

Glucose Control to Reduce Mediastinitis after Cardiac Surgery

The Problem

Mediastinitis (organ space infection) is a very serious complication of cardiac surgery, with a 30% mortality rate. Tight glucose control in the perioperative period has been shown to decrease this infection.

Aim/Goal

Keep post op glucose levels under 130 mg/dL for all cardiac surgery patients.

The Team

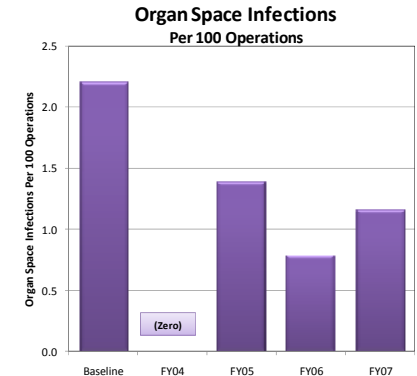
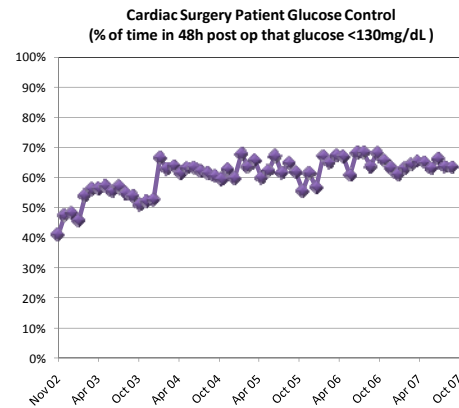
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The Interventions

- Create a glucose control algorithms for the OR and for the Cardiac Surgery Recovery Unit (CSRU)
- Educate staff on importance of tight control and with frequent monitoring (q1-2h)
- Develop a metric that reflects percent of time patients are “in control” (glucose <130mg/dL) in 1st 48h
- Correlate with infection rate
- Report back to all stakeholders monthly
- Evaluate and modify protocol for safety and effectiveness

The Results/Progress to Date:

Improved Glucose Control and Decreased Infection



Lessons Learned

Achievement of this goal was the result of:

1. Shared vision/teamwork
2. Consensus guideline
3. Education
4. Timely metrics of aggregate and individual performance
5. Regular (monthly) performance review
6. Mid course corrections
7. Communication of progress

Next Steps/What Should Happen Next:

- Seamless transition to SC insulin protocol and maintenance of tight glucose control when patient begins eating and transfers out of the CSRU.
- Modify protocol to minimize hypoglycemia.



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