

With Glytec, Hospital Moves to Basal-Bolus Insulin, Saves \$9.7 Million



The move to quality ratings will put more pressure on hospitals to find ways to improve the standard of care while cutting costs.

A decade ago, the American Diabetes Association (ADA) called for hospitals to shift from sliding scale to subcutaneous basal-bolus insulin therapy for non-critically ill patients, but change has been slow in coming. Fear of hypoglycemia and concerns that staff would not be able to keep up with dosing demands of basal-bolus kept hospitals from upgrading to the standard of care.

Glytec had previously presented data that show its electronic glycemic management system (eGMS) offers hospitals a way to meet the basal-bolus standard, reducing the number of days patients were out of range. At the recent 77th Scientific Sessions of the ADA, Glytec presented the bottom line: the electronic system not only improves glycemic control, but it also saves time and money.

Data presented came from Kaweah Delta Medical Center in Tulare County, California, where 13.2% of the county has diabetes. The hospital had struggled to convert to basal-bolus insulin, but did so with help from the electronic-guided insulin dosing system, known as Glucommander.

Researchers matched 1039 patients who received usual care in 2015 with 3200 patients treated during the first year after the switch to eGMS (March 2016 to March 2017). According to the results:

- Savings from 2434 fewer events in the first year totaled \$7,141,356.
- Savings in average length of stay totaled \$2,579,200 (7.18 days vs 5.51 days).
- Percentage of patients < 70 mg/dL: 30.31% for usual care vs 20.10% for Glucommander.
- Use of the Glucommander resulted in a reduction of 69,256 insulin dose adjustments during the first year, which were otherwise required when manually titrating daily basal-bolus insulin.
- The calculated time saved per prescriber per patient: 199.5 seconds.
- The calculated time saved per shift: 30 minutes.

Before the hospital started using the Glytec system, basal-bolus insulin was only used 5% of the time—afterward, the situation was reversed, and basal-bolus was used 96% of the time. Raymie McFarland, vice president of Quality Initiatives at Glytec, said these results are noteworthy given how much the hospital had struggled to make the switch to basal-bolus insulin before engaging Glytec.

While basal-bolus is the standard of care, *“It’s difficult to do this for every patient with no endocrinology support,”* he said.

The arrival of the Medicare Access and CHIP Reauthorization Act (MACRA), which will bring greater importance to quality ratings, will make it more important than ever for hospitals to find ways to achieve ADA standards without relying on extra manpower. As a practical matter, there aren’t enough endocrinologists to meet demand, due to lagging incomes and a rise in the number of people who need a specialist.

“As the market moves toward value-based reimbursement, we’re there—we’re ready for it,” said Andrew S. Rhinehart, MD, FACP, CDE, BC-ADM, CDTC. Glytec’s system can assist providers with glycemic management at all points on the continuum of care.

Robby Booth, senior vice president of Research and Development, points out a distinguishing feature: Glucomander can interact with major electronic health record systems, a hurdle that has kept many digital providers from making headway. (Glytec has reported case studies involving integration with EPIC.)

“After 11 years, we’re an overnight success,” Booth said.

Reference

Newsom R, Patty C, Camarena E, Gray T, Sawyer R. Safely Eliminating Sliding Scale through a hospital wide conversion to basal/bolus insulin vs implementation of an electronic glycemic management system. Presented at the 77th Scientific Sessions of the American Diabetes Association, San Diego, California. Abstract 133-LB

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