SELECT HEALTH NETWORK, INC.
PHYSICIAN PRACTICE GUIDELINES

SUBJECT: **Diabetes Management Guidelines-over 18 years of age** **Date Issued: 2/06**

Date Reviewed/Revised: 2/07, 3/08, 1/09, 2/10, 1/11, 2/12, 2/13, 5/14, 2/15, 1/16, 2/17, 1/18, 1/19, 1/20, 2/21

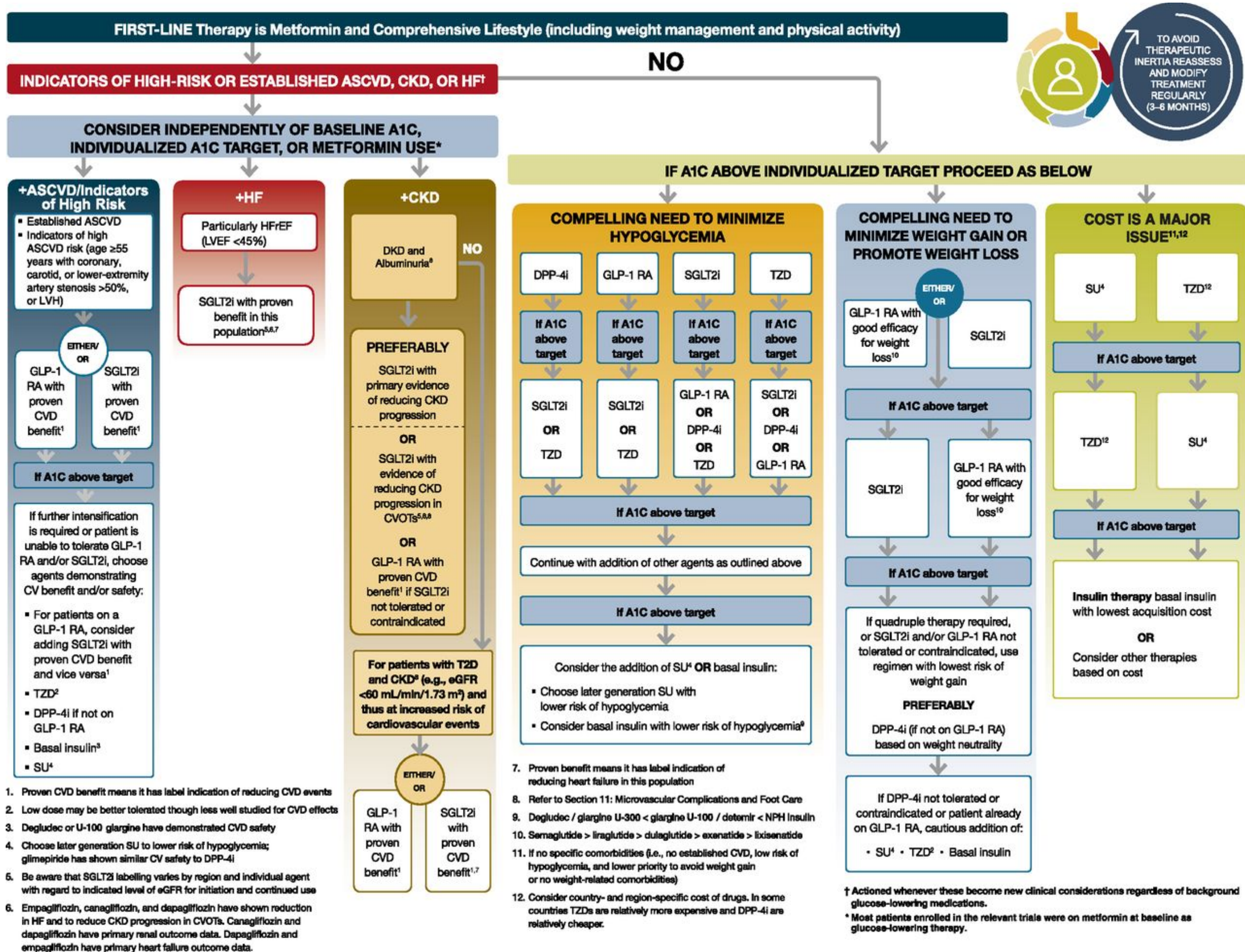
Sources: Standards of Medical Care in Diabetes, American Diabetes Association, January 2021
http://professional.diabetes.org/sites/professional.diabetes.org/files/media/dc_40_s1_final.pdf
Tomczyks, Bennett NM, Stoecky C, et al. Use of B-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults ≥65 years: recommendation of the Advisory Committee on Immunization Practices (ACIP) MMWR Morb Mortal Wkly Rep 2014, 63:822

Please click here to read the entire American Diabetes Association's Standards of Medical Care in Diabetes (Jan. 2019).

I. Each visit: Wt., Ht., BMI, and status of home monitoring are recorded.
II. Physician visit every 3 months. May extend to every 6 months, if excellent glycemic control. Fasting glucose goal: 80-130.
III. HgbA1C: every 3 months, unless < 7; then every 6 months is acceptable.
IV. Lipid status addressed every year. If concomitant cardiovascular disease, use medium to high intensity statin therapy.
    A. Lipid status addressed every 2 years if LDL <100, HDL >50, TG <150.
    B. Statin therapy recommended regardless of lipid status. (Exception: <40yo, no risk factors)
V. Liver function tests annually.
VI. TSH in type 1 diabetics.
VII. Current medication recorded on chart.
VIII. Accurate record of type, dose and time of Insulin administration, if applicable.
IX. Hypertension addressed at each visit: goal < 140/90 with an ideal goal of 130/80.
X. Documentation of yearly dilated eye exam. If no retinopathy x 2 years, then exam every 2 years is acceptable.
XI. Documented foot exam annually: color, temp, pulse and skin integrity. Monofilament exam (Tensile Touch Test), yearly. Quarterly examination for diabetics with established neuropathy, foot deformities or history of prior ulcer.
XII. Quantitative microalbumin at least yearly, unless macro already present.
XIII. Serum creatinine yearly.

XIV. Vaccinations:

A. Fluvax yearly;
B. Hepatitis B vaccination considered for those 19-59 yo (C).
C. Pneumovax PPSV23 recommended for all diabetics.
D. Smoking cessation education and/or referral for all smoking diabetics. E-cigarettes are not supported as an alternative to smoking.
E. ACE inhibitor/ARB recommended for renal protection, if hypertensive or microalbumin>30.
F. Aspirin therapy if at increased CVD risk.
G. CAD screening is not recommended for asymptomatic patients.
H. Diabetic and nutritional education recommended.
I. Encourage regular activity to break up any sedentary period >90 minutes.
J. Medication recommendations



Use Principles in Figure 9.1, including reinforcement of behavioral interventions (weight management and physical activity) and provision of DSMES to meet individualized treatment goals

If injectable therapy is needed to reduce A1C[1]

Consider GLP-1 RA in most patients prior to insulin[2]
INITIATION: Initiate appropriate starting dose for agent selected (varies within class)
TITRATION: Titration to maintenance dose (varies within class)

If already on GLP-1 RA or if GLP-1 RA not appropriate OR insulin preferred

If above A1C target

Add basal insulin[3]
Choice of basal insulin should be based on patient-specific considerations, including cost. Refer to **Table 9.3** for insulin cost information.

Add basal analog or bedtime NPH insulin

INITIATION: Start 10 IU a day **OR** 0.1-0.2 IU/kg a day

TITRATION:

- Set FPG target (see Section 6: Glycemic Targets)
- Choose evidence-based titration algorithm, e.g., increase 2 units every 3 days to reach FPG target without hypoglycemia
- For hypoglycemia determine cause, if no clear reason lower dose by 10-20%

Assess adequacy of basal insulin dose

Consider clinical signals to evaluate for overbasalization and need to consider adjunctive therapies (e.g., basal dose >0.5 IU/kg, elevated bedtime-morning and/or post-preprandial differential, hypoglycemia [aware or unaware], high variability)

If above A1C target

Consider GLP-1 RA if not already in regimen
For addition of GLP-1 RA, consider lowering insulin dose dependent on current glycemic assessment and patient factors

Add prandial insulin[5]
Usually one dose with the largest meal or meal with greatest PPG excursion; prandial insulin can be dosed individually or mixed with NPH as appropriate

INITIATION:

- 4 IU a day or 10% of basal insulin dose
- If A1C <8% (64 mmol/mol) consider lowering the basal dose by 4 IU a day or 10% of basal dose

TITRATION:

- Increase dose by 1-2 IU or 10-15% twice weekly
- For hypoglycemia determine cause, if no clear reason lower corresponding dose by 10-20%

If on bedtime NPH, consider converting to twice-daily NPH regimen
Conversion based on individual needs and current glycemic control. The following is one possible approach:

INITIATION:

- Total dose = 80% of current bedtime NPH dose
- 2/3 given in the morning
- 1/3 given at bedtime

TITRATION:

- Titrate based on individualized needs

If above A1C target

If above A1C target

Stepwise additional injections of prandial insulin
(i.e., two, then three additional injections)

Proceed to full basal-bolus regimen
(i.e., basal insulin and prandial insulin with each meal)

Consider self-mixed/split insulin regimen
Can adjust NPH and short/rapid-acting insulins separately

INITIATION:

- Total NPH dose = 80% of current NPH dose
- 2/3 given before breakfast
- 1/3 given before dinner
- Add 4 IU of short/rapid-acting insulin to each injection or 10% of reduced NPH dose

TITRATION:

- Titrate each component of the regimen based on individualized needs

Consider twice daily premix insulin regimen

INITIATION:

- Usually unit per unit at the same total insulin dose, but may require adjustment to individual needs

TITRATION:

- Titrate based on individualized needs

1. Consider insulin as the first injectable if evidence of ongoing catabolism, symptoms of hyperglycemia are present, when A1C levels (>10% [86 mmol/mol]) or blood glucose levels (≥300 mg/dL [16.7 mmol/L]) are very high, or a diagnosis of type 1 diabetes is a possibility.
2. When selecting GLP-1 RA, consider: patient preference, A1C lowering, weight-lowering effect, or frequency of injection. If CVD, consider GLP-1 RA with proven CVD benefit. Oral or injectable GLP-1 RA are appropriate.
3. For patients on GLP-1 RA and basal insulin combination, consider use of a fixed-ratio combination product (iDegLira or iGlarLixi).
4. Consider switching from evening NPH to a basal analog if the patient develops hypoglycemia and/or frequently forgets to administer NPH in the evening and would be better managed with an AM dose of a long-acting basal insulin.
5. If adding prandial insulin to NPH, consider initiation of a self-mixed or premixed insulin regimen to decrease the number of injections required.