



Overcoming  
**Therapeutic  
Inertia**

# Overcoming Therapeutic Inertia in Type 2 Diabetes: Practical Tips for PAs to Implement

**AAPA & ADA Partnership**  
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[therapeuticinertia.diabetes.org](http://therapeuticinertia.diabetes.org)

Overcoming Therapeutic Inertia, an initiative from the American Diabetes Association®, is supported by strategic sponsors AstraZeneca and Sanofi US Services Inc., and supporting sponsors Merck and Novo Nordisk Inc.

The purpose of this presentation is to guide individuals and organizations in developing identify and address the problem of therapeutic inertia in the people with type 2 diabetes which they care.

## Objectives

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1. Learn how to leverage the best practices framework to improve diabetes care for your patients
2. Describe the evidence for failure to advance or de-intensify treatment and the impact on clinical outcomes
3. Identify contributors to therapeutic Inertia in a clinical practice

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## Current Challenges

Despite the influx of new and improved diabetes therapies, including technologies, the majority of people with diabetes are still not meeting treatment goals nor are able to maintain stable glycemic control. In fact, a *New England Journal of Medicine* study reported that glycemic and blood pressure control declined in adults with diabetes in the 2010s (while lipid control leveled off).<sup>1</sup>

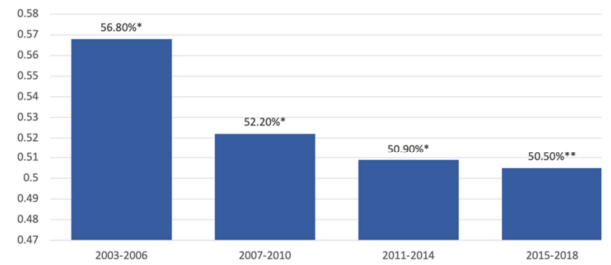
This, in turn, puts people at risk of fatal short-term complications, such as diabetic ketoacidosis (DKA), and devastating long-term complications, including heart disease, vision loss, and kidney failure.

<sup>1</sup> *N Engl J Med* 2021;384:2219-28. DOI: 10.1056/NEJMsa2032271

More than 40 new diabetes treatment options since 2005, as well as advancements in guidelines and treatment algorithms, we still have not made a meaningful difference in improving glycemic control in people with type 2 diabetes.

In fact, between 1999 and 2014 the percentage of patients with diabetes with an A1C over 9% actually increased. This phenomenon is known as therapeutic inertia—delay or inaction to initiate or intensify therapy when glycemic treatment goals have not been met.

Achieving glycemic control improves health outcomes yet proportion of patients who achieved A1C <7% declined 11% over 12 years\*\*



\*Edelman S, Polonsky W. Diabetes Care 2017, 40:1425-1432  
\*\*Fang M, et al. NEJM June 10, 2021

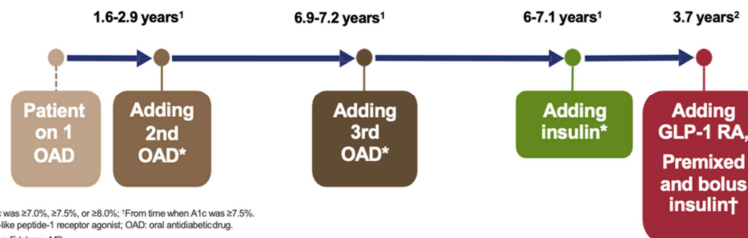


Diabetes control in the U.S. population has steadily declined over the past 20 years, as gold-standard measure of A1C.

The figure on the screen shows that only 50.5% of people with diabetes meet the goal

## “Wait and See” and “Treat to Fail” Delays Therapy Intensification for People Not Meeting Glycemic Targets

Substantial inertia exists at each sequential intensification step



\*From time when A1c was ≥7.0%, ≥7.5%, or ≥8.0%; †From time when A1c was ≥7.5%.  
GLP-1 RA: glucagon-like peptide-1 receptor agonist; OAD: oral antidiabetic drug.  
Slide courtesy of Steve Edelman, MD.  
1. Khunti K et al. Diabetes Care. 2013;36:3411-3417. 2. Khunti K, et al. Diabetes Obese Metab. 2016;18:401-409.

Diabetes Association. | overcoming therapeutic inertia

The timeline on the screen shows that substantial inertia exists in years—not months at step in the patient’s therapeutic journey.

The wait-and-see approach, or treat until the medication, for example, oral anti diabetic insulin fails, can mean that people with type 2 diabetes (PWT2D) spend years in hyperc

The “Wait and See” and “treat until a medication fails” approach often happens AFTER been delayed or considerable inertia has occurred in initiating a medication.

## Therapeutic Inertia in Type 2 Diabetes

The failure to initiate, intensify, or de-intensify medication therapy when therapeutic goals are not met, despite:

- Clear definition of appropriate targets
- Benefits of achieving targets
- Available effective therapies
- Clinical guidelines/algorithms

Therapeutic inertia can occur at all stages of treatment intensification.



One of the reasons WHY glycemic control in the US population with diabetes has been stagnant or worsened over the last 2 decades is Therapeutic Inertia (TI).

TI is the failure to initiate, intensify or de-intensify medication therapy when therapeutic goals could include starting a medication, changing a medication, modifying a dose, combining medications, or intensifying therapy if patient goals are not being met.

TI can be present at diagnosis or at any stage along the patient's treatment journey.

TI is occurring despite:

- Clear definition of appropriate targets

targets exist

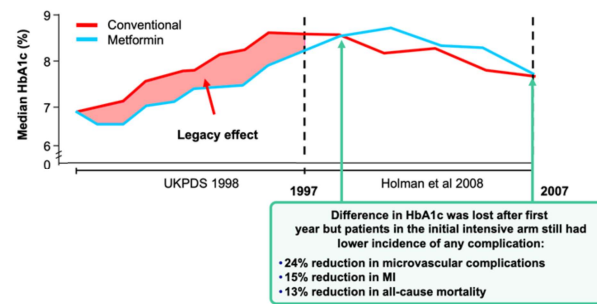
- Benefits of achieving glycemic targets are well established
- Effective therapies are available
- Evidence-based clinical

guidelines/algorithms  
are widely  
disseminated



## Achieving Early Glycemic Control Leads to Better Outcomes

Generates a positive legacy effect (metabolic memory)



MI, myocardial infarction

Diabetes Trials Unit, UKPDS Post Trial Monitoring, UKPDS 80 Slide Set. Available at: <http://www.dtu.ox.ac.uk/index.php?maindoc=ukpds/>. Adapted from Holman RR, et al N Engl J Med. 2008; 358: 2533-41. UKPDS 33. Lancet. 1998; 352: 837-853

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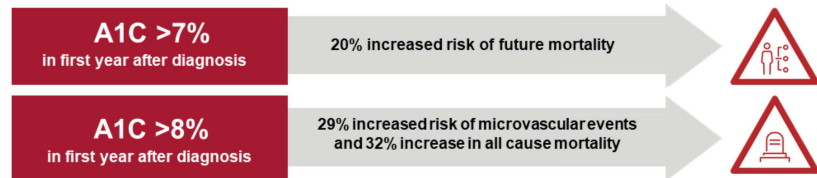
The initial study period of the UK Prospective Diabetes Study (UKPDS) showed that patients treated with lower A1C had significant reductions in microvascular complications. However, significant reductions in cardiovascular complications.

Interestingly, follow up studies showed that even though differences in A1C were lost over time, the initial intensive arm continued to have significant microvascular reductions and survival in cardiovascular complications.

UKPDS and other landmark trials showed early glycemic control creates a legacy of better health outcomes, even after glycemic control wanes.

## Legacy Effect Exists Outside Clinical Trials: Managed Care Patients with Type 2 Diabetes

Diabetes control during the first year after diagnosis is strongly associated with lower future risk for diabetes complications and mortality underscoring urgency for early intensive treatment.



Lalteerapong N, Ham S, Goo Y, et al. Diabetes Care 2019;42:416-0426

American Diabetes Association. Overcoming Therapeutic Inertia

Real world data supports UKPDS clinical trial data. In a cohort study of over 34,000 people with diabetes (PWD) in a managed care population in northern California, patients were followed following diagnosis. The impact of glycemic burden was evaluated at various points.

Among patients with 10 years of survival after diabetes diagnosis, the results showed the following:

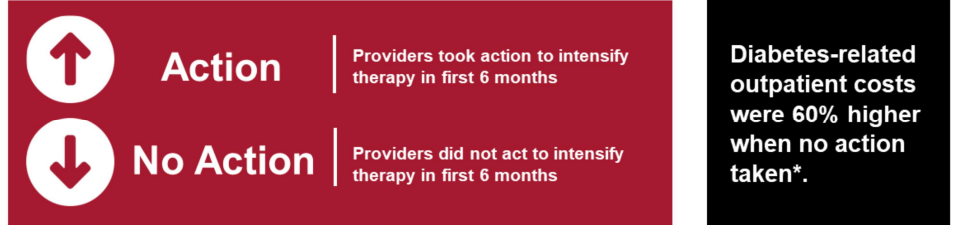
- A1C levels  $\geq 7.0\%$  ( $\geq 53$  mmol/mol) for the 1st year after diagnosis were associated with an increase in future mortality.
- Increasing periods of exposure to A1C levels  $\geq 8.0\%$  ( $\geq 64$  mmol/mol) were associated with an increase in microvascular events and mortality.

This study suggests that the legacy effect exists outside of trial populations. It begins as early as at diagnosis and depends on the level of glycemic exposure. These findings underscore the urgency of diabetes and the future consequences of failing to achieve near-normal glycemia soon after diagnosed with diabetes.

## Legacy Effect Exists Outside Clinical Trial: Reduces Diabetes Related Costs

### Retrospective Claims Analysis:

21,171 adults with type 2 diabetes and A1C >7% followed for 18 months



\*P < .0001

Mehta R, et al. Journal of Clinical & Translational Endocrinology. 19 (2020)

American Diabetes Association | Overcoming Therapeutic Inertia

A retrospective claims analysis of >21,000 adults with type 2 diabetes (T2D) followed for 18 months found that if their providers did not take action to intensify therapy within the first 6 months of follow-up, their diabetes-related outpatient costs were 60% higher than when providers acted in the first 6 months to intensify therapy.

## The Legacy Effect in Type 2 Diabetes: Achieving Early Glycemic Control Has Long-Term Benefits



- Lower A1C and glycemic burden<sup>1</sup>
- Better maintenance of A1C control over time<sup>1</sup>
- Better overall long-term health outcomes<sup>1,2,3</sup>
- Lower risk of microvascular and macrovascular complications<sup>1</sup>
- Economic benefits<sup>3,4</sup>

1. Khunti K, et al. *Diab Care* 2013;36:3411-7; Del Prato S, et al. *Int J Clin Pract*. 2005;59:1345-1355  
2. Lateerapong N, Ham S, Goo Y, et al. *Diabetes Care* 2019;42:416-0426  
3. Mehta R, et al. *Journal of Clinical & Translational Endocrinology*. 19(2020) 100215  
4. Ali SN, Dang-Tan T, Valentine WJ, Hansen BB. *Advances in therapy*. 2020;37:869



Achieving glycemic targets has many health benefits

And...achieving goals **early in treatment** leads to the additional benefit of developing a

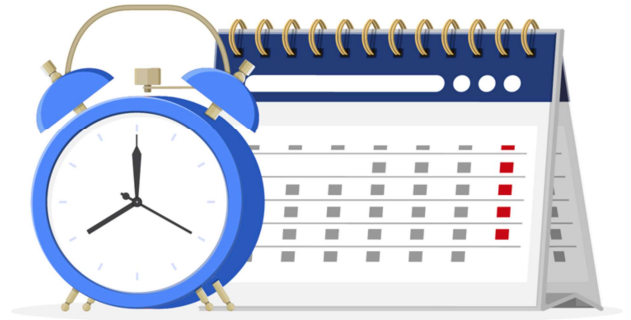
This legacy, first illustrated by the UK Prospective Diabetes Study (UKPDS) in 1998 with the intensive treatment arm who achieved target goals of A1C <7% in first year had significantly fewer micro and macrovascular complications in the 10-year follow-up study ...Even though diabetes was lost over time.

UKPDS and other studies show early glycemic control creates a legacy of metabolic memory and better long-term health outcomes.

- Lower glycemic burden
- A1C maintained at near target over time
- Better over all long-term health outcomes because it lowers the risk of complications
- Reduced hospitalization and outpatient costs

S Khunti, K Khunti, et al.; Therapeutic inertia in type 2 diabetes: prevalence, causes, consequences and methods to overcome inertia; Ther Adv Endocrinol Metab; 2019, Vol. 10: 1–11

**Timing  
is Important  
When  
Managing  
Type 2  
Diabetes**



**Achieving glycemic goals in <6–12 months results in long-term health and economic benefits.**



Timing is everything in type 2 diabetes treatment. The key concept in therapeutic inertia is acti achieve glycemic targets and A1C goals within 6 months to 1 year of treatment.

Recent studies in real world populations support the value of adopting this sense of urgency – providers who take treatment action within 6 months provide patient health and economic be

The potential glycemic and financial burden to individuals and our healthcare system ca through health economic modeling. DELAYING intensifying treatment by 1-year results costs in loss of lives and resources.

# Contributing Factors to Therapeutic Inertia

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## The Causes of Therapeutic inertia are Multifactorial



People with  
diabetes



Clinicians  
and  
healthcare  
providers



Healthcare  
systems



Payors



Industry

Key message: There are multiple stakeholders involved which necessitates a multipronged approach to overcoming therapeutic inertia.



## Most Frequently Cited Promotors of Therapeutic Inertia

### Clinician-Related

- Time constraints and overwhelming requirements
- Fear of aggressive therapy causing side effects such as hypoglycemia.
- Failure to initiate, evaluate or intensify treatment using goals and targets.
- Underestimation of patient's needs and abilities to manage their own diabetes

### Patient-Related

- Cost of and access to medication/poor insurance coverage
- Limited understanding of the chronic nature of diabetes & treatment as progressive
- Poor participation in diabetes education (6%)
- Poor communication/trust between physician and patient

### System-Related

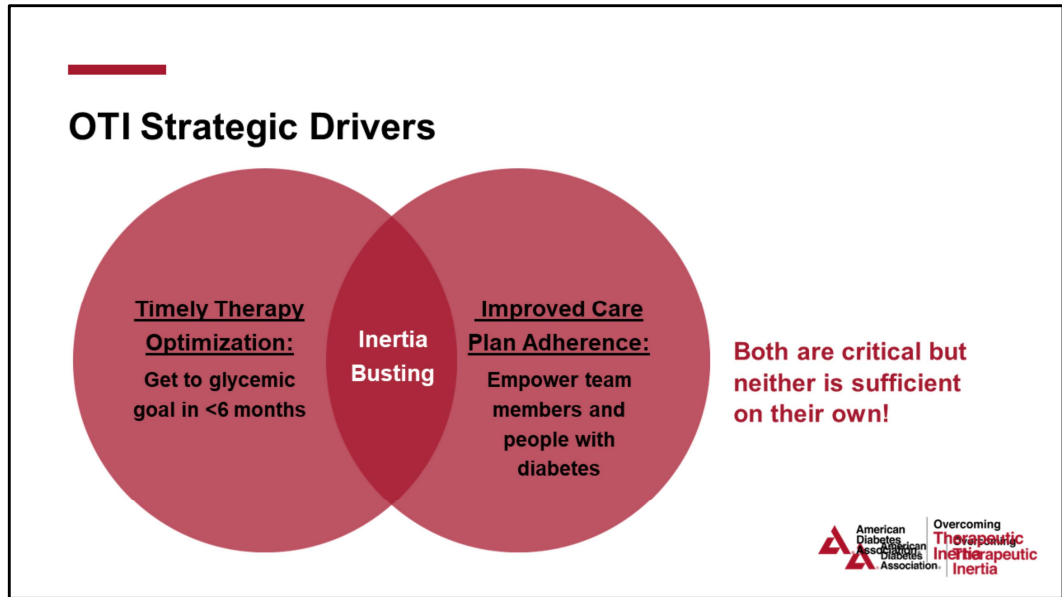
- Failure of system to identify patients at risk of TI
- Lack of transparency or accuracy in formulary at POC
- Failure to provide access to Diabetes Ed. (DSMES)
- No team approach to care

Adapted from :G Reach, V Pechtner, et al.; Clinical inertia and its impact on treatment intensification in people with type 2 diabetes mellitus; Diabetes & Metabolism Vol 43, Issue 6, Dec. 2017, 501-511  
Addressing Therapeutic Inertia in 2020 and Beyond: A 3-Year Initiative of the American Diabetes Association, Clinical Diabetes July 31, 2020;



Key message: There are many, many contributing factors to TI that need to be addressed.

Patient related are largely 2/2 SDOH



Timely therapy optimization is critical to overcome therapeutic inertia. It starts with identifying high-risk patients. Set treatment goals with shared decision-making. Modify treatment goals and therapy as needed.

Focus on improved care plan adherence: Ask about barriers and find solutions together with patients.

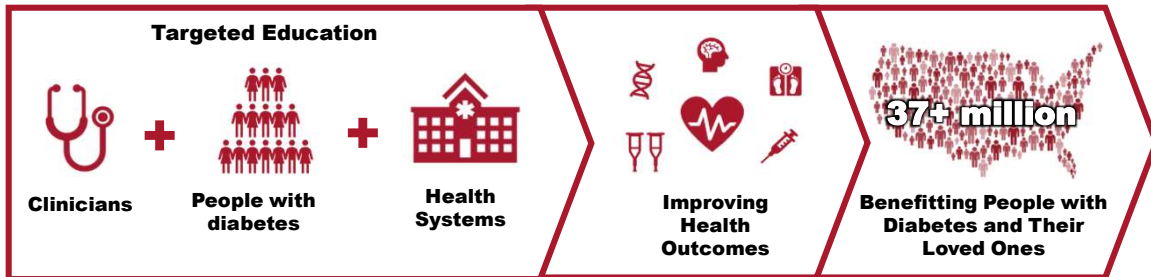
Clinicians should reflect on this question every visit and in between: Have I done everything I can to tackle therapeutic inertia?

# **ADA's Overcoming Therapeutic Inertia Initiative**

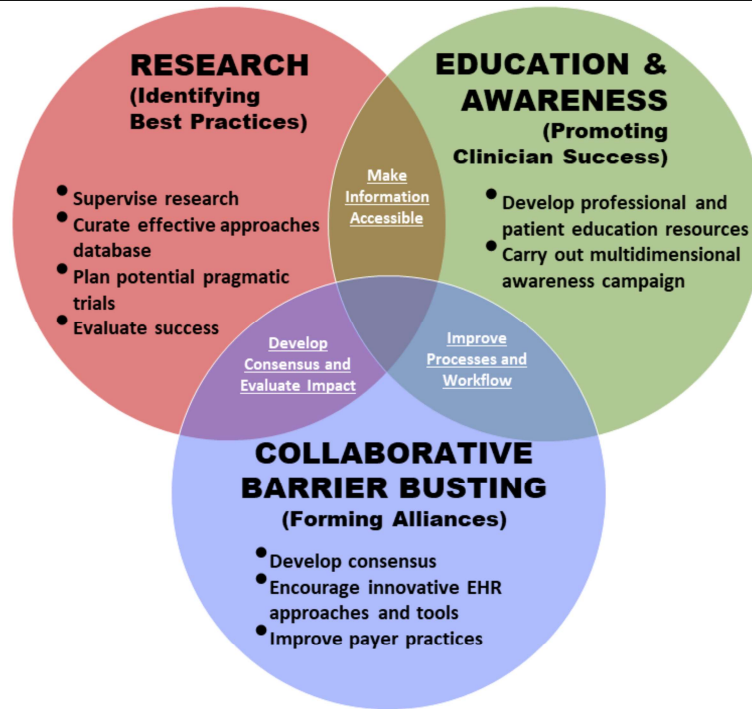
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## Overcoming Therapeutic Inertia®

ADA launched this effort in 2018 to identify barriers in diabetes care and develop solutions leading to improved, timely treatment modification and improved glycemic control in people with type 2 diabetes.



# OTI Pillars of Work



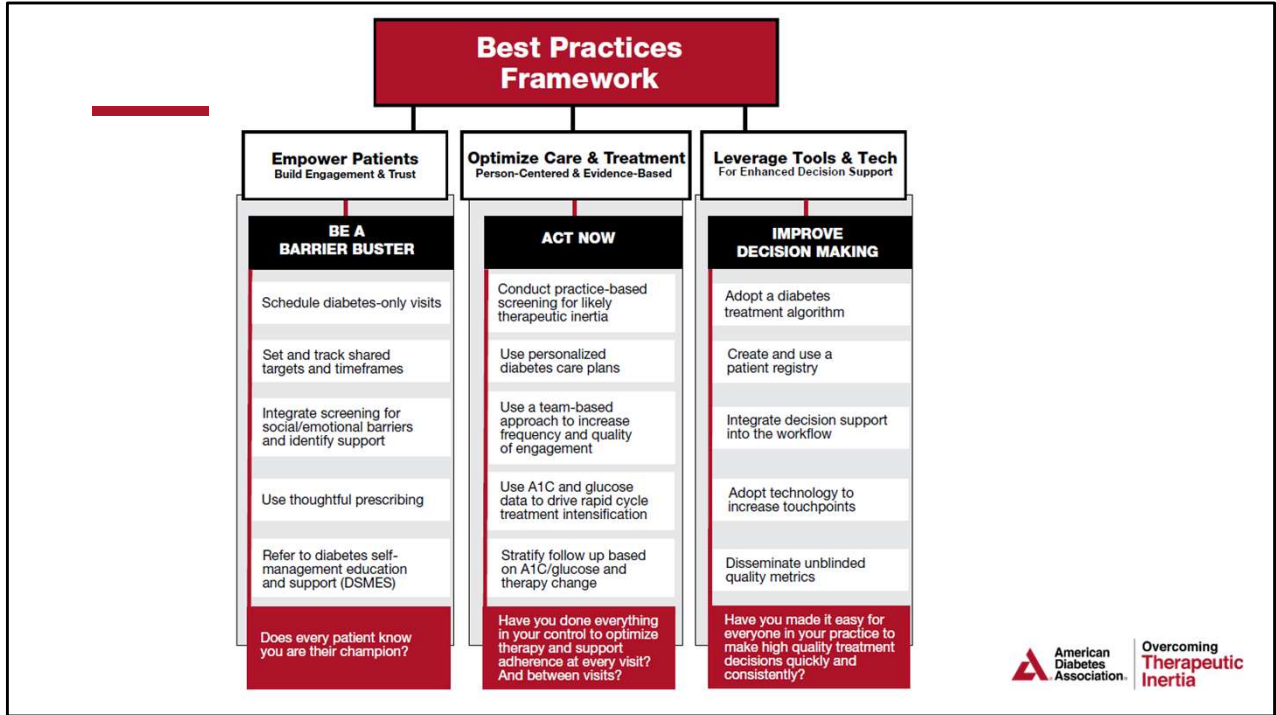
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## ADA OTI Partnership

### OTI Alliance Partners:

- Association of Diabetes Care and Education Specialists (ADCES)
- AMGA (American Medical Group Association)
- American Association of Nurse Practitioners (AANP)
- **American Academy of PAs (AAPA)**
- American Association of Pharmacists (APhA)
- American Society for Health System Pharmacists (ASHP)
- Sanofi





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# Empower Patients



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## Schedule diabetes-only visits

- At least 1 appointment per year
- Shared decision making and patient-centered care.
- Sets the stage and importance of managing diabetes to your patients.

Nuti, L, Turkcan, A, Lawley, MA, Zhang, L, Sands, L, McComb, S. The impact of interventions on appointment and clinical outcomes for individuals with diabetes: a systematic review. *BMC Health Serv Res* 2015;15:355. <https://doi.org/10.1186/s12913-015-0938-5>.



1. All too often, urgent and emergent challenges take precedence during office visits.

2. Assessing barriers, evaluating gaps in current diabetes knowledge, and building rapport and trust.

3. These appointments will also serve to deliver the message about the importance of managing diabetes to your patients.

## CARDIOVASCULAR DISEASE AND RISK MANAGEMENT

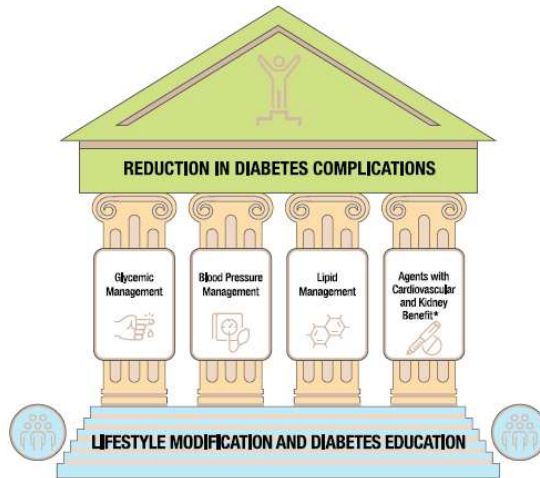


Figure 10.1—Multifactorial approach to reduction in risk of diabetes complications. \*Risk reduction interventions to be applied as individually appropriate.

Cardiovascular Disease and Risk Management:  
*Standards of Medical Care in Diabetes - 2022. Diabetes Care 2022;45(Suppl. 1):S144-S174*



**\*\*Amy Butts\*\***

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## Set and track shared targets and timeframes

- Realistic and personalized goals with buy-in from the person with diabetes.
- Cultural and personal preferences is important to obtain acceptance and willingness

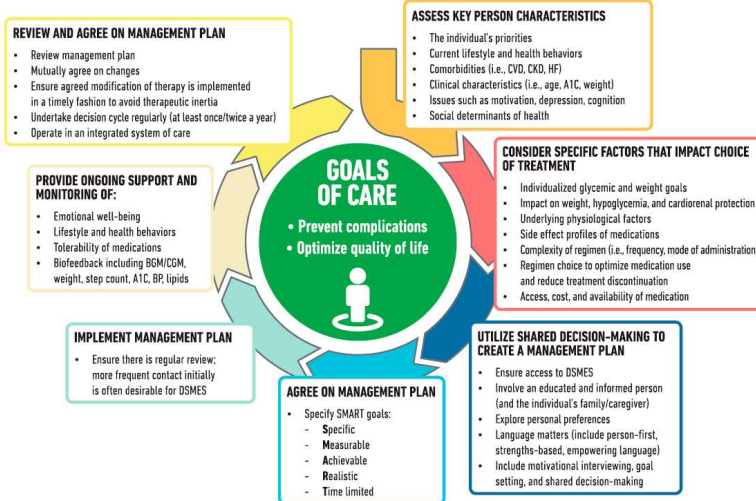
Levengood, TW, Peng, Y, Xiong, KZ, Song, Z, Elder, R, Ali, MK, et al.. Team-based care to improve diabetes management: a community guide meta-analysis. *Am J Prev Med* 2019;57:e17–26. <https://doi.org/10.1016/j.amepre.2019.02.005>.



In addition, creating a realistic timeframe for obtaining these goals is important for the positive legacy effect [10].

## COMPREHENSIVE MEDICAL EVALUATION AND ASSESSMENT OF COMORBIDITIES

### DECISION CYCLE FOR PERSON-CENTERED GLYCEMIC MANAGEMENT IN TYPE 2 DIABETES



Comprehensive Medical Evaluation and Assessment of Comorbidities:  
*Standards of Care in Diabetes - 2023. Diabetes Care 2023;46(Suppl. 1):S49-S67*

## Appendix: Patient Self-Assessment Tool

### Your Type 2 Diabetes Treatment: Get Ready for Your Visit

Your diabetes care team can help you find a diabetes treatment plan that works for you. Take a few minutes to answer these questions so your care team will know how to make the most of your visit.

First, let's see where you are in your diabetes journey.

**1** How long have you had diabetes?

- Less than 1 year
- 1 to 5 years
- 6 to 10 years
- More than 10 years

**2** How do you think your diabetes treatment is going?

- Great—I'm totally on top of it
- Okay—but it could be better
- Not so good—something needs to change

Now let's find out how you're doing with specific parts of your care.

**3** Many people take more than 1 medicine to treat their diabetes.  
Are you okay with the idea of taking more than 1 medicine?

- Yes
- No
- I'm not sure

**4** Do you take your medicines on schedule and as prescribed?

- Yes
- No
- Sometimes

diabetes.org | Your Type 2 Diabetes Treatment



## Appendix: Patient Self-Assessment Tool

**5** Do you check your blood sugar on schedule?

- Yes
- No
- Sometimes

**6** The last time you got your A1C checked, were you meeting your goal?

- Yes, my A1C was where it needs to be
- No, my A1C was too high
- I'm not sure

**7** What do you do when you need help managing your diabetes?

- I call someone on my care team, like my doctor, nurse, dietitian, or pharmacist
- I call my diabetes educator
- I ask friends and family
- I go to an organization in my community
- I look on the internet
- I don't know what to do—I feel like I'm in this alone
- Other: \_\_\_\_\_

**8** What are the biggest challenges you have in managing your diabetes?

- My treatment plan
- Sticking to my treatment schedule
- Paying for my medicines, devices, or supplies
- Getting to my appointments
- Eating healthy
- Getting enough physical activity
- Feeling overwhelmed or depressed about my diabetes
- Other: \_\_\_\_\_

**9** What other things would you like to talk about?

\_\_\_\_\_

\_\_\_\_\_

Great—now share your answers with your diabetes care team during your visits. That way, they can help you get the information and support you need to keep your diabetes treatment on track to meet your goals.

diabetes.org | Your Type 2 Diabetes Treatment



Overcoming  
Therapeutic  
Inertia

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## Integrate screening for social or emotional barriers and identify support

- Ask why
- Consider the social determinants of health (SDOH)
- Psychosocial considerations – diabetes distress, depression, and anxiety
- Diabetes literacy and numeracy
- Food insecurity should be assessed
- Once barriers are identified, locate support services in your community and make referrals.
- Consider ways to leverage existing staff to help with this task.

American Diabetes Association Professional Practice Committee. Facilitating behavior change and well-being to improve health outcomes: standards of medical care in diabetes – 2022. *Diabetes Care* 2022;45(1 Suppl):S60–82. <https://doi.org/10.2337/dc22-s005>. Search in Google Scholar



- Ability to keep appointments
- Childcare, work
- Transportation, cost, insurance

The screenshot shows the website [professional.diabetes.org/meetings/mental-health-toolkit](https://professional.diabetes.org/meetings/mental-health-toolkit). The header features the American Diabetes Association logo and the DiabetesPro logo. A navigation menu includes: Awards, Clinical Corner, Diabetes Education, Research & Grants, CE & Events, Membership, and Scientific Sessions. The main content area is titled "Mental Health Toolkit" and features a graphic of diverse people's faces in hexagonal frames. Below the graphic, it states: "Resources for Health Professionals Supporting Adults with Type 1 and Type 2 Diabetes." and lists three links: [Mental Health Toolkit](#), [Mental Health Toolkit Questionnaires](#), and [Mental Health Toolkit Handouts](#). A sidebar on the right lists additional resources: "Resources for Mental Health Providers", "Diabetes Education 101 for the Behavioral Health Provider Program", "Diabetes and Emotional Health Workbook", "Mental Health Toolkit" (highlighted), "ADA Mental Health Provider Directory Listing", "Sponsorship", and "Mental Health Advisory Group". A QR code is located in the top right corner of the page. The footer includes the American Diabetes Association logo and the slogan "Overcoming Therapeutic Inertia".

Amy Butts

<https://professional.diabetes.org/meetings/mental-health-toolkit>

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## Use thoughtful prescribing

- Cost, fear of injection, personal preference
- Shared-decision making central to OTI

American Diabetes Association Professional Practice Committee. Facilitating behavior change and well-being to improve health outcomes: standards of medical care in diabetes – 2022. *Diabetes Care* 2022;45(1 Suppl):S60–82. <https://doi.org/10.2337/dc22-s005>.



The choice to take medication can be impacted by many factors including cost, fear of injection, and personal preference [[10](#), [17](#)]



## Refer to diabetes self-management education and support (DSMES) services



- 1) At diagnosis.
- 2) Annually and/or when not meeting treatment targets.
- 3) When complicating factors develop.
- 4) When transitions in life and care occur.

Powers MA, Bardsley JK, et al. DSMES Consensus Report, The Diabetes Educator, 2020  
ADCES. AADE7 Self-Care Behaviors, The Diabetes Educator, 2020

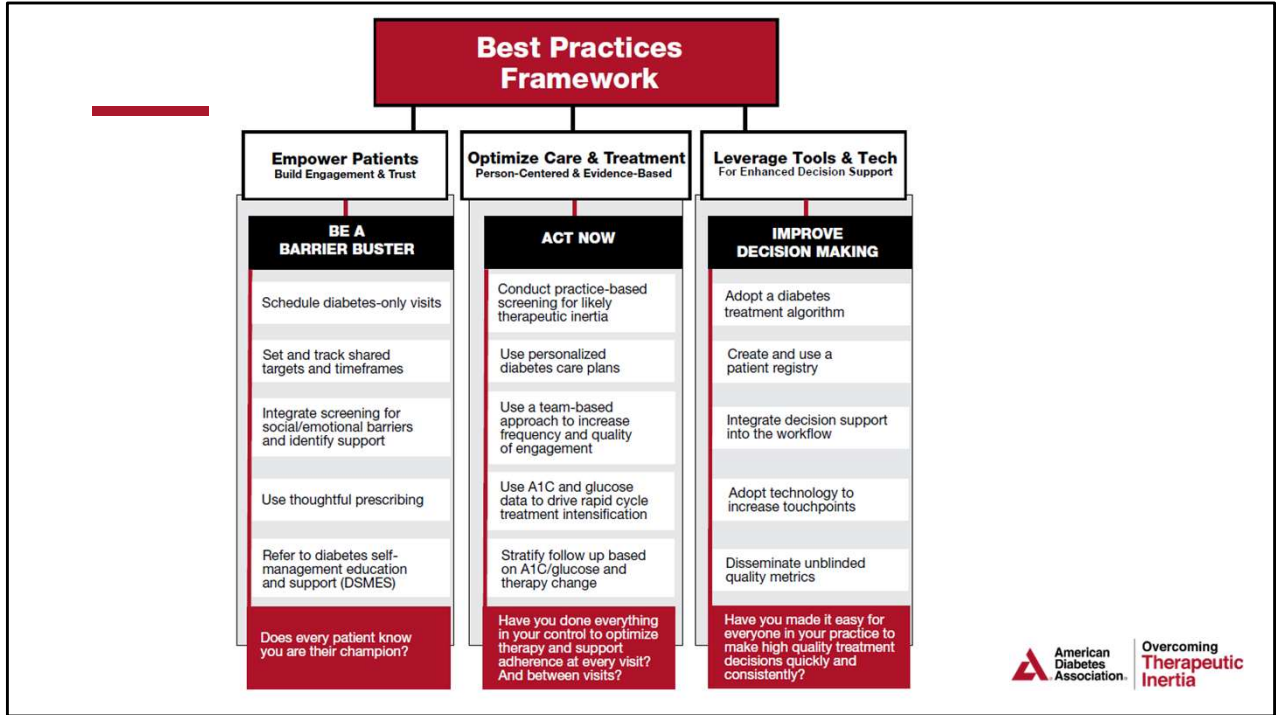


DSMES = medication

In addition, consider Shared Medical Appointments or “group visits”

The screenshot shows the American Diabetes Association website at the URL [diabetes.org/tools-support/diabetes-education-program](https://diabetes.org/tools-support/diabetes-education-program). The page features a navigation menu with options like 'Diabetes', 'Healthy Living', 'Ways To Give', 'Get Involved', 'Tools & Support', and 'About Us'. A search bar is located at the top right, along with links for 'COVID-19', 'Professionals', 'Account', and 'Donate'. The main content area is titled 'Find a Diabetes Education Program in Your Area' and includes a search form with fields for 'Select Miles', 'from ZIP Code', and a 'Find' button. Below the form are checkboxes for 'Spanish', 'Pediatric', 'Telemedicine', 'DPP', and 'Mental Health Trained'. A QR code is positioned on the right side of the page. The footer contains the American Diabetes Association logo and the slogan 'Overcoming Therapeutic Inertia'.

\*\*\*Ellen - experience; slide from DM Educators? (ADCES)  
Need to confirm this slide w/ Ellen



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# Optimize Care & Treatment

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## Use personalized diabetes care plans

- Include glucose targets and timeframes to reach targets
- Shared decision-making approach to consider personal preferences
- Motivational interviewing/open-ended questions



Allow patient to help set the agenda  
“What are your goals for today’s visit”

personal preferences, values, strengths, and medical, social, and psychological needs when developing or updating the care plan.

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## Use a team-approach to increase the frequency and quality of engagement

Besides the usual healthcare team members consider:

- Community health workers, mental health specialists
- Online coaches
- Religious leaders
- Friends, family, co-workers
- PA students (and Pre-PAs)
- Medical assistants!

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## Empower your Medical Assistants

- Patients receiving care in primary care clinics utilizing MAs as health coaches showed significant improvement in A<sub>1c</sub> and cholesterol levels when compared to usual care (48.6 vs. 27.6%, p=0.01).
- Both quality of care and patient satisfaction were also increased when patients received health coaching [1]. This is especially true for patients who do not speak English.
- MAs are often racially, ethnically, and linguistically concordant with the patient population compared to HCPs [2]. For example, Spanish-speaking MAs can overcome cultural and language barriers with Spanish-speaking patients through health coaching.

<sup>1</sup>Willard-Grace, R, Chen, EH, Hessler, D, DeVore, D, Prado, C, Bodenheimer, T, et al. Health coaching by medical assistants to improve control of diabetes, hypertension, and hyperlipidemia in low-income patients: a randomized controlled trial. *Ann Fam Med* 2015;13:130–8.

<sup>2</sup>Thom, DH, Hessler, D, Willard-Grace, R, DeVore, D, Prado, C, Bodenheimer, T, et al. Health coaching by medical assistants improves patients' chronic care experience. *Am J Manag Care* 2015;21:685–91.



Another way to include your MA as part of the team is to have them reach out to patients 1 or 2 weeks after the appointment to ascertain questions or concerns. Engaging MAs in this fashion helps integrate them as members of the diabetes care team.

anecdotal feedback from their staff that they believe that they are recognized as integral members of the team. They are also able to develop a trusting rapport with the patient that not only reduces delays in care but also

improves patient satisfaction.

When our patients are more engaged, they are provided an opportunity to self-advocate and report that they feel genuinely cared about by the entire office staff.



## Results depend less on WHO intensifies therapy than on HOW<sup>1</sup>

- Delivery methods using care management
- Technology: A characteristic of interventions with clinically significant A1C improvements
- Increased frequency of communication using technology
  - Frequent patient engagement and tailored drug regimens may improve A1C goal attainment in patients with type 2 diabetes<sup>2</sup>

### Recommendation

Systems or practices looking to implement a medication management program may consider different clinician types who can use technology to support frequent communication with patients.<sup>1</sup>

1. Powell et al. Diabetes Obes Metab. May 2021  
2. Pantalone KM, et al. Diabetes Care 2020;43:1910

No single provider type was associated with improvements. Results may be less dependent on WHO intensifies therapy but rather HOW in terms of...

- Delivery methods using care management
- Technology: A characteristic of interventions with clinically significant A1C improvements
- Frequency of communication important outcome of technology use

Other studies also demonstrate that frequent patient engagement and tailored drug regimens may improve A1C goal attainment in persons with type 2 diabetes.

Systems or practices looking to implement a medication management program may consider different clinician types who can use technology to support frequent communication with patients.

## Team Members Who Initiate and Intensify Therapy Independently Can Improve A1C<sup>1</sup>

- Nurses, nurse practitioners, physician associates, and pharmacists using protocols and algorithms in federal qualified health centers (FQHC) or primary care practices improved diabetes care (91% achieved A1C < 7.5% in one year).<sup>2</sup>
- Nurses and dietitians using diabetes care management and medication algorithms with primary care professionals improved and sustained glycemic control in low-income ethnic minority populations.<sup>3</sup>
- Dietitians implementing medication protocols significantly improved diabetes care measures in primary care practices.<sup>4</sup>

<sup>1</sup> Powell, Zaccardi, Khunti et al. *Diabetes Obes Metab*. May 2021.  
<sup>2</sup> Davidson MB. *Clinical Diabetes* Feb 3, 2021  
<sup>3</sup> California Medi-Cal Type 2 Diabetes Study Group. *Diabetes Care* 27:95, 2004  
<sup>4</sup> Benson GA, et al. *J Acad of Nutrition and Dietetics* 2019



Several other small studies utilizing diabetes specialist team members support the meta-systematic review revealed that empowering team members to modify medications is efficient for achieving A1C targets. Here are examples of studies:

- M Davidson reviewed the eleven studies he has conducted since late 90's illustrating that Nurses, NPs, PAs, Pharmacists using protocols and algorithms in FQHC/primary care practices improved diabetes care (91% achieved A1C < 7.5% in one year).<sup>2</sup>
- California Medi-Cal type 2 diabetes study group nurses and dietitians using diabetes care management and medication algorithms with primary care providers improved and sustained glycemic control in ethnic minority populations.<sup>3</sup>
- A study by G Benson illustrated that Dietitians implementing medication protocols in PC practices in Minnesota modest but significantly improved diabetes care measures in primary care practices.<sup>4</sup>

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## Use A1c and glucose data to drive rapid-cycle treatment intensification

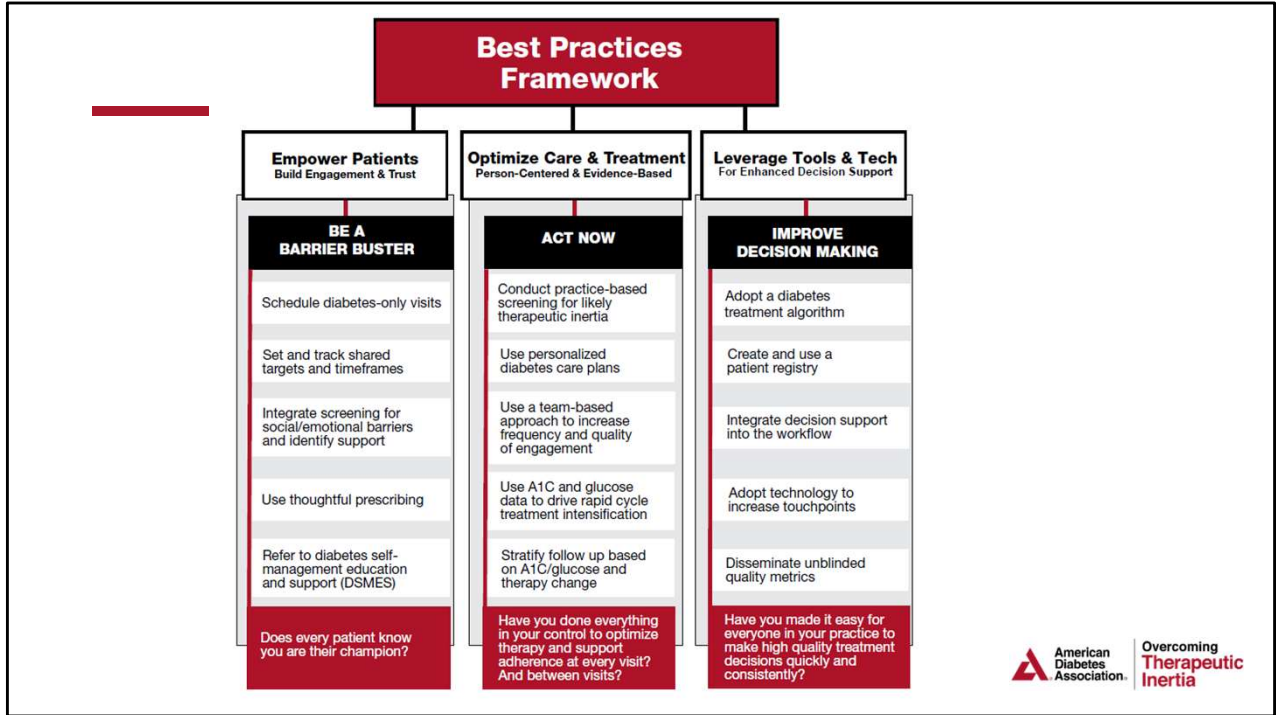
- Leverage point-of-care A1c testing
- Continuous glucose monitors
- And/or self-monitoring of blood glucose data

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## Stratify follow-up based on A1c/glucose and therapy change:

- More frequent visits based on glucose therapy data, side effect profile impacting consistency, complexity, etc.
- Leverage telehealth

HbA <sub>1c</sub>	Frequency of follow-up visit <sup>a</sup>
<7%	Every 6 months
7–8%	Every 3 months
8–9%	Every 6 weeks
9–10%	Every 4 weeks
>10%	Every 2 weeks
Hypoglycemia	Within 2 weeks



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# Leverage Tools & Tech

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## Adopt a diabetes treatment algorithm

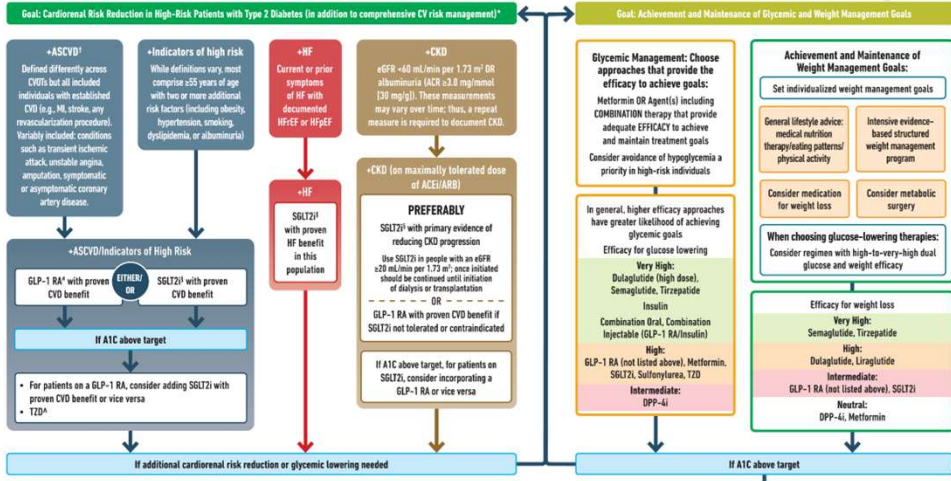
- Standards of Care app
- Laminated copies
- Protocols for nurse and MA staff



An example could be that any patient found to have their most recent  $A_{1c}$  over 3 months ago would automatically receive a point-of-care test by the MA prior to being seen. Other protocols could include vaccinations (e.g., influenza, pneumococcal), yearly dilated eye exam referrals, DSME referrals, and identification of annual screening labs such as random urine albumin/creatinine ratio.

**USE OF GLUCOSE-LOWERING MEDICATIONS IN THE MANAGEMENT OF TYPE 2 DIABETES**

HEALTHY LIFESTYLE BEHAVIORS; DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT (DSMES); SOCIAL DETERMINANTS OF HEALTH (SDOH)



\* In people with HF, CKD, established CVD or multiple risk factors for CVD, the decision to use a GLP-1 RA or SGLT2i with proven benefits should be independent of background use of metformin. † A strong recommendation is warranted for people with CVD and a weaker recommendation for those with indicators of high CV risk. Moreover, a higher absolute risk reduction and thus lower numbers needed to treat are seen at higher levels of baseline risk and should be factored into the shared decision-making process. See text for details. ‡ Low-dose TZD may be better tolerated and similarly effective. § For SGLT2i, CVI renal outcomes trials demonstrate their efficacy in reducing the risk of composite MACE, CV death, all-cause mortality, HF, HF, and renal outcomes in individuals with T2D with established high risk of CVD. ¶ For DPP-4i, CVI renal outcomes trials demonstrate their efficacy in reducing the risk of composite MACE, CV death, all-cause mortality, HF, HF, and renal outcomes in individuals with T2D with established high risk of CVD.

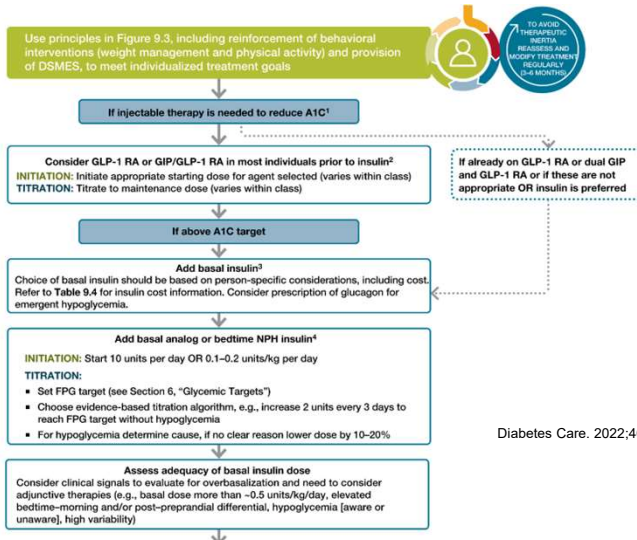
Overcoming Therapeutic Inertia

## Pharmacologic Therapy for Adults with Type 2 Diabetes Recommendations

- **9.4c** Pharmacologic approaches that provide adequate efficacy to achieve and maintain treatment goals should be considered, such as metformin or other agents, including combination therapy ( [Fig. 9.3](#) and [Table 9.2](#) ). **A**
- **9.5** Metformin should be continued upon initiation of insulin therapy (unless contraindicated or not tolerated) for ongoing glycemic and metabolic benefits. **A**



# Intensifying to injectable therapies (1 of 2)



Diabetes Care. 2022;46(Supplement\_1):S140-S157. doi:10.2337/dc23-S009



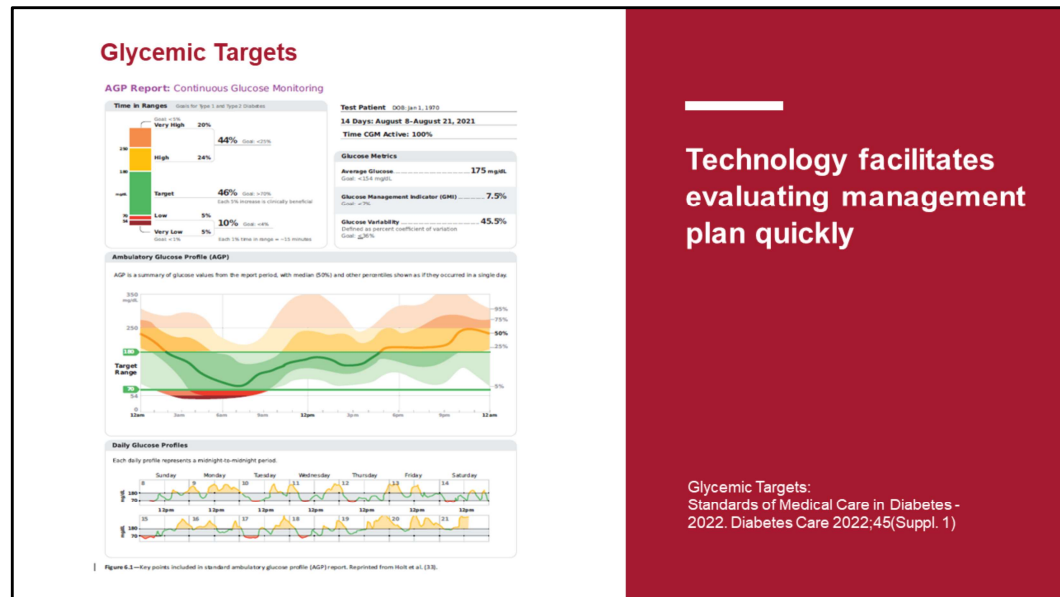
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## Adopt technology to increase touch points

- Daily text messages to support patient self-care behaviors
- Telehealth visits
- Patient portal
- Continuous glucose monitors

Watterson, JL, Rodriguez, HP, Shortell, SM, Aguilera, A. Improved diabetes care management through a text-message intervention for low-income patients: mixed-methods pilot study. *JMIR Diabetes* 2018;3:e15. <https://doi.org/10.2196/diabetes.8645>.





Technology facilitates evaluating management plan quickly

Glycemic Targets: Standards of Medical Care in Diabetes - 2022. Diabetes Care 2022;45(Suppl. 1)

On the screen is an ambulatory glucose profile (AGP) report from a continuous glucose monitoring meter. Continuous Glucose Monitoring or blood glucose monitoring meters allows for quicker effectiveness of medication(s) without waiting for a 3-month A1C measurement.

Increased communication between patients and care team members and use of technology characteristic of nearly all clinically and statistically significant care management and educational interventions in the meta-analysis. CGM is increasing rapidly and is a technology that is making rapid therapy changes even in T2D.

- Telemonitoring
- Texting
- Virtual visits using cloud-based technology
- Mobile applications supporting automated coaching
- Self-tracking tools

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## Summary



- Therapeutic inertia is the failure to advance or deintensify the treatment regimen when a patient's therapeutic goals are not met.
- Early glycemic control provides a legacy effect positively impacting patient outcomes
- Addressing contributors to therapeutic inertia at the patient, practice, and system level can help overcome therapeutic inertia
- There are simple things you can do right now to more rapidly optimize treatment and to remove barriers to care plan adherence – both essential to overcoming therapeutic inertia

### Key messages:

- Therapeutic inertia is the failure to establish appropriate targets and escalate treatment to achieve treatment goals
- The data showing delays in the intensification of therapy are compelling
- Early control provides a legacy effect positively impacting patient outcomes
- Reimbursement models are changing – don't be left behind
- Multiple stakeholders - People with diabetes, providers, healthcare systems, payors, industry – necessitates a multipronged approach

## OTI Website

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A repository of OTI-related resources for health care professionals and people with diabetes

[therapeuticinertia.diabetes.org](https://therapeuticinertia.diabetes.org)

THERAPEUTIC INERTIA

### Patient Engagement Toolkit

#### Convenient Resources for Managing Diabetes

The three main pillars that can help you overcome therapeutic inertia are research, education and awareness, and collaborative barrier busting. Start utilizing these strategies in your practice today.

[Learn More](#) ↓





<https://www.therapeuticinertia.diabetes.org/practice-improvement-resources>

## **Therapeutic Inertia in Clinical Practice: Self-Assessment**

Use this tool to measure how often therapeutic inertia occurs in your practice and to identify contributing factors. This tool can also be used to help detect therapeutic inertia between visits.

**Take the Survey** →



*We will generate and share with you a confidential report that includes a set of personalized recommendations based on your survey responses. Your name, email and any identifying information will be kept confidential. However, the de-identified data generated maybe used for future research, ADA assessment purposes and we may contact you for opportunities to participate in further research and training.*

# Overview for Tackling Therapeutic Inertia



**Make a Difference:**  
Achieve Glycemic Goals Early in Patients with Type 2 Diabetes



**With These Best Practice Strategies**

**Intensify Treatment of Newly Diagnosed Patients and Patients with A1C Above Target**

Early and appropriate therapy improves patients' chances of reaching A1C goals.

The Legacy Effect. Landmark clinical trials and research studies show that reaching A1C targets in the first year of treatment results in sustained, long-term health improvements even when control waned over time!



**Create Personalized Diabetes Care Plans**



**Assess patient's:**

- Health literacy and numeracy
- Attitudes and beliefs regarding medication therapy
- Social determinants of health



**Have ongoing conversations about the progressive nature of type 2 diabetes and management options.**

- Diabetes changes over time and treatment plan should change too



**Use shared decision-making to determine individual glycemic targets and how to achieve those targets within 3-6 months.**

**Implement a Team-Based Approach**



**Empower the appropriate team members to independently initiate and adjust medications.**

- Use medication algorithms and protocols for therapeutic changes
- Effective team communication

**Partner with:**

- Diabetes self-management education and support (DSME)
- Registered dietitian
- Pharmacist
- Behavioral health specialist

**Engage community health workers**

- Other diabetes care team members

**Improve A1C by leveraging the multidisciplinary team**

A recent systematic review and meta-analysis found that organized multidisciplinary teams that use physician protocols reduce and steadily maintain, with support from guidelines, had greater reductions in A1C.



Results may be dependent on who identifies therapy to alter (ie, the health care provider or other care team member) under, type of care management or other evidence-based practice (eg, patient and provider education) and care technology (eg, remote and patient).

**Leverage Tools and Technology**



**Use technology for glycemic assessments to adjust therapy before/within 3 months A1C checks.**

- Remote glucose monitoring tools
- Continuous glucose monitoring data
- Patient self-tracking tools and support apps
- Care decision support systems for identifying high-risk patients and implement guidelines



**Communicate frequently with patients.**

- Patient-provider portals
- mPDA computer kiosk modalities
- Multilingual voice when appropriate
- Consider diabetes-only visits
- Use team members to increase follow-ups
- Utilize patient registries and chronic care coordination

Learn more at [TherapeuticInertia.Diabetes.org](http://TherapeuticInertia.Diabetes.org).



Here is a one-page infographic that outlines steps you can take to overcome therapeutic inertia. Share with your organization or teams.

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## The ADA's *Standards of Care*: Always Up to Date and Ready to Use

### Approach to Medication Therapy in Type 2 Diabetes

- Algorithms
- Guidelines for intensification of therapy
- Customized Protocol

Check out the app at [professional.diabetes.org/SOCApp!](https://professional.diabetes.org/SOCApp!)



The ADA Standards of Care is available and always up-to-date with treatment algorithm intensifying therapy and customized protocol.

The web app is also available for easy to use.



# OTI Initiative: Patient, Provider, and Practice Resources

## Download and share:

- OTI Fact Sheet: Getting to Goal: Overcoming Therapeutic Inertia in Diabetes Care
- OTI Best Practices Framework
- OTI White Paper—Addressing Therapeutic Inertia in 2020 and Beyond
- Strategies to OTI: Systematic review
- Patient toolkit
- Webinar series

Learn more at [TherapeuticInertia.Diabetes.org](http://TherapeuticInertia.Diabetes.org).



Take the TIQ self assessment of your level of understanding related to how therapeutic clinical practice.

Download OTI 1-pager and share with members of your team.

Identify at least 1 modifiable strategy to improve TI in your organization and who needs success.

*Questions?*  
jmoverle@touro.edu



Overcoming  
**Therapeutic  
Inertia**

[therapeuticinertia.diabetes.org](http://therapeuticinertia.diabetes.org)