Hypoglycemia reported in Patient Safety Network (PSN)

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Hypoglycemia (hG) affects 12-18% of inpatients with diabetes mellitus, and is responsible for increase in cardiovascular morbidity and mortality. Objective: The goal of this project was to decrease the hG events (blood glucose < 70 mg/dl) by using new insulin regimens. Methods: We reviewed the hG reported in PSN from during September 2012 to August 2013. A pilot program was implemented by end of March 2013, and included: 1) switching basal Insulin (Glargine) to AM administration instead of PM, 2) using bolus insulin (Humalog) after the meals, 3) holding insulin administration if food intake was less than 50% and 4) adjusting the use of sliding scale coverage. Results: During the study period the distribution of hG for the inpatient population was the following: 27 (19 hG in rehab units and 8 hG in med/surgical units) before intervention; 16 episodes of hG occurred after intervention (11 hG in rehab and 5 hG in med/surgical units). Overall this represents a 59% reduction in the hG events. To exclude hospital census as a confounding factor, we also reviewed the incidence of hG over a 14 months period (7 months before and 7 months after the March 2013). The hG events decreased from 49 to 24 episodes, a 48.9% decrease. Conclusions: In the hospital setting the new insulin regimens appears to be helpful in reducing the incidence of hypoglycemia. Since hypoglycemia is a critical part of patient safety in diabetes management, additional studies need to be done to implement safer insulin regimens.

Biography

Sylvia Shaw received her M.D. from the University of California Medical School at Davis, and completed her internship, residency and fellowship in Internal Medicine and Endocrinology at LAC-USC Medical Center in 1988. After her training, she joined the clinical faculty at USC Keck School of Medicine as an Associate Professor of Clinical Medicine in the Division of Diabetes/Endocrinology. She transferred to the Endocrine Division of Rancho Los Amigos National Rehabilitation Center in 1991, where she is currently the Associate Chair of Medicine and Chief of Endocrinology. She recently completed a master’s degree in Medical Education from USC Keck School of Medicine. She is also a Clinical Assistant Professor of Internal Medicine at Western University of Health Sciences. Dr. Shaw’s research interest is in diabetic patient education and health literacy, diabetic foot-risk factors and preventive therapy, endocrinology of patients with spinal cord injury, and the medical effects of stress. She has been Principal and Co-Principal Investigator on numerous research projects, has several published journal articles, and has made numerous professional and poster presentations.

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