

Dissemination of nursing knowledge - Presentations at professional meetings

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As part of the IHI *100K Lives Initiative*, Geisinger Medical Center has organized the Surgical Site Infection (SSI) Team. The team has implemented goals for optimal outcomes for the surgical client. One of the SSI's goals is euglycemia. The Geisinger Health System (GHS) Insulin Committee has developed OR Insulin Guidelines for Anesthesia to safely control glucose and potassium levels during surgery. The GHS Continuous Insulin Protocol for General Medical/Surgical Patients Taking PO or Bariatric Patients was initiated in 2005 in order to gain better glycemic control during their hospitalization. The surgical client's glucose and potassium levels are monitored preoperatively, intraoperatively and subsequently during the postoperative phase of their hospital stay.

Glycemic control of both the diabetic and non-diabetic surgical client has become a standard of care. Patients with hyperglycemia have a greater risk of postoperative complications, including surgical wound infections. The best outcomes in the postoperative state are achieved if efforts at glycemic control are considered in the preoperative period.

Surgical stress and hypothermia produce complex changes that can cause hyperglycemia in patients regardless of whether a patient has diabetes. Van den Berghe et al have reported a reduction in mortality of the surgical client with a decrease in hospital stay with even minor improvements in glucose control. Perioperative infection and wound healing have been the major focus in many studies of surgical outcomes. High glucose levels have been associated with a variety of effects on leukocyte function.

Although tight glycemic control increases the risk of hypoglycemia and requires increased monitoring, the overall benefits have been well documented. In achieving euglycemia and normothermia during the perioperative course, it has been reported that surgical clients will realize better outcomes. In achieving good glycemic control, clients have seen shorter hospital stays with a decrease in mortality in their recovery period.