Medications in T2DM

Anti-diabetic medication

- Sensitizers من المعالمة على المعالمة ا
 - 3.1 Biguanides
 - 3.2 Thiazolidinediones
- 3 Secretagogues __ act on P-cells
 - 3.1 Sulfonylureas
 - 3.2 Nonsulfonylurea secretagogues
 - 3.2.1 Meglitinides
- Alpha-glucosidase inhibitors
- 5 Peptide analogs
 - 5.1 Injectable Incretin mimetics
 - 6.1.1 Injectable Glucagon-like peptide analogs and agonists
 - 5.1.2 Gastric inhibitory peptide analogs
 - 5.1.3 Dipeptidyl Peptidase-4 Inhibitors
 - 5.2 Injectable Amylin analogues
- 6 Natural substances
 - 6.1 Plants
 - 6.2 Elements
- **ASCVD** or High risk:

Use GLP1 or SGLT2i

If A1C above target, add them together or use TZD in addition to one above.

HF patients:

SGLT2i

CKD patients: (GFR<60)

Prefferd: SGLT2I

You could use: GLP1 if the other not tolerated.

Glycemic management efficacy: (for glucose lowering meds)

Very high:

Dulaglutide (High dose), semaglutide, Tirzepatide, Insulin, injectable GLP1 (as mounjaro)

High:

Metoformin, SGLT2I, Sulphonylurea, TZD

Intermediate:

Dpp4i

Weight loss efficacy meds:

Very high:

Semaglutide, Tirzepatide

High:

Dulaglutide, Liraglutide

Intermediate:

SGLT2I

Neutral:

Dpp4i, Metoformin.

Notes:

- Note that always GLP1 considered high or VERY high.
- 1. Metoformin C/I in GFR<30
- 2. SGLT2I usually given 60<GFR>30
- Metoformin causes B12 Def, also has common GI Side effects and worsening neuropathy.
- 4. Sulphonylurea casues hypoglycemia.
- Insulin + Sulphonylurea + Thiazolidinediones causes weight gain.
- Metoformin is the prefferd initial pharmacologic agent, should be continued as tolerated. Has beneficial effects on A1C, weight, CV mortality.
- To avoide metoformin GI ADR's, gradual dose titration or could be taken with meals.

8. Metoformin excerted really, so follow up Cr regularly.

Clinical considerations:

<mark>SGLT2I</mark>:

- 1. DKA risk
- 2. Increased risk of mycotic genital infections (due to lower threshold for glucosuria)
- 3. Fournier gangrene
- 4. Attention to volume stats + BP

GLP-1:

- 1. Risk of Thyroid C-cells tumor
- 2. Gl upset + ileus
- 3. Pancreatitis (IMP)
- 4. Needs routine evaluation to gallbladder dis.

DPP4i:

- 1. Pancreatitis
- 2. Joint pain
- 3. Bullous pemphegoid

Thiazolidinediones:

- 1. Risk of HF + Fluid retention
- 2. Risk of bone fractures