

Texas Health Huguley Hospital Implements a Successful Pharmacy-Driven System



Introduction

When it came to critical care glycemetic management, progress had stalled at Texas Health Huguley Hospital. Angela Hodges, PharmD, RPH, LSSYB, BC-ADM, Diabetes Center of Excellence Manager for the acute care facility, could see exactly why.

The EndoTool system used by the hospital wasn't providing the support and partnership Texas Health Huguley needed. To support the pharmacy-driven system for insulin initiation, Texas Health Huguley seized an opportunity for change by implementing Glytec's eGlycemic Management System® (eGMS) with the insulin dosing decision support module Glucommander™.

While changing systems and processes was necessary, Dr. Hodges was nervous that such a major change to technology and culture would lead to backsliding on the results they'd already realized.

Thankfully, Dr. Hodges' partnership with Glytec ultimately helped Texas Health Huguley successfully make the transition. eGMS® helped clarify roles; improve consistency, collaboration and the efficiency of order sets; and provide better care for patients with DKA or HHS.

The project also allowed Dr. Hodges and her team to demonstrate the power of their unique pharmacy-driven system for insulin initiation and become a model for other hospitals looking to drive change.

HOSPITAL:

AdventHealth,
Texas Health Huguley

FACILITY TYPE:

Acute care facility

FACILITIES:

1

BEDS:

291

LOCATION:

Texas

SYNOPSIS

By switching from EndoTool to Glucommander and supporting a pharmacy-driven process, Dr. Hodges helped Texas Health Huguley improve consistency in glycemetic care, more than double nurse and physician use of PowerPlan orders, improve insulin dosing processes in critical care areas, and achieve >80% patient days with BG 70-180 mg/dL (normoglycemia).

Texas Health Huguley Hospital's Diabetes Center of Excellence is a CMS Five-Star facility offering advanced inpatient diabetes care to patients in Fort Worth, Texas. However, the technology provider they used for glycemic management, EndoTool, wasn't offering the updates, support and partnership they needed to keep moving forward.

Dr. Hodges wanted a solution that would optimize DKA and HHS treatment, and safely transition patients from IV to SubQ insulin therapy. Most importantly, she wanted a technology provider that would partner with her hospital and provide continual updates to their solutions. That required switching to a more robust glycemic management system.

While transitioning from EndoTool to Glucommander IV in the ICU, Dr. Hodges and the team supported a pharmacist-driven insulin infusion initiation process. This resulted in better-defined roles and a new culture built around collaboration while empowering the hospital to continue improving outcomes.

“The tech was falling a little behind, and we weren't getting enough support in that, so there was a little frustration that the previous decision support software was not making changes that seemed to improve the product.”

Angela Hodges, PharmD, RPH, LSSYB, BC-ADM
Diabetes Center of Excellence Manager, Texas Health Huguley Hospital

The Problem

EndoTool wasn't working for Texas Health Huguley Hospital's Diabetes Center of Excellence. In critical care units, there was an automatic nurse-driven protocol to initiate insulin infusion using EndoTool, but physicians had to enter a separate order for patients experiencing DKA or HHS. There was also no set process for insulin infusion meal-time bolus treatment.

As a result, physicians weren't always initiating the necessary orders to treat patients with DKA and HHS. Everything needed to be ordered in an evidence-based PowerPlan. Dr. Hodges knew partnering with Glytec would enable her team to transition patients to SubQ insulin safely without any excursions.

Dr. Hodges also wanted the ICU insulin initiation process to more closely resemble the one used in non-critical care units, in which an automatic pharmacy-driven protocol initiated basal-bolus insulin therapy. All the ambiguity, inconsistency, and undefined roles convinced Dr. Hodges that change was necessary.

“We brought efficiency to a very complicated process, which allowed physicians to focus on other important clinical factors.”

Angela Hodges, PharmD, RPH, LSSYB, BC-ADM
Diabetes Center of Excellence Manager, Texas Health Huguley Hospital

The Solution

To enhance the pharmacy-driven protocol and glycemic support, Texas Health Huguley Hospital transitioned from EndoTool to Glucommander IV in the ICU.

Pharmacy leadership realized new processes and software would require a culture change and collaboration across the system. By focusing on strengthening relationships and providing effective training and best practices, Dr. Hodges was able to help nurses see that the change would reduce errors, variation and elevate patient care.

Dr. Hodges worked on creating the schematics of the pharmacy consult model flow and Glucommander PowerPlan, and every pharmacist was asked to complete Glucommander nurse training as well as additional sessions for critical care glycemic management.

Dr. Hodges also went beyond her own hospital, facilitating a local hyperglycemia collaborative and co-chairing an AdventHealth corporate glycemic monthly collaboration to encourage information sharing and growth in different units, departments and regions.

She established KPIs to measure success: The goal was to have more than 75% of patient days with BG 70-180 mg/dL, and to see Glucommander initiation times within six hours of a patient meeting criteria.

Outcomes

The Diabetes Center of Excellence realized a new culture built around collaboration, and pharmacists grew clinically, learning how to dose insulin in critical care areas. Most importantly, patients experienced better outcomes.

Results included:

Six-hour initiation of Glucommander after a patient met criteria. Initiation increased from 80% at the start of implementation to 85%.

The establishment of two PowerPlans: one for basic hyperglycemia, and one for DKA/HHS. In the first 3 months after initiating Glucommander, pharmacists entered 33% of Glucommander IV PowerPlan orders, nurses entered 39%, and physicians entered 28%. Prior to this, physicians entered 80% of PowerPlan orders for DKA.

The ICU saw improvement from 75% of patient days with BG 70-180 mg/dL to >80% patient days with BG 70-180 mg/dL.

“We used our culture, our strategic teams and our data to bring about success. Leadership recognized that pharmacy could be key to this change.”

Angela Hodges, PharmD, RPH, LSSYB, BC-ADM
Diabetes Center of Excellence Manager, Texas Health Huguley Hospital

In Conclusion

Texas Health Huguley Hospital kept its evidence-based practice intact while completely changing its systems, roles and processes for critical care glycemic management. Glucommander outshined EndoTool and supported Texas Health Huguley Hospital in bringing efficiency to a complicated process, proving the benefits of interprofessional collaboration and supported their pharmacy-driven system.

**Get the full story
from Dr. Angela
Hodges**

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The eGlycemic Management System® is a modularized solution for glycemic management across the care continuum that includes Glucommander™. Glucommander™ 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. Glucommander™ 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 judgment. No medical decision should be based solely on the recommended guidance provided by this software program.

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