



Together2Goal[®]

AMGA Foundation
National Diabetes Campaign



Monthly Campaign Webinar

January 16, 2019

Today's Webinar



- Together 2 Goal® Updates
 - Webinar Reminders
 - AMGA Annual Conference 2020
 - New Partnership: Endocrine Society
 - National Day of Action Wrap Report
 - Lives Improved
- American Diabetes Association 2020 Standards of Care
 - Eric L. Johnson, M.D. of University of North Dakota School of Medicine and Health Sciences
- Q&A
 - Use Q&A or chat feature



Webinar Reminders

- Webinar will be recorded today and available the week of January 20th
 - www.Together2Goal.org
- Participants are encouraged to ask questions using the “Chat” and “Q&A” functions on the right side of your screen



AMGA Annual Conference 2020

March 25 – 28, 2020 in San Diego, California
amga.org/ac20



Shared Learning

Real-world case studies and insights from AMGA members, including Geisinger, Henry Ford Health System, Intermountain Healthcare, Mayo Clinic, and many others.



Networking

Join 2,000+ healthcare leaders for hours of free-flowing conversation and structured networking.



Inspiring Keynotes

This year's agenda features future-focused Dr. Peter Diamandis, community health guru Dr. Toyin Ajayi, and viral sensation ZDoggMD.

New Partnership: Endocrine Society



ENDOCRINE
SOCIETY



National Day of Action Wrap Report



T2G Talk & Taste Group Events



1,082,000

Today's Featured Presenter

Eric L. Johnson, M.D.



Associate Professor
 University of North Dakota School of Medicine and Health Sciences
 Assistant Medical Director
 Altru Diabetes Center
 Chair, ADA Primary Care Advisory Group

Updates on the American Diabetes Association Standards of Medical Care – 2020

Eric L. Johnson, M.D.

Associate Professor

University of North Dakota School of Medicine and Health Sciences

Assistant Medical Director

Altru Diabetes Center

Grand Forks, ND



DISCLOSURES

- PI/SubPI on many clinical trials at Altru Health System, Grand Forks, ND
- Speakers Bureau Novo Nordisk
- Speakers Bureau Medtronic
- Advisory Board Medtronic
- Advisory Board Sanofi
- Advisory Board Novo Nordisk
- American Diabetes Association speaker
- I have type 1 diabetes and use insulin

Acknowledgements

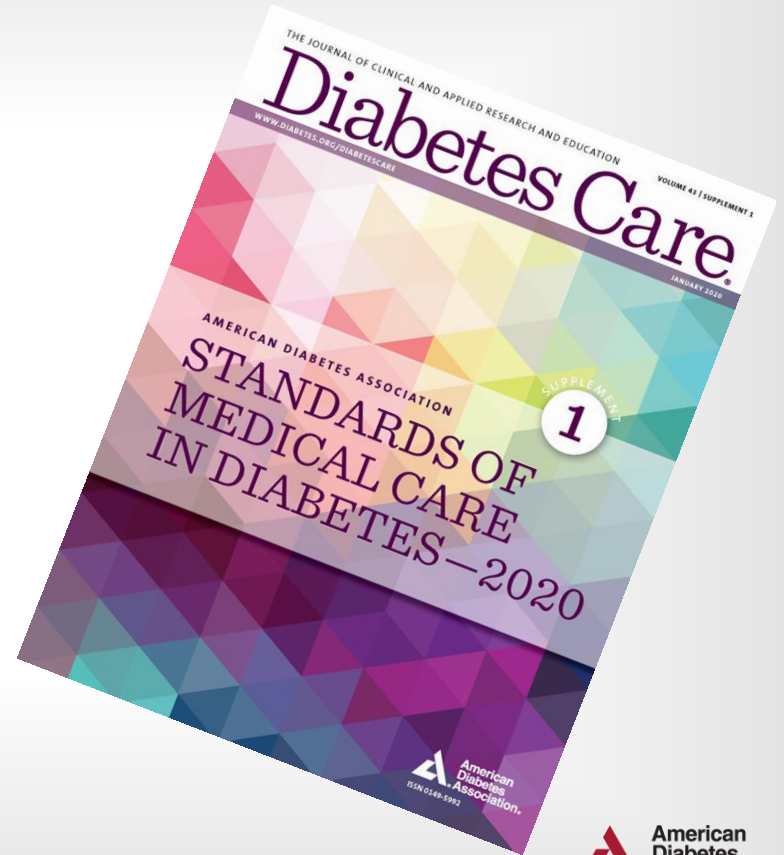
Slides adapted from American Diabetes Association
and
Nisa M. Maruthur, MD, MHS, Johns Hopkins
University

OBJECTIVE

Describe changes in
ADA Standards of Medical Care-2020
related to *diagnosis and management* of diabetes

- This slide deck is not meant to be comprehensive, but highlights important changes in the Standards of Care-2020
- I will draw your attention to important changes and summarize some of these changes

Standards of Medical Care in Diabetes—2020



The Standards.

Intended to provide clinicians, patients, researchers, payers, and other interested individuals with the components of diabetes care, general treatment goals, and tools to evaluate the quality of care.

EVIDENCE



PROCESS



FUNDING



- Search of scientific diabetes literature over past year
- Recommendations revised per new evidence
- Professional Practice Committee
- Reviewed by ADA's Board of Directors
- Living Standards
- Funded out of ADA's general revenues
- Does not use industry support

Improving Care and Promoting Health in Populations.

Additional information was included on the rising cost of medications, particularly insulin

A new section “Migrant and Seasonal Agricultural Workers” was added to discuss the challenges of managing type 2 diabetes specific to this group

Classification and Diagnosis of Diabetes

A new recommendation (2.8) was added regarding testing for prediabetes and/or type 2 diabetes for women with overweight or obesity and/or who have one or more additional risk factors for diabetes who are planning a pregnancy

The “Gestational Diabetes Mellitus” (GDM) section was revised, and the two-step approach for screening and diagnosing GDM no longer includes National Diabetes Data Group criteria

diabetes.org/socrisktest

Classification and Diagnosis of Diabetes:
Standards of Medical Care in Diabetes - 2020. Diabetes Care 2020;43(Suppl. 1):S14-S31

Are you at risk for type 2 diabetes?

Diabetes Risk Test:

- How old are you?
 Less than 40 years (0 points)
 40-49 years (1 point)
 50-59 years (2 points)
 60 years or older (3 points)
- Are you a man or a woman?
 Man (1 point) Woman (0 points)
- If you are a woman, have you ever been diagnosed with gestational diabetes?
 Yes (1 point) No (0 points)
- Do you have a mother, father, sister or brother with diabetes?
 Yes (1 point) No (0 points)
- Have you ever been diagnosed with high blood pressure?
 Yes (1 point) No (0 points)
- Are you physically active?
 Yes (0 points) No (1 point)
- What is your weight category?
 See chart at right.

WRITE YOUR SCORE IN THE BOX.

Height	Weight (lbs.)		
4' 10"	119-142	143-190	191+
4' 11"	124-147	148-197	198+
5' 0"	128-152	153-203	204+
5' 1"	132-157	158-210	211+
5' 2"	136-163	164-217	218+
5' 3"	141-168	169-224	225+
5' 4"	145-173	174-231	232+
5' 5"	150-179	180-239	240+
5' 6"	155-185	186-246	247+
5' 7"	159-190	191-254	255+
5' 8"	164-196	197-261	262+
5' 9"	169-202	203-269	270+
5' 10"	174-208	209-277	278+
5' 11"	179-214	215-285	286+
6' 0"	184-220	221-293	294+
6' 1"	189-226	227-301	302+
6' 2"	194-232	233-310	311+
6' 3"	200-239	240-318	319+
6' 4"	205-245	246-327	328+

1 point 2 points 3 points
 If you weigh less than the amount in the left column: 0 points

Adapted from Bang et al., Ann Intern Med 151:775-783, 2009 • Original algorithm was validated without gestational diabetes as part of the model.

If you scored 5 or higher:

You are at increased risk for having type 2 diabetes. However, only your doctor can tell for sure if you do have type 2 diabetes or prediabetes, a condition in which blood glucose levels are higher than normal but not yet high enough to be diagnosed as diabetes. Talk to your doctor to see if additional testing is needed.

Type 2 diabetes is more common in African Americans, Hispanics/Latinos, Native Americans, Asian Americans, and Native Hawaiians and Pacific Islanders.

Higher body weight increases diabetes risk for everyone. Asian Americans are at increased diabetes risk at lower body weight than the rest of the general public (about 15 pounds lower).

ADD UP YOUR SCORE.

Lower Your Risk

The good news is you can manage your risk for type 2 diabetes. Small steps make a big difference in helping you live a longer, healthier life.

If you are at high risk, your first step is to visit your doctor to see if additional testing is needed.

Visit diabetes.org or call 1-800-DIABETES (800-342-2383) for information, tips on getting started, and ideas for simple, small steps you can take to help lower your risk.

CLASSIFICATION AND DIAGNOSIS OF DIABETES

Table 2.7—Screening for and diagnosis of GDM

One-step strategy

Perform a 75-g OGTT, with plasma glucose measurement when patient is fasting and at 1 and 2 h, at 24–28 weeks of gestation in women not previously diagnosed with diabetes.

The OGTT should be performed in the morning after an overnight fast of at least 8 h.

The diagnosis of GDM is made when any of the following plasma glucose values are met or exceeded:

- Fasting: 92 mg/dL (5.1 mmol/L)
- 1 h: 180 mg/dL (10.0 mmol/L)
- 2 h: 153 mg/dL (8.5 mmol/L)

Two-step strategy

Step 1: Perform a 50-g GLT (nonfasting), with plasma glucose measurement at 1 h, at 24–28 weeks of gestation in women not previously diagnosed with diabetes.

If the plasma glucose level measured 1 h after the load is ≥ 130 , 135, or 140 mg/dL (7.2, 7.5, or 7.8 mmol/L, respectively), proceed to a 100-g OGTT.

Step 2: The 100-g OGTT should be performed when the patient is fasting.

The diagnosis of GDM is made when at least two* of the following four plasma glucose levels (measured fasting and at 1, 2, and 3 h during OGTT) are met or exceeded (Carpenter-Coustan criteria [154]):

- Fasting: 95 mg/dL (5.3 mmol/L)
- 1 h: 180 mg/dL (10.0 mmol/L)
- 2 h: 155 mg/dL (8.6 mmol/L)
- 3 h: 140 mg/dL (7.8 mmol/L)

GDM, gestational diabetes mellitus; GLT, glucose load test; OGTT, oral glucose tolerance test.

*American College of Obstetricians and Gynecologists notes that one elevated value can be used for diagnosis (150).

Prevention or Delay of Type 2 Diabetes

Additional resources and information were added regarding the National Diabetes Prevention Program, Medicare Diabetes Prevention Programs, and the Centers for Disease Control (CDC) Diabetes Prevention Impact Tool Kit. More information was added on the risk reduction certain groups experienced with metformin use, based on 15-year follow-up data from the Diabetes Prevention Program Outcomes Study.

Lifestyle Interventions

- 3.2 Refer patients with prediabetes to an intensive behavioral lifestyle intervention program modeled on the Diabetes Prevention Program (DPP) to achieve and maintain 7% loss of initial body weight and increase moderate intensity physical activity (such as brisk walking) to at least 150 min/week. A
- 3.3 A variety of eating patterns are acceptable for persons with prediabetes. B

Pharmacologic Interventions

- 3.6 Metformin therapy for prevention of type 2 diabetes should be considered in those with prediabetes, especially for those with BMI ≥ 35 kg/m², those aged <60 years, and women with prior gestational diabetes mellitus. A
- 3.7 Long-term use of metformin may be associated with biochemical vitamin B12 deficiency, and periodic measurement of vitamin B12 levels should be considered in metformin-treated patients, especially in those with anemia or peripheral neuropathy. B

Facilitating Behavior Change and Well-being to Improve Health Outcomes

(formerly “Lifestyle
Management.”)

The title of this section was previously “Lifestyle Management” and was changed to more appropriately emphasize how effective behavior management and psychological well-being are foundational to achieving treatment goals for people with diabetes”

The section “Nutrition Therapy” was updated to include guidance and evidence presented in “Nutrition Therapy for Adults With Diabetes or Prediabetes: A Consensus Report” (<https://doi.org/10.2337/dci19-0014>), published in May 2019

Facilitating Behavior Change and Well-being to Improve Health Outcomes

Because of the emerging evidence from the CDC on deaths related to e-cigarettes, more information was added discouraging their use

Recommendations and supporting evidence on anxiety disorders, depression, disordered eating behavior, and serious mental illness previously found at the end of Section 4 were moved to Section 5 and are included under “Psychosocial Issues.” **More information on psychosocial screening for social determinants of health and significant changes in life circumstances was also added**

Glycemic Targets

Based on the publication “Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range” (<https://doi.org/10.2337/dci19-0028>) published in June 2019, new recommendations (6.4 and 6.5) were added on use of the ambulatory glucose profile (AGP) report and time in range (TIR) for assessment of glycemic management. A discussion of AGP reports, time in range, and glucose management indicators follow the new recommendations. An example of an AGP report was also added (Fig. 6.1)

This section was modified to include a new discussion on the use of continuous glucose monitoring technology in hypoglycemia prevention

AGP Report

GLUCOSE STATISTICS AND TARGETS

26 Feb 2019–10 Mar 2019 **13 days**
% Time CGM is Active **99.9%**

Glucose Ranges	Targets [% of Readings (Time/Day)]
Target Range 70–180 mg/dL	Greater than 70% (16h 48min)
Below 70 mg/dL	Less than 4% (58min)
Below 54 mg/dL	Less than 1% (14min)
Above 180 mg/dL	Less than 25% (6h)
Above 250 mg/dL	Less than 5% (1h 12min)

Each 5% increase in time in range (70–180 mg/dL) is clinically beneficial.

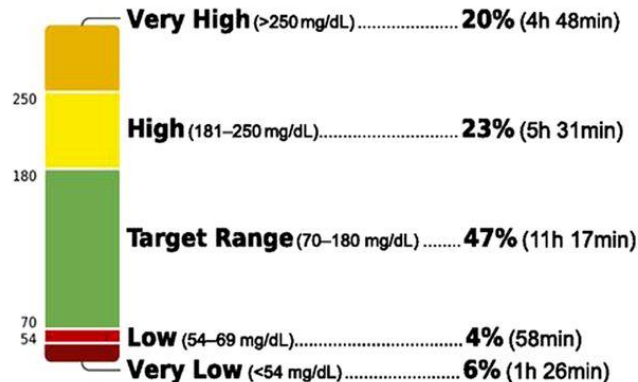
Average Glucose **173 mg/dL**
Glucose Management Indicator (GMI) **7.6%**
Glucose Variability **49.5%**

Defined as percent coefficient of variation (%CV); target ≤36%

Name _____

MRN _____

TIME IN RANGES



Glycemic Targets

More discussion on the importance of reducing therapeutic inertia in the management of hyperglycemia and cardiovascular disease was included in the section “A1C and Cardiovascular Disease Outcomes.”

Also new to “A1C and Cardiovascular Disease Outcomes” is the strategy to introduce sodium–glucose cotransporter 2 inhibitors (SGLT-2i) or glucagon-like peptide 1 (GLP-1) receptor agonists in patients with cardiovascular disease meeting A1C goals for cardiovascular benefit

Diabetes Technology

This section was reorganized into three broad categories titled “**Self-Monitoring of Blood Glucose,**” “**Continuous Glucose Monitors,**” and “**Insulin Delivery.**”

Within these revised sections, emphasis has been made on how there is no “one-size-fits-all” approach to technology use in people with diabetes. Due to the rapidly changing field of diabetes technology, the recommendations in each category have been revised, and more evidence has been added to support the recommendations throughout

Pharmacologic Approaches to Glycemic Treatment.

Figure 9.1 has been revised to include the latest trial findings on GLP-1 receptor agonists and SGLT2 inhibitors. It now suggests that these drugs should be considered for patients when atherosclerotic cardiovascular disease (ASCVD), heart failure, or chronic kidney disease predominates independent of A1C



Figure 9.2 has been simplified to more easily guide providers through intensification to injectable therapies

FIRST-LINE Therapy is Metformin and Comprehensive Lifestyle (including weight management and physical activity)



INDICATORS OF HIGH-RISK OR ESTABLISHED ASCVD, CKD, OR HF†

NO

CONSIDER INDEPENDENTLY OF BASELINE A1C OR INDIVIDUALIZED A1C TARGET

IF A1C ABOVE INDIVIDUALIZED TARGET PROCEED AS BELOW

ASCVD PREDOMINATES

- Established ASCVD
- Indicators of high ASCVD risk (age ≥55 years with coronary, carotid or lower extremity artery stenosis >50%, or LVH)

PREFERABLY

GLP-1 RA with proven CVD benefit¹

OR

SGLT2i with proven CVD benefit¹ if eGFR adequate²

If A1C above target

If further intensification is required or patient is now unable to tolerate GLP-1 RA and/or SGLT2i, choose agents demonstrating CV safety:

- For patients on a GLP-1 RA, consider adding SGLT2i with proven CVD benefit¹
- DPP-4i if not on GLP-1 RA
- Basal insulin⁴
- TZD⁵
- SU⁶

HF OR CKD PREDOMINATES

- Particularly HFrEF (LVEF <45%)
- CKD: Specifically eGFR 30-60 mL/min/1.73 m² or UACR >30 mg/g, particularly UACR >300 mg/g

PREFERABLY

SGLT2i with evidence of reducing HF and/or CKD progression in CVOts if eGFR adequate³

OR

If SGLT2i not tolerated or contraindicated or if eGFR less than adequate³ add GLP-1 RA with proven CVD benefit¹

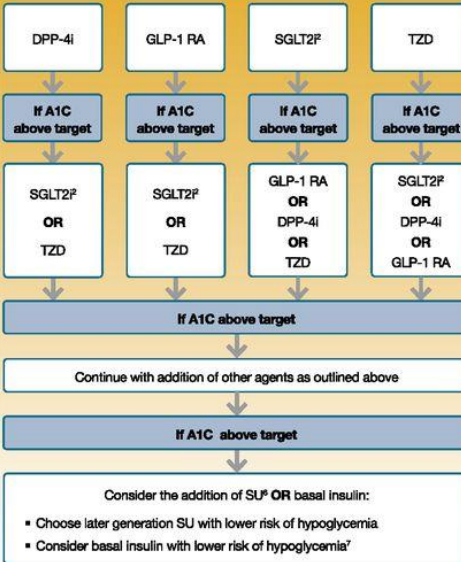
If A1C above target

Avoid TZD in the setting of HF

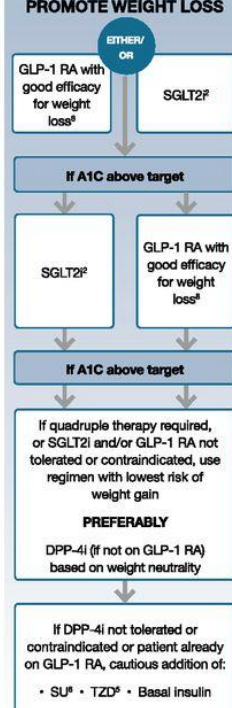
Choose agents demonstrating CV safety:

- For patients on a SGLT2i, consider adding GLP-1 RA with proven CVD benefit¹
- DPP-4i (not saxagliptin) in the setting of HF (if not on GLP-1 RA)
- Basal insulin⁴
- SU⁶

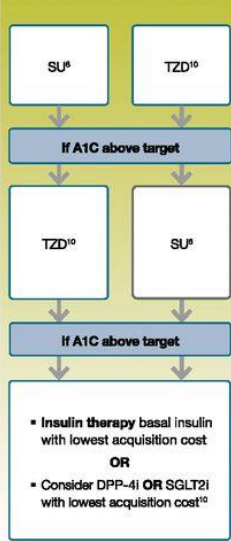
COMPELLING NEED TO MINIMIZE HYPOGLYCEMIA



COMPELLING NEED TO MINIMIZE WEIGHT GAIN OR PROMOTE WEIGHT LOSS



COST IS A MAJOR ISSUE⁹⁻¹⁰



1. Proven CVD benefit means it has label indication of reducing CVD events
 2. Be aware that SGLT2i labelling varies by region and individual agent with regard to indicated level of eGFR for initiation and continued use
 3. Empagliflozin, canagliflozin and dapagliflozin have shown reduction in HF and to reduce CKD progression in CVOts. Canagliflozin has primary renal outcome data from CREDENCE. Dapagliflozin has primary heart failure outcome data from DAPA-HF
 4. Degludec or U100 glargine have demonstrated CVD safety
 5. Low dose may be better tolerated though less well studied for CVD effects
 † Actioned whenever these become new clinical considerations regardless of background glucose-lowering medications.

6. Choose later generation SU to lower risk of hypoglycemia, Glimperide has shown similar CV safety to DPP-4i
 7. Degludec / glargine U300 < glargine U100 / detemir < NPH insulin
 8. Semaglutide > liraglutide > dulaglutide > exenatide > lisdensatide
 9. If no specific comorbidities (i.e. no established CVD, low risk of hypoglycemia and lower priority to avoid weight gain or no weight-related comorbidities)
 10. Consider country- and region-specific cost of drugs. In some countries TZDs relatively more expensive and DPP-4i relatively cheaper

LVH = Left Ventricular Hypertrophy; HFrEF = Heart Failure reduced Ejection Fraction
 UACR = Urine Albumin-to-Creatinine Ratio; LVEF = Left Ventricular Ejection Fraction

Glucose-lowering Medication in Type 2 Diabetes: Overall Approach

Pharmacologic Approaches to Glycemic Management: *Standards of Medical Care in Diabetes - 2020. Diabetes Care* 2020;43(Suppl. 1):S98-S110



INDICATORS OF HIGH-RISK OR ESTABLISHED ASCVD, CKD, OR HF¹

CONSIDER INDEPENDENTLY OF BASELINE A1C OR INDIVIDUALIZED A1C TARGET

ASCVD PREDOMINATES

- Established ASCVD
- Indicators of high ASCVD risk (age ≥ 55 years with coronary, carotid or lower extremity artery stenosis $>50\%$, or LVH)

PREFERABLY

GLP-1 RA with proven CVD benefit¹
OR
 SGLT2i with proven CVD benefit¹ if eGFR adequate²

If A1C above target

If further intensification is required or patient is now unable to tolerate GLP-1 RA and/or SGLT2i, choose agents demonstrating CV safety:

- For patients on a GLP-1 RA, consider adding SGLT2i with proven CVD benefit¹
- DPP-4i (not saxagliptin) in the setting of HF (if not on GLP-1 RA)
- Basal insulin⁴
- TZD⁵
- SU⁶

HF OR CKD PREDOMINATES

- Particularly HF rEF (LVEF $<45\%$)
- CKD: Specifically eGFR 30-60 mL/min/1.73 m² or UACR >30 mg/g, particularly UACR >300 mg/g

PREFERABLY

SGLT2i with evidence of reducing HF and/or CKD progression in CVOTs if eGFR adequate²
OR
 If SGLT2i not tolerated or contraindicated or if eGFR less than adequate² add GLP-1 RA with proven CVD benefit¹

If A1C above target

Avoid TZD in the setting of HF
 Choose agents demonstrating CV safety:

- For patients on a SGLT2i, consider adding GLP-1 RA with proven CVD benefit¹
- DPP-4i (not saxagliptin) in the setting of HF (if not on GLP-1 RA)
- Basal insulin⁴
- SU⁶

IF A1C ABOVE INDIVIDUALIZED TARGET PROCEED AS BELOW

COMPELLING NEED TO MINIMIZE HYPOGLYCEMIA

DPP-4i

GLP-1 RA

SGLT2²

TZD

If A1C above target

If A1C above target

If A1C above target

If A1C above target

SGLT2²

SGLT2²

GLP-1 RA
OR
 DPP-4i
OR
 TZD

SGLT2²
OR
 DPP-4i
OR
 GLP-1 RA

OR
 TZD

OR
 TZD

OR
 DPP-4i
OR
 TZD

OR
 DPP-4i
OR
 GLP-1 RA

If A1C above target

Continue with addition of other agents as outlined above

If A1C above target

Consider the addition of SU⁶ **OR** basal insulin:

- Choose later generation SU with lower risk of hypoglycemia
- Consider basal insulin with lower risk of hypoglycemia⁷

COMPELLING NEED TO MINIMIZE WEIGHT GAIN OR PROMOTE WEIGHT LOSS

ETHER/ OR

GLP-1 RA with good efficacy for weight loss⁸

SGLT2²

If A1C above target

SGLT2²

GLP-1 RA with good efficacy for weight loss⁸

If A1C above target

If quadruple therapy required, or SGLT2i and/or GLP-1 RA not tolerated or contraindicated, use regimen with lowest risk of weight gain

PREFERABLY

DPP-4i (if not on GLP-1 RA) based on weight neutrality

If DPP-4i not tolerated or contraindicated or patient already on GLP-1 RA, cautious addition of:

- SU⁶ • TZD⁵ • Basal Insulin

COST IS A MAJOR ISSUE⁹⁻¹⁰

SU⁶

TZD¹⁰

If A1C above target

TZD¹⁰

SU⁶

If A1C above target

Insulin therapy basal insulin with lowest acquisition cost

OR

Consider DPP-4i **OR** SGLT2i with lowest acquisition cost¹⁰

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 A1C¹

Consider GLP-1 RA in most patients prior to insulin²

INITIATION: Initiate appropriate starting dose for agent selected (varies within class)

TITRATION: Gradual 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 insulin³

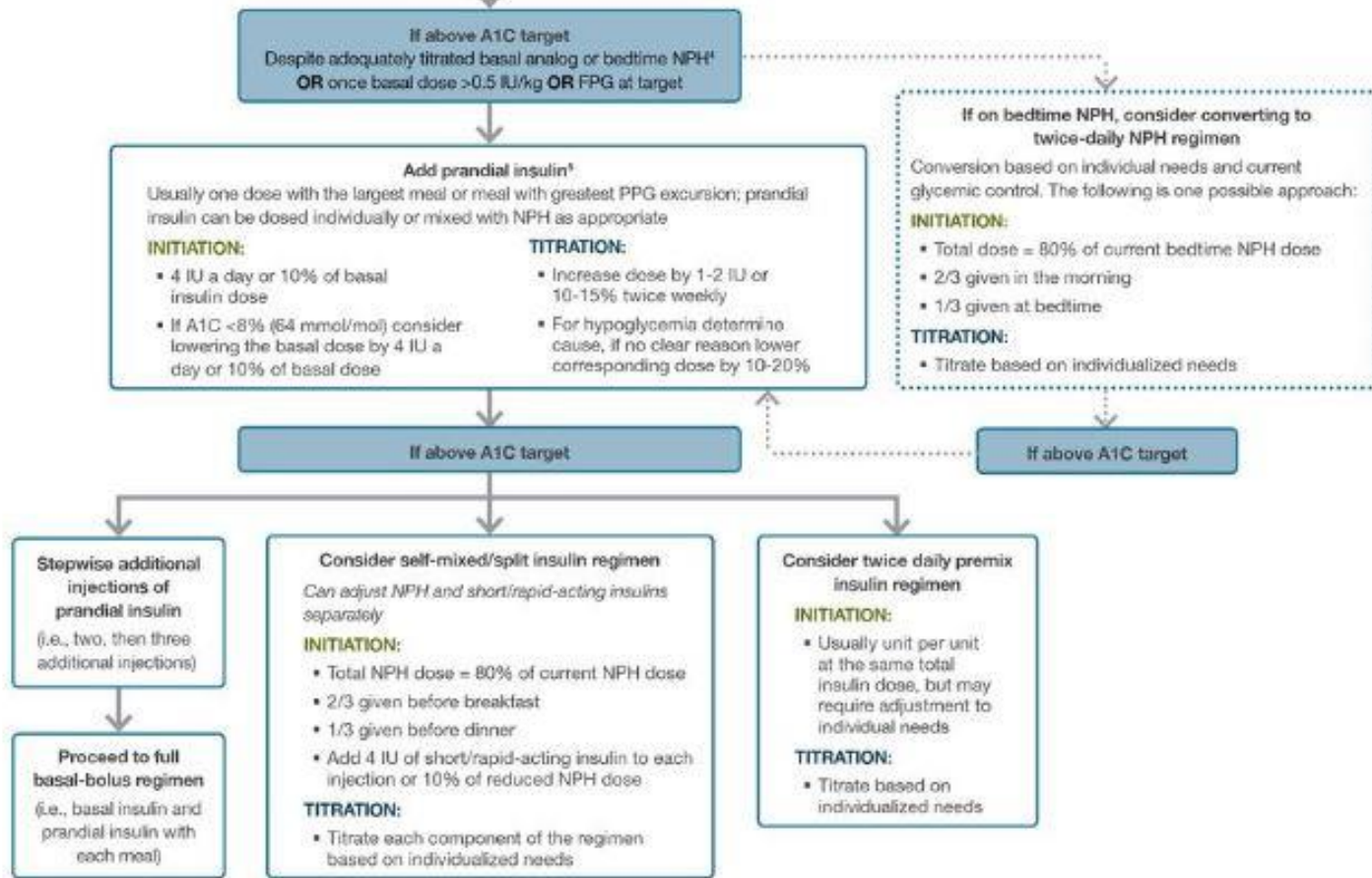
Choice of basal insulin should be based on patient-specific considerations, including cost. Refer to **Table 9.3** for insulin cost information.

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%



Intensifying to injectable therapies. DSMES, diabetes self-management education and support; FPG, fasting plasma glucose; FRC, fixed-ratio combination; GLP-1 RA, glucagon-like peptide 1 receptor agonist; max, maximum; PPG, postprandial glucose. Adapted from Davies et al. (33)

Pharmacologic Approaches to Glycemic Treatment (continued).

A discussion was added on access to analog insulins and how there are multiple approaches to insulin treatment, with the goal of keeping patients safe and avoiding diabetic ketoacidosis and significant hypo- or hyperglycemia

New evidence and a recommendation (9.6) were added on early combination therapy for type 2 diabetes to extend the time to treatment failure based on findings from the VERIFY trial

Cardiovascular Disease and Risk Management.

This section is endorsed for the second consecutive year by the American College of Cardiology

Recommendations for statin treatment (primary and secondary prevention, 10.19–10.28) have been revised to minimize ASCVD risk and to align with the “2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol: Executive Summary published in June 2019

Discussion of REDUCE-IT was added to the section “Treatment of Other Lipoprotein Fractions or Targets,” and a new recommendation (10.31) was included on considering icosapent ethyl for reducing cardiovascular risk

Statin Treatment—Primary Prevention

- 10.19 For patients with diabetes aged 40–75 years without atherosclerotic cardiovascular disease, use moderate-intensity statin therapy in addition to lifestyle therapy. A
- 10.20 For patients with diabetes aged 20–39 years with additional atherosclerotic cardiovascular disease risk factors, it maybe reasonable to initiate statin therapy in addition to lifestyle therapy. C
- 10.21 In patients with diabetes at higher risk, especially those with multiple atherosclerotic cardiovascular disease risk factors or aged 50–70 years, it is reasonable to use high-intensity statin therapy. B
- 10.22 In adults with diabetes and 10-year ASCVD risk of 20% or higher, it may be reasonable to add ezetimibe to maximally tolerated statin therapy to reduce LDL cholesterol levels by 50% or more. C

Statin Treatment—Secondary Prevention

- 10.23 For patients of all ages with diabetes and ASCVD, high-intensity statin therapy should be added to lifestyle therapy. A
- 10.24 For patients with diabetes and ASCVD considered very high risk using specific criteria, if LDL cholesterol is ≥ 70 mg/dL on maximally tolerated statin dose, consider adding additional LDL-lowering therapy (such as ezetimibe or PCSK9 inhibitor). A Ezetimibe may be preferred due to lower cost.
- 10.25 For patients who do not tolerate the intended intensity, the maximally tolerated statin dose should be used. E

Statin Treatment—Secondary Prevention (continued)

- 10.26 In adults with diabetes aged >75 years already on statin therapy, it is reasonable to continue statin treatment. B
- 10.27 In adults with diabetes aged >75 years, it may be reasonable to initiate statin therapy after discussion of potential benefits and risks. C
- 10.28 Statin therapy is contraindicated in pregnancy. B

Cardiovascular Disease and Risk Management (continued).

Discussion of the trials CANVAS, CANVAS-Renal, CREDENCE, DECLARE-TIMI 58, REWIND, and CARMELINA were added to the section “Glucose-Lowering Therapies and Cardiovascular Outcomes.” The cardiovascular outcomes trials of available antihyperglycemic medications completed after the issuance of FDA 2008 guidelines table (Table 10.3) has been divided into three tables by drug class (Table 10.3A on DPP-4 Inhibitors; Table 10.3B on GLP-1 receptor agonists; and Table 10.3C on SGLT2 inhibitors)

Microvascular Complications and Foot Care

The recommendation on screening for chronic kidney disease (11.1) has been modified to include twice-yearly screenings for certain patients. A treatment recommendation (11.3) was modified to provide more detail on use of SGLT2 inhibitors and GLP-1 receptor agonists in patients with type 2 diabetes and diabetic kidney disease. A new recommendation (11.5) was added about avoiding discontinuation of RAS blockade in response to minor increases in serum creatinine in the absence of volume depletion

More findings were added from the Canagliflozin and Renal End points in Diabetes with Established Nephropathy Clinical Evaluation (CREDESCENCE) trial

Chronic Kidney Disease—Screening

11.1 At least once a year, assess urinary albumin (e.g., spot urinary albumin-to-creatinine ratio) and estimated glomerular filtration rate (eGFR) in patients with type 1 diabetes with duration of ≥ 5 years and in all patients with type 2 diabetes regardless of treatment. B

Patients with urinary albumin >30 mg/g creatinine and/or an eGFR <60 mL/min/1.73m₂ should be monitored twice annually to guide therapy. C

Microvascular Complications and Foot Care.

Screening for diabetic retinopathy recommendations (11.16 and 11.17) and supportive text were revised to include consideration of retinal photograph with remote reading or use of a validated assessment tool as a way to improve screening access

Older Adults.

Within the section “Neurocognitive Function,” more information was added on the importance of assessment for cognitive decline and impairment

A new recommendation (12.14) urging providers to consider cost of care and insurance coverage when prescribing medications to older adults to reduce the risk of cost-related nonadherence was added to the section “Pharmacologic Therapy.” The GLP-1 receptor agonist and SGLT2 inhibitor discussions were expanded in this section as well

A new section titled “Special Considerations for Older Adults With Type 1 Diabetes” was added to address the treatment of this growing population

Management of Diabetes in Pregnancy.

Greater emphasis has been placed on preconception care for women with diabetes, and a recommendation (14.5) focusing on nutrition, diabetes education, and screening for diabetes related complications was added. A new table (Table 14.1) was also added on preconception education, medical assessment, and screening

Recommendations (14.9–14.12) on use of continuous glucose monitors and measuring glycemia in pregnancy were added to the section “Glycemic Targets in Pregnancy” to provide more information on their utility

The section “Postpartum Care” was expanded to include recommendations (14.16–14.22) and supporting evidence on postpartum insulin requirements, management of women with a history of GDM and risks of type 2 diabetes, and psychosocial assessment

Management of Diabetes in Pregnancy.

Further discussion has been added regarding when insulin may not be an option for some women with GDM, and how oral agents may play a role in treatment in certain circumstances:

“There are some women with GDM requiring medical therapy who, due to cost, language barriers, comprehension, or cultural influences, may not be able to use insulin safely or effectively in pregnancy. Oral agents may be an alternative in these women after a discussion of the known risks and the need for more long-term safety data in offspring. However, due to the potential for growth restriction or acidosis in the setting of placental insufficiency, metformin should not be used in women with hypertension, preeclampsia, or at risk for intrauterine growth restriction “

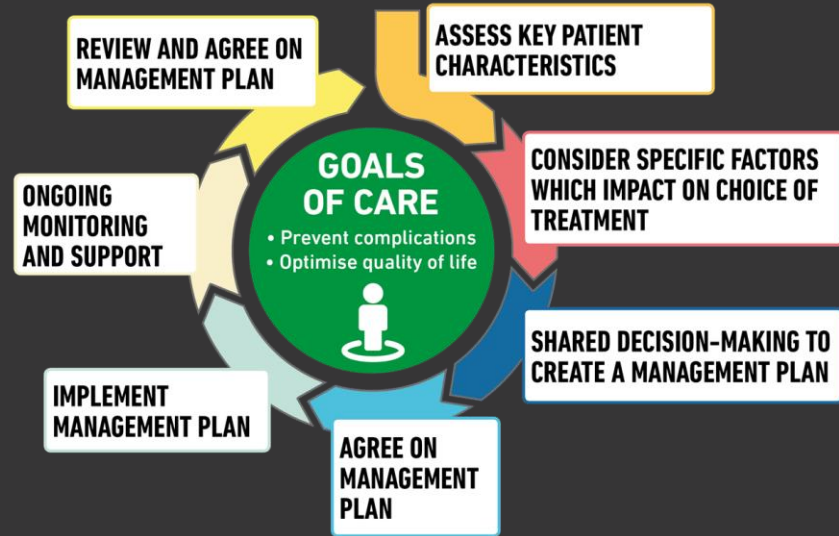
Diabetes Care in the Hospital.

New evidence was also added to the section
“Preventing Admissions and Readmissions”

Case Study

Decision Cycle for Patient-centered Glycemic Management in Type 2 Diabetes

Avoid therapeutic inertia



Case 1: MT

MT is a 58-year-old Hispanic female

T2DM x 11 years with dyslipidemia, HTN, albuminuria, non-painful peripheral neuropathy, obesity, non-alcoholic fatty liver disease (NAFLD), history of myocardial infarction (MI) 3 years ago

Current medications:

Metformin 1000 mg orally twice a day

Glipizide 10 mg orally once daily

Pioglitazone 30 mg orally once daily

Lisinopril 20 mg orally once daily

Metoprolol XL 25 mg orally once daily

Atorvastatin 80 mg orally once daily

Aspirin 81 mg orally once daily

Case 1: MT

Physical exam

Nonproliferative retinopathy, normal heart and lung sounds, obese, decreased vibratory and filament sensation in otherwise healthy appearing feet

Concerns

Many blood sugars in 200-300s mg/dL , but occasionally less than 70 mg/dL

Fatigue

Difficulty losing weight

Urinary frequency

Labs

A1C 10.2%

Lipids in target range (on high intensity statin), serum creatinine 0.9 mg/dL, GFR 54 mL/minute/1.73 m², hepatic function revealing minor transaminase elevation, urine albumin 110 mg/24 hr (normal <30 mg/24 hr)

What next?

Case 1: MT

Recall current standards of care recommend a **SGLT-2 inhibitor** or a **GLP-1 agonist** in the patient with established cardiovascular disease

One of patient's main complaints is difficulty losing weight, both of these drug classes are weight-neutral or may promote weight loss

Basal insulin could also be considered here- A1C greater than 10% with symptoms

Case 1: MT

Could do any of the following in the patient with established CVD

Add drug class: GLP-1 agonist

Add drug class: SGLT-2 inhibitor

Using both GLP-1 agonist or SGLT-2 inhibitor for maximal weight loss

Would definitely

Continue metformin (renal function is OK)

Refer to diabetes educator and dietician for interprofessional team care

Assess well-being/lifestyle factors

Would consider

Stop glipizide

Stop pioglitazone

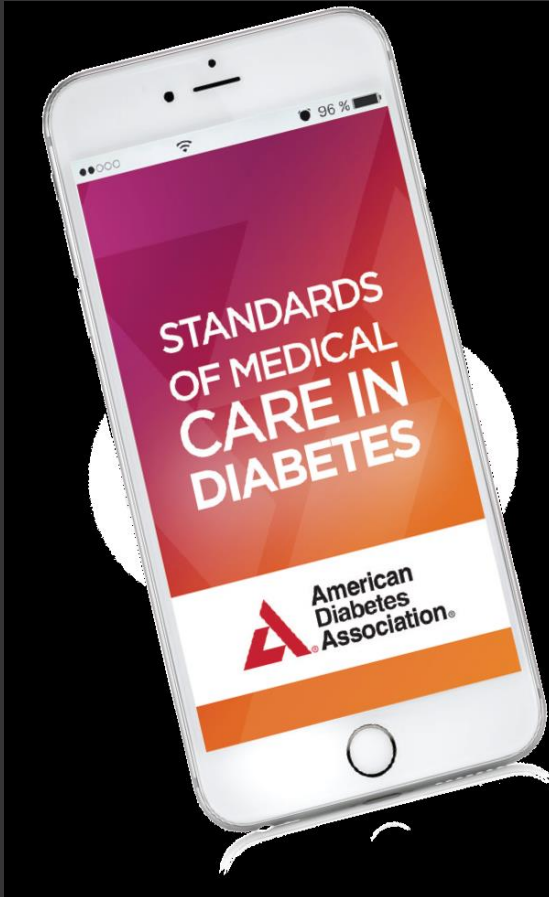
Case 1: MT Summary

What if A1C was not at target in 3 months?

-if not on insulin yet, would definitely consider

Advance therapy, avoid clinical inertia

Remember appropriate interprofessional team-based
diabetes self-management education and support



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

Professional.Diabetes.org/SOC

February Webinar

- **Date/Time:** February 20, 2020 from 2-3pm Eastern
- **Topic:** Calculating Lives Improved and Leveraging Data
- **Presenter:** AMGA



Questions

