

Diabetes Control

Quality metrics have updated to reflect the new diabetes measure of diabetic control: **NQF 0575 Diabetes: HbA1C Control (<8%)**. Clinical **recommendations** for Luminis CCN Primary Care providers to help address this new metric are provided below.

Why?

Improving diabetes control remains a cornerstone of effective primary care. Diabetes is the sixth leading cause of death in Maryland and is a risk factor in many other leading causes of death in the US (Cardiovascular disease and Cancer). Controlling Diabetes is critical to the health of our population

How?

Identifying the diabetic patient panel you manage and drive care to increase attention on achieving diabetic control. Regular A1C levels are critical. Use POC testing for A1Cs for each visit when possible. All diabetic should understand they need regular follow up and should understand their A1C goal and frequency it should be checked.

Management Steps

Assess diabetes control among your population of patients

Use Dashboards/patient lists to identify and track uncontrolled patients.

- Utilize Diabetes Scorecards (when available) generated by the care team (AMA, PPCs, etc) to get a snapshot of diabetes control among you patients
- Ensure that **all** diabetic patients have an up-to-date A1c (within last six months)
- Utilize care team resources (MAs AMAs, PPCs, CHW) to reach patients and obtain current A1c

Customize standard intervals for diabetes follow up based on level of control:

- Every 6 months for controlled diabetics ($A1c < 7.0$)
- Every 3 months for diabetes not yet at goal ($A1c 7.0-7.9$)
- Every 6 weeks for uncontrolled diabetics ($A1c \geq 8.0$)
- Every 4 weeks for uncontrolled diabetics ($A1c \geq 9.0$)

Consider weekly reports of daily glucose checks to titrate treatment

DO SOMETHING to advance treatment at **EVERY VISIT** for diabetics above goal:

- Ensure adequate education and support
- DM education referral (REF20 or "Diabetes Education" order in Epic)
- OneCall Care Management (REF177 in Epic) to identify and address SDOH
- Titrate medications if not at goal
- Generally, prioritize metformin followed by SLGT-2 inhibitors and GLP-1 Ras
- Note benefits of GLP-1 RAs for ASCVD and SLGT-2 inhibitors for HFrEF and CV mortality.
- Utilize ambulatory pharmacy for medication recommendation/cost/access issues (REF168 or "Pharmacy" order in Epic)
- Consider continuous glucose monitoring of not controlled.

GLYCEMIC CONTROL ALGORITHM

INDIVIDUALIZE GOALS

A1C ≤6.5%

For patients without concurrent serious illness and at low hypoglycemic risk

A1C >6.5%

For patients with concurrent serious illness and at low hypoglycemic risk

LIFESTYLE THERAPY AND ONGOING GLUCOSE MONITORING (CGM preferred)

INDEPENDENT OF GLYCEMIC CONTROL, IF ESTABLISHED OR HIGH ASCVD RISK AND/OR CKD, RECOMMEND SGLT2i AND/OR LA GLP-RA

Entry A1C ≥7.5% - 9.0%

Entry A1C >9.0%

Entry A1C <7.5%

MONOTHERAPY^{1,2}

- ✓ Metformin
- ✓ GLP1-RA
- ✓ SGLT2i
- ✓ DPP4i
- ! TZD
- ✓ AGi
- ! SU/GLN

Independent of glycemic control, if established ASCVD or high risk, CKD 3, or HFrEF, start LA GLP1-RA or SGLT2i with proven efficacy*

DUAL THERAPY¹

- ✓ GLP1-RA
- ✓ SGLT2i
- ✓ DPP4i
- ! TZD
- ! SU/GLN
- ! Basal Insulin
- ✓ Colesevelam
- ✓ Bromocriptine QR
- ✓ AGi

TRIPLE THERAPY¹

- ✓ GLP1-RA
- ✓ SGLT2i
- ! TZD
- ! SU/GLN
- ! Basal Insulin
- ✓ DPP4i
- ✓ Colesevelam
- ✓ Bromocriptine QR
- ✓ AGi

3 MONTHS²

3 MONTHS²

SYMPTOMS

NO

YES

DUAL Therapy

TRIPLE Therapy

INSULIN ± Other Agents

ADD OR INTENSIFY INSULIN
Refer to Insulin Algorithm

MET +

- 1 Order of medications represents a suggested hierarchy of usage; length of line reflects strength of recommendation
- 2 If not at goal in 3 months, proceed to next level therapy

*CKD 3: canagliflozin; HFrEF: dapagliflozin

CKD 3 += stage 3 chronic kidney disease; HFrEF = heart failure with reduced ejection fraction; LA = long acting (≥24 hour duration)

LEGEND

- ✓ Few adverse events and/or possible benefit
- ! Use with caution

PROGRESSION OF DISEASE

ALGORITHM FOR ADDING/INTENSIFYING INSULIN

START BASAL (Long-Acting Insulin)

A1C <8%

A1C >8%

TDD 0.1-0.2 U/kg

TDD 0.2-0.3 U/kg

Insulin titration every 2-3 days to reach glycemic goal:

- Fixed regimen: Increase TDD by 2U
- Adjustable regimen:
 - FBG >180 mg/dL: add 20% of TDD
 - FBG 140-180 mg/dL: add 10% of TDD
 - FBG 110-139 mg/dL: add 1 unit
- If hypoglycemia, reduce TDD by:
 - BG <70 mg/dL: 10% - 20%
 - BG <40 mg/dL: 20% - 40%

Consider discontinuing or reducing sulfonylurea after starting basal insulin (basal analogs preferred to NPH)

*Glycemic Goal:

- <7% for most patients with T2D; fasting and premeal BG <110 mg/dL; absence of hypoglycemia
- A1C and FBG targets may be adjusted based on patient's age, duration of diabetes, presence of comorbidities, diabetic complications and hypoglycemic risk

INTENSIFY (Prandial Control)

Add GLP1-RA

Or SGLT2i
Or DPP4i

Add Prandial Insulin

Basal Plus 1,
Plus 2, Plus 3

Basal Bolus

- Begin prandial insulin before largest meal
- If not at goal, progress to injections before 2 or 3 meals

- Start: 10% of basal dose or 5 units

- Begin prandial insulin before each meal

- 50% Basal / 50% Prandial TDD 0.3-0.5 U/kg

- Start: 50% of TDD in three doses before meals

Glycemic Control Not at Goal*

Insulin titration every 2-3 days to reach glycemic goal:

- Increase prandial dose by 10% or 1-2 units if 2-h postprandial or next premeal glucose consistently >140 mg/dL
- If hypoglycemic, reduce TDD basal and/or prandial insulin by:
 - BG consistently <70 mg/dL: 10% - 20%
 - Severe hypoglycemia (requiring assistance from another person) or BG <40 mg/dL: 20% - 40%

PROFILES OF ANTIHYPERGLYCEMIC MEDICATIONS

	MET	GLP1-RA	SGLT2i	DPP2i	AGi	TZD (moderate dose)	SU / GLN	COLSVL	BCR-QR	INSULIN	PRAML
HYPO	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate/Severe / Mild	Neutral	Neutral	Moderate to Severe	Neutral
WEIGHT	Slight Loss	Loss	Loss	Neutral	Neutral	Gain	Gain	Neutral	Neutral	Gain	Loss
RENAL / GU	Contra-indicated if eGFR <30 mL/min/1.73 m ²	Exenatide Not Indicated CrCl <30	Not Indicated for eGFR <45 mL/min/1.73 m ² See #1 Genital Mycotic Infections	Dose Adjustment Necessary (Except Linagliptin) Effective in Reducing Albuminuria	Neutral	Neutral	More Hypo Risk	Neutral	Neutral	More Hypo Risk	Neutral
		Potential Benefit of LA GLP1-RA	Potential CKD Benefit ; See #1								
GI Sx	Moderate	Moderate	Neutral	Neutral	Moderate	Neutral	Neutral	Mild	Moderate	Neutral	Moderate
CHF CARDIAC ASCVD	Neutral	Neutral	Prevent HF Hospitalization Manage HFrEF; See #2	See #4	Neutral	Moderate	Neutral	Neutral	Neutral	CHR Risk	Neutral
		Potential Benefit of LA GLP1-RA	See #3			May Reduce Stroke Risk	Possible ASCVD Risk	Lowers LFL-C	Safe	Neutral	
BONE	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate Fracture Risk	Neutral	Neutral	Neutral	Neutral	Neutral
KETOACIDOSIS	Neutral	Neutral	DKA Can Occur in Various Stress Settings	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral

- Few adverse events or possible benefits
- Use with caution
- Likelihood of adverse effects

1. Canagliflozin indicated for eGFR ≥30 mL/min/1.72 m² in patients with CKD 3 + albuminuria.
2. Dapagliflozin—potential primary prevention of HF hospitalization & demonstrated efficacy in HFrEF.
3. Empagliflozin—FDA approved to reduce CV mortality. Canagliflozin—FDA approved to reduce MACE events.
4. Possible increased hospitalizations for heart failure with alogliptin and saxagliptin.