# Message

Dr. Khursheed Khan ( Associate Professor Allama Iqbal Medical College, Endocrinology Ward, Jinnah Hospital, Lahore, Pakistan. )

Type II diabetes mellitus is a progressive disorder which can be managed with oral antidiabetic initially but eventually most patients require insulin to maintain glucose control. Optimal insulin therapy should mimic the normal physiologic secretion of insulin and minimize the risk of hypoglycemia.
The normal physiologic pattern of insulin secretion by pancreatic b cells consists of
* Sustained Basal insulin level throughout the day, and
* Bursts of Bolus insulin after meal that slowly decay over 2 to 3 hours.
Morbidity and mortality rate is higher with diabetes. Also, the risk of developing complications establish the need to better understand the pathophysiology of type 2 diabetes mellitus and determine optimal management strategies. The treatment goal for all patients with diabetes is to prevent its short- and long-term complications.
Treatment mimicking the normal physiologic pattern of insulin secretion may be an optimal way to achieve tight blood glucose control in patients with diabetes. Adequate basal insulin is essential for glucose regulation in both the liver and the peripheral insulin target tissues (muscle and adipose tissue). Basal insulin plays a key role in modulating endogenous glucose production from the liver, which is highly sensitive to small changes in insulin levels.
In controlled clinical trials, insulin glargine was compared with NPH insulin for improving glycemic control when combined with either oral therapy in patients with type 2 diabetes or with insulin lispro in patients with type 1 diabetes. In 426 patients with type 2 diabetes and poor glycemic control on oral drugs alone, Yki-Järvinen et al compared bedtime insulin glargine and NPH insulin, each with continued oral therapy. Both insulins significantly improved glycemic control (HbA1c and FPG) over 1 year of follow-up. There was significantly less nocturnal hypoglycemia with insulin glargine than with NPH insulin (9.9% vs 24.0%).