

Factors of Diagnosis to Predict Outcome in Children with Diabetes

IRB# 2007-038

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Synopsis:

The aim of this study is to determine what factors at diagnosis of type 1 diabetes predict outcome at 2 years.

Type 1 diabetes is a chronic disease that requires multiple daily insulin injections and blood sugar monitoring. At our center, patients are admitted to the hospital at diagnosis. During the hospitalization, insulin doses are adjusted, and family members meet with our diabetes team to learn how to take care of diabetes. Without proper management, life-threatening complications such as kidney failure, blindness, and cardiovascular disease may occur. Numerous studies have shown that the risk of these complications decreases significantly with better blood glucose control. However, there is little data available to help identify patients early on who may be at higher risk for problems. The aim of this study is to identify patients who are at-risk for worse diabetes outcomes.

Subjects will be included if they were hospitalized at diagnosis of type 1 diabetes between January 2002 and June 2005. Patients will be included if they were followed here at Children's Hospital Research Center at Oakland Endocrinology Clinic for the first 2 years after diagnosis. Eligibility will be determined by the Principle Investigator.

We plan on conducting a retrospective chart review. The following data will be collected from the medical record chart: date of diagnosis, age at diagnosis, initial blood glucose, pH, BUN, creatinine, length of hospitalization, insurance status, number of parents in the home, number of siblings, birth order, race, HbA1c at 2 years, number of hospitalizations, and number of DKA episodes in first 2 years. Data will be entered into an Excel spreadsheet. Statistical analysis will be done using Pearson's Product-Moment Correlation and Student t-test.