

MEDICATIONS FOR DIABETES

INSULIN:

TYPE OF INSULIN	ACTION TIME		
	Onset	Peak	Duration
<u>Rapid Acting</u> Lispro* (Aspart) NovoLog	15-min	60 – 90 min	3 – 4 hours
<u>Short Acting</u> Regular* (Novolin - R, Humulin – R)	30- 60 min	2 - 3 hours	4 - 6 hours
<u>Intermediate Acting</u> NPH* Humulin (N) Lente (discontinued)	2 hours	6 -8 hours	12 - 16 hours
<u>Long Acting- Basal</u> Lantus* Levemir Ultra Lente	1-2 hour	—	24+ hours

ORAL HYPOGLYCEMIC AGENTS:

Drug Administration:

1. Use lowest effective dose
2. Increase every 1-2 weeks until acceptable blood glucose level are reached
3. If maximum dose reached and levels not reached then a different medication is tried
4. Insulin tried only after 2-3 oral agents have been tried
5. Can combine medications because of the different mechanisms of action

Drug Selection

1. Based on cost
2. Ability to manage multiple drug doses
3. Client's age and their response to the drugs

How oral hypoglycemic agents work to decrease blood sugar include:

1. Stimulating or increasing insulin secretions
2. Preventing breakdown of glycogen to glucose in the liver
3. Increasing the peripheral uptake of glucose by making cells less resistant to insulin

- 4. May block absorption of carbohydrates in the intestines**
 - 1. Sulfonylureas**
 - a. Used with clients who have remaining pancreatic beta cell function**
 - b. Drug stimulate insulin secretion- enhances the sensitivity of the cells receptor sites**
 - c. Prototype: Micronase (glyburide)
Glucotrol (glipizide)**
 - 2. Biguanide**
 - a. Lowers glucose by decreasing liver glucose release and decreasing cellular insulin resistance**
 - b. Does not stimulate insulin release**
 - c. Prototype: Glucophage (metformin)**
 - 3. Thiazolidinedione/ glitazones**
 - a. Enhances insulin action by promoting glucose utilization in peripheral tissues**
 - b. Prototypes: Actos (pioglitazone)
Avandia (rosiglitazone)**
 - 4. Alpha-glucosidase inhibitors**
 - a. Decreases hyperglycemia by slows intestinal digestion and absorption of carbohydrates (delay carbohydrate digestion). Decreases the rate of glucose absorption and lowers glucose levels**
 - b. Prototype: Precose (acarbose)**
 - 5. Meglitinide**
 - a. Decreases blood glucose by triggering insulin secretions**
 - b. Prototype: Prandin (repaglinide)**