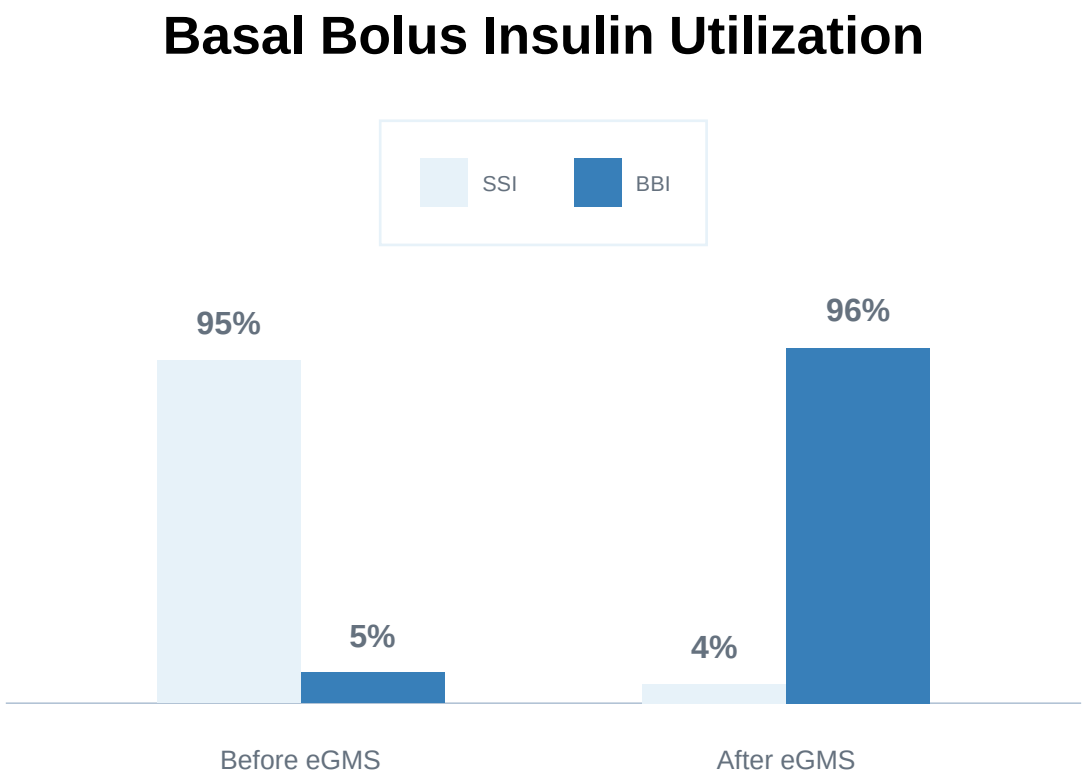
S Cardona, F Pasquel, M Fayfman, L Peng, S Jacobs, P Vellanki, J Weaver, M Halkos, R Guyton, V Thourani, G Umpierrez
Journal of Diabetes and Its Complications, Apr 2017

This post-hoc cost analysis determined differences in hospitalization costs, resource utilization and perioperative complications in 288 CABG patients with and without diabetes.

READ FULL STUDY »

More Evidence

Successfully Converting from Sliding Scale to Basal Bolus Insulin



Safely Converting From Sliding Scale to Basal Bolus Insulin Across an Entire Medical Center via Implementation of the eGlycemic Management System

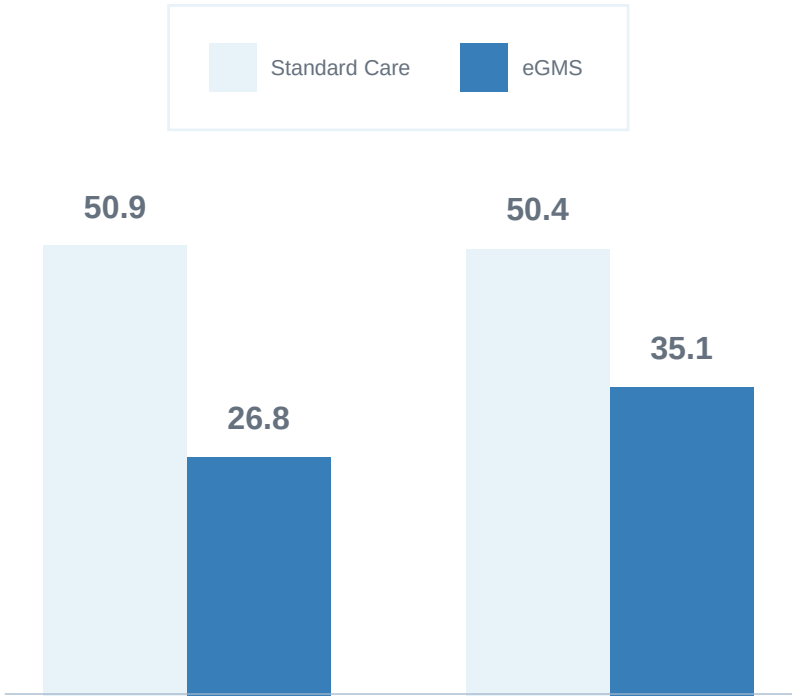
R Newsom, C Patty, E Camarena, T Gray, R Sawyer, B Brown, R McFarland
American Diabetes Association Scientific Sessions, Jun 2017

This retrospective quality improvement case study compared IV and SubQ insulin ‘usual care’ to that of the nurse-directed, computer-guided Glucommander™ solution at a 610-bed regional medical center.

READ FULL STUDY »

More Evidence

Reducing Point-of-Care Blood Glucose Tests



Point-of-Care BG Tests / Patient Subcutaneous Insulin Therapy

Implementation of the eGlycemic Management System: A Medical Center Case Study

R Newsom, C Patty, E Camarena, T Gray, R Sawyer, B Brown, R McFarland
International Hospital Diabetes Meeting, May 2017

This retrospective quality improvement case study compared IV and SubQ insulin ‘usual care’ to that of the nurse-directed, computer-guided Glucommander™ solution. Primary objectives were to analyze utilization of BBI and to measure impact on glycemic outcomes, with a primary focus on hypoglycemic trends.

READ FULL STUDY »

Finger Stickin’ Good – Improved Glycemic Control in CV Surgery Patients

A Henderson, A Rhinehart, R Booth, R McFarland, T Parsons, L Hubbard, R Ball
Annual Diabetes Technology Meeting, Oct 2015

This retrospective, observational study compared the cost and efficiency of Glucommander™ IV to that of standard insulin infusion by paper protocol in 627 adult patients undergoing cardiovascular surgery.

READ FULL STUDY »

More Evidence

Reducing Admissions for Diabetic Ketoacidosis

Average Time to Target BG

5.18
Hours

Hospital Admission from ED

45%

Average Discharge Blood Glucose

145
mg / DL

After Target Reached

0%
BGs
Hypoglycemia
<40 mg / DL

0%
BGs
Hypoglycemia
>250 mg / DL

Use of a Computer-Based Insulin Infusion Algorithm to Treat Diabetic Ketoacidosis in the Emergency Department

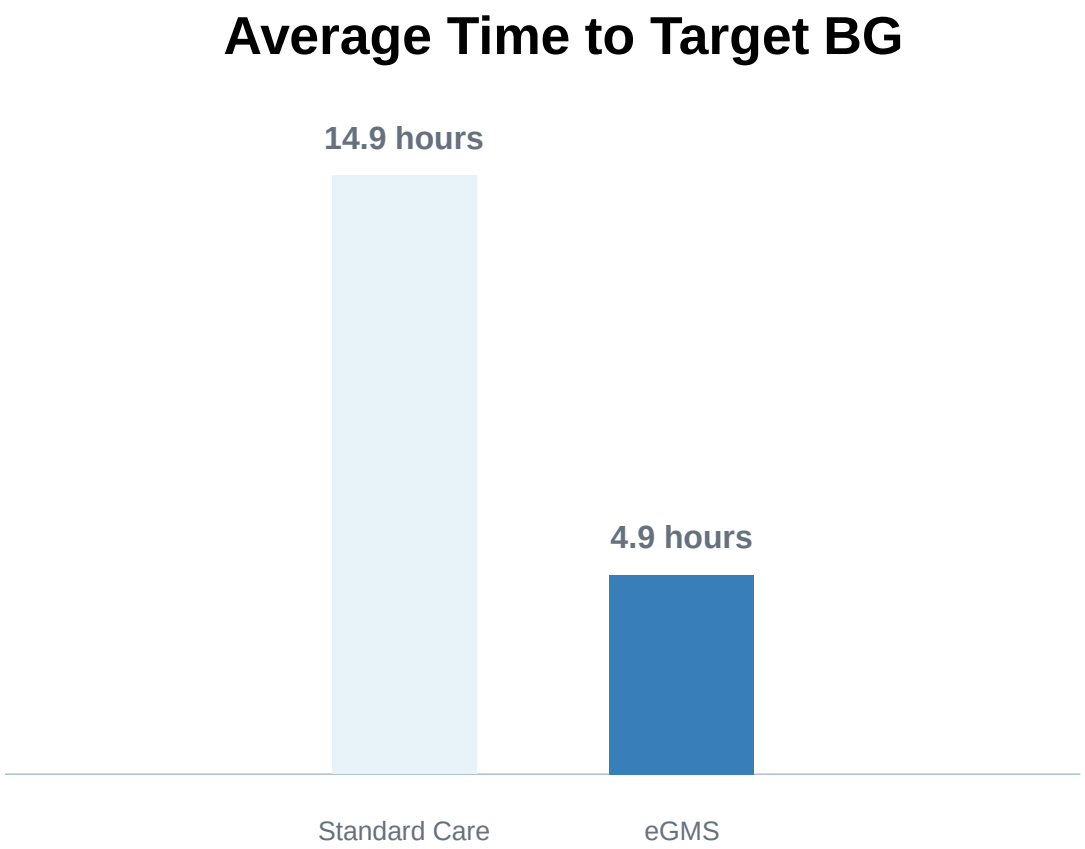
J Ullal, R McFarland, M Bachand, J Aloi
Diabetes Technology & Therapeutics, Jan 2016

A retrospective chart review of patients presenting to the ED with a diagnosis of DKA during one calendar year, to determine whether Glucommander™ is useful in treating patients with mild diabetic ketoacidosis (DKA).

READ FULL STUDY »

More Evidence

Reducing Time to Target Blood Glucose



Comparative Effectiveness of a Computerized Algorithm Versus a Physician Instituted Protocol to Manage Insulin Infusions After Cardiac Surgery

D Ponnusamy, V Piziak, S Patel, R Urbanosky
Clinical Medicine & Research, Apr 2014

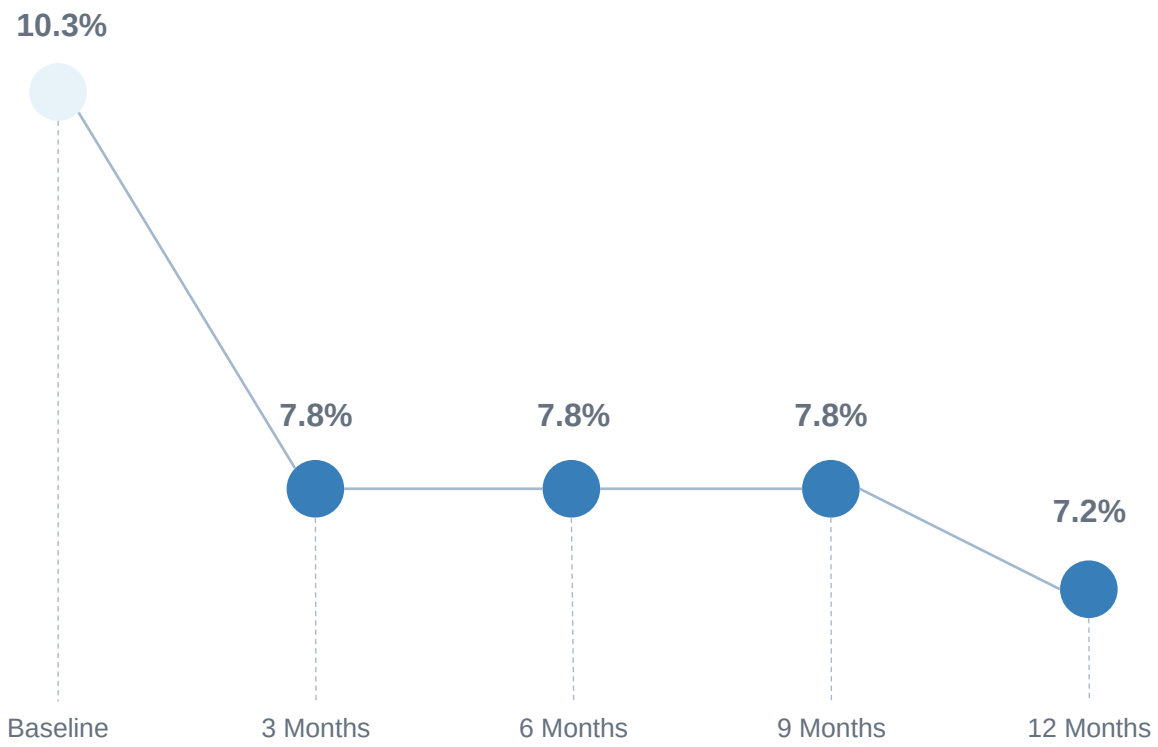
This study compared the effectiveness of two methods for the management of postoperative insulin infusions: a locally developed paper insulin infusion protocol and a computerized algorithm.

READ FULL STUDY »

More Evidence

Reducing Outpatient A1C

Average Reductions in A1C



Use of Decision Support Software to Titrate Multiple Daily Injections Yielded Sustained A1c Reductions After 1 Year

B Bode, J Clarke, J Johnson
Journal of Diabetes Science and Technology, Jan 2018

This study of 46 insulin-requiring patients aimed to determine whether the addition of connected BG meters and clinical decision support software (CDSS) would result in more efficient titration of patient's insulin regimens remotely between office visits, get them to their individualized glucose targets faster and efficiently, and maintain that improvement over time.

READ FULL STUDY »

Glytec®

Contact us to learn more about Glytec's eGlycemic Management System®.

(864) 370-3297
info@glytecsystems.com
www.glytecsystems.com

Glucommander® System is a prescription-only software medical device for glycemic management intended to evaluate current as well as cumulative patient blood glucose values coupled with patient information including age, weight and height, and, based on the aggregate of these measurement parameters, whether one or many, recommend an IV dosage of insulin, glucose or saline or a subcutaneous basal and bolus insulin dosing recommendation to adjust and maintain the blood glucose level towards a configurable physician- determined target range. The Glucommander System is indicated for use in adult and pediatric (ages 2-17 years) patients. The measurements and calculations generated are intended to be used by qualified and trained medical personnel in evaluating patient conditions in conjunction with clinical history, symptoms, and other diagnostic measurements, as well as the medical professional's clinical judgement. No medical decision should be based solely on the recommended guidance provided by this software program.

The Glucommander System is only available for use in the United States.

This document is only intended for use in the United States.