

# SHARED MEDICAL APPOINTMENTS AND DIABETES SELF-MANAGEMENT EDUCATION & SUPPORT

IMPLEMENTATION MODELS

### **SPEAKERS**

- Micaela Karlsen, PhD, MSPH (moderator) | American College of Lifestyle Medicine
- Mahima Gulati, MD | Uconn Health, Farmington CT
- David Michael, MD, DipABLM | ECU Health Lifestyle Medicine Clinic, Greenville NC
- Susie Houston, DNP, AGNP-C, CDCES, PWD, Chef | ECU Health Lifestyle Medicine Clinic, Greenville NC
- Prasanthi Tondapu, MD | Flower Mound Endocrinology Clinic



### **AGENDA**

- Dr. Mahima Gulati Lifestyle medicine diabetes care and recommendations
- Drs. David Michael and Susie Houston SMAs, LEADR, and DSMES
- Dr. Prasanthi Tondapu prerecorded video on LEADR & DSMES
- Questions

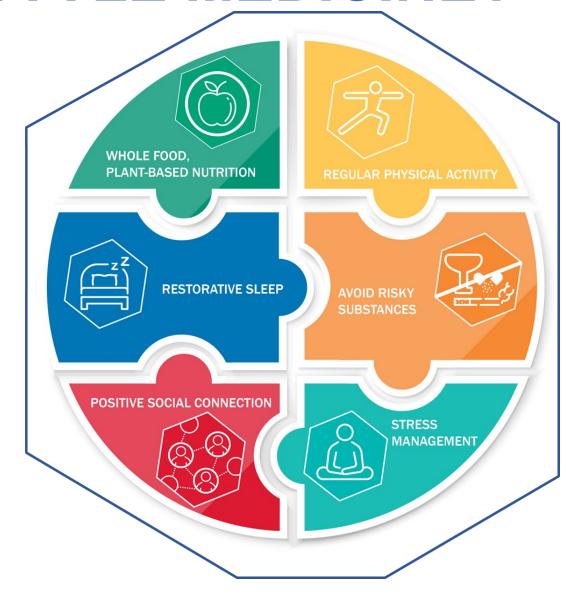


WHAT IS LIFESTYLE MEDICINE?

### 6 KEY DOMAINS OF HEALTH BEHAVIOR:

- Nutrition
- Physical activity
- Restorative Sleep
- Stress management
- Social connection
- Avoiding risky substances

lifestylemedicine.org





# DIABETES CARE IN LIFESTYLE MEDICINE

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and Mahima Gulati, MD, FACE, FACLM, MSc

Lifestyle Interventions for Treatment and Remission of Type 2 Diabetes and Prediabetes in Adults: A Clinical Practice Guideline From the American College of Lifestyle Medicine

This guideline has been endorsed by the American Association of Clinical Endocrinology, American Academy of Physician Associates, American Association of Nurse Practitioners, American College of Clinical Pharmacology, Obesity Medicine Association, American Academy of Sleep Medicine, Association of Diabetes Care & Education Specialists, and National Board of Health and Wellness Coaches. It has been designated with an "Affirmation of Value" from the American Academy of Family Physicians and is supported by the Academy of Nutrition and Dietetics.

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LIFESTYLE INTERVENTIONS
FOR TREATMENT AND
REMISSION OF TYPE 2
DIABETES AND
PREDIABETES IN ADULTS: A
CLINICAL PRACTICE GUIDELINE
FROM THE AMERICAN
COLLEGE OF LIFESTYLE
MEDICINE

MAHIMA GULATI, MD, FACLM, FACE, DIPABLM, MSCI, ECNU

### PURPOSE AND VISION OF THIS CPG

- Provide actionable guidance to any clinician or healthcare professional in a community or outpatient healthcare setting involved in managing non-pregnant adults with T2D, prediabetes or a history of gestational diabetes mellitus (GDM).
- Promote standardized, lifestyle-focused clinical care
- Align with the ACLM vision of root cause resolution



# AN INTERDISCIPLINARY TEAM OF AUTHORS

Guideline Leadership: Richard M. Rosenfeld (Methodologist & Chair), Meagan L. Grega (Family Medicine &

Assistant Chair), Mahima Gulati (Endocrinology & Assistant Chair)

ACLM Staff: Micaela C. Karlsen, Kara L. Staffier

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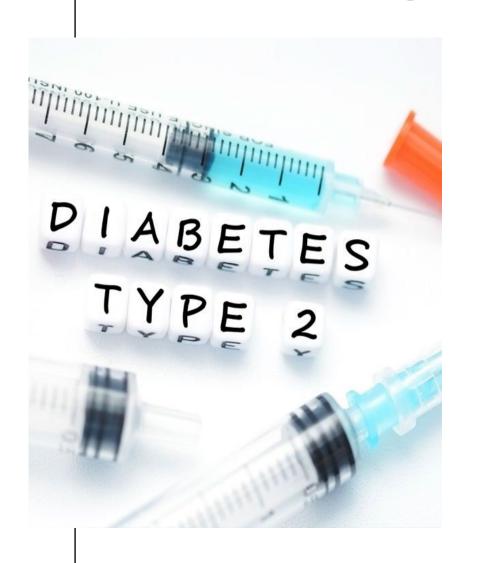


# ENDORSING/SUPPORTING ORGANIZATIONS

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# THE GLOBAL BURDEN OF TYPE 2 DIABETES



- Diabetes termed an epidemic and defining disease of the 21<sup>st</sup> century because of rising prevalence, and enormous depth and breadth of health impact
- Globally, about 1.3 billion people expected to have diabetes by 2050, with projected cost of type 2 diabetes over \$1 trillion
- About 50% of US population has diabetes (13.2%) or prediabetes (36.5%), making up 25% of total health care dollars
- 80% of all type 2 diabetes is preventable with lifestyle therapy.

Wang H et al, Partners in diabetes epidemic: a global perspective, World J Diabetes 14:1463-7. Editorial, Diabetes a defining disease of the 21<sup>st</sup> century, Lancet 2023; 401:2087. CDC, Nat'l Diabetes Prevention Coverage Toolkit, Cost & Value, 2024; https://coveragetoolkit.org/cost-value-elements/



# Classifying Recommendations for CPGs: Oxford Center for Evidence-Based Medicine (OCEBM) Levels

Table 12. Aggregate Grades of Evidence by Question Type<sup>a</sup>

Grade	OCEBM Level	Treatment	Harm	Diagnosis	Prognosis
Α	I	Systematic review <sup>b</sup> of randomized trials	Systematic review <sup>b</sup> of randomized trials, nested case-control studies, or observational studies with dramatic effect <sup>b</sup>	Systematic review <sup>b</sup> of cross-sectional studies with consistently applied reference standard and blinding	Systematic review <sup>b</sup> of inception cohort studies <sup>c</sup>
В	2	Randomized trials or observational studies with dramatic effects or highly consistent evidence	Randomized trials, or observational studies with dramatic effects or highly consistent evidence	Cross-sectional studies with consistently applied reference standard and blinding	Inception cohort studies <sup>c</sup>
С	3-4	Nonrandomized or historically controlled studies, including case-control and observational studies	Nonrandomized controlled cohort or follow-up study (postmarketing surveillance) with sufficient numbers to rule out a common harm; case-series, case-control, or historically controlled studies	Nonconsecutive studies, case-control studies, or studies with poor, nonindependent, or inconsistently applied reference standards	Cohort study, control arm of a randomized trial, case series, or case-control studies; poor quality prognostic cohort study
D X	5 NA		sed reasoning, or reasoning from first pervalidating studies cannot be performed		•



# RECOMMENDATION STRENGTH IS DETERMINED BY THE AGGREGATE LEVEL OF EVIDENCE AND THE BENEFIT-HARM BALANCE

Evidence Grade	Preponderance of Benefit or Harm	Balance of Benefit and Harm	
A	Strong Recommendation	Option	
В	Strong Recommendation Recommendation	Option	
С	Recommendation Option	Option	
D	Option	No Recommendation	
X	Strong Recommendation Recommendation	Not Applicable	



#### **DIABETES CPG: SUPPORTING EVIDENCE**

# 126 Systematic Reviews, 107 Randomized Trials, 8 Guidelines, 6 Umbrella Reviews, 55 Observational Studies, 14 Review/Consensus Sources

<u>physical activity</u>

diet/nutrition

<u>implementation</u>

PA: aerobic exercise

PA: resistance training

LM General

stress/mental health

Diet: diet type/pattern

PA: HIIT

TECH CGM

PA: activity breaks,

<u>walking</u>

Diet: food type/pattern

Diet: low carb
Diet: nutrition

therapy/education

LM: DPP/ILI

SUPPORT: peer/family

IM: education

DM tech

IM: phone/texting

Diet: weight loss

<u>Diet: energy restriction</u>

IM: virtual/web-based

<u>Diet: high protein</u>

<u>sleep</u>

<u>LM: diet + physical</u>

<u>activity</u>

TECH: Apps/digital

STRESS:

anxiety/depression

**STRESS:** 

mindfulness/meditation

IM: behavior/CBT

SUPPORT: community

PA: yoga

IM: peer/social support

LM: weight reduction

SLEEP: General

<u>substance use</u>

IM: coaching

PA: mind/body, pilates

IM: groups/SMAs

IM: DPP/ILI

SUPPORT: group

STRESS: stress reduction

IM: cooking/culinary

TECH: physical activity

STRESS: mental health

Bariatric surgery vs LM

LM: LM gen

Diet: ketogenic

IM: miscellaneous

SUBSTANCE: alcohol

PA: Balance training

SLEEP: OSA/CPAP

STRESS: mood/coping

IM: multimodality

LM: miscellaneous

SUBSTANCE: smoking

Diet: plant-based





# THE FIRST 3 KEY ACTION STATEMENTS IN THE GUIDELINE

Adult with prediabetes, type 2 diabetes, or a history of gestational diabetes mellitus

KAS 1: Lifestyle Interventions as First-line Management

Advocate for lifestyle interventions as first-line management, including restorative sleep, stress management, adequate physical activity, positive social connections, a whole food plant-predominant eating pattern, and avoiding risky substances (the 6 pillars)

KAS 2: Lifestyle Habits, Improvements, and Readiness to Change

Assess the baseline lifestyle habits with regards to the 6 pillars of lifestyle medicine, educate the patient regarding opportunities to improve their lifestyle behaviors, and evaluate the patient's readiness to change

KAS 3: Priorities for Lifestyle Change and SMART Goals

Establish priorities for lifestyle change with regards to the 6 pillars of lifestyle intervention through shared-decision making, and discuss the role of SMART (specific, measurable, action-oriented, realistic, timesensitive) goals in supporting positive lifestyle change



# SUMMARY OF LIFESTYLE INTERVENTION STATEMENTS

KAS 4: Physical Activity

Prescribe physical activity, with an emphasis on aerobic muscle and strength training, using the FITT (frequency, intensity, time, type) framework for establishing SMART goals

KAS 6: Sleep Quality & Quantity

Ask about sleep quality, quantity, and patterns; determine if a sleep disorder\* is present, and refer, as indicated, for further evaluation and management

KAS 5: Sedentary Time

Reduce sedentary time by prescribing physical activity using SMART goals

KAS 7: Plant Predominant Nutrition

prescribe a nutrition plan uses SMART goals, is consistent with the patient's cultural background, and is framed in foodbased advice regarding caloric intake, nutrient needs, and the importance of a whole food plantpredominant eating pattern

KAS 9: Social Connections

Counsel regarding the importance of cultivating positive social connections provided by peers, family members, or other professionals trained in lifestyle change methods to achieve SMART goals and to optimize glycemic control

KAS 10: Mental Health

Identify, or refer to someone who can identify, serious mental illness such as severe mood/affective disorders, anxiety disorders, or psychotic disorders† KAS 11: Risky Substances

Counsel on how using tobacco, alcohol, and recreational drugs can adversely impact management of type 2 diabetes

KAS 8: Nutrition Goal of Remission or Improvement

Clarify if the goal is type 2 diabetes remission or improvement and prescribe a nutrition plan consistent with the patient's cultural background that is framed in food-based guidance promoting appropriate energy intake, nutrient needs, and the importance benefits of a whole food, plant-predominant eating pattern



# LIFESTYLE INTERVENTIONS FOR DIABETES FLOWCHART (3)

KAS 12: Sustained Behavior Change



Help patients achieve sustained, positive behavior change using evidence-based approaches including, but not limited to, coaching, motivational interviewing, and cognitive behavioral therapy

KAS 13: Continuity of Care



<u>Establish</u> a plan for continuity of care that prescribes lifestyle interventions and specifies the frequency of visits, anticipated duration of care, potent need for adjustment of pharmacologic therapy, and expectations regarding the patient's engagement

KAS 14: Adjusting Therapy



Adjust the type and dosing of a patient's pharmacologic therapy based on the impact of lifestyle intervention on their medication needs





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ABSTRACT | VOLUME 26, SUPPLEMENT 2, 186-187, MAY 2020

Abstract #805290: Endocrinology Shared Medical Appointments: Boosting Revenue, Enhancing Patient Satisfaction: A Pilot From a Community Outpatient Practice

Mahima Gulati

DOI: https://doi.org/10.1016/S1530-891X(20)39616-6



# **DELIVERY OF SMAs**

- 90 minutes total duration, 7-8 patients each session.
- Documentation on Electronic health record afterwards (30-60 mins)
- Everybody signs consent forms for respecting everyone else's privacy & confidentiality.

### Flow of a typical SMA

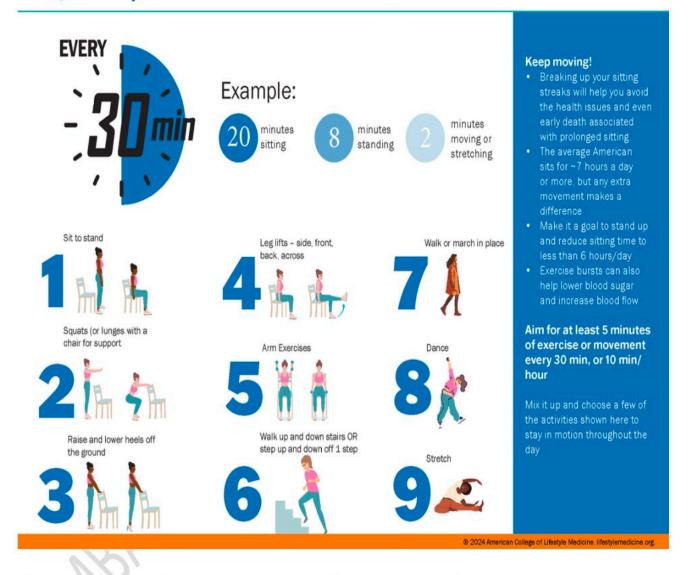
- Culinary medicine/ demonstration of healthy hands-on cooking with our registered dietitian/ certified diabetes educator is an integral part of our LMSMAs: patients typically look forward to holding newer cooking tools e.g. a Y shaped peeler/ or a vegetable spiralizer/ trying interesting cooking methods or techniques e.g. massaging kale, or rolling flaxmeal with raisins and almond butter to make "balls" etc.
- Chair Exercises
- Breathing or body scan exercises/ mindfulness eating exercises
- Each SMA is dedicated to a certain pillar of the PAVING Wellness program.

### **HOW TO SET THIS UP?**

- Identifying mentor/ sponsor
- Getting leadership support at health system
- Finding the right location (large space with some cooking capabilities/ virtual platform)
- Identifying key help (dietitian/ medical assistant/ IT support/ Behavioral health)
- Recruit patients (flyers initially, now word of mouth)
- Delivery structure
- Documentation
- Quality Improvement



#### **Break Sitting Streaks with Bite-Sized Exercise**



**Figure 14.** Breaking Sitting Streaks. Examples of how Exercise "Snacks" or "Bite-sized Exercise" regimens can be easily integrated into everyday activities by increased standing time and a few 2-to-3-minute exercise bursts throughout the day.



#### **Easy Ways to Add Fiber**

#### Common Ultra-Processed Foods

#### INSTEAD OF...

Half a bagel = 1 gram of fiber

A glass of juice = 1 gram of fiber

A handful of chips = 1 gram of fiber

A cup of white rice = 0.5 gram of fiber

A pudding cup = 1 gram of fiber

Total Fiber: 4 grams

#### **Healthy Whole Foods**

#### EAT...

1/2 cup of oatmeal = 4 grams of fiber

1 medium orange = 3 grams of fiber

A handful of nuts = 4 grams of fiber

1/2 cup of brown rice and 1/4 cup of beans = 6 grams of fiber

1 cup blueberries = 3 grams of fiber

Total Fiber: 25 grams

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#### PATIENT FEEDBACK

- I am not the same person I was prior to taking part in Lifestyle. I always had the tools but did not use them effectively. I have always been a positive person but I did not take care of myself. I felt everything and everyone came first. I always gave good advice but did not take my advice. I have changed, I now take care of myself, self care is a priority.
- This has been a process with encouragement from my Lifestyle family. Who would have guessed, that during Covid, a group of strangers via zoom, would be the best medicine for each other. Learning from each other, helping each other and challenging each other to be better people.
- I did know my life could be better, I just needed to be encouraged to be better; meal by meal, step by step, day by day and doing the self care necessary for myself. Again, thank you Lifestyle!
- Thank you for giving me the opportunity to become the better me. Feel free to share my words and my story with others.



# LIFESTYLE MEDICINE SHARED MEDICAL APPOINTMENTS AND DSMES

DAVE MICHAEL AND SUSIE HOUSTON

### PRIMARY CARE





# EASTERN NORTH CAROLINA (29-COUNTIES) VERSUS NC

In 2020, 18.95% of Eastern North Carolinians reported their health as "poor or fair" compared to 13.09% of citizens in the rest of the state.<sup>1</sup> Age-related death rates are substantially greater in ENC that the rest of NC:

- Heart disease mortality is 15% greater
- Cancer (all sites) mortality is 2.9% greater
- Lung cancer mortality is 11.6% greater
- Colon cancer mortality is 14.0% greater
- Diabetes mortality is 34.3% greater
- Stroke mortality is 20.2% greater

If ENC were a state, we would rank **44**<sup>th</sup>



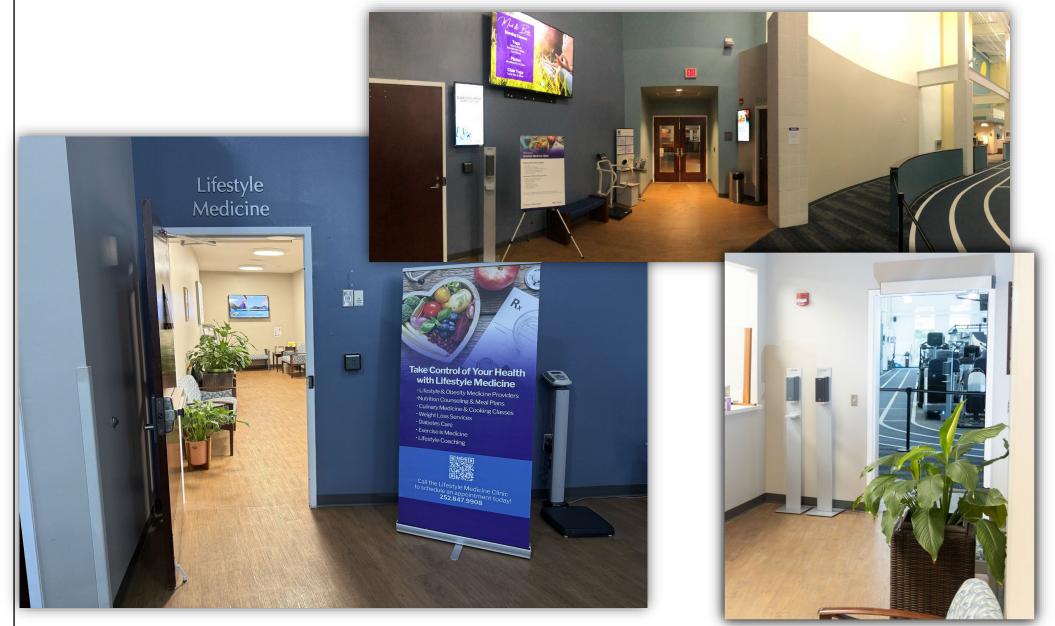
<sup>&</sup>lt;sup>2</sup> Mortality rates per 100,000 for the year 2019 (from NC SCHS's Vital Statistics accessed via UNC-Chapel Hill's Odum Institute).

<sup>&</sup>lt;sup>3</sup> State and US Premature mortality (before age 75) rates per 10,000 for the year 2019 (from America's Health Rankings analysis of CDC WONDER multiple cause of Death files). NC region estimates for 2019 (from NC SCHS's Vital Statistics accessed via UNC-Chapel Hill's Odum Institute).

#### ECU HEALTH LIFESTYLE MEDICINE CLINIC



### ECU HEALTH LIFESTYLE MEDICINE CLINIC







# OFFICE OF WELL-BEING AUGUST 2025 – RESOURCES FOR TEAM & FAMILY MEMBERS

#### Lifestyle Empowerment Approach for Diabetes Remission (LEADr)



#### **Program Qualifications**

- 18+ years old
- Type 2 Diabetes Diagnosis
- ECU Health Team Member
- Spouses and dependents on ECU Health insurance plans
- Ready to make lifestyle changes

#### **Tuesday Cohort**

**August 26 – November 25** 

5:30 p.m. – 7:00 p.m.

#### **Thursday Cohort**

August 28 – November 20

8:00 a.m. – 9:30 a.m.



# LIFESTYLE EMPOWERMENT APPROACH TO DIABETES REMISSION (LEADR) FROM ACLM

### A Shared Medical Appointment: Combining Lifestyle Medicine and DSMES Principles

#### **Core Components**

**Lifestyle Focus**: Emphasizes a **whole-food, plant-based diet**, physical activity, stress management, and other lifestyle pillars.

#### Structure:

- **12 weekly shared medical appointments** led by trained providers.
- **4** are billed as established E/M provider visits.
- 6 will be billed as certified health coaching
- **3** will be billed as registered dietitian visits

Includes group education, personalized coaching, and culinary medicine elements.

#### **Supportive Features:**

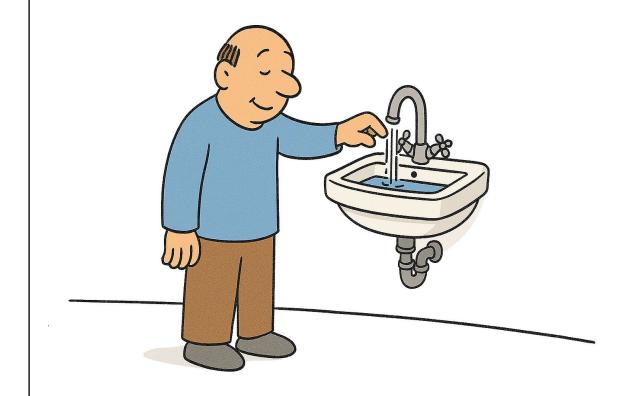
Free weekly healthy meal during sessions. Whole food plant-based meal provided. Some will include culinary medicine demonstrations.

#### Recruiting:

- ECU Health team members, spouses, and dependents on ECU Health insurance plans.
- Recently expanded to include community members with Type 2 Diabetes.



#### LIFESTYLE MEDICINE



Some of the most rewarding clinical decisions in my career have been assisting patients in taking control of their health and getting them off medications.



## MY JOURNEY THAT GOT ME TO THIS FANTASTIC JOB AND CHATTING WITH YOU STARTED IN CANADA

- •
- ECU Endocrinology Clinic x 8 yrs w/Dr. Robert Tanenberg -> fantastic mentors!
  - Registered Nurse (RN), Certified Diabetes Educator (CDE), Bachelor of Science of Nursing (BSN)
  - Diabetes Educator Boot Camp Host, Coordinator, Presenter
- ECU Health Wellness x 10 yrs Lifestyle Nurse Specialist
  - o RN, Certified Diabetes Care & Education Specialist (CDCES), BSN
  - 1:1 DSMES, diabetes education and support group activities
  - Initiated ECU Health Diabetes Prevention Program (DPP) in person/virtual
  - DPP Master Trainer

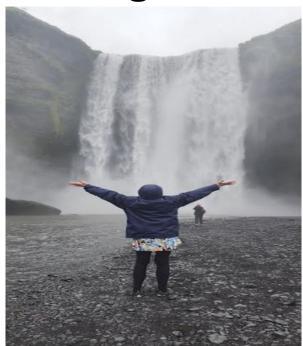


## MY JOURNEY THAT GOT ME TO THIS FANTASTIC JOB AND CHATTING WITH YOU STARTED IN CANADA

#### 2025 ECU Health Lifestyle Medicine Clinic provider since 10/2021

- Doctor of Nursing Practice (DNP), Adult Gerontology Nurse Practitioner (AGNP-C), CDCES, BSN, RN
  - 1:1 patient appointments, supported diabetes education/management for prediabetes, T1D, T2D, LADA, gestational diabetes
  - o Involved in Culinary Medicine classes, utilizing ACLM materials, and SMAs

#### Still living ... and working with diabetes!







#### MY EXPERIENCE WITH DSMES AND LMSMA

Diabetes Self-Management Education & Support Meets Lifestyle Medicine Shared Medical Appointment





### **DSMES & LEADR COMPLEMENT EACH OTHER**

Aspect	DSMES (Diabetes Self-Management Education & Support)	LEADr (Lifestyle Empowerment Approach for Diabetes Remission)
Purpose / Focus	Supports people with diabetes to manage condition, prevent complications, and improve quality of life	Targets remission through intensive lifestyle changes (nutrition, activity, behavioral empowerment)
Target Population	People with diabetes (Type 1 & 2, across lifespan)	Primarily people with Type 2 diabetes seeking remission
Approach	Education-based: self-monitoring, meds, coping, diet/activity guidance	Lifestyle medicine: whole-food plant-based diet, structured support, empowerment coaching
Strengths / Pros	<ul> <li>Evidence-based, improves outcomes (A1c, quality of life)</li> <li>Widely recognized &amp; accredited</li> <li>Often covered by insurance</li> <li>Flexible, adaptable to many settings</li> </ul>	<ul> <li>Focuses on remission, not just management</li> <li>Intensive support (team-based, group dynamics)</li> <li>Emphasizes empowerment &amp; sustainable lifestyle change</li> <li>Holistic: diet, activity, mental well-being</li> </ul>
Weaknesses / Cons	<ul> <li>Focuses mainly on management, not remission</li> <li>Requires sustained engagement</li> <li>Underutilized (many eligible patients don't enroll)</li> <li>Funding/reimbursement challenges</li> </ul>	<ul> <li>May be resource-intensive (staff, space, meals)</li> <li>Remission outcomes vary (depends on individual adherence)</li> <li>Less established in healthcare systems than DSMES</li> <li>Insurance coverage may be limited</li> </ul>
Best Fit / Use Case	When goal is ongoing management and education for broad diabetes populations	When goal is possible remission through lifestyle empowerment with motivated participants



#### **REDUCING CLINICAL INERTIA IN TYPE 2 DIABETES**

#### **Current State**

- Time Constraints in Traditional Visits
- Uncertainty About Patient Readiness
- Fragmented Care Teams
- Passive Patient Role

## CLINICAL INERTIA

Delaved or insufficient action in diabetes management

#### **Improved State**

- Shared Medical Appointments
- Multidisciplinary Team Support
- Personalized
  Lifestyle
  Prescriptions
- ዓ ( Patient Empowerment through DSM

- ( Decreased A1C
- Solution | Description | De
- Higher patient satisfaction
- Timely medication adjustments or deprescribing
  - \$ Lower health care costs
- Decreased provider burnout
- Decreased diabetes burnout (PWD)
- Improved quality of life
- Increased productivity
- Decreased absenteeism



### DSMES ENHANCES LMSMA

- Providing structured education aligned with ADA/ADCES Standards of Care and Practice
- Reinforcing behavior change and self- management skills
- Offering metric-driven outcomes (A1C, BP, Weight, Medication)
- Supporting patient and clinic goals



### **SMA INTEGRATION POINT**

- SMA ideal for delivering DSMES modules/classes in peer supported, provider led environment
- Conducted monthly or quarterly, aligning with LEADr curriculum content
- SMA could include:
- Medical review by provider
- DSMES module/class facilitated by educator
- SMART Goal setting/peer discussion with staff support



## **REFERRAL WORKFLOW**

Trigger	Action	Responsible Party
Diabetes diagnosis or poor A1C	- 4	PCP, Endo, or care manager
Completion of initial DSMES	Continue into LEADr program	DSMES educator
Patient shows engagement decline	Re-engage via SMA with DSMES module	Care coordinator
LEADr patient needs education boost	Loop back to 1:1 DSMES or refresher group	LEADr team



### SHARED CARE PATHWAY

#### 1. Entry Point:

- Referral from PCP or endocrinologist
- DSMES intake + LEADr onboarding

#### 2. Initial Phase (0-3 months)

- 1:1 DSMES sessions OR group DSMES
- SMA begins monthly with combined DSMES/LEADr

#### 3. Ongoing Care (3-12 months)

- LEADr program continues
- DSMES touchpoints based on needs
- Quarterly SMAs for check-ins, metrics, education

#### 4. Outcomes Tracking:

- Shared E.H.R. tracking A1C, BMI, Medication Management
- DSMES and LEADr notes visible to both teams
- Coordinated goal updates



## **HOW DSMES & LMSMA INTEGRATE**

DSMES	LMSMAs
Focus on diabetes education, complication reduction & behavior change	Holistic lifestyle management and risk reduction
Delivered by RD or RN or Pharm D or CDCES or BC-ADM (interdisciplinary team) in a recognized program (ADA/ADCES)	Delivered by interdisciplinary team
Often structured as ADA/ADCES curriculum	May include coaching, group visits, tracking tools
Billing through DSMES codes (Medicare/insurance)	Often bundled, E&M codes, maybe grant-funded
Shorter-term (e.g. 4-8 sessions)	Longitudinal (weeks or months)



### **FOOD FOR THOUGHT**

- Consider intake for enrollment
  - DSMES completed program
  - DSMES content awareness
  - Monitoring & Medications
  - PCP partnership acknowledgement
- Add DSMES components to beginning of program for new clinic patients of SMA participants
- Consider separate LMSMA for populations with:
  - Prediabetes especially those with Prediabetes Risk Test Score > 5
  - New diabetes diagnosis no medications, limited monitoring
  - Long standing diabetes diagnosis > 5yrs



### **CLOSING THOUGHTS**

- DSMES is invaluable to PWD improving self-management skills and reducing diabetes complication
- Combining DSMES with LMSMA takes comprehensive, patient-centered approach to diabetes care to the next level
- DSMES offers foundational diabetes education and LM or LEADR offers additional support to sustained behavioral changes
- Shared pathways with clear definition, referrals, E.H.R. integration, interprofessional collaboration to ensure patients are at the center of their diabetes/health care plan and goals.



# From ECU Health Lifestyle Medicine Clinic Thank You!











### LEADR PILOT PROGRAM OCT 6, 2025

PRASANTHI TONDAPU, MD, DIPABLM

LEADR SITE LEAD

FOUNDER | CEO, DFW ENDOCRINOLOGY

CLINICAL COORDINATOR ENDOCRINOLOGY, IM PROGRAM, MEDICAL CITY, FORT WORTH

ASSISTANT PROFESSOR, TCU

# **LEADR:** Lifestyle Empowerment for Achieving Diabetes Remission

- Intensive Therapeutic Lifestyle program
- Shared Medical Appointment(SMA) Model with SMART goal setting
- Curriculum by ACLM focused on WFPB diet
- Interactive 2- 2.5 hour sessions led by an endocrinologist
- Prescription and de-prescription as necessary

#### **Take Control of Your Health**

Lifestyle Empowerment Approach for DIABETES REMISSION LEADR

Join an immersive program led by **Prasanthi Tondapu**, **MD**, **DipABLM**, designed to empower individuals with pre-diabetes or insulin resistance to achieve reversal and those with type 2 diabetes to work towards remission.

This evidence-based intervention, developed by the American College of Lifestyle Medicine, will provide you with the knowledge and tools to:

- Eat for diabetes remission—no complicated calorie counting required
- Reach a healthy weight without constant hunger
- · Enhance cardiometabolic health and overall well-being
- · Boost energy levels and improve quality of life

This is your opportunity to take control of your health. With the right approach, you may reduce medications or even achieve diabetes remission.

Start your journey today!

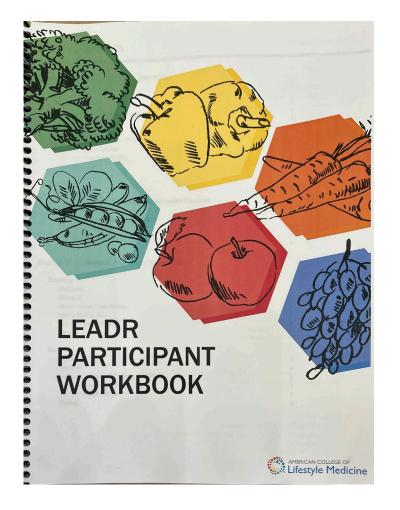
REGISTER NOW: Call or Text | 469.930.4655



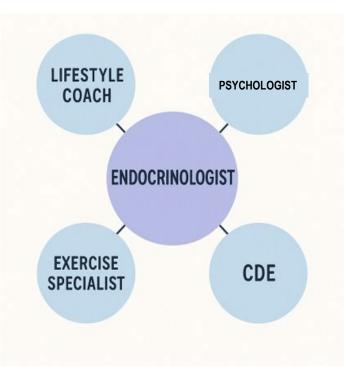
#### Program participants must be:

- · 18 years or older
- Fnglish-sneaking
- Available to attend most sessions
- Interested in making diet and lifestyle changes
- Has a diagnosis of type 2 diabetes, prediabetes, or insulin resistance

# People, Tools & Technology



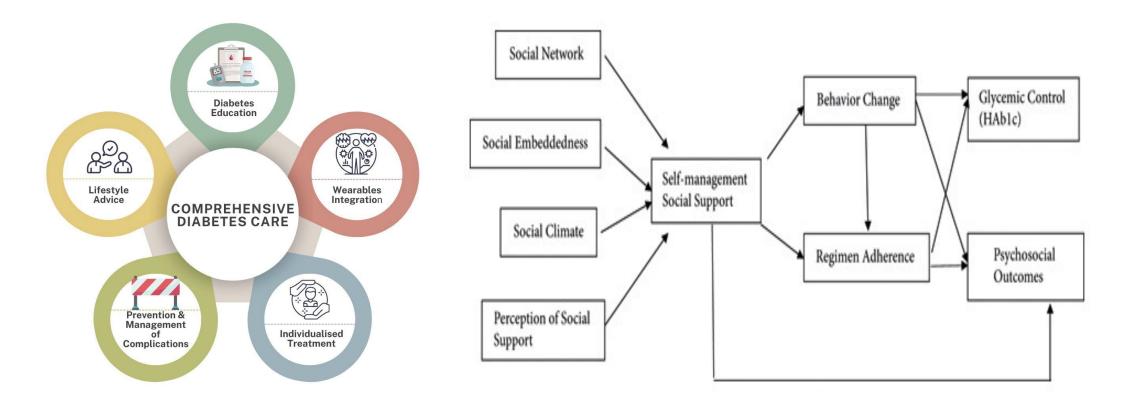
**Continuous Glucose Monitoring (CGM) Body composition (Inbody)** 







# DSME + PEER SUPPORT IMPROVES GLYCEMIC CONTROL





# Tables where we share food, stories& more!









# **Shopping Tour/Reading labels**





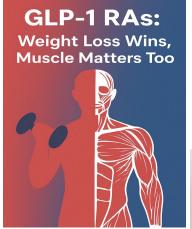


# **Building STRENGTH & CONNECTIONS**



60 mins/week resistance training: 27% decrease in all-cause mortality

Improves sugars, strength, balance and mood







# **SMART GOAL setting**

#### **Step 1: Choose a Goal**

This week, I will set a clear objective for myself because I want to achieve specific outcomes.

#### **Step 2: Identify Your Reasons**

- 1. First reason for pursuing this goal.
- 2. Second reason that motivates me.
- 3. Third reason reinforcing my commitment.

#### **Step 3: Anticipate Challenges**

Consider potential obstacles or difficulties that might arise while working toward this goal.

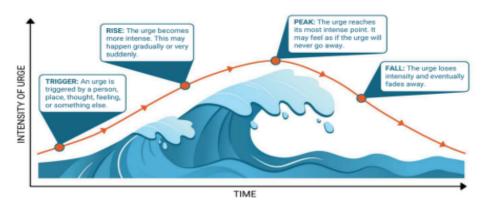
#### **Step 4: Develop Strategies**

Outline the approaches or actions I will take to overcome these barriers and support my success.

#### **Urge Surfing**

**Urge surfing** is a technique for managing your unwanted behaviors. Rather than giving in to an urge, you will ride it out, like a surfer riding a wave. After a short time, the urge will pass on its own.

This technique can be used to stop or reduce drug and alcohol use, emotional reactions such as "blowing up" when angry, gambling, and other unwanted behaviors.



#### How to Practice Urge Surfing

- Acknowledge you are having an urge.
- Notice your thoughts and feelings without trying to change or suppress them. Note: It is normal to feel some discomfort during an urge.
- 3. Remind yourself...
  - It is okay to have urges. They are natural reactions to addictions and habits.
  - An urge is a feeling, not a "must." I can have this feeling and choose not to act.
- Some discomfort is okay. I don't have to change it.
- An urge is temporary. Like any other feeling, it will pass on its own.

#### Other Skills

#### Managing Triggers

Use coping skills to reduce the power of triggers. Know your triggers ahead of time, and have a strategy or skill prepared for each one.

Examples: deep breathing if stressed, eating if hungry, leaving a location if it is high risk

#### Delay & Distraction

Do something to take your mind off the urge. Every minute you delay increases the chance of the urge weakening on its own.

Examples: go for a walk, listen to music, call a friend, read a book, practice a hobby



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### **BASELINE CHARACTERISTICS N=17**

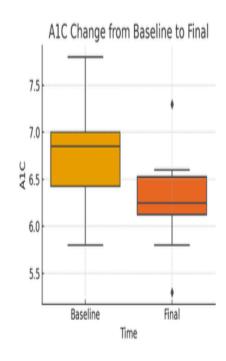
- Mean age: 61.5± 13.5 yrs (Range 36-78)
- **Sex:** Male (59%), Female (41%)
- Race: White (65%), Black (17%), Asian (12%), Hispanic (6%)
- Mean BMI: 31.62(24-52)
- Diabetes Classification: Type 2 (88%), Type 1 (12%)
- Average duration of DM: 15 years(0-34 yrs)
- 70% (11/17) of participants were on insulin at the beginning



## **RESULTS N=17**

Significant improvements in A1C: -0.5% average

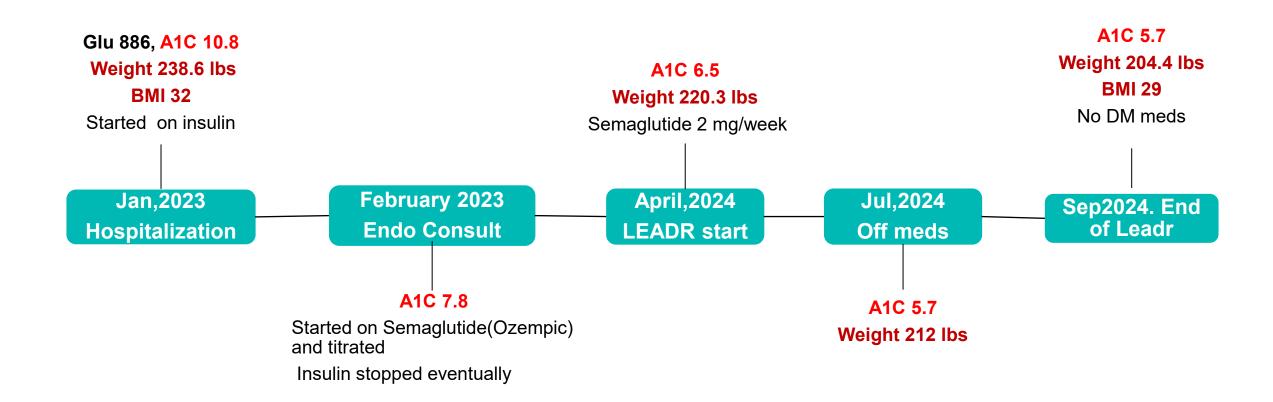
- Average weight loss of 6%, -13 lbs. average
- CC:Type 1 DM on pump lost 66lbs, minimal insulin after a year, and able to live an active li
- Most of them had a decrease in # of medications or insulin
- 100% reported quality of life improvement
- No hospitalizations related to diabetes = fewer claims
- Family members had a positive impact on weight and health



Box plot illustrating the decrease in A1C levels among participants after completing the LEADR program. Median A1C values improved, and variability narrowed at follow-up, indicating more consistent glycemic control post-intervention.



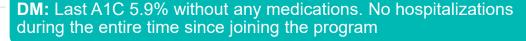
# Case:65-year-old Black obese male with T2DM, HTN, CKD, hyperlipidemia, sleep apnea, and gout



## Value of Sustainable Lifestyle Changes



#### One year after LEADR



HTN: Discontinued ½ meds and dose reduced on ARB.

**HPL:** Decrease in lipid medications

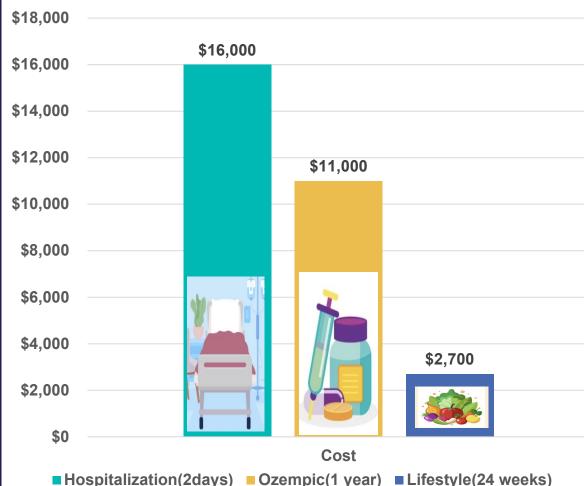
**OSA:** Sleeps well for 6-8 hrs. No snoring /sleep apnea.

Gout: Uric acid improved from 6.5 to 4.4

Obesity: 20 lbs (10%)weight loss, 7% without meds. Body fat dropped from 27% to 22%

Clothing size: Coat  $48R\rightarrow42R$ , Shirt size XXL $\rightarrow$ L, Pant size  $40\rightarrow36$ 

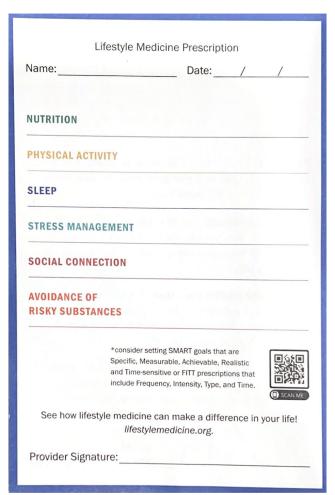
Enjoys playing pickleball daily and spends his time with family and friends.

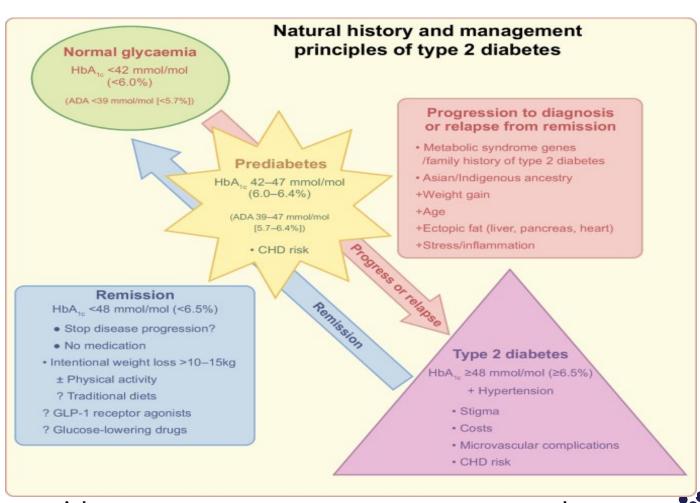




■ Lifestyle(24 weeks)

# Results of LIFESTYLE Rx depend on dose, intensity, frequency, length, and duration of diabetes





Need supportive team with constant engagement to prevent relapse

## Thank you!





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# THANK YOU

Learn more about lifestyle medicine at lifestylemedicine.org

Learn more about ACLM's Diabetes Remission Project at lifestylemedicine.org/type-2-diabetes-remission/

