Stamford Hospital
Stamford, Connecticut

For its initiative: “Intensive Glycemic Management in Critically Ill Patients”

The goal of this project was to decrease mortality, organ dysfunction and intensive care unit length of stay (LOS) of critically ill adult patients. To accomplish this, the Stamford Hospital Intensive Care Unit (ICU) implemented a glycemic management protocol that used intensive monitoring and treatment to maintain blood glucose values less than 140 mg/dl. Continuous intravenous insulin was used if glucose values exceeded 200 mg/dl on two successive occasions; subcutaneous regular insulin was used for milder hyperglycemia. As a result of the initiative, hospital mortality of ICU patients decreased 29.3 percent and ICU LOS decreased 10.8 percent. In addition, the development of new renal insufficiency decreased, as well as the number of patients receiving transfusions of packed red blood cells. Steps are being taken to disseminate this initiative throughout the hospital’s health system.

Achievements

- Decreased mean glucose from 152.3 mg/dl to 130.7 mg/dl, marked by a 56.3 percent reduction in the percentage of glucose values greater than 200 mg/dl, without an increase in hypoglycemia.
- Gained buy-in of the ICU nurses, integrating their input into the initiative and the target glucose values.
- Resulted in a 29 percent decrease in mortality—49 saved lives out of the first 800 patients treated in this community hospital’s ICU.
- Created a data-driven ICU. The use of data permeates the culture of the ICU. The staff closely monitors the results of this initiative and the protocol has been extended to the hospital’s intermediate care unit.
- Increased motivation, empowerment and skill development of the nursing staff.
- Demonstrated that close monitoring and rapid treatment of patients using this simple and low-cost intervention can profoundly impact morbidity and mortality of critically ill patients.