**INCREASE IN HYPOGLYCEMIC ADMISSIONS: CALIFORNIA HOSPITAL DISCHARGE DATA**

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**INTRODUCTION**

The cardiac, eye, renal, peripheral vascular and other complications of diabetes mellitus (DM), type 1 and/or type 2 have been steadily increasing. The economic cost of diabetes in the United States in 2003 was approximately $132 billion and continues to rise.

Many hospital admissions with hypoglycemia in diabetic elderly patients have been identified to be due to drug-drug interactions. Severe hypoglycemia is a major problem for patients with diabetes due to limited patient awareness of signs and symptoms. Comorbidities of patients recall significantly more episodes of severe hypoglycemia than the patients do. In Germany, diabetes-related emergencies are frequent and potentially life threatening. A study in Germany reported that emergency medical service personnel provided pre-hospital care for patients with diabetes-related emergencies including hypoglycemia. This, in addition to patient education, reduced mortality from 4.9% to 0%.

While hypoglycemia in neonates and children has been extensively reviewed in the literature, limited data exists regarding hospital admission due to severe hypoglycemia in adults. To better understand the impact of more aggressive glucose control on significant hypoglycemia, we examined the trends of hospital admissions due to hypoglycemia in diabetics from 1990–1993 and 1997–2000 in the state of California.

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**METHODS**

This study was a secondary database analysis of the public California Hospital Discharge Database for the years 1990 to 1993 and 1997 to 2000. This database includes comprehensive records of most of the hospital inpatient discharges from the acute care hospitals. We identified patients who had hypoglycemia as the primary diagnosis for the hospitalization using the ICD-9 code 250.8. We identified patients who had diabetes mellitus in the other diagnosis fields. The diagnosis of diabetes mellitus was based on inpatient hospital diagnosis codes 250 from the International Classification of Diseases, Ninth Revision (ICD-9). The ICD-9 code of 250 does not include gestational diabetes, hyperglycemia or non-clinical diabetes.

The percentage of hospitalized diabetics due to hypoglycemia was calculated by dividing the number of hospitalizations due to hypoglycemia by the total number of diabetic hospitalizations and is reported as a percentage.