

INTRODUZIONE



Sites of Action of Oral Antihyperglycemic Agents

Sulfonylureas and Meglitinides

Stimulate pancreatic insulin secretion

Sulfonylureas are of special value in patients who are lean and have insulinopenia

Meglitinides are of special value in patients with postprandial hyperglycemia

α -Glucosidase inhibitors (acarbose, miglitol)

Delays intestinal absorption of carbohydrates

α -Glucosidase inhibitors are of special value in patients with postprandial hyperglycemia

Thiazolidinediones: rosiglitazone, pioglitazone

↓ Insulin resistance in skeletal muscle and adipose tissue

↓ Excess hepatic glucose output

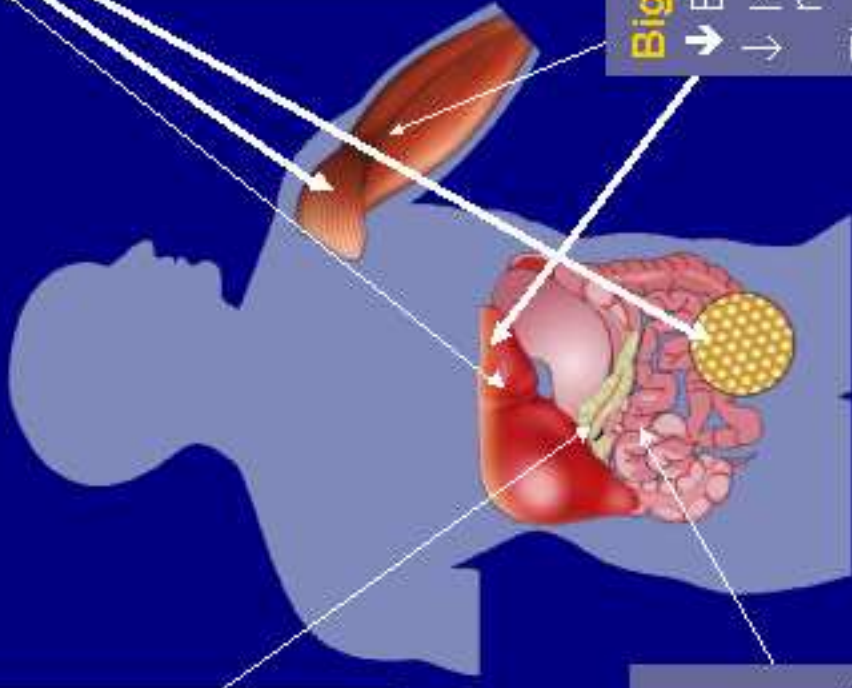
Thiazolidinediones are of special value in insulin-resistant, overweight patients who have dyslipidemia or who have renal impairment

Biguanide (metformin)

↓ Excess hepatic glucose output

↓ Insulin resistance in skeletal muscle

The biguanide is of special value in obese patients who have fasting hyperglycemia



TREATMENT OF T2DM

Impaired Insulin Secretion

Sulfonylureas +
Meglitinides

GLP1 Receptor Agonists

Gliptines

Glitazones
Metformin

Metformin
Glitazones

⊖

Hyperglycemia

⊕



Increased
HGP



Decreased Glucose
Uptake

Insulina	Azione			Nome commerciale
	Inizio	Picco (h)	Durata (h)	
Regolare	15-30 min	3	6-8	Humulin R (LILLY) Actrapid (NOVO)
NPH	90 min	4-6	12-20	Humulin I (LILLY) Protaphane (NOVO)
Lispro	10 min	1	3-4	Humalog (LILLY)
Aspart	10 min	1	3-4	Novorapid (NOVO)
Glulisine	10 min	1	3-4	Apidra (AVENTIS)
NPL	1,5-2 h		> 15	Humalog Basal (LILLY)
Glargine	1.5-2 h		24	Lantus (AVENTIS)
Detemir	1.5-2 h		16-20	Levemir (NOVO)

Criteri di Selezione dei Farmaci Ipoglicemizzanti

- Efficacia nel correggere iperglicemia HbA_{1c}
- Effetti extra-glicemici
→ *riduzione complicanze*
- Sicurezza
- Tollerabilità
- Costo
- Efficacia nel correggere iperglicemia
FGP vs. PPG
oscillazioni e *variabilità glicemica*
“durability”
- Fenotipo del paziente
clinico (BMI, waist, ±SM, ±CVD)
glicemico
- Meccanismo patogenetico
deficit secrezione vs. insulino-
resistenza, autoimmunità