

**The Effectiveness of Insulin
Glargine in Addition to Basic
Treatment with Regular Insulin
on Recovery of Patients with
Diabetic Ketoacidosis Compared
to Regular Insulin Alone**

Thesis

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Abstract

Diabetic Ketoacidosis (DKA) is one of emergency conditions caused by acute hyperglycemia which may be associated with both type 1 and 2 diabetes, mostly type 1 and is the cause for 100,000 to 160,000 hospitalizations in US [2]. DKA is a life-threatening condition in which the severe insulin deficiency causes hyperglycemia, severe lipolysis, uncontrolled oxidation of fatty acids and ketone bodies (beta-hydroxybutyrate, acetoacetate and acetone) formation. The process results in metabolic acidosis, dehydration and loss of body electrolytes [3].

The basic treatment of DKA is injection of rapid-acting regular insulin. Intravenous infusion of regular insulin is the preferred method of treatment until recovery from DKA. Then, the treatment is continued with subcutaneous injection of insulin. Intravenous regular insulin has short half-life as a few minutes, requires the infusion pump and is associated with hospitalization and nursing costs

Key words: Insulin Glargine in Addition to Basic Treatment