Newer anti-diabetic agents have emerged for the treatment of diabetes. They are commonly referred to by their mechanisms of action, such as glucagon-like peptide-1 (GLP-1) agonists and dipeptidyl peptidase-4 (DPP-4) inhibitors, BUT the mainstay of initial management of diabetes is still with metformin, sulfonylureas and insulin.

Where do GLP-1 agonists and DPP-4 inhibitors fit into treatment?

- In the initial management of diabetes metformin, sulfonylureas, and insulin are more efficacious than DPP-4 inhibitors and GLP-1 agonists in lowering HbA1C.
- Average expected ↓ in HbA1C: 6
  - Metformin & Sulfonylureas: 1-2%
  - Insulin: >1.5%
  - GLP-1 agonists & DPP-4 inhibitors: 0.5-1%
- Achieving a 1% reduction in HbA1C can have a significant impact on the reduction of microvascular and macrovascular events as was shown in the United Kingdom Prospective Diabetes Study (UKPDS 35). Therefore, beginning an agent that has the largest expected decrease in HbA1C should be the focus of initial medication selection for diabetes.

Remember, metformin and sulfonylureas should be considered for the initial pharmacological management of type 2 diabetes, while GLP-1 agonists & DPP-4 inhibitors may fit into treatment later on.