

6<sup>th</sup> Global Diabetes

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### Insulin management in type II diabetes mellitus

Usually patients with type 2 diabetes will eventually fail to respond adequately to oral hypoglycaemic drugs in term therapy and will require insulin therapy. Usally at that situation an Ultra Long Basal Insulin Like Glargine(LANTUS) or Insulin detemir (Levemir) at bedtime before dinner with daytime oral drugs is giving good result with good control of glycemic control. It can be started safely in general practice with a good result.

Insulin is a peptide hormone produced by beta cells in the pancreas. It regulates the metabolism of carbohydrates and fats by promoting the absorption of glucose from the blood to skeletal muscles and fat tissue and by causing fat to be stored rather than used for energy. Except in the presence of the metabolic disorder diabetes mellitus and metabolic syndrome.

**Insulin is divided as follows:-**

#### Rapid Acting Insulin:-

- Regular insulin (Humulin R, Novolin R)
- Insulin lispro (Humalog)
- Insulin aspart (Novolog)
- Insulin glulisine (Apidra)
- Prompt insulin zinc (Semilente, Slightly slower acting)

#### Examples of intermediate acting insulins include

- Isophane insulin, neutral protamine Hagedorn (NPH) (Humulin N, Novolin N)
- Insulin zinc (Lente)

#### Examples of long acting insulins include

- Extended insulin zinc insulin (Ultralente)
- Insulin glargine (Lantus)
- Insulin detemir (Levemir)

**Diabetes mellitus type 2** (formerly noninsulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes) is a metabolic disorder that is characterized by hyperglycaemia (high blood sugar) in the context of insulin resistance and relative lack of insulin. This is in contrast to diabetes mellitus type 1, in which there is an absolute lack of insulin due to breakdown of islet cells in the pancreas.