

Finger Stickin' Good – Improved Glycemic Control in CV Surgery Patients Provides Cost Savings Through Reduction in Point of Care Tests

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OBJECTIVE

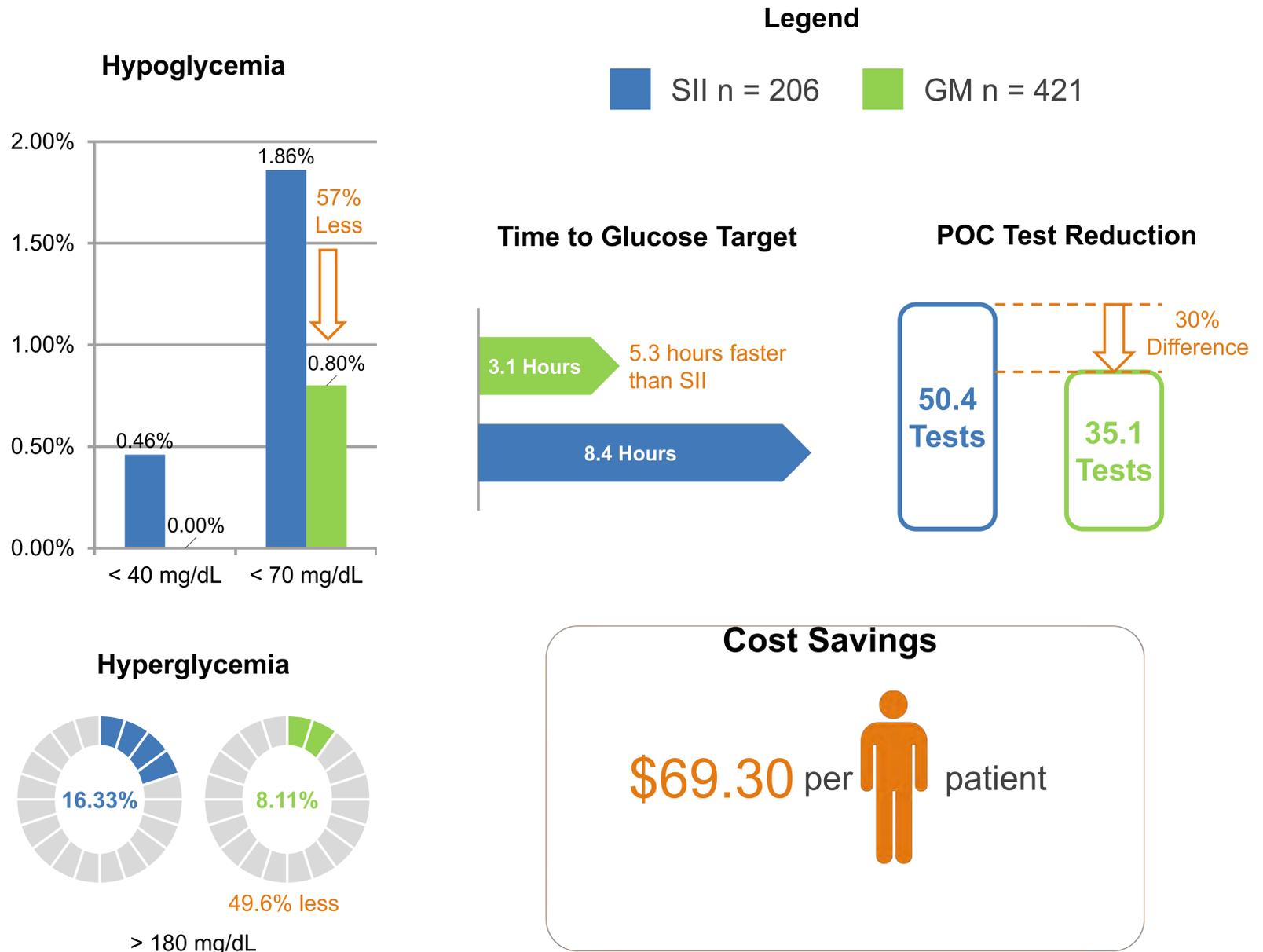
Glucose control with IV insulin has been shown to provide up to \$2,700 in cost savings per patient undergoing cardiovascular surgery with a target of 100-140 mg/dL. This study focuses on cost savings achieved with point of care (POC) test strip reduction by achieving glycemic targets quickly and safely.

METHODS

A retrospective, observational study was conducted comparing Glucommander (GM) IV to Standard Insulin Infusion by paper protocol (SII) at a community-based hospital involving 627 adult patients undergoing cardiovascular surgery with a glycemic target <180 mg/dL. This study was conducted over a 9-month period with 3 months before GM as control (206 patients) and 6 months with GM as active (421 patients). Point of care (POC) test strip use and reduction of hypoglycemia were analyzed to compare cost and efficiency of the two methods.

RESULTS

Hypoglycemia <40 and <70 mg/dL was 0.46% and 1.86% for SII, and 0.0% and 0.8% for GM, respectively. Percent of patient day in target range for SII was 81% versus 91% for GM. Hyperglycemia >180 mg/dL was 16.33% for SII versus 8.11% for GM. Time to glucose target was 5.3 hours faster for GM (3.1 hours) compared to SII (8.4 hours). The average number of POC tests with SII was 50.4 and 35.1 for GM. The cost savings from treatment with GM was \$69.30 per patient totaling \$29,175.30.



CONCLUSION

GM had 57% fewer hypoglycemic events <70mg/dL and 30% less POC utilization per patient. Patients treated with GM had faster time to target, less hyperglycemia, and more patient days in target. This data suggests that it is possible to achieve better glycemic control with GM which correlates to cost savings.