

PRIHS: Partnership for Research and Innovation in the Health System

FUNDING AWARDS



A Perioperative Glycemic Management Pathway for Reducing Length of Stay in Albertan Surgical Patients

PROJECT FAST FACTS

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PRIHS AWARD: \$1.29M

THE PROBLEM

High blood sugar after surgery is associated with worse patient outcomes – including longer hospital stay, more surgical site infections, and even higher mortality. Previous research by our study team found that surgical patients in Calgary had quality gaps in management of their blood sugars after surgery.

THE SOLUTION

Implement a standardized care pathway that aligns current workflow with national guidelines and best practices for perioperative glycemic management, emphasizing role clarity and teamwork.

Managing blood sugar around the time of surgery is challenging – it requires coordination of outpatient and inpatient care between multiple providers, including surgeons, anesthesiologists, nurses, internists, and patients. Even when high blood sugars are identified, clinical inertia and fears of low blood sugars prevent adequate management. Altogether, these challenges lead to low quality, unsafe care between 40-50% of Alberta's surgical patients.

This project will use implementation science to leverage the existing strengths of Alberta's surgical teams, including Enhanced Recovery After Surgery, the Basal Bolus Insulin Therapy project, and the Perioperative Glycemic Management Clinical Knowledge Topic, to create a comprehensive, multidisciplinary perioperative glycemic management pathway. Aligning current practice with best practices for perioperative glycemic management will reduce variation and quality gaps in care, and ultimately, will length of stay and readmissions for surgical patients in Alberta.

In addition, our project will use robust methods to better understand the relationship between postoperative hyperglycemia and postoperative complications, evaluate the cost-effectiveness of implementation of perioperative glycemic management, and generate a knowledge translation toolkit and implementation strategy to spread and scale similar pathways in other settings.

PROJECT OBJECTIVE:

- Reduce variation and quality gaps in perioperative glycemic management.
- Evaluate the relationship between postoperative hyperglycemic and postoperative complications.
- Assess cost-effectiveness of comprehensive, multidisciplinary perioperative glycemic management.

ABOUT PRIHS

The PRIHS program is designed to align the knowledge production efforts of researchers with the evidence needs of the health system. This is achieved by providing opportunities for researchers to propose solutions to priority health system challenges and access support from SCNs and other expertise within AHS to administer implementation studies. These implementation studies will help AHS identify and advance solutions that improve health care quality, health outcomes and value for Albertans.

VALUE & TERM

Combined pool of funds available: \$7 million. Individual award's period of support: up to three years.

FOCUS AREAS

PRIHS VI provides a streamlined process for connecting Alberta's academic institutions with Strategic Clinical Networks™ (SCNs), patients, providers and leaders in AHS to:

- Translate research evidence into testable solutions that address priority health system challenges in Alberta as articulated by the SCNs; and
- Generate the evidence needed to identify and accelerate the spread and/or scale of solutions that foster more efficient and/or effective use of health care resources.

Learn how

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