Yukon-Kuskokwim HEALTH CORPORATION

Clinical Guideline

Type 2 Diabetes Mellitus

Source: ADA guidelines for treatment **here** and the abbreviated version **here**.

Screen all overweight or obese adults with one or more other **risk factors** and all adults >35 years for type 2 diabetes mellitus.

See diagnostic criteria.

Confirm diagnosis and add to problem list in RAVEN.

- Refer all new diagnoses of diabetes to the Diabetes Department.
- In RAVEN, type "Refer to Diabetes Internal" and select "DSMES (Diabetes Self Management Education and Support)," "MNT (Medical Nutrition Therapy)," and provider.
- Refer to Wellness Center for exercise education.

Schedule follow up appointment for 1-2 weeks and coordinate with diabetes department if possible.

At initial and annual diabetes visits:

- Review and complete health maintenance:
  - Foot exam
  - Labs
  - Immunizations
  - Mental health screening
- Encourage lifestyle changes (see box).
- Set **A1c target** based on age and risk factors or complication risk.
- Encourage purposeful blood glucose monitoring.
- Discuss family planning/sexual health.
- Refer to optometry, dental, audiology if needed, physical therapy if needed.

Diagnostic Criteria

Unequivocal symptoms of hyperglycemia (thirst, polyuria, weight loss, and blurry vision) and either any one of the following OR any two of the following. (Take confirmatory test as close as possible to initial lab value to avoid treatment delays.)

- FPG* ≥ 126mg/dl
- 2 hour PG ≥ 200mg/dl during OGTT
- Hgb A1c ≥ 6.5
- RPG ≥ 200mg/dl and symptoms of hyperglycemia or hyperglycemic crisis

Order CBC and iron profile if needed, as anemia can affect the accuracy of Hgb A1c.

Note: Fasting is defined as no caloric intake for at least 8 hours.

Comorbidities and ASCVD Risk

Comorbidities must be evaluated at every visit. Document in chart and address Assessment and Plan where appropriate.

- ASCVD/CHF
- Hypertension
- Hyperlipidemia
- CKD
- Obesity
- Sleep apnea
- Tobacco and alcohol use
- NAFLD
- Hemoglobinopathies (including anemia)
- Major depressive disorder/general anxiety disorder
- Diabetes distress

Remember: language matters. See this **ADA resource**.

For Optometry Referrals

- Either provider or patient must call Optometry at x6336 to schedule appointment.
- Provider must state in note that patient is to be referred to Optometry for a diabetic eye exam. This is necessary for travel to be arranged.

Lifestyle Changes

- Advise 7-10% weight loss.
- Advise minimum 150 minutes of exercise per week.
- Advise traditional native diet with minimal carbs.
- Encourage **PLATE** method.
- Advise ≥7-8 hours of sleep per night.
- Encourage DSMES participation.
- Limit alcohol consumption: one drink per day for females and two drinks per day for males.

Abbreviations/Acronyms

ADA = American Diabetes Association
ASCVD = Arteriosclerotic cardiovascular disease
BH = Behavioral Health
CGM = Continuous glucose monitoring
CKD = Chronic kidney disease
CMP = Complete Metabolic Profile
DM = Diabetes mellitus
DSMES = Diabetes self management, education, and support
FPG = Fasting Plasma Glucose
Hgb A1c or A1c for short = Hemoglobin A1c or glycosylated hemoglobin
HTN = Hypertension
MNT = Medical nutrition therapy
OGTT = Oral Glucose Tolerance Test
OSA = Obstructive sleep apnea
PG = Plasma Glucose
RPG = Random Plasma Glucose
SMART = Specific, Measurable, Achievable, Realistic, Time-limited

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.
Approved by Clinical Guideline Committee 8/23/23.
If comments about this guideline, please contact Elizabeth_Tressler@ykhc.org.

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Clinical Guideline
Type 2 Diabetes Mellitus Management

Primary Treatment Goal of DM 2 is ASCVD risk reduction.

ABC's of DM 2 Care

- A1c: **individualized goal**
- BP ≤130/80 (see antihypertensive box)
- Cholesterol (see lipids box)

Antihypertensives
(in order of preference)

1. ACE/ARB
2. CCB/diuretic
3. Mineralocorticoid

Avoid beta-blockers unless necessary.

Lipids

- Any age with diabetes and h/o ASCVD: high-intensity statin recommended.
- Age 40-75 with ASCVD: moderate intensity statin recommended.
- Age 20-39 with ASCVD/risk factors: consider statin.
- Age 40-75 with ASCVD/risk factors: recommend high intensity statin.
- Age ≥75 discuss risk/benefit.

If not at goal with statin therapy, consider adding ezetimibe or PCSK-9 inhibitor.

Medication selection is based on comorbidities and patient centered goals.

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Always begin with lifestyle interventions. These are essential as medication response is often dependent on lifestyle measures.

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Metformin: generally first-line unless true allergy, CKD, CHF, or ASCVD. Remember to use extended release and titrate.

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Indicators of high-risk for ASCVD or established ASCVD, CKD, or HF?

Yes → Consider using a SGLT2i or GLP-1 RA independent of baseline A1c or A1c target. SGLT2i for CKD or HF and GLP-1 RA if ASCVD predominates.

No → Using shared decision making with patient, choose from any of the four classes: GLP-1 RA, SGLT2i, DPP-4i, TZD
Use GLP-1 RA or SGLT2i if weight loss/maintenance a goal.

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Follow-up in 1-3 months.

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If not achieving targets, continue to add classes of medications with the following suggestions:

> Minimize hypoglycemia <
DPP-4i, GLP-1 RA, SGLT2i
For SU or basal insulin, consider agents with lower risk of hypoglycemia

> Minimize weight gain/promote weight loss <
GLP-1 RA OR SGLT2i

> Consider cost and access <
Certain insulins available at lower generic cost, SU

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Follow up visits 1 month after adding new meds, OR every 3 months if stable, until lifestyle and A1c goals achieved.

If not achieving A1c goals, consider using CGM, revise SMART goals, utilize DSMES, DM support group, screen for Diabetes Distress or other psychosocial issues.

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- If not achieving A1c goals and on four classes of medication including basal insulin, consider referral to ANMC Diabetes program and/or multidisciplinary discussion with diabetes team.
- Add prandial insulin as needed and ensure insulin teaching, self-management goals, and that patient is performing appropriate monitoring
- Continue to utilize a patient centered approach with shared decision making. Revisit lifestyle behaviors, patient specific motivators, psychosocial factors, and address medical comorbidities.
- To avoid therapeutic inertia, reassess and modify treatment regularly (3-6 months)

Shared decision making includes an educated and informed patient and their family/caregiver, patient preference, motivational interviewing, goal setting, ensuring access to DSMES, and empowering the patient.

Indications/Qualifications for CGM

- A1c ≥ 9 and/or prescribed insulin
- All CGM Rx for GDM patients must be prescribed by Compton
- All CGM Rx for non-pregnant patients must be prescribed by Nelson FNP

Diabetes Distress refers to negative psychological reactions to the emotional burden and patient worries specific to their experience of managing a complicated and demanding chronic disease. See ADA **position statement**.

Abbreviations

- DPP-4i = dipeptidyl peptidase 4 inhibitor or gliptins. YKHC formulary saxagliptin (Onglyza).
- GLP-1 RA = glucagon-like peptide-1 receptor agonist. YKHC formulary liraglutide (Victoza).
- SGLT2i = sodium-glucose co-transporter-2 inhibitor. YKHC formulary empagliflozin (Jardiance).
- SU = sulfonylureas. YKHC formulary glipizide.

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