

GLIN Clinical Pathway: Type 2 Diabetes



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DM2 Discussion Objectives



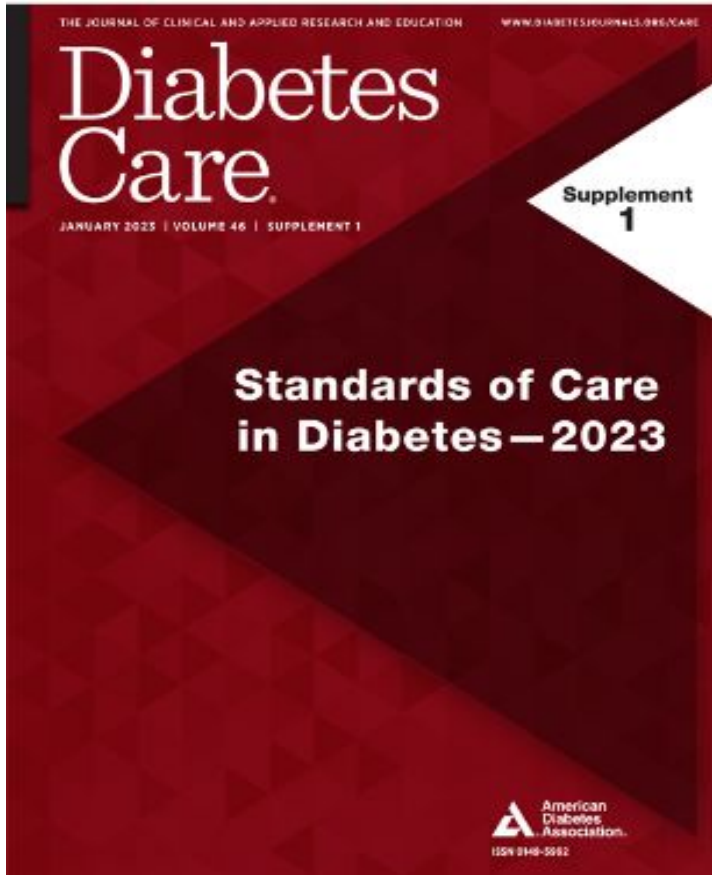
By the end of this didactic session the learner should be able to

- Screen and diagnose prediabetes, DM2, and associated complications
- Describe DM2 prevention and methods to delay the progression of prediabetes to DM2
- Describe components of comprehensive DM2 quality care HEDIS measures also outlined in the GLIN CIT Goals
- Describe the different modalities to Achieve Quality DM2 Care Measures
- Manage DM2 based on Best Practice Outlined in the ADA Standard of Care Guidelines

Impact of DM2



- 8.5% Prevalence among US Adults
- Significant Macrovascular and Microvascular Morbidity
- Impaired Quality of Life
- Macrovascular ASCVD Reduced Life Expectancy by 6–8 years



- Full version available
- Abridged version for PCPs
- Free app, with interactive tools
- Pocket card with key figures
- Free webcast for continuing education credit

<https://professional.diabetes.org/content-page/practice-guidelines-resources>

Screening for DM2: Annual Screening



Personal Medical History	Medications	Family History
<ul style="list-style-type: none">● Overweight or obesity (BMI \geq 25 kg/m²)● Prediabetes (A1C \geq 5.7%)● Cardiovascular disease● HTN (\geq 140/90 mmHg or on HTN Tx)● HDL cholesterol < 35 mg/dL● TG level > 250 mg/dL● Polycystic ovary syndrome● Physical Inactivity● Insulin resistance: severe obesity, a. nigricans● HIV Patients on HAART	<ul style="list-style-type: none">● Chronic glucocorticoids● Statins● Antipsychotics etc.	<ul style="list-style-type: none">● First degree relative with DM2● High-risk race/ethnicity:<ul style="list-style-type: none">➤ African American➤ Latino➤ Native American➤ Asian American➤ Pacific Islander

Prediabetes Diagnostic Criteria



- FPG 100 mg/dL (5.6 mmol/L) to 125 mg/dL (6.9 mmol/L)
- 2-h PG value during a 75-g Glucose OGTT 140 mg/dL (7.8 mmol/L) - 199 mg/dL (11.0 mmol/L)
- A1C 5.7-6.4% (39-47 mmol/mol)

Patient with Borderline Diagnostic Criteria?

- Discuss signs and symptoms and repeat the test in 3-6 months

DM2 Diagnostic Criteria



1. FPG \geq 126 mg/dL (7.0 mmol/L)
2. 2-h PG value during a 75-g Glucose OGTT \geq 200 mg/dL (11.1 mmol/L)
3. A1C \geq 6.5%

Certain Diagnosis

1. Patient in Hyperglycemic Crisis
- OR
2. Random plasma glucose \geq 200 mg/dL (11.1 mmol/L)
 - Patient with Symptomatic Hyperglycemia

DM2 Prevention and Progression Delay Measures



1. A1c and Glucose Monitoring for Patients at High Risk & with Prediabetes

High Risk of Progression

- BMI ≥ 35 kg/m²
- Higher glucose levels:
 - Fasting plasma glucose 110-125 mg/dL
 - 2-h post challenge glucose 173-199 mg/dL
- A1C $\geq 6.0\%$
- History of gestational diabetes

****More intensive preventive approaches should be considered in higher risk individuals****

DM2 Prevention and Progression Delay Measures



2. CDC Recognized DPP (Diabetes Prevention Program)

Weight Management	Optimized Metabolic Control
Nutrition	Physical Activity
In-Person and Remote / Online Programs	

3. Address & Treat Comorbid Cardiovascular Risk Factors
4. Nutrition Therapy
5. Initiation of Metformin

Independent Health Prediabetes Outcome Metric 2023



- Includes members between 18 and 75 years of age at the start of the measure year who have been diagnosed with prediabetes with two (2) of the following:
 - An abnormal lab test result
 - Fasting blood glucose between 100 and 125 mg/dL
 - Glucose tolerance test between 140 and 199 mg/dL
 - HbA1c between 5.7 and 6.4%
 - A prediabetes diagnosis (R73.03)
- How to close this quality gap:
 - CDC-recognized diabetes prevention program (DPP)
 - Nutrition therapy with a registered dietitian
 - Non-reversed metformin prescription



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™



National Diabetes Prevention Program

[Español \(Spanish\)](#) [Print](#)



https://www.cdc.gov/diabetes/prevention/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fdiabetes%2Fprevention%2Findex.htm

<https://nccd.cdc.gov/toolkit/diabetesimpact>



How it works



Brook+ is a CDC-recognized Diabetes Prevention Program that helps you build lasting healthy habits to help you lose weight and reduce the risk of diabetes.

You'll receive the tools and personal coaching needed to make lasting change.

No classrooms or clinic visits necessary.



AM I ELIGIBLE?



Nutrition

Kelly Cardamone, MS, RDN, LDN, CDN, CDCES, IFNCP
Registered Dietitian/Certified Diabetes Care and Education Specialist

November 2, 2023

Medical Nutritional Therapy (MNT) & Diabetes Education Coverage



- Referral is needed for Medicare, Medicaid and some, but not all Commercial plans
- Dx of DM or CKD III/IV is almost always covered by all plans
- Dx of GDM is not always covered
- Medicare
 - 3 hours of MNT 1st year and 2 hours subsequent years
 - Co-pays are rare
 - 10 hours of DSME 1st year and two (2) hours subsequent years
 - Copays are common

T2DM Nutrition Therapy Goals



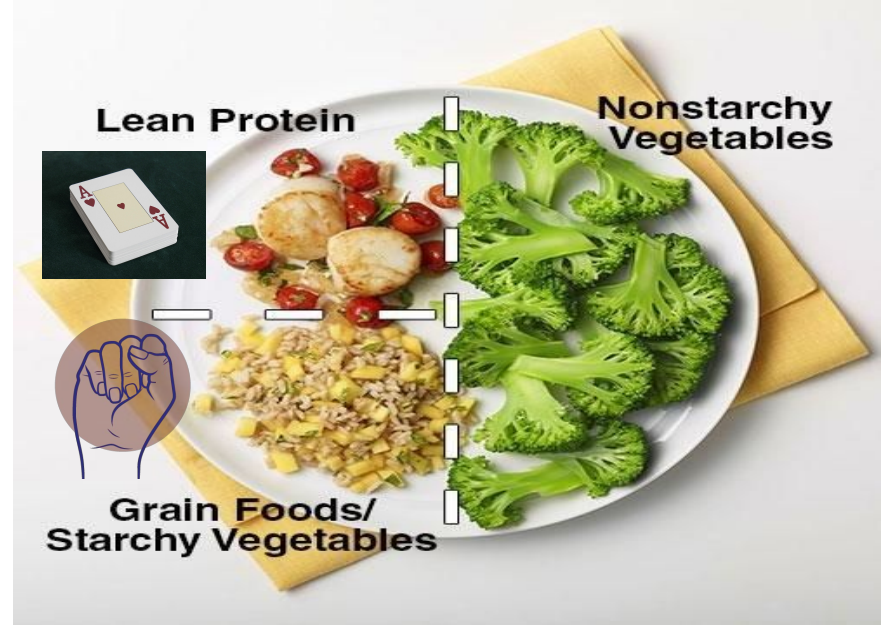
- Strong evidence supports effectiveness of MNT for improving A1C, ~ 2% in T2DM and 1.9% T1DM
- Promote and support healthful eating patterns
- Consider cultural preferences
- Screen for Food Insecurity (FI)
- Improve A1C, blood pressure, cholesterol levels and weight through an individualized approach
- Weight loss
- Includes both nutrition education and nutrition counseling
- Ongoing support is beneficial and essential

T2DM Nutrition Therapy Recommendations



Follow the diabetes my plate

- Carbs: size of fist
- $\frac{1}{2}$ plate vegetables
- Protein: size of deck of cards or palm of hand
- Water with every meal



T2DM Nutrition Therapy Recommendations



- Carbohydrates should be eaten with proteins or fat
- 3 meals per day, 4-6 hours apart, snacks are not necessarily needed
- No eating 2-3 hours before bed
- 30-45 gm carbs per meal
- Snacks should be healthy fat or protein
 - If carbohydrate is needed, <15 gms
- Read labels: Per serving
 - < 10gm total sugar
 - ≥ 3 gm fiber
 - < 3 gm saturated fat

T2DM Exercise



ADA Recommendations

- 150 min moderate activity/week
 - e.g. ~50 min 3x/wk
 - Moderate:
 - Should not be able to sing, but talk comfortably
 - Light sweat
 - Feel breath and heart rate quicken
- Encourage mall walking, gym memberships, moving around the house, at home exercise equipment, standing desks, on demand exercise programs
- Proper Footwear: Covered by Medicare Part B

Diabetic Education



Diabetes Self-Management Education & Support (DSMES)

Focuses on the seven (7) health care behaviors for Diabetes

- Healthy coping, healthy eating, monitoring, taking medication, being active, problem solving, and lowering risks
- Clinical content and skills, behavioral strategies (goal setting, problem-solving), and engagement with psychosocial concerns
- Improve patient self-management, satisfaction, and glucose outcomes
- Online platforms offered to promote patient access to curriculum
- The “digital divide”

Nutritional Services Department/DSMES Classes



GLIN/GPPC Registered Dietitians/Diabetes Educators

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Administrative Assistant/Schedules Appointment

Christy Lattuca, PSR

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Department Phone Number

716-800-CARE (2273) Option 5 & 6



DM2 Quality Measures

November 2, 2023

Components of Comprehensive DM2 Quality Care



National Committee for Quality Assurance (NCQA)

Improve the quality of health care through measure of provider performance

- Measurement, Transparency, & Accountability

Healthcare Effectiveness Data & Information (HEDIS)

- Effectiveness of Care
- Access and Availability
- Utilization
- Risk Adjusted Utilization

Measures are Based on Calendar Year

HEDIS Measures: DM2



Effectiveness of Care

Hemoglobin A1c Control for Patients With Diabetes

Blood Pressure Control for Patients With Diabetes

Eye Exam for Patients With Diabetes

Kidney Health Evaluation for Patients With Diabetes

Statin Therapy for Patients With Diabetes

DM Screening for People With Schizophrenia / Bipolar Disorder Using Antipsychotic Meds

DM Monitoring for People With Diabetes and Schizophrenia

HEDIS Measures: DM2



Utilization and Risk Adjusted Utilization

Emergency Department Visits for Hypoglycemia in Older Adults With Diabetes

Please Reach Out To Your GLIN PCT Representative to Discuss your Practice Specific GLIN
CIT Program Measures and Goals

<https://www.ncqa.org/wp-content/uploads/2022/07/HEDIS-MY-2023-Measure-Description.pdf>

Components of DM2 Quality Goal Achievement



1. Interprofessional Team Collaboration
 - Providers, Nurses, Dietitians, Diabetic Educators, Pharmacists, Social Workers, & other health care professionals
2. Engage explicit & collaborative goal setting with patients
3. Evidence-based guidelines for clinical care
4. Avoid therapeutic inertia
5. Prioritize timely and appropriate intensification of behavior change and/or pharmacologic therapy
6. Performance feedback

HEDIS: A1c Control for Patients With DM2



The percentage of members 18–75 years of age with diabetes whose hemoglobin A1c (HbA1c) was at the following levels during the measurement year:

- HbA1c good control (<8.0%)
- HbA1c poor control (>9.0%)

How to Improve Measure?	
Diabetic Self Management Education and weight management: GLIN Dietician and Nutrition Team	Optimization of Medication Management and Compliance: GLIN Pharmacy Team
Improved Patient - Provider Communication: Portal, Utilization of Interprofessional Teams	A1c Frequency of Measurement (POC) / CGM: Remote patient monitoring (e.g. Brook Health)
Motivational Interviewing	

Setting & Modifying A1C Goals



A1c Goal	Fasting Glucose Target	Prandial Glucose Targets	Recommended Population
<6.5%	70-110 mg/dl	< 140 mg/dl	<ul style="list-style-type: none">• Medication Regimen at Low risk of hypoglycemia• Long life expectancy• Extensive resources and support system in place• No existing comorbidities of significance• Intact cognitive and functional status
<7%	80-130 mg/dl	< 180 mg/dl	<ul style="list-style-type: none">• Access to resources and a support system• Few/mild comorbidities• Intact cognitive and functional status

Setting & Modifying A1C Goals



A1c Goal	Fasting Glucose Target	Prandial Glucose Targets	Recommended Population
<8%	90-150 mg/dL	< 200 mg/dl	<ul style="list-style-type: none">· High risk of hypoglycemia· Inability to assess and treat hypoglycemia events· Limited resources and support system· Multiple comorbidities of significance· Cognitive impairment affecting ADL's
<8.5%	100-175 mg/dL	< 225 mg/dl	<ul style="list-style-type: none">· Limited life expectancy· Severe comorbidities of significance· End stage chronic illness· Severe cognitive impairment affecting activities of daily living

Avoid ED Visits: Hypoglycemia in Older Patients



- Discuss at Every Encounter
- Avoid Beers List DM2 Medications in Elderly Population
- Stage Hypoglycemia Episodes
- Hypoglycemia avoidance education
- Reevaluation and adjustment of the treatment plan
- High Risk Patients (Cognition, Resources, Support Impairments)

Stage 1 (70 - 54 mg/dL)	Stage 2 (< 54 mg/dL)
<ul style="list-style-type: none">● 15-20g Glucose or Carbohydrate● Every 15 min until BG Normalizes	<ul style="list-style-type: none">● Glucagon● Support Members Trained in Use

HEDIS: Blood Pressure Control for DM2 Patients



- The percentage of members 18–75 years of age with diabetes whose blood pressure (BP) was adequately controlled (<140/90 mm Hg) during the measurement year

How to Improve Measure?

Optimization of Medication Management and Compliance: GLIN Pharmacy Team

Telemed / Remote Patient Monitoring (e.g. Brook Health)

Tobacco, Alcohol, and Substance Use Screening

Weight - Obesity Management,
Physical Activity Improvement: GLIN Dietician /
Nutrition, Diabetic Educators

Improved Patient - Provider Communication: Portal, Utilization of Interprofessional Teams

HEDIS: Eye Exam for Patients With DM2



- The percentage of members 18–75 years of age with diabetes who had a retinal eye exam

How to Improve Measure?

POC In Office Retinal Eye Exams: e.g. Topcon	Systematized Ophthalmology Referrals / Scheduling
Care Coordinator Patient Compliance Follow Up	In Office Gap Closure Sessions

HEDIS: DM2 Kidney Health Evaluation



- The percentage of members 18–85 years of age with diabetes who received a kidney health evaluation, defined by an estimated glomerular filtration rate (eGFR) and a urine albumin-creatinine ratio (uACR), during the measurement year

How to Improve Measure & Clinical Care?	
POC In Office Testing (spot urinary microalbumin-to-creatinine ratio)	Annual uACR and eGFR (CKD 3-5 every 3-6 months)
Care Coordinator Compliance Follow Up (eGFR, spot urinary albumin-to-creatinine ratio)	uACR and eGFR after medication additions or adjustments, and clinical status changes
Patients with Worsening Renal Function: Systematized Nephrology Referrals / Scheduling	

DM2 Nephropathy & CKD Diagnosis



Diabetic Nephropathy

Evidence of kidney damage AND/OR decreased $\text{GFR} \leq 60$ for **LESS than 3 months time**

- Evidence of kidney damage includes
 - Structural abnormalities: E.g. Polycystic kidneys
 - Microalbumin/Cr ratio ≥ 30
 - Persistently abnormal urinary casts

Diabetic CKD

Evidence of Kidney damage AND/OR decreased $\text{GFR} \leq 60$ **MORE than 3 months**

- E.g. Persistent Microalbumin/Cr ≥ 30 with $\text{GFR} \geq 90$ is considered CKD Stage 1

Please Refer to the CKD Clinical Pathway (QR Code Link Below)



CKD is classified based on: <ul style="list-style-type: none"> • Cause (C) • GFR (G) • Albuminuria (A) 				Albuminuria categories Description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g <3 mg/mmol	30-299 mg/g 3-29 mg/mmol	≥300 mg/g ≥30 mg/mmol
GFR categories (mL/min/1.73 m ²) Description and range	G1	Normal to high	≥90	1 if CKD	Treat 1	Refer* 2
	G2	Mildly decreased	60-89	1 if CKD	Treat 1	Refer* 2
	G3a	Mildly to moderately decreased	45-59	Treat 1	Treat 2	Refer 3
	G3b	Moderately to severely decreased	30-44	Treat 2	Treat 3	Refer 3
	G4	Severely decreased	15-29	Refer* 3	Refer* 3	Refer 4+
	G5	Kidney failure	<15	Refer 4+	Refer 4+	Refer 4+



DM2 Nephropathy & CKD Management



1. Optimized glycemic and HTN control delays progression and reduces CKD risk
2. Utilize ACE I, ARB, SGLT2 Inhibitors, Certain GLP-1 RA, and MRAs
3. Quarterly eGFR monitoring
4. Do not discontinue ACE I/ ARB for increases in serum creatinine ($\leq 30\%$)
5. Nephrologist Referral:
 - a. Continuously increasing urinary albumin and/or continuously decreasing EGFR
 - b. Estimated glomerular filtration rate is <30 mL/min/1.73 m²
 - c. Uncertain CKD etiology
 - d. Management Difficulties
 - e. Rapidly Progressive CKD

**Please Refer to the GLIN DM2 Clinical Pathway for
Associated Therapy Considerations**

HEDIS: Statin Therapy for Patients With DM2



The percentage of members 40–75 years of age during the measurement year with diabetes who do not have clinical atherosclerotic cardiovascular disease (ASCVD) who met the following criteria.

Two Measures are Reported

1. Received Statin Therapy: Members who were dispensed at least one statin medication of any intensity during the measurement year
2. Statin Adherence 80%: Members who remained on a statin medication of any intensity for at least 80% of the treatment period

How to Improve Measure?

GLIN Pharmacy Team Support

Social Barriers: GLIN CM Social Work (SDOH)

HEDIS DM2: Schizophrenia & Bipolar Disorder



Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications

- The percentage of members 18–64 years of age with schizophrenia, schizoaffective disorder or bipolar disorder, who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.

Diabetes Monitoring for People With Diabetes and Schizophrenia

- The percentage of members 18–64 years of age with schizophrenia or schizoaffective disorder and diabetes who had both an LDL-C test and an HbA1c test during the measurement year.

Diabetic Foot Care & Weight Management



Foot Care (Examine Feet q 6-12 mo or sooner if needed)	Weight Management (Examine Weight, Height, and BMI Every Visit)
<ol style="list-style-type: none">1. Sensory loss, hx of ulceration or amputation examine feet at every visit2. Inspection of skin, foot deformities, neurological assessment (10-g monofilament testing with either pinprick, temperature, vibration), and vascular assessment (pulses in the legs and feet)3. Vascular Surgery Referral as Needed	<ol style="list-style-type: none">1. Weight Loss Target >5% to ≥10% of baseline body weight2. 3-7% of baseline weight improves glycemia and other intermediate CV risk factors3. > 10% even greater benefits in disease-modifying effects and possible remission of type 2 diabetes, and improved long-term cardiovascular outcomes and mortality
Please see the GLIN Obesity Discussion for more information regarding Obesity Medication Management and Bariatric Surgery Referral Recommendations	

GLIN Multidisciplinary Approach



Consider referral to GLIN Pharmacy Team if patient has one or more of the following:

- A1C > 8%
- Utilizes continuous glucose monitoring devices
- Utilizes insulin pump technology

Consider referral to nutrition services/ Diabetes Self Management Education (DSME) classes if patient has one or more of the following:

- A1C > 5.7%
- Body mass index of $\geq 35 \text{ kg/m}^2$

Consider referral to endocrinology if:

- Goals not met within 6mo using internal resources
- Patient has other conditions that would require specialist care
- Pediatric (< 18 years old) population
- Patient and/or provider preference



DM2 Glycemic Management

Gurminder Sanghera, PharmD
Clinical Pharmacist

November 2, 2023

First-Line Therapy



- Metformin and comprehensive lifestyle modification
- GLP-1 RAs or SGLT2 inhibitors
 - Individuals with or at high risk for ASCVD, HF, and/or CKD
- Insulin
 - Weight loss, symptoms of hyperglycemia, A1c >10%, or BG \geq 300 mg/dL
 - GLP-1 RAs preferred to insulin, when possible

Simplified Treatment Algorithm



A1c	Recommended Initial Therapy
<8%	Consider two dose-optimized agents if patient has ASCVD, HF, or CKD
8-9%	Use two dose-optimized agents for therapy
>9% + asymptomatic or mild symptoms	Use two to three dose-optimized agents for therapy
>9% + severe symptoms	Insulin therapy with basal insulin at 10 units or 0.1-0.2 units/kg/day

Individualizing Therapy: Comorbidity



Patient-Specific Factor	Recommended Therapy
ASCVD	GLP-1 RA (dulaglutide, liraglutide, semaglutide), SGLT2 inhibitor (canagliflozin, dapagliflozin, empagliflozin)
CKD	SGLT2 inhibitor preferred (canagliflozin, dapagliflozin, empagliflozin), GLP-1 RA with CV benefit as alternative or add-on therapy
HF	SGLT2 inhibitor (dapagliflozin, empagliflozin, sotagliflozin)
NAFLD	GLP-1 RA (liraglutide, semaglutide)
NASH	GLP-1 RA (liraglutide, semaglutide), TZD (pioglitazone)
Stroke	TZD (pioglitazone)

Individualizing Therapy: Comorbidity



Patient-Specific Factor	Recommended Therapy
Compelling need to minimize hypoglycemia	GLP-1 RA, SGLT2 inhibitor, TZD
Compelling need to minimize weight gain/promote weight loss	GLP-1 RA, SGLT2 inhibitor, GIP/GLP-1 RA
Rapid lowering of blood glucose needed	Insulin (10 units or 0.1-0.2 units/kg/day)

DM2 Associated Complications



Hypertension

- BP check at every office visit, annual ACR
- BP goal <130/80 mmHg
- Initial BP >130/80 and <160/100 mmHg
 - Start one agent along with lifestyle management
- Initial BP \geq 160/100 mmHg
 - Start two agents along with lifestyle management
- ACEi/ARB are preferred if albuminuria (\geq 30 mg/g), or CAD present, unless contraindicated

Hyperlipidemia

- Lipid panel at least annually
- Primary prevention
 - LDL goal <70 mg/dL
 - Moderate-to-high intensity statin depending on ASCVD risk
- Secondary prevention
 - LDL goal <55 mg/dL
 - High intensity statin
- Add-on therapies to reach lipid targets: ezetimibe, bempedoic acid, PCSK9 inhibitor

DM2 Medication Precautions



Drug Class	Populations to Avoid Use In
Metformin	Contraindicated if eGFR <30 ml/min/1.73m ²
SU	Patients at high risk for hypoglycemia (Age Over 65)
TZD	Contraindicated if HF, history of or active bladder cancer, peripheral edema
SGLT2 inhibitor	Recurrent UTIs or yeast infections
GLP-1 RA, GLP-1/GIP RA	History of pancreatitis, contraindicated if pregnancy, multiple endocrine neoplasia syndrome type 2 (MEN2), personal or family history of medullary thyroid cancer

Cost Concerns



- Cost Effective Medications
 - Metformin, SU, TZD
- Coverage Gaps
 - High deductible commercial plans - Copay cards
 - Medicare “donut hole” - Elderly Pharmaceutical Insurance Coverage (EPIC) Program
- Patient Assistance Programs (PAP)
- Prior Authorizations (PAs)
 - Insurance may require trial of metformin prior to covering GLP-1 RA or SGLT2
- Insulin cost cap – PharmacyPRN
- Diabetic supplies – OneTouch Verio typically covered, Freestyle for Fidelis

Contact your GLIN pharmacist regarding patient-specific cases

Medications Associated with Hyperglycemia



Drug Class	Mechanism of Hyperglycemic Effect
Glucocorticoids	Insulin resistance, increased hepatic glucose production, increased PPAR-gamma activation
Antipsychotics	Insulin resistance, reduced insulin secretion, metabolic syndrome
Thiazide Diuretics	Decreased insulin secretion, increased insulin resistance
Beta Blockers	Decreased insulin sensitivity, decreased insulin secretion, increased glucose production; also may mask s/sx of hypoglycemia
Transplant Immunosuppressants	Decreased insulin secretion, glucose intolerance
Antiretrovirals	Decreased insulin sensitivity, insulin resistance, lipodystrophy, metabolic syndrome
Statins	Decreased insulin secretion, decreased glucose uptake in skeletal muscles, insulin resistance

DM2 Technology

Continuous Glucose Monitoring (CGM)



- **Recommended candidates for CGM**
 - Uncontrolled type 2 diabetics who have not shown ability to accurately and/or consistently perform finger stick testing
 - Type 2 diabetics with lack of hypoglycemia awareness
 - Type 2 diabetics using insulin therapy
 - Patients on insulin pumps
- **CGM coverage varies based on insurance**
 - Commercial insurance and Medicaid → retail pharmacy
 - Medicare → DME supplier

Ask a GLIN pharmacist for assistance with patient-specific cases

GLIN Pharmacy Team Services



How do you get in contact?

Pharmacy Phone Number

(716) 800-CARE (2273)

EXT. 4

Pharmacy Email

pharmacy@glin.com

Work with GLIN pharmacist in your office to develop individualized referral pathway

Conclusion



- DM2 has significant Macrovascular and Microvascular Morbidity, leading to impaired quality of life and reduced life expectancy with extensive healthcare cost throughout the US & local GLIN Network
- Screen by ADA Guidelines for Obese and Overweight patients age ≥ 35 and those with Risk Factors (PMH, FHx, and Meds)
- Prevent Progression to DM2 by blood glucose and A1c monitoring in high risk and prediabetes patients, use of diabetes prevention programs, utilization of nutrition therapy, and initiation of metformin
- Utilize medical nutrition therapy (GLIN Nutrition Dept.), diabetes self-management education and support programs, and exercise to effectively manage DM2

Conclusion



Achieve DM2 HEDIS / GLIN CIT Measures by

- Interprofessional Team Collaboration
 - GLIN Support Resources (Nutrition, Pharmacy, and Care Management)
 - Evidence-based clinical care as outlined by the ADA
 - Remote Patient Monitoring (E.g. Brook Health)
 - In House POC Diagnostic Testing- Retinal Eye Exams, uACR and eGFR
 - Systematized Closed Loop Referrals / Scheduling (Endocrinology, and Nephrology)
 - Avoidance of therapeutic inertia
- Manage DM2 based on ADA best practice guidelines with consideration for patient's target glycemic goal, comorbidities, DM2 associated complications, risk for hypoglycemia and other medication precautions
 - Utilize the GLIN Pharmacy team with DM2 medication questions, DM2 management strategies, patient compliance, medication cost concerns, and continuous glucose monitoring

References: DM2



- Standards in Medical Care of Diabetes 2023. American Diabetes Association. 2023;46.
- American Association of Clinical Endocrinology Clinical Practice Guideline: Developing a Diabetes Mellitus Comprehensive Care Plan -- 2022 Update. <https://www.sciencedirect.com/science/article/pii/S1530891X22005766?via%3Dihub>. Published 2022.
- Centers for Disease control and Prevention, Updated Recommendations for Prevention of Invasive Pneumococcal Disease among Adults Using the 23-Valent Pneumococcal Polysaccharide Vaccine (PPSV23)
- Centers of Disease Control and Prevention, Use of Hepatitis B Vaccination for Adults with Diabetes Mellitus; Recommendations of the Advisory Committee on Immunization Practices (ACIP) 2014
- Chamberlain J. ROLE OF CONTINUOUS GLUCOSE MONITORING IN DIABETES TREATMENT.2018.
- Demicheli et al., Vaccines for Preventing Influenza in the Elderly
- Doolin et al., Recommendations of the Advisory Committee on Immunization Practices for Use of Herpes Zoster Vaccines
- Falkenhorst et al., Effectiveness of the 23-Valent Pneumococcal Polysaccharide Vaccine (PPV23) Against Pneumococcal Disease in the Elderly; Systematic Review and Meta-analysis
- Havers et al., Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Updated Recommendations for the Advisory Committee on Immunization Practices -- United States, 2019
- Kobayashi et al., Use of 15-Valent Pneumococcal Conjugate Vaccine and 20-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Updated Recommendations of the Advisory Committee on Immunization Practices -- United States, 2022
- Meites et al., Human Papillomavirus Vaccination for Adults: Updated Recommendations of the Advisory Committee on Immunization Practices
- Wexler D. Overview of general medical care in nonpregnant adults with diabetes mellitus. https://www.uptodate.com/contents/overview-of-general-medical-care-in-nonpregnant-adults-with-diabetes-mellitus?search=diabetes%20aspirin%20primary%20prevention&rank=1&usage_type=default&anchor=H11&source=machineLearning&selectedTitle=3-150&display_rank=3#. Published December 2022.
- Wexler D. Management of persistent hyperglycemia in type 2 diabetes mellitus. https://www.uptodate.com/contents/management-of-persistent-hyperglycemia-in-type-2-diabetes-mellitus?search=management%20of%20type%20%20diabetes&source=search_result&selectedTitle=2-150&usage_type=default&display_rank=2. Published January 2023..
- Harris MI, Klein R, Welborn TA, Knudsen MW. Onset of NIDDM occurs at least 4-7 yr before clinical diagnosis. *Diabetes Care* 1992; 15:815.
- "Diabetes Prevention Impact Toolkit." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, nccd.cdc.gov/toolkit/diabetesimpact. Accessed 20 Oct. 2023.
- "National Diabetes Prevention Program." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 1 Aug. 2023, www.cdc.gov/diabetes/prevention/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fdiabetes%2Fprevention%2Findex.htm.
- Kidney Disease: Improving Global Outcomes CKD Work Group. KDIGO 2012 clinical practice guideline for the evaluation and management of chronic kidney disease. *Kidney Int Suppl* 2013; 3: 1-150
- Relatively small weight loss (approximately 3-7% of baseline weight) improves glycemia and other intermediate cardiovascular risk factors. A Larger, sustained weight losses (>10%) usually confer greater benefits,
- Franz MJ, MacLeod J, Evert A, et al. Academy of Nutrition and Dietetics Nutrition practice guideline for type 1 and type 2 diabetes in adults: systematic review of evidence for medical nutrition therapy effectiveness and recommendations for integration into the nutrition care process. *J Acad Nutr Diet* 2017;117:1659-1679
- "AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults." *GeriatricsCareOnline.Org* Complex Care. Access to Resources Simplified., geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria/CL001#. Accessed 31 Oct. 2023.
- Evert AB, Dennison M, Gardner CD, Garvey WT, Lau KHK, MacLeod J, Mitri J, Pereira RF, Rawlings K, Robinson S, Saslow L, Uelman S, Urbanski PB, Yancy WS Jr. Nutrition Therapy for Adults With Diabetes or Prediabetes: A Consensus Report. *Diabetes Care*. 2019 May;42(5):731-754.
- "Hedis-MY-2023-Description." NCQA, 4 Oct. 2023, www.ncqa.org/hedis/.
- "Brook+ Diabetes Prevention Program - Independent Health - Brook." Brook Health, 4 Nov. 2022, www.brook.health/plus-dpp-ih/.
- Franco OH, Steyerberg EW, Hu FB, et al. Associations of diabetes mellitus with total life expectancy and life expectancy with and without cardiovascular disease. *Arch Intern Med* 2007; 167:1145.
- "Prediabetes and Type 2 Diabetes: Screening." Recommendation: Prediabetes and Type 2 Diabetes: Screening | United States Preventive Services Taskforce, US Preventive Services Taskforce, 24 Aug. 2021, www.uspreventiveservicestaskforce.org/uspstf/recommendation/screening-for-prediabetes-and-type-2-diabetes

Post Survey Questions



Thank You



Upcoming Discussions

Topic	Date	Time
DM2 HCC Coding	November 9, 2023	12.30-1:15 p.m
SDOH	December 7, 2023	12:30-1:15 p.m

GLIN Website Resources Page

