

The Need for Continuous Blood Glucose Monitoring in the Intensive Care Unit

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Abstract

Insulin-based regimens decrease morbidity and mortality among critically ill patients by way of keeping glucose at tight control. Utilizing these regimens involves multiple measurements of glucose by way of finger pricking or through indwelling vascular catheters in order to adjust insulin doses. The limitations and risks of these methods of glucose monitoring are related to potential erroneous measurements, increased risk of infection, and a significant excess workload. An automated blood glucose monitoring device for glucose monitoring of critically ill patients is needed to improve patient care while avoiding the disadvantages of currently used glucose monitoring methodologies.

J Diabetes Sci Technol 2007;1(3):412-414

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Abbreviation: (ICU) intensive care unit

Keywords: glucose monitoring, hypoglycemia, intensive care

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