

ALGORITHM FOR GLYCEMIC CONTROL IN TYPE 2 DIABETES: ORAL AGENTS:



1ST METFORMIN – decreases hepatic glucose production and intestinal glucose absorption; increases insulin sensitivity. (**1.5% a1c reduction**) – **CARDIOPROTECTIVE** – egfr 45 -60 = 2 g/d (max)
egfr 30 – 45 = 1 g/d; (avoid egfr <30)



2ND INCRETIN SYSTEM MEDICATION: glycemic control, weight loss, bp reduction, less hypoglycemic risk
GLP 1 RECEPTOR AGONISTS – long acting with superior results, (**0.8 – 2% a1c reduction**)
Avoid h/o pancreatitis or FH medullary thyroid cancer;

- EXENATIDE (BID) – BYETTA – avoid cr cl <30
- EXENATIDE LAR (ONCE WEEKLY) – BYDUREON – avoid cr cl <30
- LIRAGLUTIDE (ONCE DAILY) – VICTOZA – **CARDIO-RENOPROTECTIVE** – no renal adjustment
- SEMAGLUTIDE (ONCE WEEKLY) – OZEMPIC - **CARDIOPROTECTIVE**
- DULAGLUTIDE (ONCE WEEKLY) – TRULICITY
- LIXISENATIDE (DAILY) –ADLYXIN



3RD SGLT2 - inhibits sodium-glucose cotransporter 2, reducing glucose reabsorption and increasing urinary glucose excretion; (**0.5 – 1% a1c reduction**), **caution** with concomitant diuretics; increased risk of genital mycotic infections.

- EMPAGLIFOZIN – JARDIANCE – **CARDIO-RENOPROTECTIVE**, avoid egfr < 45, avoid elderly
- CANAGLIFLOZIN – INVOKANA – **RENOPROTECTIVE**, avoid egfr <45, avoid elderly;
FDA warning increased leg and foot amputations
- DAPAGLIFLOZIN – FARXIGA – **RENOPROTECTIVE**, avoid egfr < 60, avoid elderly
- ERTUGLIFLOZIN – STEGLATRO, avoid egfr < 60, avoid elderly

4TH INCRETIN SYSTEM MEDICATION: glycemic control, weight loss, bp reduction, less hypoglycemic risk
DPP-4 INHIBITORS – reduce endogenous GLP-1 degradation; (**0.7% a1c reduction**)

- SITAGLIPTIN – JANUVIA – safe ckd option
- SAXAGLIPTIN – ONGLYZA – **RENOPROTECTIVE, CHF RISK**, cr cl < 45 = 2.5 mg po qd
- LINAGLIPTIN – TRADJENTA
- ALOGLIPTIN - NESINA



5TH THIAZIDINEDIONES (TZDs) – CHF RISK; (1- 1.5% a1c reduction)

- PIOGLITAZONE – ACTOS



6TH SULFONYLUREAS/GLN (1.5 -2.0% a1c reduction)

SULFONYLUREAS – act by increasing insulin release from the beta cells in the pancreas

- GLIMEPERIDE – AMARYL, safe ckd option
- GLIPIZIDE – GLUCOTROL, GLUCOTROL XL
- GLYBURIDE - DiaBeta, Glynase, Micronase

GLN (MEGLITINIDES) – bind to cell membrane of pancreatic beta cells, similar to sulfonylureas, but weaker; increased secretion of (pro) insulin; **use if allergic to sulfa**

- REPAGLINIDE – PRANDIN
- NATEGLINIDE – STARLIX