Type 2 Diabetes - Glucose Control

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DM DX – confirm with second test

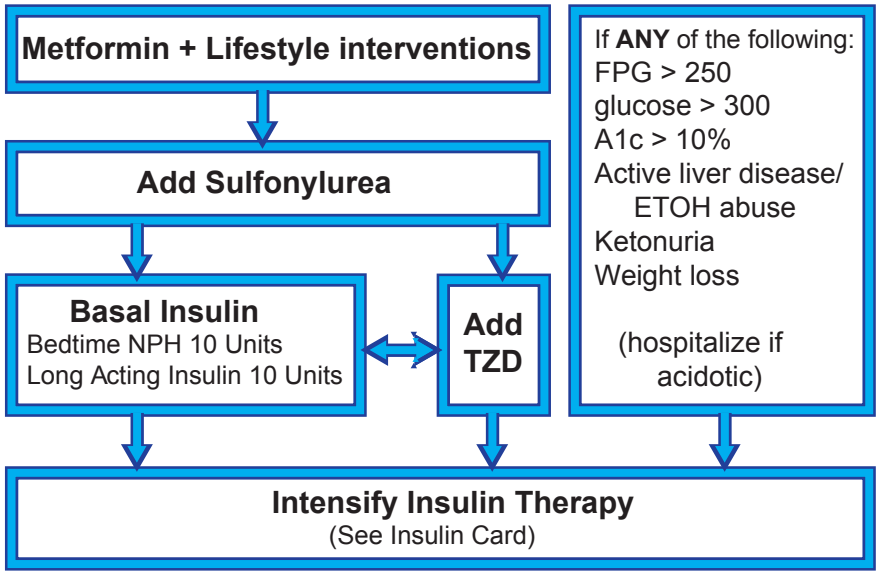
1. A1c ≥ 6.5% (preferred method)
2. FPG ≥ 126
3. 2° (OGTT) ≥ 200
4. Non-fasting lab glucose ≥ 200 with sx

Prediabetes is defined as A1c 5.7-6.4%, FPG 100-125, or 2 ° (OGTT) 140-199

DM BG Targets

Premeal: < 70-130
2° PP: < 160-180
A1c: < 7%

Individualize targets based on patient condition



Immunizations

Pneumovax—At Dx & again at age 65 (if ≥5 yrs. since 1st shot)
Flu shots yearly
Td /Tdap (routine)
PPD once after Dx of DM (Pos is ≥10mm)

Don't Forget

Glucose toxicity— Insulin production↓'s if prolonged hyperglycemia; insulin shots short-term reverse this.
Pancreatic Exhaustion— Almost all Type 2 diabetics will eventually require insulin.

Monitoring of DM

- A1c every 3-6 months
- Creatinine and eGFR yearly
- UACR yearly
- Lipid Panel yearly
- LFTs yearly
- ECG every 2-5 years
- Complete Foot Exam yearly
  - Foot inspection each visit
- Retinopathy exam yearly
- Paps, Mammograms, and Contraception
- Evaluate sexual function
- Depression, Tobacco, ETOH, and DV screening yearly

Estimated Average Glucose (eAG)

A1c %	6	7	8	9	10	11	12
Mean plasma gluc	126	154	183	212	240	269	298mg/dL

Biguanides: Metformin & Metformin XR (Glucophage,)

Start 500 mg daily with meals and increase no faster than 500 mg each week. If GI sx occur may increase more slowly.
Max. dose: 2000mg daily or divided with XR tablets. Do not split XR tablets.
2500 mg divided BID-TID with regular release tablets.
Can decrease weight. Pt. must have normal creatinine (males <1.5, females <1.4), Do not use if liver disease (check ALT) or significant ETOH use. Discontinue before surgery or IV contrast dye administration.

Sulfonylureas: Glyburide (Micronase,) and Glipizide (Glucotrol®)

Start 2.5-5mg daily – Max 10 mg BID
Can increase weight and cause hypoglycemia

Thiazolidinediones (TZD): *Pioglitazone (Actos®)*

Start 15mg daily; may increase to 30mg daily (little benefit dosing over 30mg)
Max A1c changes may take up to 12 weeks to occur
Check ALT at baseline & periodically. No underlying liver dz or significant ETOH use. Warning: heart failure and fracture risk. May use in renal insufficiency. Can cause weight gain.

DPP-4 Inhibitors: May reduce weight, mild to mod A1c lowering

Sitagliptan (Januvia®) - Dose: 100mg PO daily; Reduce dose if ≥ Stage 3 CKD
Saxagliptan (Onglyza®) - Dose: 2.5-5mg PO daily
Dose 2.5mg if strong P450 3A/4 inhibitors or mod-sev renal impairment

GLP-1 Mimetics: Can decrease weight, mild to mod A1c lowering

May be associated with pancreatitis – seek medical care if persistent severe abdominal pain with or without vomiting
Exenatide (Byetta®) Start 5 mcg/dose BID SC inj in thigh, abdomen, or upper arm
May increase to 10 mcg/dose BID after 1 month of treatment
Administer within 60 minutes before meals Do not use if ≥ Stage 4 CKD
Liraglutide (Victoza®) - Start 0.6mg daily SC inj in thigh, abdomen, or upper arm
Inc to 1.2mg daily in 1 week. May increase to 1.8mg daily

Pramlintide (Symlin®) - Amylin mimetic
Mild A1c lowering, small decrease in weight
Start 60 mcg daily subcutaneously immediately before a major meal
(Reduce preprandial (short acting) insulin by 50% as appropriate)
Start with lower doses in type 1 diabetes
May increase to 120 mcg after significant nausea is gone x 3-7 days

Drug names in italics are not on the IHS National Core Formulary

Ref: ADA Clinical Practice Recommendations 2010 Diabetes Care 2010;33
Ref: Medical Management of Hyperglycemia in Type 2 Diabetes: A Consensus Algorithm for the Initiation and Adjustment of Therapy Diabetes Care 2009;32(1):193-203