# The Scientific Times

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# ADA Guidelines 2020
## Standards of Medical Care in Diabetes

### ADA announces new evidence-based guidelines and recommendations

**ADA**

American Diabetes Association.

**The American Diabetes Association (ADA) is the one of the leading voluntary health organization fighting to bend the curve on the diabetes epidemic and help people living with diabetes thrive. For nearly 80 years the ADA has been driving discovery and research to treat, manage and prevent diabetes, while working relentlessly for a cure.**

**The ADA has developed and provided diabetes care standards, guidelines and related documents since 1989, and its clinical practice recommendations are integral resources for health care professionals.**

Based upon the latest scientific diabetes research and clinical trials, the Standards of Care includes new and updated recommendations and guidelines for caring for people with diabetes. A strong recurring message of individualizing patient care is echoed throughout the ADA's Standards of Medical Care in Diabetes 2020.

This new guideline provides the latest comprehensive, evidence-based recommendations for the diagnosis and treatment of children and adults with type 1 (T1DM), type 2 (T2DM), or gestational diabetes, strategies for the prevention or delay of type 2 diabetes, and therapeutic approaches that can reduce complications, mitigate cardiovascular (CV) and renal risk, and improve health outcomes.

Some notable updates and additions to the Standards of Medical Care in Diabetes—2020 are highlighted in this issue.

**For full text click link:**
https://care.diabetesjournals.org/content/43/Supplement_1

## Inside this issue:



## TYPE 2 DIABETES : Can it be prevented or delayed?


- T2DM can be delayed or prevented if patients with prediabetes undergo an intensive behavioral lifestyle intervention program to achieve and maintain 7% loss of initial body weight and increase moderate intensity physical activity (such as brisk walking) to at least 150 mins/week.
- An individualized reduced calorie meal plan is highly effective in preventing T2DM and improving other cardiometabolic markers.
- Cost-effective technology-assisted interventions decrease liver content through smartphone and web-based applications to help in diabetes prevention lifestyle.
- Metformin therapy for prevention of T2DM should be considered in prediabetes, especially for those with BMI ≥ 35 kg/m$^2$, those aged < 60 years, and women with prior gestational diabetes mellitus.

**To know your risk of prediabetes click below-**

https://www.cdc.gov/prediabetes/takethetest/

# PHARMACOLOGICAL APPROACH TO GLYCEMIC TREATMENT IN T2DM : Are there any updates ?

*"A patient-centered approach should be used to guide the choice of pharmacological agents. Considerations include CV comorbidities, hypoglycemia risk, impact on weight, cost, risk for side effects, and patient preferences."*

- Metformin is the preferred initial pharmacological agent for the treatment of T2DM unless contraindicated.
- **Other options for first line therapy**: Sulfonylureas, Dipeptidyl peptidase 4 inhibitor (DPP-4i), Sodium -Glucose linked transporter 2 inhibitor (SGLT2i) or Alpha-glucosidase inhibitors, if **Metformin** not tolerated.
- **Combination Therapy:** Initial combination therapy should be considered in patients presenting with **A1C levels 1.5–2.0%** above target.
- Initial combination therapy should be preferred for more rapid attainment of glycemic goals.
- A recent clinical trial , **VERIFY** has demonstrated that this approach is superior to sequential addition of medications for extending primary and secondary failure.
- In the **VERIFY** trial, participants receiving the initial combination of **Metformin** and the **DPP-4i, Vildagliptin** had a slower decline of glycemic control compared with Metformin alone and to Vildagliptin added sequentially to Metformin.
- **These results have not been generalized to oral agents other than Vildagliptin.**
- Intensification of treatment for patients with T2DM not meeting treatment goals should not be delayed.
- **Triple therapy**: If glucose target is not achieved with two agents, start third agent from class other than the two. Can also consider Glucagon like peptide 1 receptor agonist (**GLP1 RA)** or **Insulin.**

# CV RISK MANAGEMENT : Protecting the "Sweet" Heart

- CV risk factors (dyslipidemia, hypertension, smoking status, family history, albuminuria, BMI, hyperuricemia, current or previous CVD events) should be assessed in all patients at diagnosis and annually.
- 10 year Atherosclerotic Cardiovascular Diseases (ASCVD) Risk Score helps to identify the risk in patients and help guide therapy.

**To know your ASCVD score, click below-**

tools.acc.org/ASCVD-Risk-Estimator-Plus

- For individuals with diabetes and hypertension at higher CV risk (existing **ASCVD or 10-year ASCVD risk ≥15%**), a blood pressure target of **<130/80 mmHg** may be appropriate, if it can be safely attained.
- For individuals with diabetes and hypertension at lower risk for CVD (**10-year ASCVD risk <15%)**, treat to a blood pressure target of **<140/90 mmHg.**
- An **ACEi or ARB**, at the maximum tolerated dose indicated for BP treatment, is the recommended **first-line treatment for hypertension in patients with diabetes** and urinary albumin-to-creatinine ratio ≥300 mg/g creatinine or 30–299 mg/g creatinine. If one class of drug is not tolerated, the other should be substituted.
- Glucose lowering drugs that are proven CV safe and beneficial are recommended.
- **SGLT2i and GLP1 RA** are well approved by various regulatory authorities for CV risk reductions apart from their glucose lowering ability.

# RENAL RISK MANAGEMENT: Kidney is the key

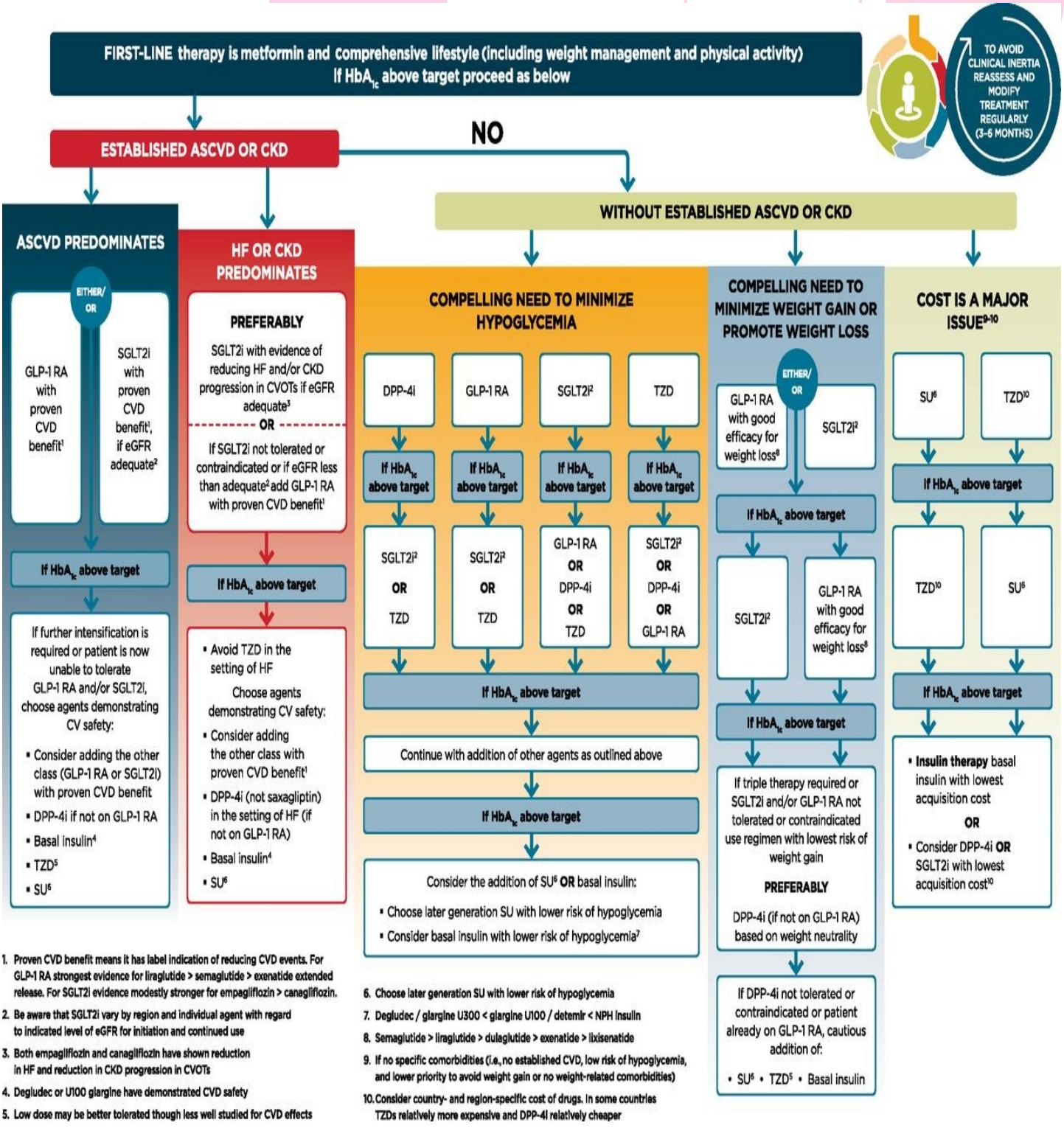
- At least once a year, assess urinary albumin and estimated glomerular filtration rate (eGFR) in patients with T1DM with duration of ≥5 years and in all patients with T2DM regardless of treatment.
- Patients with urinary albumin >30 mg/g creatinine and/or eGFR ≤60 mL/min/1.73m$^2$ should be monitored twice annually to guide therapy.
- Optimize glucose control to reduce the risk or slow the progression of chronic kidney disease (CKD).
- For patients with T2DM and diabetic kidney disease, consider use of a SGLT-2i in patients with an eGFR ≥ 30 mL/min/1.73 m$^2$ and urinary albumin > 30 mg/g creatinine, particularly in those with urinary albumin >300 mg/g creatinine, to reduce risk of CKD progression, CV events, or both.
- In patients with CKD who are at increased risk for CV events, use of a GLP-1RA may reduce risk of progression of albuminuria, CV events, or both.

# LIPID MANAGEMENT : Stop the culprit "cunning cholesterol"

- Intensify lifestyle therapy and optimize glycemic control for patients with elevated triglyceride levels (≥150 mg/dL) and/or low HDL cholesterol (<40 mg/dL for men, <50 mg/dL for women).
- For patients with diabetes aged 40–75 years without ASCVD, use moderate-intensity statin therapy (MIST) in addition to lifestyle therapy.
- For patients with diabetes aged 20–39 years with additional ASCVD risk factors, it may be reasonable to initiate statin therapy in addition to lifestyle therapy.
- In patients with diabetes at higher risk, especially those with multiple ASCVD risk factors or aged 50–70 years, it is reasonable to use high-intensity statin therapy (HIST).
- In adults with diabetes and 10-year ASCVD risk of 20% or higher, it may be reasonable to add Ezetimibe to maximally tolerated statin therapy to reduce LDL cholesterol levels by 50% or more.

| High-intensity statin therapy (lowers LDL cholesterol by ≥50%) | Moderate-intensity statin therapy (lowers LDL cholesterol by 30–49%) |
|---|---|
| Atorvastatin 40–80 mg | Atorvastatin 10–20 mg |
| Rosuvastatin 20–40 mg | Rosuvastatin 5–10 mg |
| | Simvastatin 20–40 mg |
| | Pravastatin 40–80 mg |
| | Lovastatin 40 mg |
| | Fluvastatin XL 80 mg |
| | Pitavastatin 1–4 mg |

# GLUCOSE-LOWERING MEDICATION IN T2DM: A Patient-Centric Approach




1. Proven CVD benefit means it has label indication of reducing CVD events. For GLP-1 RA strongest evidence for liraglutide > semaglutide > exenatide extended release. For SGLT2i evidence modestly stronger for empagliflozin > canagliflozin.
2. Be aware that SGLT2i vary by region and individual agent with regard to indicated level of eGFR for initiation and continued use
3. Both empagliflozin and canagliflozin have shown reduction in HF and reduction in CKD progression in CVOTs
4. Degludec or U100 glargine have demonstrated CVD safety
5. Low dose may be better tolerated though less well studied for CVD effects
6. Choose later generation SU with lower risk of hypoglycemia
7. Degludec / glargine U300 < glargine U100 / detemir < NPH insulin
8. Semaglutide > liraglutide > dulaglutide > exenatide > lixisenatide
9. If no specific comorbidities (i.e., no established CVD, low risk of hypoglycemia, and lower priority to avoid weight gain or no weight-related comorbidities)
10. Consider country- and region-specific cost of drugs. In some countries TZDs relatively more expensive and DPP-4i relatively cheaper


**For any scientific queries on the above topic**

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