

A. ABSTRACT

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Title: Glycemic Control and Health Outcomes in Frail, Dependent Elders

Background:

Although the trials of tight glucose control excluded older subjects, most treatment guidelines have extrapolated these trial findings to older subjects, and few guidelines distinguish between healthy elders and frail elders. However, because the risks of tight glycemic control (hypoglycemia) are immediate whereas the benefits are often delayed, frail older subjects with limited prognoses may be exposed to the risks of treatment with little chance at benefit. The AGS diabetes guideline suggests a target A1c level < 8%, but there is little data on the outcomes associated with meeting these targets in the frail elderly.

Objectives and Methods:

We will study frail, nursing home eligible, community-dwelling, diabetic enrollees of On Lok Senior Health, the original model for the Programs of All-Inclusive Care for the Elderly (PACE). Our proposal consists of 3 aims. In Aim 1, we will determine whether mortality and the incidence of new ADL dependency differ between non-diabetic subjects and diabetic subjects at varying degrees of hyperglycemia. In Aim 2, we will determine whether the A1c level is associated with geriatric hyperglycemic complications (incontinence, cognitive impairment and photocoagulation therapy for retinopathy) and geriatric hypoglycemic complications (falls, emergency room visits or hospitalizations for hypoglycemia and glucose < 50). In Aim 3, we will compare the rates of functional decline and geriatric diabetes complications before and after the implementation of the AGS Diabetes Guidelines, which suggest A1c < 8%.

Outcomes:

This will be the largest study to examine glycemic control in a frail, dependent, community-dwelling cohort. By examining (1) the association between glycemic control and outcomes, including previously understudied geriatric syndrome outcomes such as incontinence and (2) the consequences of implementing the current guidelines for glycemic control in the elderly, these projects will inform more appropriate targeting of intensive glycemic control in the frail elderly.