



CARDI•OH

Ohio Cardiovascular and Diabetes Health Collaborative



In partnership with:



Cardi-OH ECHO

Your Patient with Diabetes at Risk for Heart Disease: A Series of Case Discussions

September 23, 2021



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Welcome

Chezré Willoughby

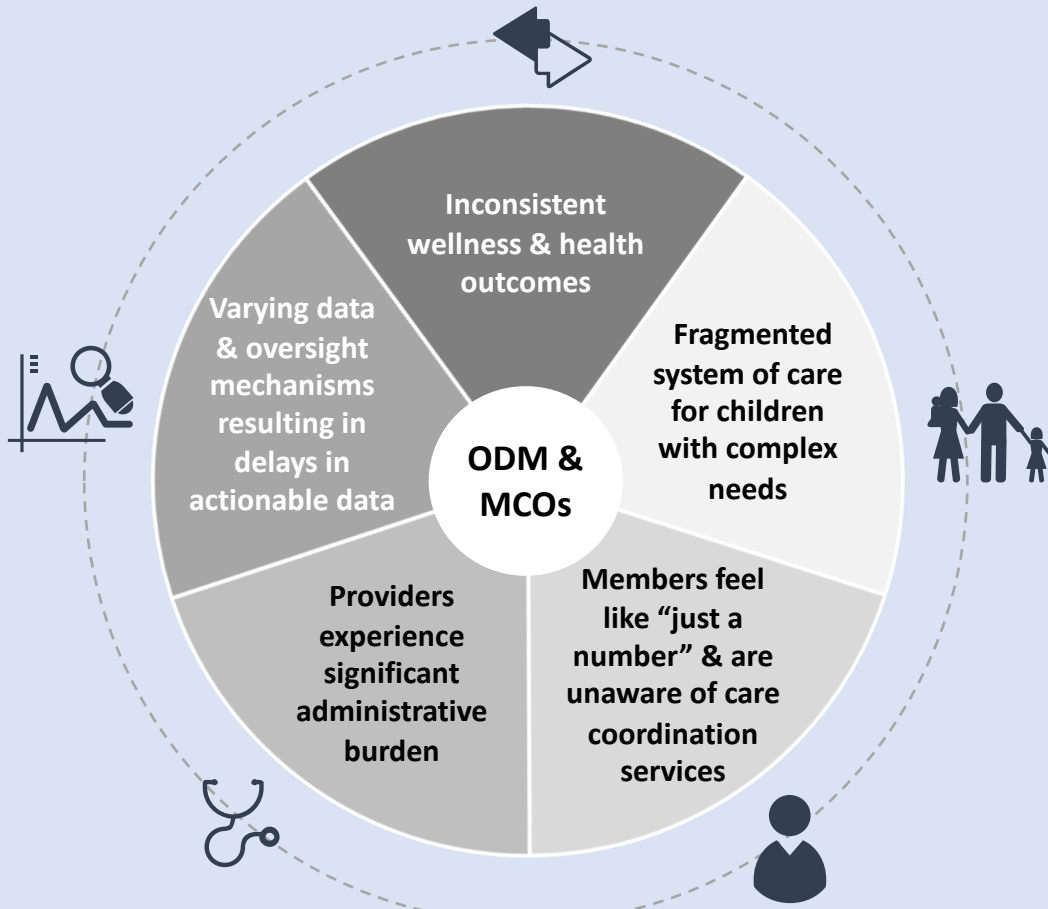
Health Equity Manager

Bureau of Health Research and Quality

Ohio Department of Medicaid

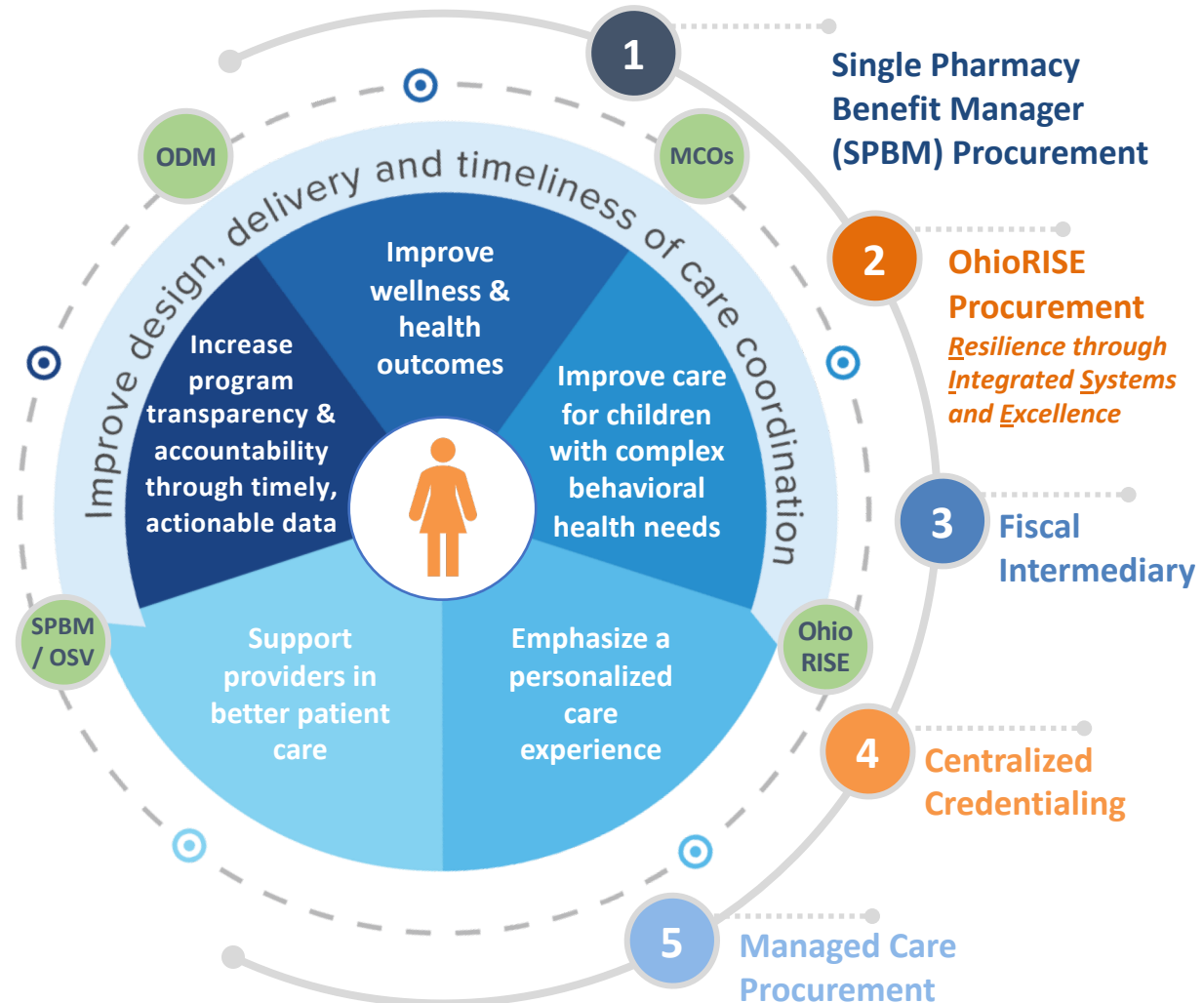
Today's Ohio Medicaid Managed Care Program

Members are impacted by business decisions that don't always take their needs or circumstances into consideration. Providers are not always treated as partners in patient care. We want to do better for the people we serve.



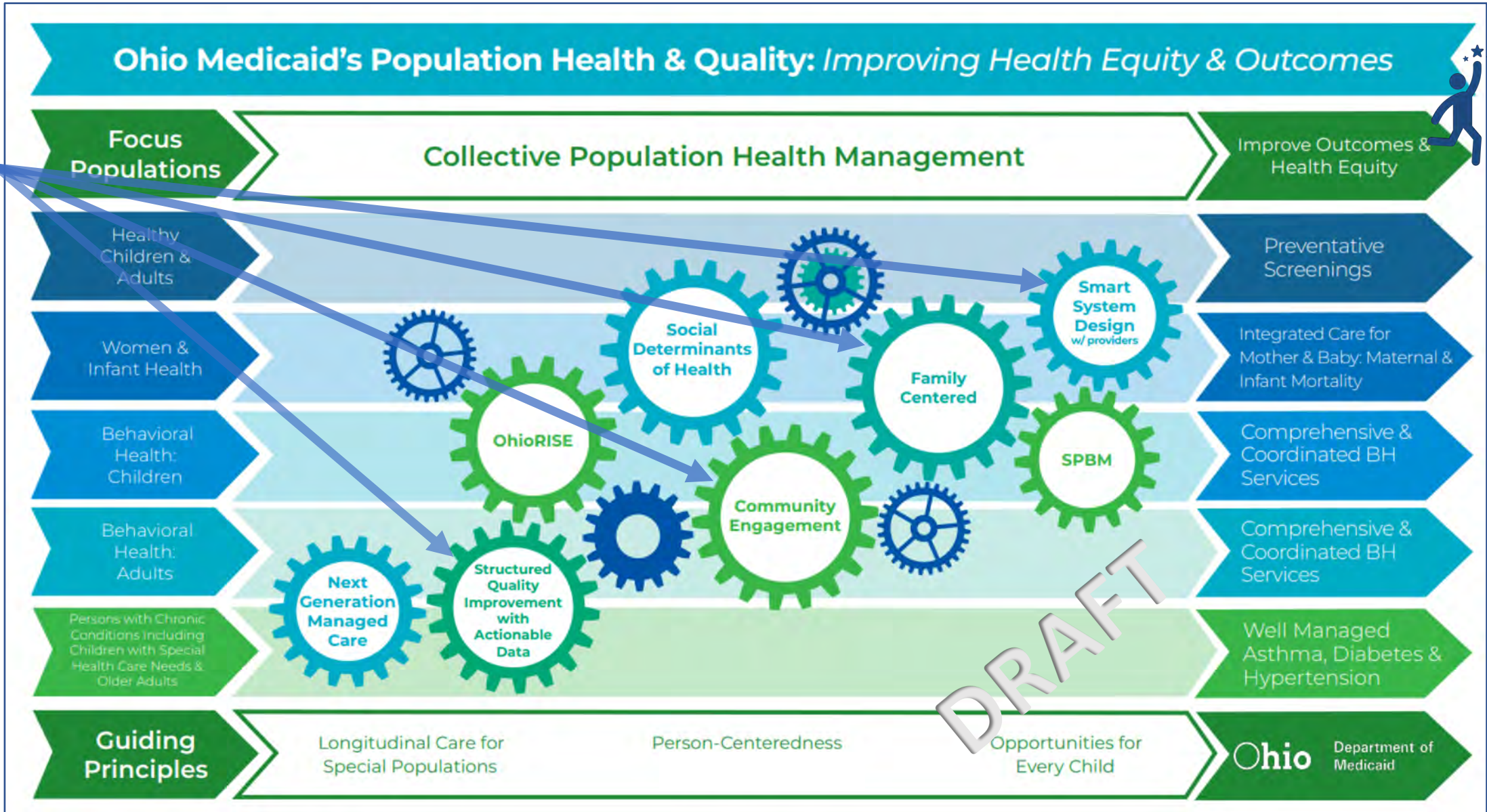
“Next Generation” of Managed Care in Ohio

The focus is on the individual with strong coordination and partnership among MCOs, vendors & ODM to support specialization in addressing critical needs.



Driven by

- members,
- their families,
- their providers, &
- their communities



Cardi-OH ECHO Team



FACILITATOR

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Case Western Reserve University

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Ohio University

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The Ohio State University

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Fall 2021 Cardi-OH ECHO Participant Sites



1 MetroHealth Bedford Internal Medicine
Bedford, OH

2 MetroHealth Broadway Family Medicine Clinic
Cleveland, OH

3 University Hospitals MacDonald Women's Hospital
Cleveland, OH

4 SRMC Internal Medicine Center
Salem, OH

5 Heart of Ohio Family Health
Whitehall, OH

6 Crossroad Health Center
Harrison, OH

7 Crossroad Health Center
Cincinnati, OH

8 Five Rivers Family Health Center
Dayton, OH

9 University of Toledo General Internal Medicine
Toledo, OH

10 University of Toledo Comprehensive Clinics
Toledo, OH

Structure of TeleECHO Clinics

Duration	Item
5 minutes	Introductions and announcements
10 minutes	Didactic presentation, followed by Q&A
40 minutes (20 minutes per case)	Patient case study presentations and discussions
5 minutes	Reminders and Post-Clinic Survey

Disclosure Statements



- The following planners, speakers, and/or content experts of the CME activity have financial relationships with commercial interests to disclose:
 - Marilee Clemons reports receiving consulting fees from Novo Nordisk.
 - Kathleen Dungan, MD, MPH reports receiving consulting fees from Eli Lilly, Novo Nordisk and Boehringer, research support from Sanofi, , Viacyte, and Abbott and presentation honoraria from UpToDate, Elsevier, ACHL, and CMHC.
 - Adam T. Perzynski, PhD reports being co-owner of Global Health Metrics LLC, a Cleveland-based software company and royalty agreements for book authorship with Springer Nature publishing and Taylor Francis publishing.
 - Christopher A. Taylor, PhD, RDN, LD, FAND reports grant funding for his role as a researcher and presenter for Abbott Nutrition and grant funding for research studies with both the National Cattleman's Beef Association and the American Dairy Association Mideast.
 - Jackson T. Wright, Jr., MD, PhD reports receiving fees for serving as an advisor to Medtronic.
 - These financial relationships are outside the presented work.
- All other planners, speakers, and/or content experts of the CME activity have no financial relationships with commercial interests to disclose.

The Importance of Language & Overview of 2020 Standards of Medical Care in Diabetes



Elizabeth Beverly, PhD

Associate Professor

Heritage Faculty Endowed Fellowship in Behavioral Diabetes

OHF Ralph S. Licklider, DO, Research Endowment

Department of Primary Care

Ohio University Heritage College of Osteopathic Medicine

Kathleen Dungan, MD, MPH

Professor, Associate Director Clinical Services

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Objectives

1. List and describe the five ADA and ADCES recommendations for language in diabetes care.
2. List criteria for screening and diagnosis of type 2 diabetes in adults.
3. Describe a step-wise progression in management of new onset type 2 diabetes.

The Importance of Language in Diabetes



Elizabeth Beverly, PhD

Associate Professor

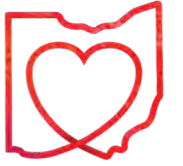
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Department of Primary Care

Ohio University Heritage College of Osteopathic Medicine

Person-Centered Language Recommendations



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The ADA and the APA recommend language that emphasizes inclusivity and respect:

- **Gender**: Gender is a social construct and social identity; use term “gender” when referring to people as a social group. Sex refers to biological sex assignment; use term “sex” when referring to the biological distinction.
- **Race**: Race is a social construct that is broadly used to categorize people based on physical characteristics, behavioral patterns, and geographic location. Race is not a proxy for biology or genetics. Examining health access, quality, and outcome data by race and ethnicity allows the healthcare system to assist in addressing the factors contributing to inequity and ensure that the health system serves the needs of all individuals.
- **Sexual Orientation**: Use the term “sexual orientation” rather than “sexual preference” or “sexual identity.” People choose partners regardless of their sexual orientation; however, sexual orientation is not a choice.
- **Disability**: The nature of a disability should be indicated when it is relevant. Disability language should maintain the integrity of the individual. Language should convey the expressed preference of the person with the disability.
- **Socioeconomic Status**: When reporting SES, provide detailed information about a person’s income, education, and occupation/employment. Avoid using pejorative and generalizing terms, such as “the homeless” or “inner-city.”

Diabetes Language Recommendations



Avoid

Diabetic X

Test X

Control X

Unrealistic goals X

Suffering from diabetes X

Good/bad/poor glycemic control X

Compliance or adherence X

Obese, morbidly obese, fat X

Recommend

Person with diabetes ✓

Monitor ✓

Manage ✓

High expectations for self-management ✓

Living with diabetes ✓

A1C, A1C levels, Glycemic targets ✓

Engagement, Medication-taking ✓

Excess body weight, weight, BMI ✓

Overview of 2020 Standards of Medical Care in Diabetes

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Who to screen?

- >45 years old

Or

Overweight or obese adults with 1 or more risk factors:

- High risk ethnicity
- 1st degree relative with DM
- CVD
- GDM or baby > 9#
- HTN
- HDL <35 mg/dl
- TG >250 mg/dl
- PCOS
- Physical inactivity
- Condition associated with insulin resistance (acanthosis nigricans)
- Gestational Diabetes

- *Repeat screen*
 - *every 3 years if normal*
 - *annually if prediabetes*

How Should we Screen?

Method	Normal	Prediabetes	Diabetes
Fasting BG*	<100 mg/dl	100-125 mg/dl	≥126 mg/dl
2 hr OGTT (75 gm)#	<140 mg/dl	140-199 mg/dl	≥200 mg/dl
HbA1c	<5.7%	5.7-6.4%	≥6.5%
Random BG	-	-	Symptoms of DM & random serum BG ≥ 200 mg/dl

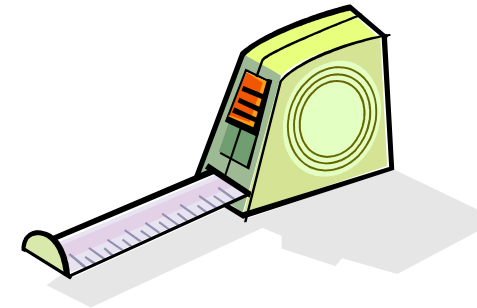
*In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results (e.g. fasting glucose + HbA1c) from the same sample or in two separate test samples.

Refer people with prediabetes and overweight/obesity to an intensive lifestyle intervention program such as the Diabetes Prevention Program (DPP) and/or to individualized MNT.

Measuring Success

Health status	A1c (%)	Fasting/premeal (mg/dl)	Peak Postprandial (mg/dl)	Bedtime (mg/dl)
General Population				
Healthy*	7.0	80-130	180	*
Older Adults				
Healthy	7.5	90-130	*	90-150
Intermediate	8.0	90-150	*	100-180
Poor	8.5	100-180	*	110--200

***Goals should be individualized.** Healthy refers to few comorbidities, intact cognition and activities of daily living while poor indicates end-stage comorbidities, moderate-severe cognitive impairment, or requiring long-term care or dependency in 2 or more activities of daily living.



Glucose Monitoring

	SMBG	CGM
Non-insulin therapy	Structured (varied times of day) as needed to <ul style="list-style-type: none"> • Inform or monitor treatment adjustment • Inform lifestyle choices • During illness • Monitoring hypoglycemia (SU or glinide) 	Consider short-term/professional CGM if not meeting goals
Basal insulin	1-3+ times/day (especially FBG)	Consider if cost is not a barrier
MDI	3+ times per day <ul style="list-style-type: none"> • Meals • Exercise • Driving • Hypoglycemia • Occ. Postprandial (dose titration) 	<ul style="list-style-type: none"> • If not meeting A1c goals • Real-time alert preferred for people with frequent hypoglycemia, severe events, or hypoglycemia unawareness

ADA Standards of Care 2021



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All patients
Lifestyle advice
Caloric restriction
Evidence-based weight loss programs
Weight loss surgery
Weight loss medication

If A1c >1.5% above target consider early combination

Metformin + Lifestyle
↓
Established ASCVD or CKD[^]

Yes No

Treatment regardless of baseline A1c, glucose target or metformin

ASCVD

GLP-1RA or SGLT2i* with proven CV benefit

HFrEF (LVEF <45)

SGLT2i* with proven HF benefit[^]

CKD + albuminuria

SGLT2i* with proven CKD benefit[#]

CKD, no albuminuria

GLP-1RA or SGLT2i* with proven CV benefit

Other agent demonstrating CV safety:

- DPP4i (Sitagliptin, Linagliptin) if not on GLP-1RA
- Low dose TZD
- Degludec or Glargine U100
- Glimepiride

If A1c above goal, consider compelling indications for treatment

Hypoglycemia

SGLT2i*
GLP-1RA
DPP-4i
TZD

Other agent

- Colesevalem
- Bromocriptine QR
- AGI
- *later generation SFU OR degludec/ glargine U300*

Weight Gain

GLP-1RA⁺
SGLT2i*

Other agent

- Colesevalem
- Bromocriptine QR
- AGI
- *Minimize SFU, insulin, TZD*

Cost

SFU
TZD

Other agent

- AGI
- Glinides
- NPH insulin

If A1c above goal, add agent based upon compelling indications above

*if adequate eGFR, [^]Empagliflozin and dapagliflozin have shown benefit in dedicated HF studies. Canagliflozin has demonstrated reduction in hospitalization for HF in CV outcomes trials.
[#]Dapagliflozin and canagliflozin have demonstrated benefit in dedicated renal outcomes studies. Empagliflozin has demonstrated reduction in CKD progression in CV outcomes trials.
⁺Weight loss is greatest with semaglutide > liraglutide > dulaglutide > exenatide > lixisenatide

Therapeutic Considerations in T2DM

In addition to lifestyle changes



	Metformin	SFU	TZD	DPP4i	SGLT2i	GLP-1RA ⁺	Insulin
Efficacy*	++	++	++	+	++	+++	+++
Hypoglycemia	-	+	-	-	-	-	+
Weight	-	↑	↑	-	↓	↓↓	↑
Side Effect	GI, lactic acidosis	Hypoglycemia	Edema, HF, Frx	Rare	GU mycotic infection, dehydration, DKA, frx	GI	hypoglycemia
CV benefit	?	-	?	-	+	+	-
Cost	↓	↓	↓	↑	↑	↑	↑

**The magnitude of A1c reduction is dependent on baseline A1c*

⁺Weight loss is greatest with semaglutide > liraglutide > dulaglutide > exenatide > lixisenatide

Glucose lowering is greatest with semaglutide > liraglutide/dulaglutide > exenatide QW > exenatide BID / ?lixisenatide



Thank you!

Questions/Discussion