# Overcoming **Therapeutic Inertia: Clinical Workshop**

#### Chicago, IL November 13, 2019





# Inertia

### **Understanding Therapeutic** Inertia in 2019: Why should you care?

#### Amisha Wallia, MD, MS





# Economic Costs of Diabetes in the US in 2017

- 327 billion were spent in 2017 on diagnosed diabetes.
- diabetes
- **Diabetes resulted in 277,000 premature deaths.**

American Diabetes Association. Diabetes Care. 2018 May;41(5):917-928.

# - \$237 billion in direct medical costs and \$90 billion in reduced productivity

#### • Direct medical costs represent a 26% increase (adj for inflation) since 2012 (increased prevalence and the increased cost per person affected)

#### More than 300 million work days are lost to the economy due to







# **Economic Costs of Diabetes in the US in 2017**

- Medications directly used to treat diabetes = \$31 billion, \$15 billion of which is for insulin.
  Increased by 45% over 5 years after adjusting for inflation
- <u>**1** *in every 4 health care dollars*</u> spent (24 percent) was for the care of people with diabetes
- <u>1 of every 7 health care dollars</u> (14 percent) can be attributed directly to care for diabetes.

American Diabetes Association. Diabetes Care. 2018 May;41(5):917-928.





#### Therapeutic Advances Over Past 20 Years



# Despite increasing number of new diabetes medications and technologies ...

100

 Achievement of 80 individualized 60 Percent (%) targets declined from 69.8% to 40 63.8% 20 0 1999-2002

Carls G . Huynh J . Tuttle *et al*. Achievement of Glycated Hemoglobin Goals in the US Remains Unchanged Through 2014. Diabetes Ther 2017;8:863–873







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#### Disruption is Needed to Improve Care Quality in Diabetes Type 2 Diabetes Trends in the U.S. 2006-2013



Adapted from: Lipska KJ, Yao X, Herrin J, et al. <u>Trends in drug utilization, glycemic co</u> <u>2013</u> [published online September 22, 2016]. *Diabetes Care*. doi:10.2337/dc16-0985.

Affordable Care ActMeaningful UseSGLT-2 inhibitorbecomes law, proliferationImplementation, PCMH,Rx approvedof "personal tech"ACO formations

<u>in diabetes c</u>	<u>are qualit</u>	<u>ity</u>	*Subset of 1.66M patients with an A1c available	
			A1c ≥	9% — A1c < 7%



## What's wrong with this picture?

- Decline in % of patients at HbA1c <7% At best, only about 50% of patients at Goal Increase in % of patients with very poor control Unacceptable level of morbidity and mortality

- Diabetes-related costs to society are tremendous



#### ALL THIS DESPITE MORE THAN 40 NEW T2D **TREATMENT OPTIONS APPROVED SINCE 2005**







### The root of the problem ...



# **Therapeutic Inertia**





# **Therapeutic Inertia: Rational and Clinical Relevance**

- The failure to establish appropriate targets and escalate treatment to achieve treatment goals
- Responsible for substantial, preventable complications of diabetes with the associated excess in direct and indirect health care costs





### **Treatment Intensification In Patients With Type 2 Diabetes Who Failed Metformin Monotherapy**

Time To Treatment Intensification For All Patients (A),



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Fu et al. Diabetes, Obesity and Metabolism; 2011;13: 765–769







### **Treatment Intensification In Patients With Type 2 Diabetes Who Failed Metformin Monotherapy**

Time To Treatment Intensification For All Patients (A), By Index HbA<sub>1c</sub> Level (B),

•



Fu et al. Diabetes, Obesity and Metabolism; 2011;13: 765-769

Overcoming **Association** Inertia

American Diabetes





#### **Treatment Intensification In Patients With Type 2 Diabetes Who Failed Metformin Monotherapy**

Time To Treatment Intensification For All Patients (A), By Index HbA<sub>1c</sub> Level (B), By Metformin Daily Dose (C)



Fu et al. Diabetes, Obesity and Metabolism; 2011;13: 765–769



Overcoming Therapeutic Inertia

**Association**®

#### Our view ...

- Although therapeutic inertia impacts all populations, targeting individuals with type 2 diabetes is our first priority
- The causes of clinical inertia are multifactorial, with contributory elements from five stakeholder groups:
  - People with diabetes
  - Clinicians and other healthcare providers
  - Healthcare systems
  - Payors
  - Industry





# **Promotors of Therapeutic Inertia Often Cited...**

#### **Clinician-Related**

- Insufficient time
- Failure to set clear goals
- Failure to initiate treatment
- Failure to titrate treatment to achieve goals
- Failure to identify and manage comorbidities (e.g. depression)
- Patient 'highjacks' the clinical encounter
- Reactive rather than proactive care
- Underestimation of patient's need

#### **Patient-Related**

- serious
- Low health literacy
- High cost of medication
- Too many medications
- Medication side-effects
- Poor communication between physician and patient
- Lack of trust in physician
- SDOH, Depression or substance abuse
- Lifestyle factors
- Absence of symptoms

Denial of having the disease Denial that the disease is

#### Healthcare System/Practice –related

- No clinical guidelines
- No disease registry
- No visit planning
- No active outreach to patients
- No decision support
- No team approach to care
- Poor communication between physician and staff







## Impact of Clinical Inertia on Risk of CVD

#### Poor glycemic control combined with delayed treatment intensification significantly increases CV risk in patients with T2D



#### A 1-year delay in treatment intensification in uncontrolled patients (A1c >7%) without previous CVD significantly increased the risk of MI, HF, stroke, and a composite endpoint of CV events

The risk of CVD is shown for patients with A1c consistently >7% in the 2 years following diagnosis for whom treatment intensification is delayed by ≥1 year vs that of patients with A1c consistently <7% in the same period. Illustration based on data from Paul SK, et al. Cardiovasc Diabetol. 2015;14:100. CI: confidence interval; CV: cardiovascular; CVD: cardiovascular disease; HF: heart failure; IT: intensification of treatment; MI: myocardial infarction; T2D: type 2 diabetes.

Copyright 2016. Khunti. K & Millar-Jones. D. Clinical inertia to insulininitiation and intensification in the UK: A focused literature review. Primary Care Diabetes. 2017, 11: 3–12 17 Illustration based on data from Paul et al. [8]. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/).







#### **Clinical Inertia Plays an Important Role in Delaying Intensification of Diabetes Therapy**



\*From time when A1c was  $\geq$ 7.0%,  $\geq$ 7.5%, or  $\geq$ 8.0%; †From time when A1c was  $\geq$ 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 Obes Metab.* 2016;18:401-409.





#### Elements of multifaceted approaches to improve medication adherence

Positive relationships and quality of the clinical environment

Ongoing reinforcement, motivation, and support at every step in the health care system

Simplifying dosage regimens

Involving patients in the decision-making process and setting goals that are later reviewed with the patient

Education about the medication, its benefits, side-effect management, duration of

therapy, and what a patient can expect

Follow-up care and reminders

Rewards for achieving goals

Social support, including family members, when possible

Self-management training

From Oyekan E, Nimalasuriya A, Martin J, Scott R, Dudl RJ, Green K. The B-SMART appropriate medication-use process: a guide for clinicians to help patients-part 1: barriers, solutions, and motivation. The Permanente Journal. 2009;13(1:62-69. Reprinted with permission from The Permanente Press, www.thepermanentejournal.org, copyright 2009.





### What else is important to know about therapeutic inertia?

- Early tight control leads to longer term maintenance of glycemic control.<sup>1</sup> – A legacy effect.
- Therapeutic inertia leads to a reduced likelihood of achieving target levels later in the disease trajectory.<sup>2</sup>
- Early intensification of treatment, in appropriate patients, is associated with a shorter time to subsequent glycemic control.<sup>3</sup>
- Therapeutic inertia has been associated with a reduced quality of life for the patient, along with increased risks of morbidity and mortality.

1. M Abdul-Ghani, C Puckett, et al. Initial combination therapy with metformin, pioglitazone and exenatide is more effective than sequential add-on therapy in subjects with new-onset diabetes. Results from the efficacy and durability of initial combination therapy for type 2 diabetes (EDICT): a randomized trial. Diabetes Obes Metab 2015; 17: 268-275. 2. D Mauricio, L Meneghini, et al. Change in insulin dose and HbA1c by geographical region—results from the diabetes unmet need with basal insulin evaluation (DUNE) Study. Diabetes 2018; 67(Suppl. 1). DOI: 10.2337/db18-1037-P. 3. U Desai, NY Kirson et al. Time to treatment intensification after monotherapy failure and its association with subsequent glycemic control among 93,515 patients with type 2 diabetes. Diabetes Care 2018; 41: 2096–2104.





### What can you expect from this workshop?

- Practical advice from real-world settings
- Case-based presentations that will provide ideas for:
  - Optimizing your practice workflow
  - Addressing communication barriers
  - Dealing with patient self-care/self-management resistance
- Opportunities to discuss and share both your biggest challenges and solutions that work for you
- Leave with ideas you can use in your practice right now that could make the measurable difference in reducing TI in your practice.





### Today is about...

- Solutions
- Discussion
- Sharing
- Patients

#### It is not about...

- Finger-pointing
- Blame
- Ego
- Self-interest





# We Value Your Partnership!

Together, we can do so much toward our unified goals to improve the lives of those with diabetes!

Words to live by!

- "Coming together is a beginning. Keeping together is progress. Working together is success." -- Henry Ford
- > "The strength of the team is each individual member. The strength of each member is the team." -- Phil Jackson







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