Glytec

TIME TO TARGET Patient Safety

So You Bought eGMS...Now What?

Implementation and Continuous Improvement Success Stories

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Nurse Practitioner, Glytec



Tiffany Young, BSN, RN, CDCES

Diabetes Program Manager, Northeast Georgia Health System



Barbara McLean, MN, RN, CCRN, CCNS-BC, NP-BC, FCCM

Advancing Evidence-Based Practice Clinical Specialist, Grady Health System



ORGANIZATIONAL BUY-IN FOR SUCCESSFUL ADOPTION



Glytec

Hannah Day, MSN, FNP-C, BC-ADM, CDCES

Nurse Practitioner, Glytec

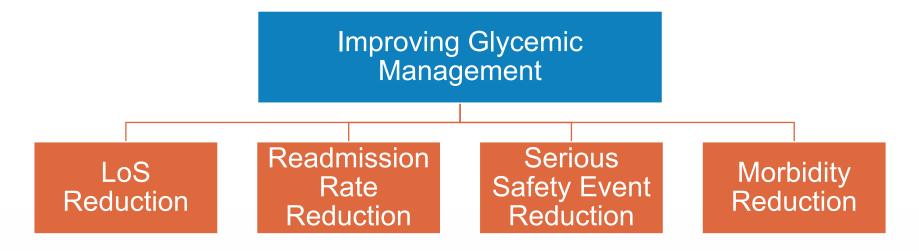
- 20 years in healthcare
- 14 years with a focus in diabetes management
- Certified Diabetes Care and Education Specialist
- Board-Certified in Advanced Diabetes Management
- Passion for improving diabetes care across the continuum through quality improvement initiatives and program development and optimization



- Prior to joining Glytec, I served in multiple clinical and leadership roles at NGHS: Diabetes Program Manager and Administrative Director for Hospital Medicine.
- I have led initiatives to improve glycemic management across the system, including Glucommander IV implementation and Inpatient Glycemic Team development.
- NGMC is a community hospital with 4 campuses across Northeast Georgia and over 700 beds.



Impact of Glycemic Management on Broader Health System Goals



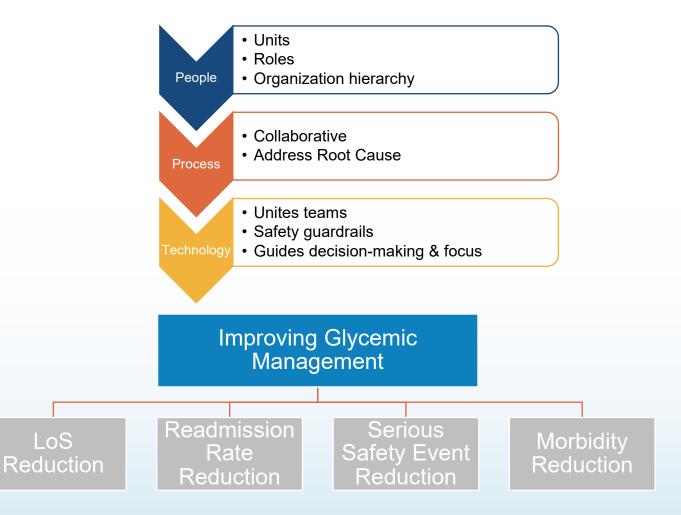
- Drive leadership engagement and support by:
 - Leveraging system-level goals
 - Linking the project to process and outcome metrics



Realize System-Level Impact & Get Leaders Involved

Increase awareness of glycemic management across the system and collaborate

- Get the buy-in on a leadership level
 - Not just clinical, also IT
- Increase Awareness of glycemic management across the system
 - Work together to create best practice workflows
- Validate that problems should be solved holistically and show the value
 - Can be repeated to solve other problems as well





Example: DKA Treatment in Emergency Department

DKA diagnosed in Emergency Department

- Immediate treatment needed, which includes insulin therapy
- DKA paper protocols complex, difficult for ED nurses in busy ED environment (errors common)

Problem

Solution

- Start Glucommander IV in ED
 - Revise order sets & process to support workflow
 - Include all stakeholders to create plan
 - Educate users

- **Transition benefits:** seamless process, safe treatment during transition
- During surges (COVID), ED, delays in transfer to ICU: treatment in ED prevents delays in care

Outcome



Key Takeaways







Buy-in on System Level Goals

Right Leadership/ Champions

Awareness Drives Adoption



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NORTHEAST GEORGIA: PARTNERSHIP THROUGH IMPLEMENTATION



Partnership Through Implementation



Northeast Georgia Health System

Tiffany Young, BSN, RN, CDCES

Diabetes Program Manager, Northeast Georgia Health System

Program manager oversight of inpatient glycemic management processes such as:
Collaborating with the care team
Consulting on best practice
Updating policies, procedures, and order sets
Resource for bedside nurses on policies and procedures related to inpatient diabetes management

CDCES team:

- Consults on all IV Insulin infusions (patient education and nurse guidance) Answers questions about using Glucommander IV Consult with physicians on ordering and transitioning from
- IV to SubQ



Glucommander IV used in:

- Critical Care
- ED ٠
- Intermediate Care •
- Progressive Care (Cardiac Step Down, and Heart Failure)
- L&D



Implementation & Post-Go-Live Support Needs



OC

Go-Live Support Needs

- Training can only go so far to prepare clinicians for real-world scenarios
- First time users have questions
- Initial hurdle of transitioning patients on paper protocols to Glucommander IV during Go-Live

Ongoing Support Needs

- The week of go-live is important, but support is needed well after the initial roll out
- Education, process iteration and user troubleshooting is an ongoing process



Preparation & Ongoing Support Strategies

Preparing for go-live starts early and includes a plan for during and post go-live support

Preparation

- Training
 - 1,000 nurses needed to be educated prior to golive
 - Hospitalists, Intensivists, CV Surgeons, ED physicians, OB...
- Identify needed resources for go-live and create a process, identify the right people and partners

Partner Support

- Glytec training for Nurse super users, training materials: support internal SMEs
- Glytec go-live support for nurses & providers
 - Help transitioning patients from paper protocols to Glucommander during golive

Planned Touch-Points

- Frequent touch-points with key leadership week of go-live
- Morning huddle: surface issues, communicate progress, define solutions with the right people to make it happen – crossfunctional team



Outcomes of Successful Implementation

Patients treated with Glucommander IV vs. pre-GM insulin protocol



Clinical Outcomes

Time to Target BG: reduced 36 minutes compared to paper protocols

- Patients out of critical care sooner
- Increase throughput



Total Hospital Length of Stay

Length of Stay

Reduced by 3.57 days (total hospital stay)

- All DKA and non-DKA patients
- Patients in Medical Intensive Care Unit



What the clinical staff is saying...

Glucommander takes a lot of the work and worry out of having a patient on an insulin drip. – Kris Brown, BSN, RN, (CVSU)

Glucommander has helped simplify our protocols and made managing insulin drips much easier! - Cami Rideway, BSN, RN, CCRN (CVICU) Glucommander makes the insulin drip protocol easy by removing calculation from the nurse's responsibility, reducing time and potential for error. Glucommander also provides unit reminders so that keeping up with blood sugar checks is a team activity. – Lois Hriczo, BSN, RN (MICU)

It is nice having visibility on the Glucoview monitors to get a quick snapshot of how many insulin drips there are and who needs help. – *Cami Rideway, BSN, RN, CCRN (CVICU)*

Glucommander takes the math out of titrating and it makes it easy for me as a diabetes educator to help physicians and nurses with transition. -Rachel Oswalt, BSN, RN, Diabetes Educator

Glucommander is very straightforward, easy to use, and has been a great addition to Epic. *-Kris Brown, BSN, RN, (CVSU)*



GRADY HEALTH SYSTEM: EXPANDING ON & SHARING LONG-TERM SUCCESS



Mature Program

Grady

Barbara McLean, MN, RN, CCRN, CCNS-BC, NP-BC, FCCM

Advancing Evidence-Based Practice Clinical Specialist, Grady Health System

- 40+ years in clinical practice
- First-hand experience treating people with glycemic management issues in the ICU, IMU and ED
- 3,300+ presentations nationally and internationally
- Published in a wide variety of journals, and regular reviewer for Critical Care Medicine, Intensive Care Medicine and NEJM



Grady Health System (Atlanta, Georgia)

- Large, Urban, Safety Net Hospital
- 2 Medical Schools (Emory & Morehouse)
- Using Glucommander for continuous IV insulin since 2016
 - ICU Beds >110
 - Step Down Beds >150
 - Now ECC beds> 120
 - Next 4 new stepdown units



Motivation to Adopt eGMS & Glucommander IV

Academic Medical Facility – Residents create challenge in critical care, hypoglycemia was an issue

Rotating Physicians

- Attendings change weekly
- Residents and fellows change monthly
 - Variable practice
 - Newer providers
- Relatively new APP program < 3.5 years Proposed Solution:
- Desire for more standardized approach to mitigate provider variability
- eGMS for a consistent approach

Hypoglycemia year before eGMS implementation

- 37% hypoglycemia rate (all insulin)
- 4 hypoglycemia sentinel events (inclusive of all insulin types)

Proposed Solution:

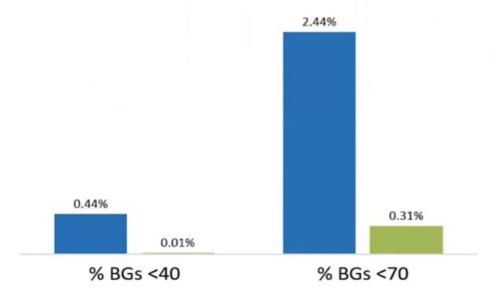
- Needed safety guardrails
- Reduce need for individuals to do calculations without regard to sensitivity
- Create an environment of safety



Long-Term Success – 3 Years of Data

Hypoglycemia Reduction

Incidence of Hypoglycemia (% BGs) Over 3 Years eGMS® Use Data Review: October 2016-December 2019



- Intravenous Insulin Infusion Therapy Managed With Standard Protocols ("Usual Care")
- Intravenous Insulin Infusion Therapy Managed With eGMS[®]

Practice Change Benefits

- eGMS obviates the major limiting factor of IV insulin
 - Addresses fear of hypoglycemia
 - Zero Sentinel Events with Glucommander IV
 - Focuses clinicians on best practice care
- Confidence in Expansion
 - Emergency Department: now LIVE!
 - Operating Room & PACU
 - Anesthesia managing IV
 - Critical Care OB
 - 4 new stepdown areas



eGMS Benefits During COVID: Quick Pivoting, Adapting

The culture changes that were firmly in place before COVID enabled the Grady System to pivot & adapt to changing circumstances while maintaining optimal glycemic management practices

Culture Change Benefits

- Focus on the right things, best practice
 - Buy into importance of timely BG checks
 - Appreciate the intensity of IV insulin

Education

 Focus standard bedside staff on the importance, value & urgency of glycemic management/insulin administration

Proactive vs. Reactive Care Benefits

- Understand & account for impact of steroids
- Short-term increase in workflow for nurses promotes longer-term reduction in secondary problems
- Real-time data & historical trends drives algorithm's dose recommendations
- Differentiating DKA vs. non- DKA protocol
- Protocol for management is the hospital based protocol
- Glucommander is the "real time insulin doctor!"



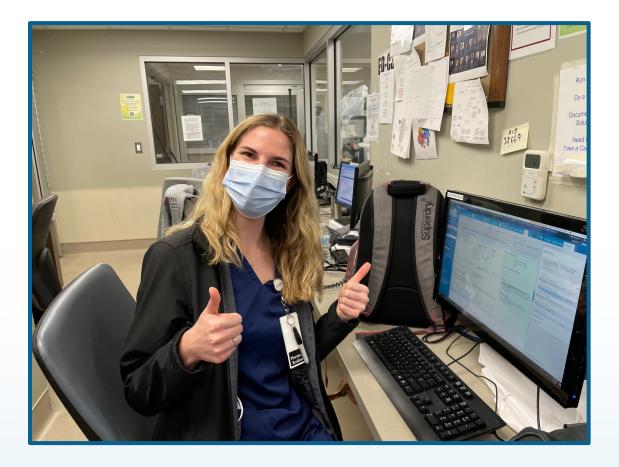
Implementation in ECC (ED)

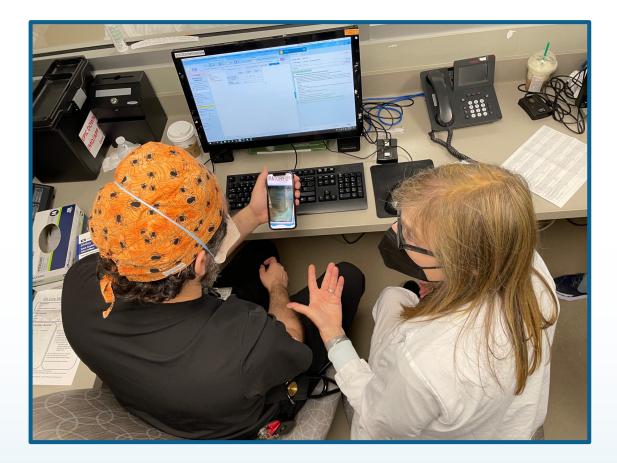
- Education in 1.5 hour sessions : 24 over three weeks
 - Over 200 ECC nurses educated live
 - Opportunity to educate regarding insulin as well as glycemic management
- Provider education at faculty and residency meetings
 - Most focus on orderset and control of insulin
- Significant EPIC integration
- Key pharmacy integration
- Successful go live 10-7-2021





And it does take a team.....







Thank you!



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TIME TO Uniting Around TARGET Patient Safety