

Standardizing Care for Patients with Insulin Pumps

Primary Investigator: Denise Cody MSN RN CPAN

New England Baptist Hospital, Boston, Massachusetts

Co-Investigators: Christine A.F. Bell MSN RN CAPA WCC, Mary Dillon RN CAPA,

Paula Cote BSN RN, Aileen Keating BSN RN, Lauren Jasminski MSN RN,

Tim Fouche PharmD, Katelynn Cali BSN RN

Introduction: An increase in the number of patient with subcutaneous insulin pumps was noted in the surgical population. Multiple types of insulin pumps and various levels of patient knowledge were being noted by perioperative staff.

Identification of the problem: The plan of care was found to be inconsistent for these patients and there was no standardized treatment guideline in place to manage practice.

Objectives of project: The objective of this project was to 1) Standardize the perioperative process of insulin pump management, 2) Create a clinical practice guideline specific for this population, and 3) Systematically educate staff of the new process and guideline.

Method: A multidisciplinary team was assembled and the current practice was analyzed to identify gaps. Multiple areas of practice were identified. Monthly meetings were held with leaders from each area contributing to the practice guideline development.

Outcomes: A multidisciplinary clinical practice guideline was developed in conjunction with endocrinology physicians, hospitalists, anesthesiologists, nurses and pharmacists to standardize the process from pre-admission screening to discharge. A new process was created in the electronic medical record to record the patients pump, basal rate and bolus amounts given. Education for staff was developed and distributed hospital wide.

Discussion: This QI project targeted a clinical gap and created a team from nursing, medicine, pharmacy, nutrition, anesthesiology and informatics to standardize practice for a low volume, high risk process. This project ensures that patients with insulin pumps are identified in the pre-screening unit and are assessed for their independence in pump management.

Conclusion and implications: Patients with insulin pumps are now admitted day of surgery with a detailed plan of care from an endocrinologist. Accurate documentation of patient's insulin pump and activity is now standardized. This assists with communication between nursing staff and anesthesia, and aides in promoting positive outcomes for surgical patients.

Future Research: Comparison of glucose levels pre and post practice guideline implementation for effectiveness of change.