Empowering Persons with Diabetes (PWD): Putting Diabetes Self-Management Consensus Principles to Work

Recorded to replace AAPA meeting

Speaker Disclosures:

- Joan K. Bardsley:
  - Consultant Joslin Clinic Boston, MA, NCBDE (NCBDCES) Testing Committees.
  - Past: Past chair, NCBDE, Past President ADCES, Primed lectures
- Ellen D. Mandel:
  - Nothing to disclose

Joan K. Bardsley, MBA, RN, CDCES, FADCES

Ellen D. Mandel, DMH, MPA, MS, PA-C, RDN, CDCES

Learning Objectives

- Describe current issues effecting PAs' management of persons with diabetes
- List common interfering issues with access to and delivery of diabetes self management education & support (DSMES)
- Summarize the evidence-based medicine (EBM) practices supporting the benefits of DSMES
- Describe the 4 critical times for referral to DSMES services
- Describe currently available Medicare and insurer funding for DSMES

Pre-Test Question #1

Your primary care practice cares for a large number of people with diabetes (PWD). You have availability of a diabetes self-management education and support (DSMES) service and wonder which times are considered critical times to refer for this service. Which of the following are these times?

1. At diagnosis
2. Annually
3. When complications arise
4. When transitions of care take place
5. All of the above situations

Pre-Test Question #2

You have just referred a person with type 2 diabetes to the diabetes self-management education and support (DSMES) service. Which of the following outcomes would you expect based on participation in this program?

1. Increase in diabetes-related costs
2. Increased patient confusion about their diabetes
3. Improved quality of life & coping
4. No appreciable change in HbA1c

Pre-Test Question #3

You are caring for a person with diabetes and want to refer to the DSMES service. What attributes would make this program more successful?

1. Short but intense course
2. Behavioral support
3. Independent of medical care
4. Didactic delivery
5. Carried out by a physician

A Snapshot of Diabetes in the United States

Diabetes, Cardiovascular Disease, and Death: PWD

- Heart disease rates among PWD adults are 2 to 4 times higher
- Cardiovascular death rates are increased by 50% in PWD
- Stroke risk is increased: RR ranging from 1.8 - 6 fold
- The event rate for CHF is higher than any other complications after ACS
- Men and women with diabetes over ≥50 years of age respectively live an average of 7.5 and 8.2 years less than those without diabetes

References: 1. Go AS, Mozaffarian D, Roger VL, et al.; on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2014;129:e28–e292. 2. Franco OH, Steyerberg EW, Hu FB, Mackenbach J, Nusselder W. Arch Intern Med. 2007;167:1145–1151; 3. Malmberg K et al. *Circulation*. 2000;102:1014-1019.

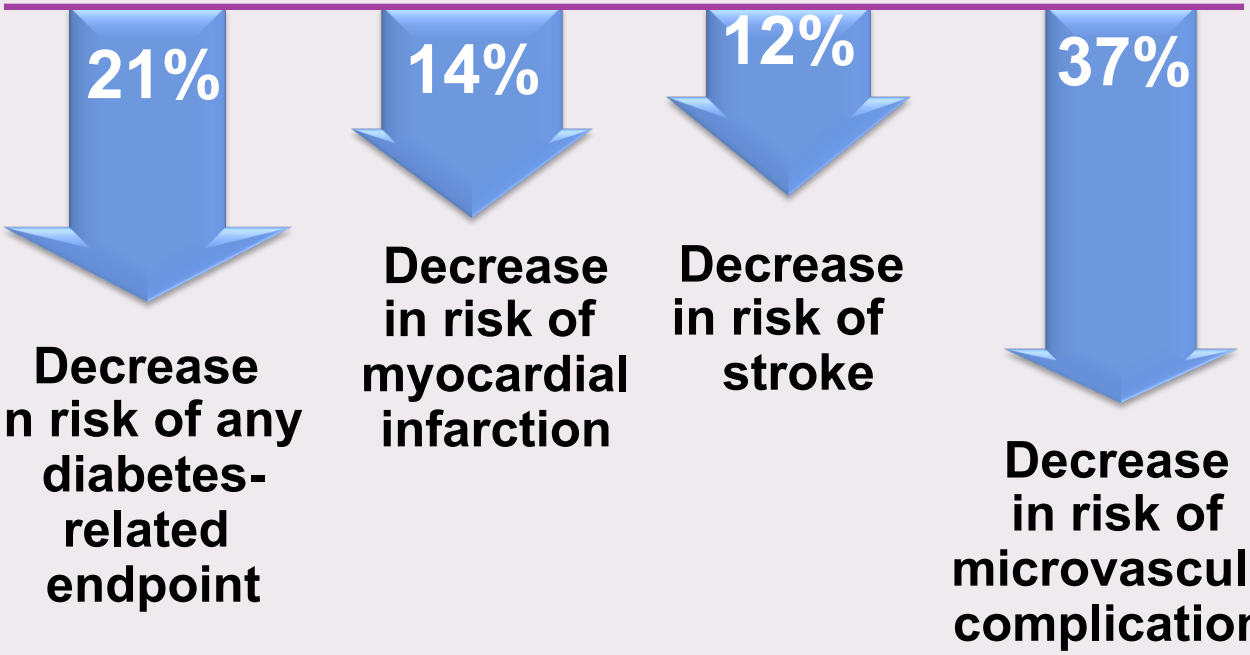
Microvascular Complications: PWD

- In 2005-2008, of adults ≥40 years of age with diabetes, 4.2 million (28.5%) had diabetic retinopathy
  - 655,000 (4.4%) had advanced diabetic retinopathy
- In 2010, about 73,000 non-traumatic lower-limb amputations were performed in adults ≥20 years of age with diabetes
- About 60% of non-traumatic lower-limb amputations among adults ≥ 20 years of age are in people with diabetes
- Diabetes was listed as the primary cause of kidney failure in 44% of all new cases in 2011

References: Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services; 2014.

Evidence for Benefit of Glycemic Control

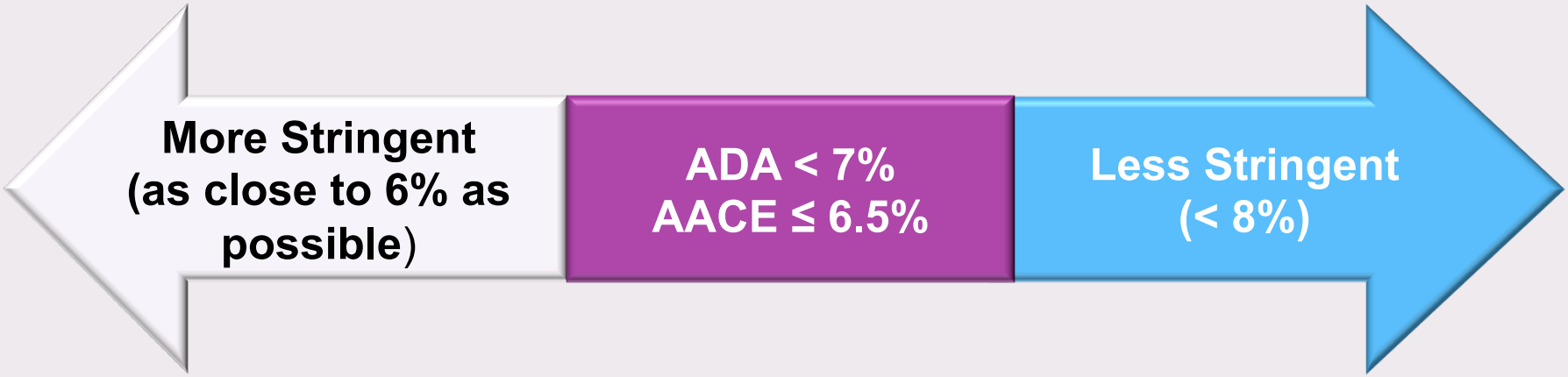
Every 1% Decrease in HbA1c Resulted in…



*According to the United Kingdom Prospective Diabetes Study (UKPDS)
***The study population was 82% White, 10% Asian Indian, and 8% Afro-Caribbean**.

References: Stratton IM, et al. *BMJ.* 2000;321:405-412.

HbA1c Goal is Not a "One-size-fits-all"



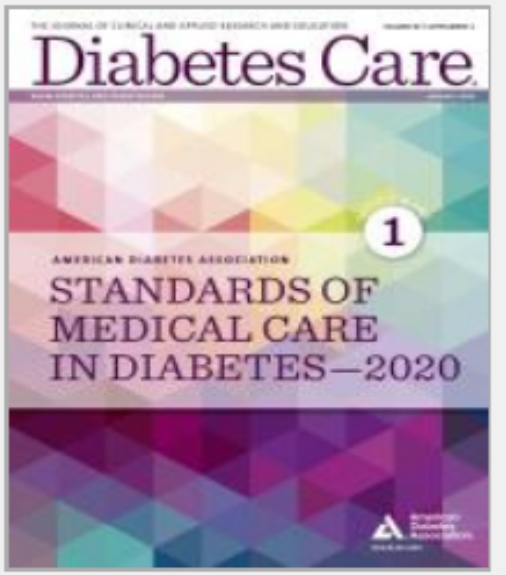
- Short diabetes duration
- Long life expectancy
- No cardiovascular disease

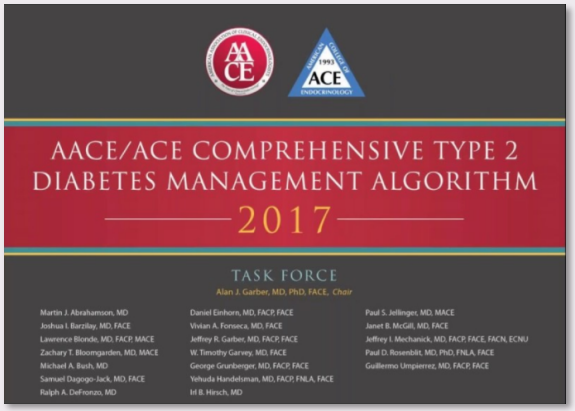
ADA = American Diabetes Association
AACE = American Association of Clinical Endocrinologists

- Long diabetes duration
- Short life expectancy
- Complications, comorbidities
- History of severe hypoglycemia

References: ADA. *Diabetes Care*. 2017; 40(1):S1-S135. Garber MJ. *Endocr Pract.* 2017. 207-238.

Resources for Diabetes Education



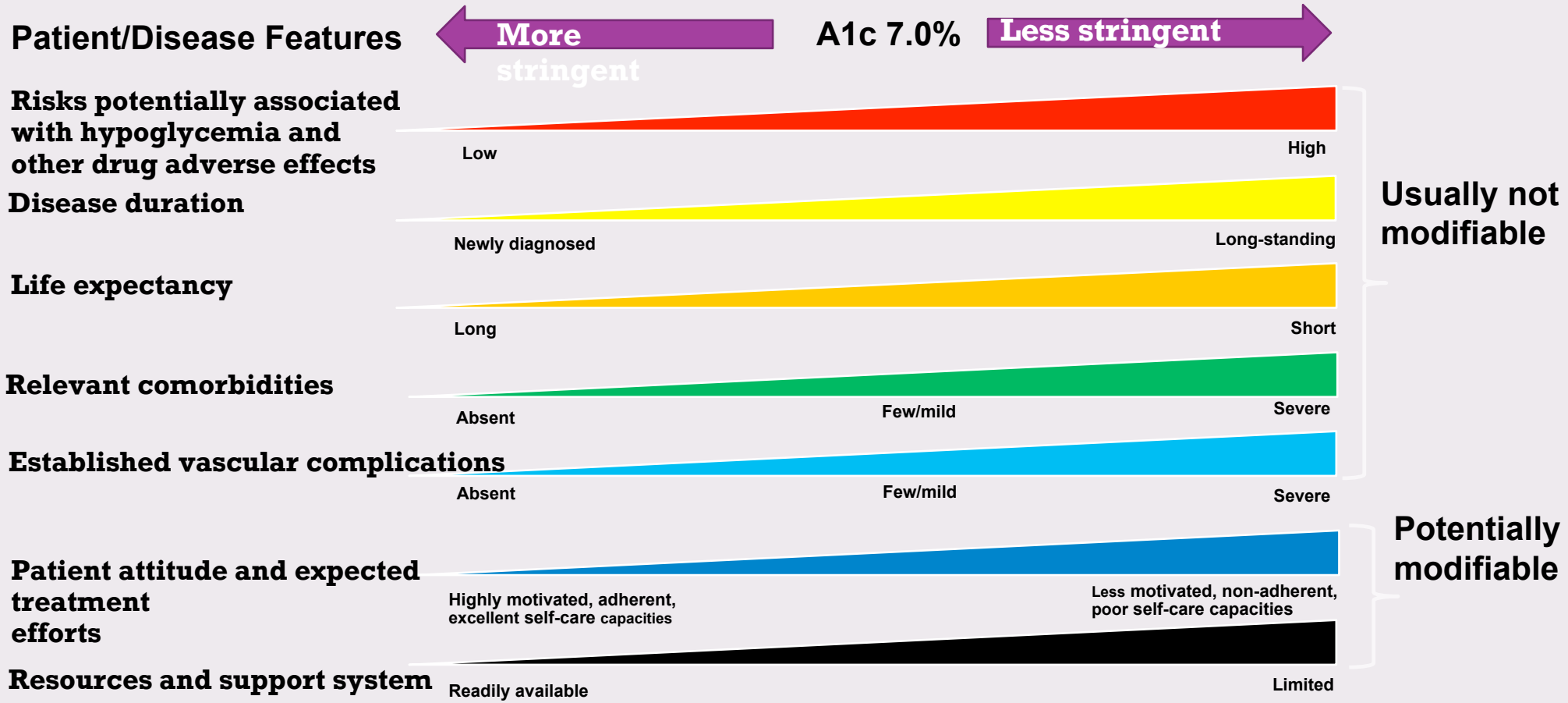


Diabetes Self-management Education and Support in Type 2 Diabetes

A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics

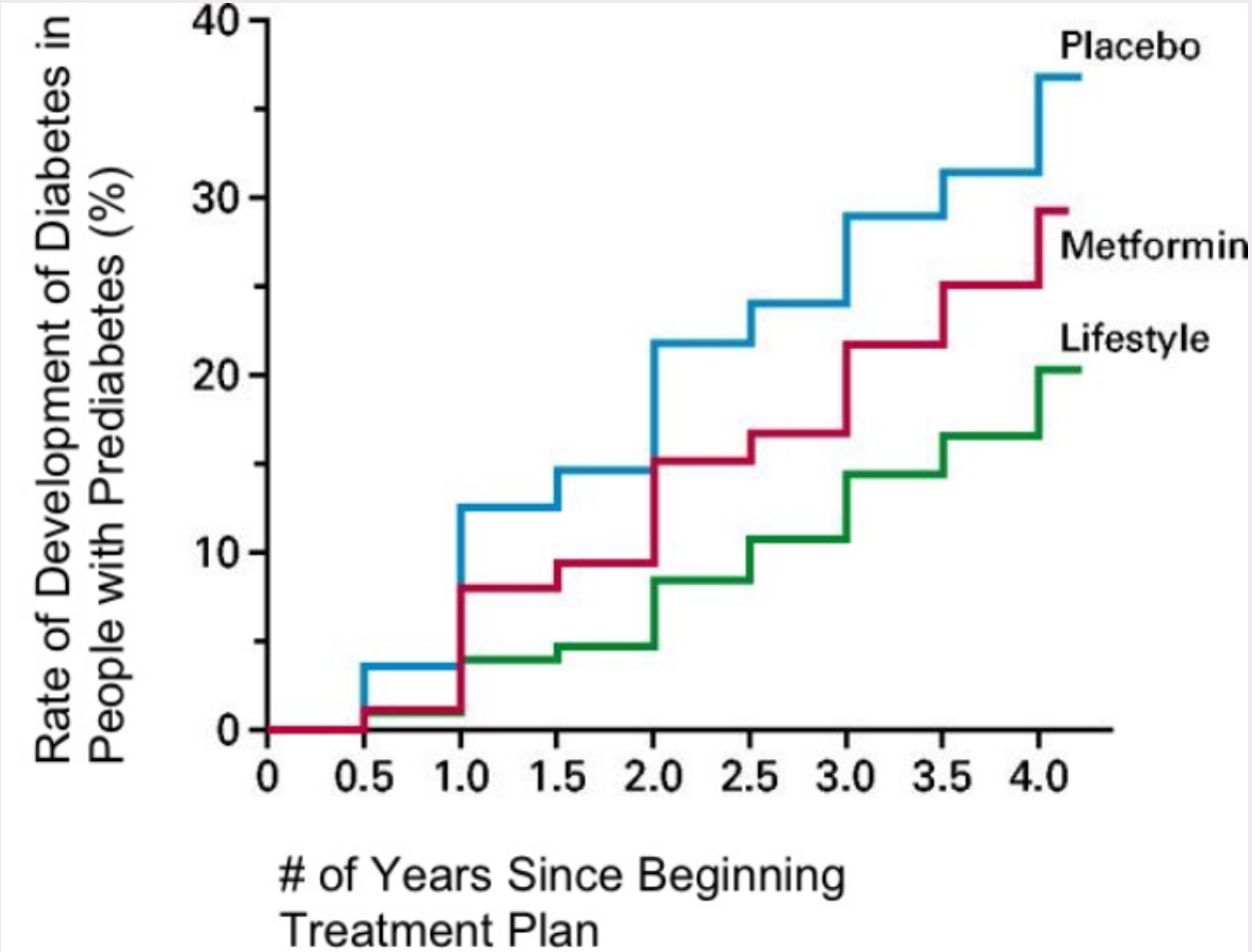
EAL
Evidence Analysis Library
eat right. Academy of Nutrition and Dietetics

ADA: Approach to the Management of Hyperglycemia



References: ADA. *Diabetes Care*. 2017; 40(1):S1-S135

Incidence of Diabetes Among Those with Prediabetes



Risk reduction

31% by metformin

58% by lifestyle

Lowest by Placebo

References: The DPP Research Group, NEJM 346:393-403, 2002

ADA & AACE

Modifiable Variables Impact Treatment and Glycemic Control of T2DM

Three Modifiable Variables Accounted for 48% Variance in Diabetes Control

- Initial HbA1c
- **Clinical inertia**
- Visit frequency and patient participation

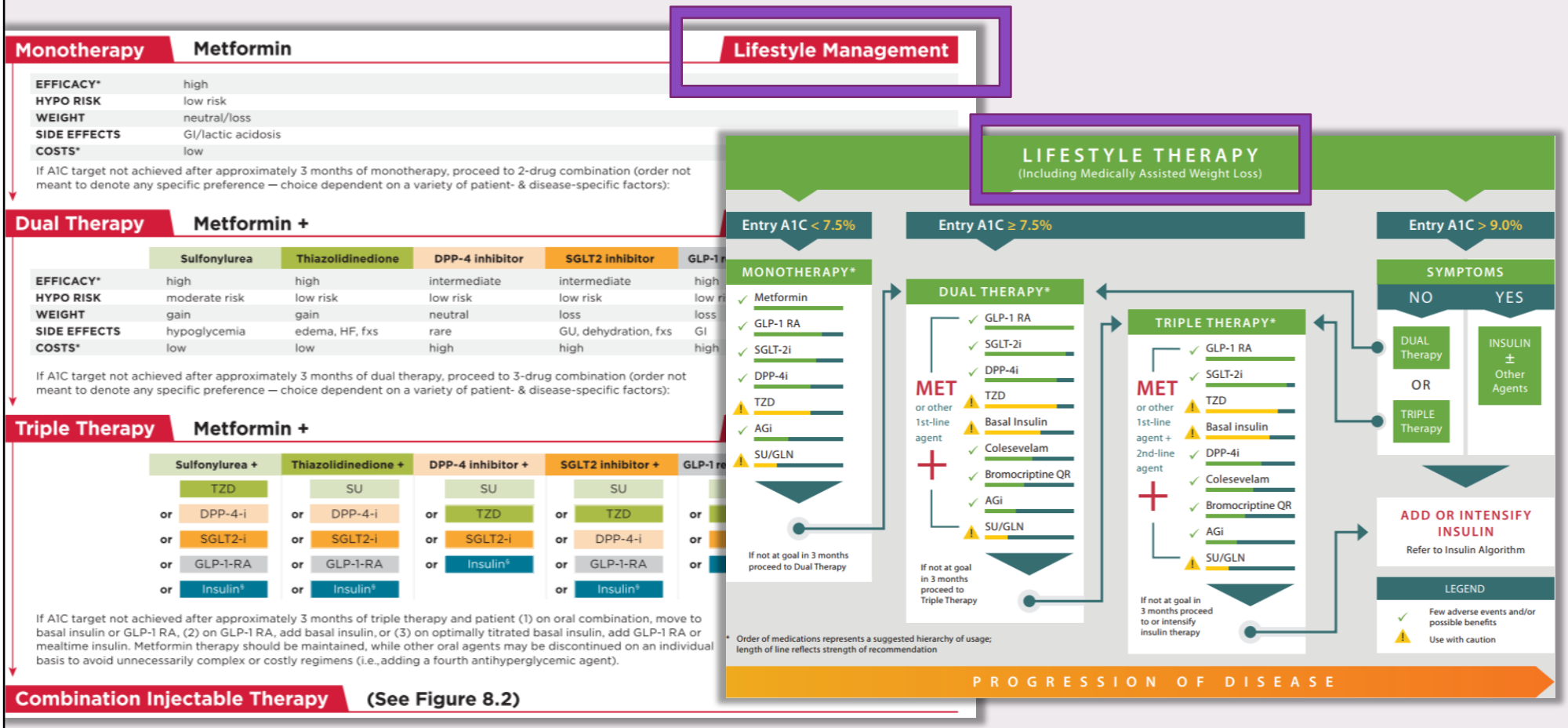
Greater attention to:

- early diagnosis and treatment
- ensuring regular healthcare visits
- overcoming therapeutic inertia

Could improve diabetes control and health equity

References: Egan B, et al. *Ethnicity & Disease* 2012 Winter:22(1):29-37.

Getting started with DSMES…..



References: ADA. *Diabetes Care*. 2017; 40(1):S1-S135. Garber MJ. *Endocr Pract.* 2017. 207-238.

Definitions

Diabetes Self-management Education and Support (DSMES)*
The process of facilitating the knowledge, skill, and ability necessary for diabetes self-care and providing support required for implementing and sustaining coping skills and behaviors needed to self-manage on an ongoing basis

Medical Nutrition Therapy (MNT)
Application of nutrition care process; includes individualized nutrition assessment, nutrition diagnosis, intervention and monitoring and evaluation; if not included in DSMES program, refer to RDN

* CMS/Medicare uses DSM**T** – Diabetes Self-Management **Training**

References: Haas L and Maryniuk MD et al. Diabetes Care 2016;39(Supp1):52-59

DSMES Benefit is Underutilized

5%

Of **Medicare** beneficiaries with newly diagnosed diabetes used DSMT services[1]

6.8%

Of individuals with newly diagnosed T2D with **private health** insurance received DSMES within 12 months of diagnosis[2]

References: 1. Strawbridge. Health Edu Behav. (2015); 2. Li. MMWR Morb Mortal Wkly Rep. (2014)

What Are the Barriers to DSMES?

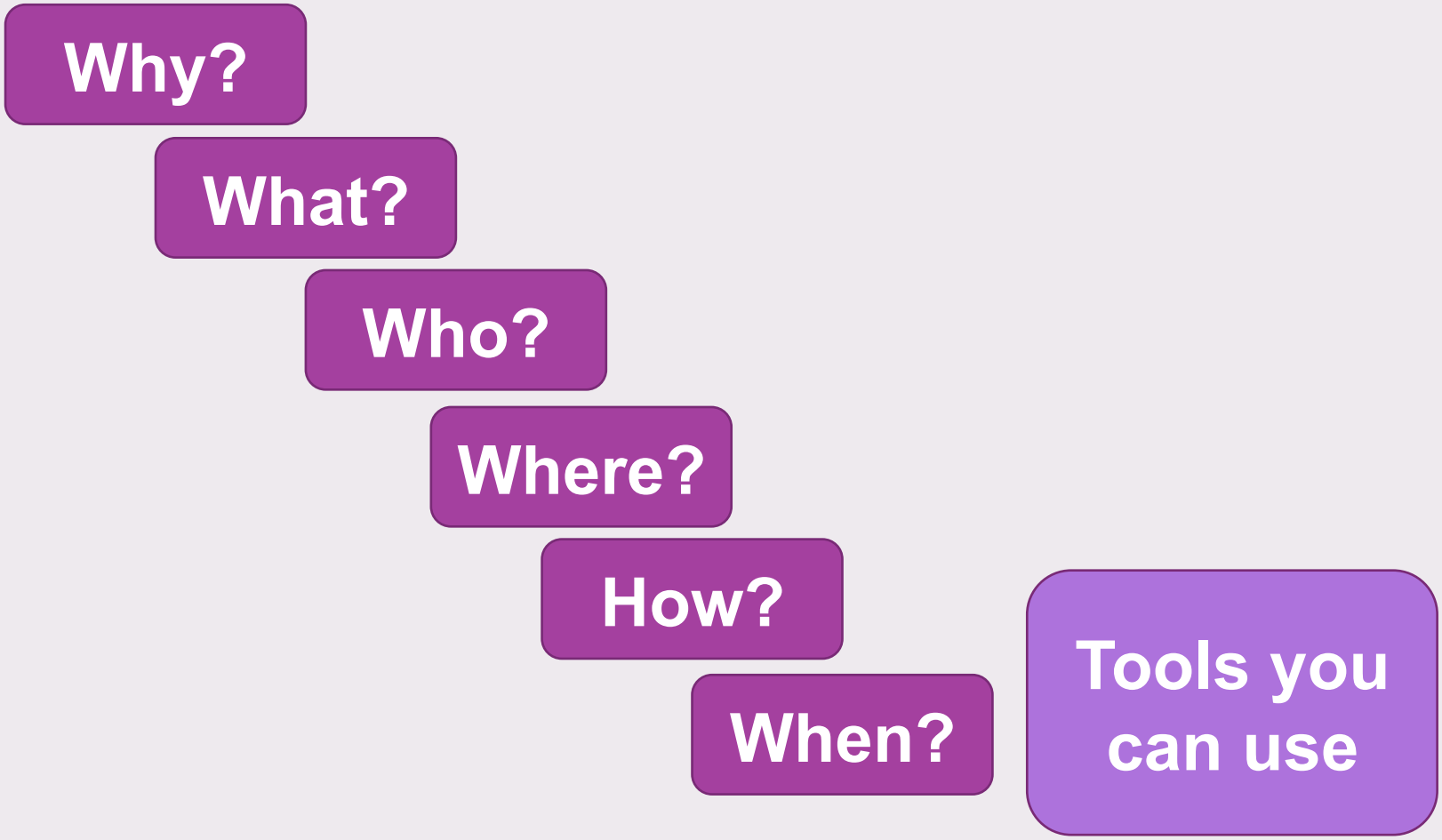
Person with Diabetes

- Readiness
- Other medical concerns
- Time
- Finances/cost
- Literacy/numeracy
- Culture/language
- Competing priorities
- Never told of the benefits or referred

Provider & System

- Providers not convinced of benefit
- Make assumptions – not needed
- Time
- Location / access
- Insurance /billing

Diabetes Self Management Education and Support



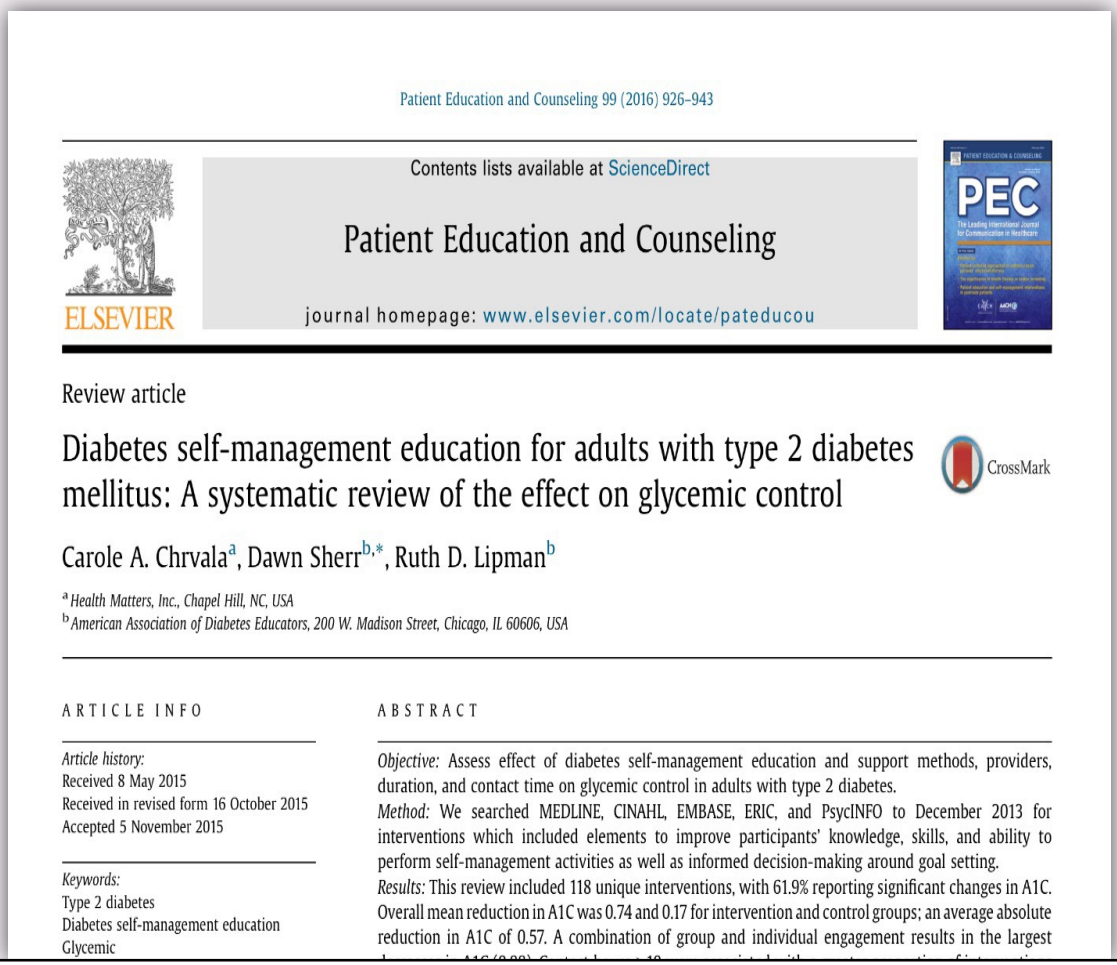
Why? Evidence for the Benefits of DSMES

Improves…	Knowledge and behavior
	Clinical outcomes (HbA1c, weight)
	Quality of life & healthy coping
	Cost
Improvements enhanced when…	DSMES is longer duration
	Follow-up support is given
	Is individualized (age, culturally appropriate, etc.)

Powers MA, Bardsley J, Cypress M, et al Diabetes Care 2015; 38:1372-1382.

Change in HbA1c by Mode of DSMES Delivery

Does DSMES improve HbA1c in T2D adults as compared with those who received usual care (and no DSMES)?



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Review article

Diabetes self-management education for adults with type 2 diabetes mellitus: A systematic review of the effect on glycemic control

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ABSTRACT

Objective: Assess effect of diabetes self-management education and support methods, providers, duration, and contact time on glycemic control in adults with type 2 diabetes.
Method: We searched MEDLINE, CINAHL, EMBASE, ERIC, and PsycINFO to December 2013 for interventions which included elements to improve participants' knowledge, skills, and ability to perform self-management activities as well as informed decision-making around goal setting.
Results: This review included 118 unique interventions, with 61.9% reporting significant changes in A1C. Overall mean reduction in A1C was 0.74 and 0.17 for intervention and control groups; an average absolute reduction in A1C of 0.57. A combination of group and individual engagement results in the largest

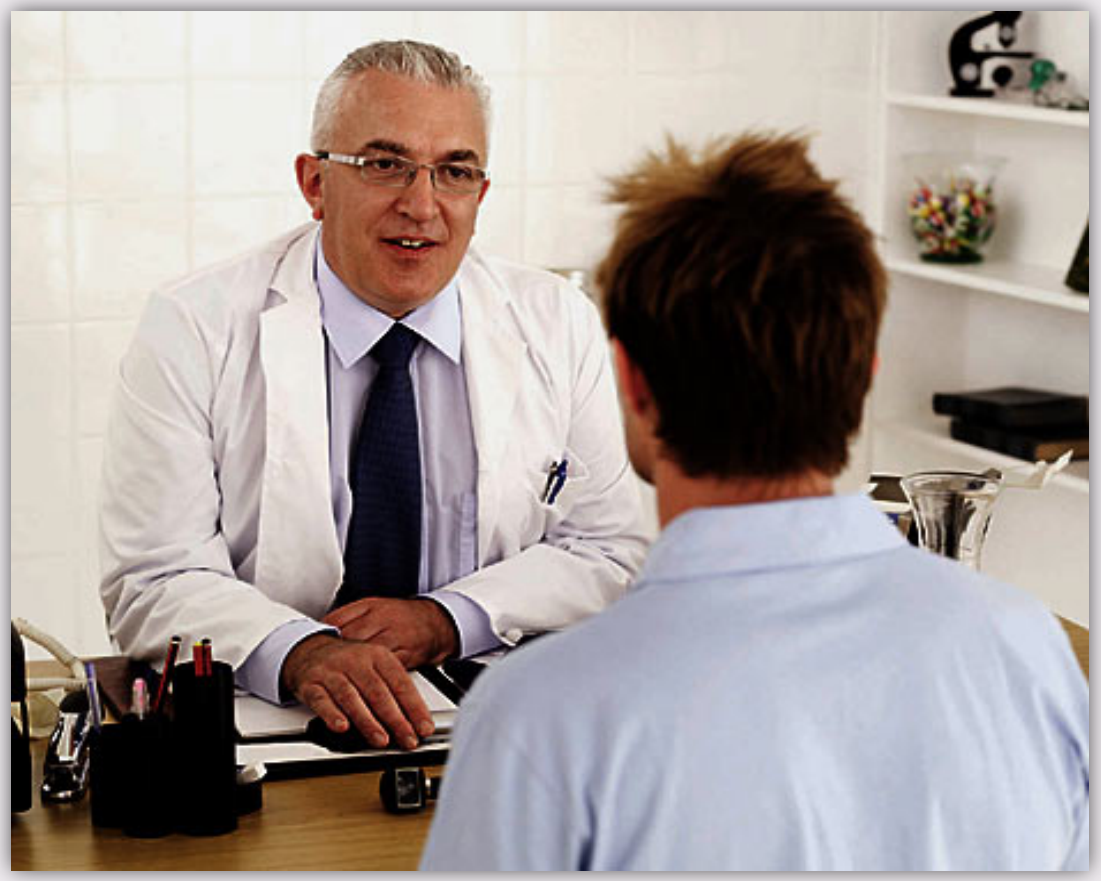
References: Chrvala et al. Pt Ed & Counselling 2016;99:926-943

Best Results from both Group and Individual

Mode	Number of interventions	Intervention (SD)	Control (SD)	Absolute difference in A1C with DSME added
All Models Together	*118*	*-0.74(0.63)*	*-0.17(0.5)*	*0.57*
Combination (individual and group)	**22**	**-1.0(0.6)**	**-0.22(0.62)**	**0.88**
Group	33	-0.62(0.46)	-0.10(0.42)	0.52
Individual	47	-0.78(0.63)	-0.28(0.46)	0.50
Remote	12	-0.50(0.67)	-0.17(0.46)	0.33

References: Chrvala et al. Pt Ed & Counselling 2016;99:926-943

If DSMES were a pill, would you prescribe it?



If DSMES was a pill, would you prescribe it?

Benefits of DSMES	
Efficacy	High
Hypo Risk	Low
Weight	Neutral / Loss
Side Effects	None
Costs	Low/Savings
Psychosocial benefits	High

Benefits of Metformin	
Efficacy	High
Hypo Risk	Low
Weight	Neutral / Loss
Side Effects	GI
Costs	Low
Psychosocial benefits	NA

All people with diabetes should participate in DSMES needed to facilitate the knowledge, decision-making and skills mastery necessary for diabetes self care **A**

An individualized MNT program is recommended for all people with diabetes as an effective component of the overall treatment plan **A**

References: Powers MA. ADA President Health Care and Education Address, ADA June 2016; Powers MA. If DSME were a pill. Diabetes Care 2016;39.:2101-2107

What? Standards Guide Diabetes Education

American Diabetes Association. Diabetes Care

2017 National Standards for Diabetes Self-Management Education and Support

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The "Standards":

- Define *quality* for education programs
  - -*who* can teach
  - -*what is taught*
  - -*what is evaluated*
- Model for *reimbursement*
- New emphasis on prevention / pre-diabetes
- More focus on *ongoing support*

References: Diabetes Care 2017 Oct; 40(10): 1409-1419.

What Is the Focus of Education?

ADCES Association of Diabetes Care & Education Specialists

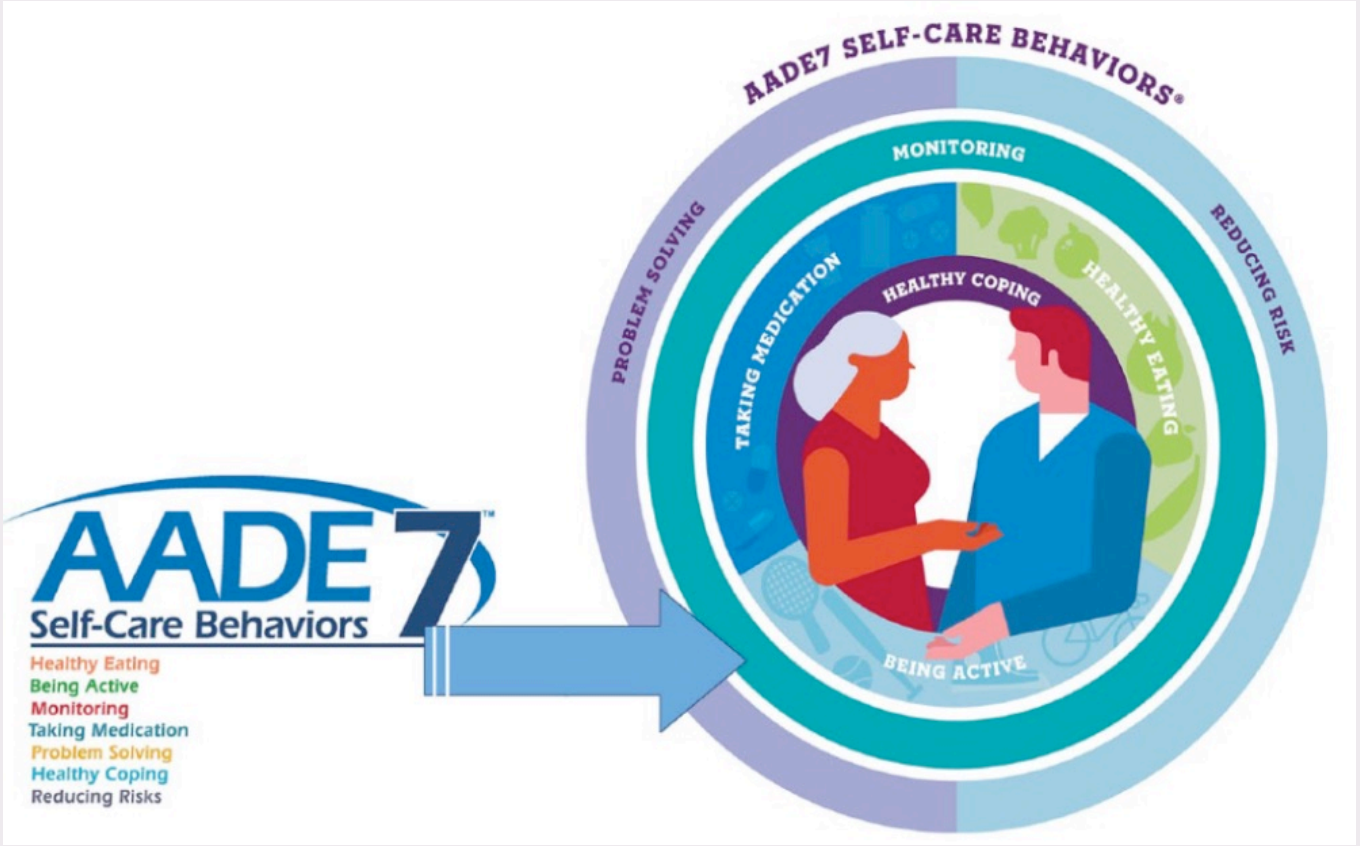
7 Self-Care Behaviors™

What it is Not.....

- One time
- Teaching facts
- Telling what to do
- Independent of medical care

What it is…..

- Ongoing
- Collaborative goal setting – between person with diabetes and provider
- Behavior change support / trouble shooting



References: AADE. Diabetes Educator 2020; 46(2):139-160

Who? Delivery of DSMES

- Medical care providers: MD/DO, NPs, **PAs**
- Diabetes educators (RN, RDN, Pharmacist, etc)
- Advanced certificates (CDCES, BC-ADM)
- Peer counselors; community health workers
- Care managers
- “Diabetes champions” – in medical care practices

Where? How do you find DSMES Services?

Individual care providers

- RDN: www.eatright.org
- Diabetes educator: www.diabeteseducator.org
- CDCES: www.ncbde.org

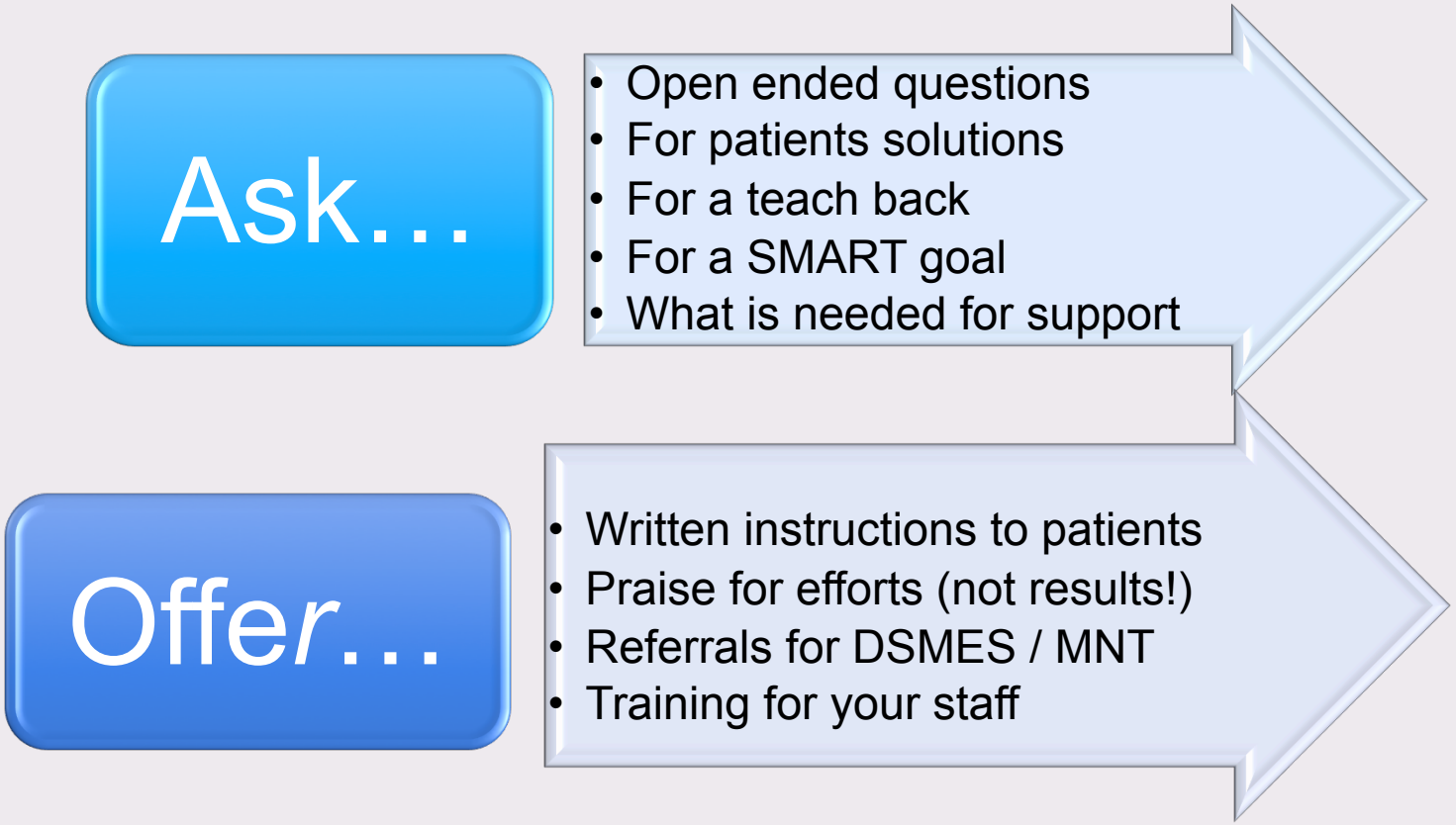
Recognized or accredited education programs

- ADA **Recognized** program: www.diabetes.org/erp
- ADCES **Accredited** program: www.diabeteseducator.org/deap

How? A Person-Centered Approach

- How is diabetes affecting your daily life and that of your family?
- What questions do you have?
- What is the hardest part right now about your diabetes, causing you the most concern or most worrisome to you about you diabetes?
- How can we best help you?
- What is one thing you are doing or can do to better manage your diabetes?

Tools You Can Use



Powers MA, Bardsley J, Cypress M, et al Diabetes Care 2015; 38:1372-1382

American Diabetes Association

ADCES Association of Diabetes Care & Education Specialists

eat right. Academy of Nutrition and Dietetics

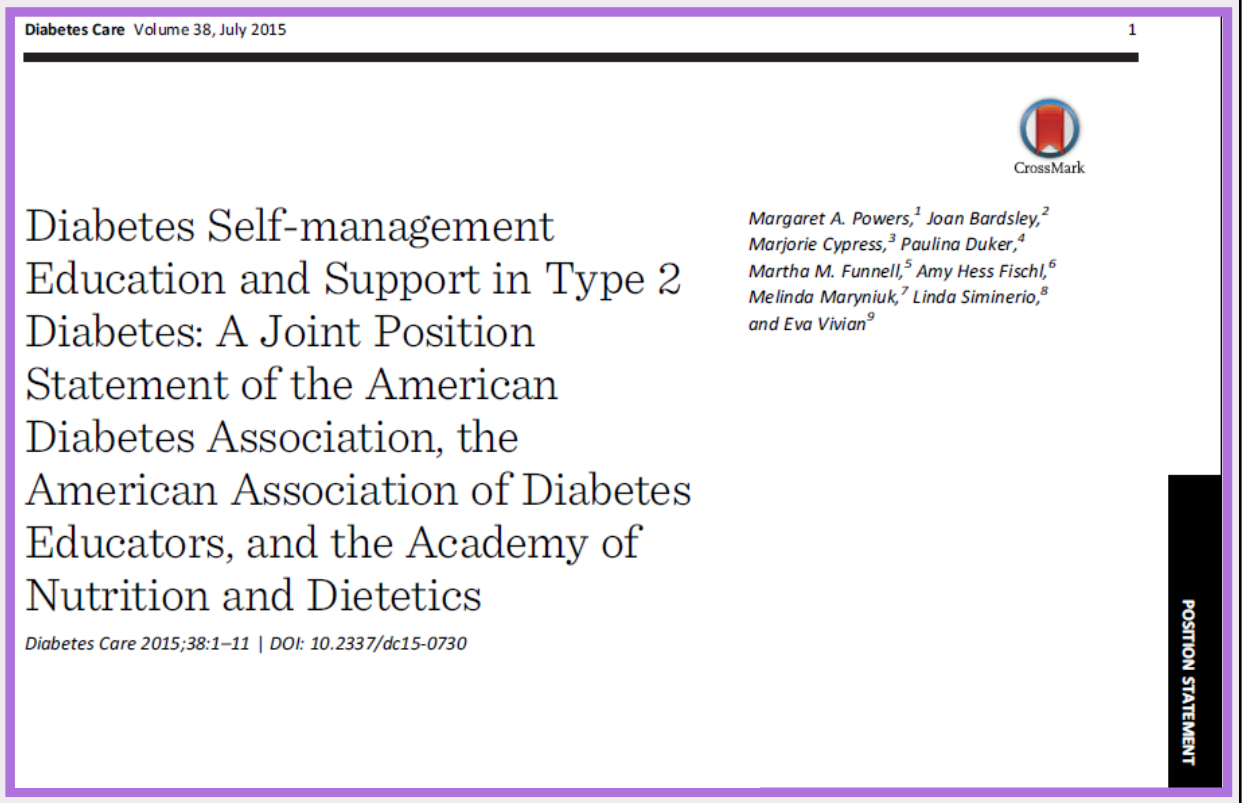
June 1, 2020 online paper will include:

AAPA

AAFP

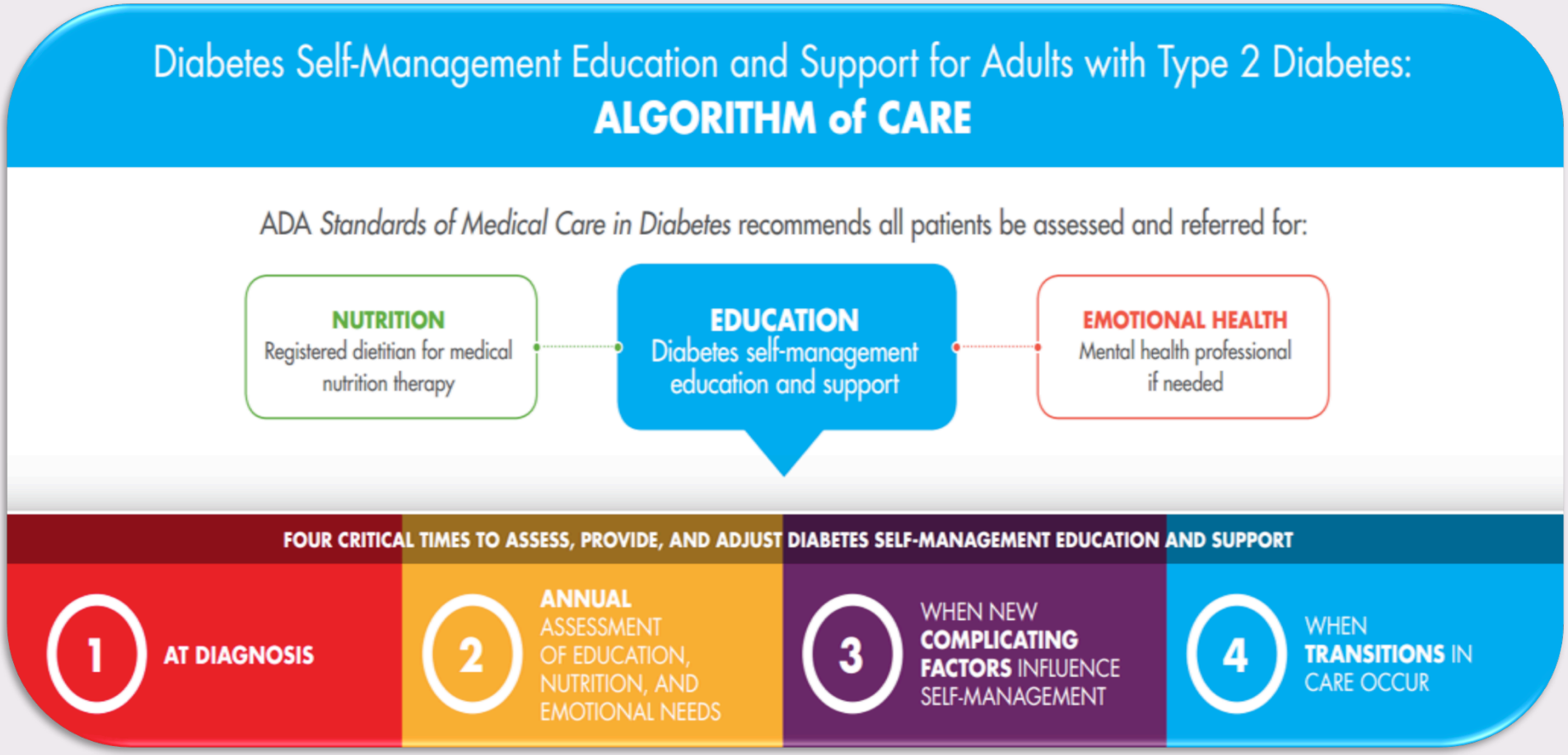
APhA

AANP American Association of NURSE PRACTITIONERS



References: Powers MA et al. DSME/S Position Statement. *Diabetes Care, The Diabetes Educator, Journal of Academy of Nutrition and Dietetics:* July 2015

When? 4 Critical Times to Provide DSMES



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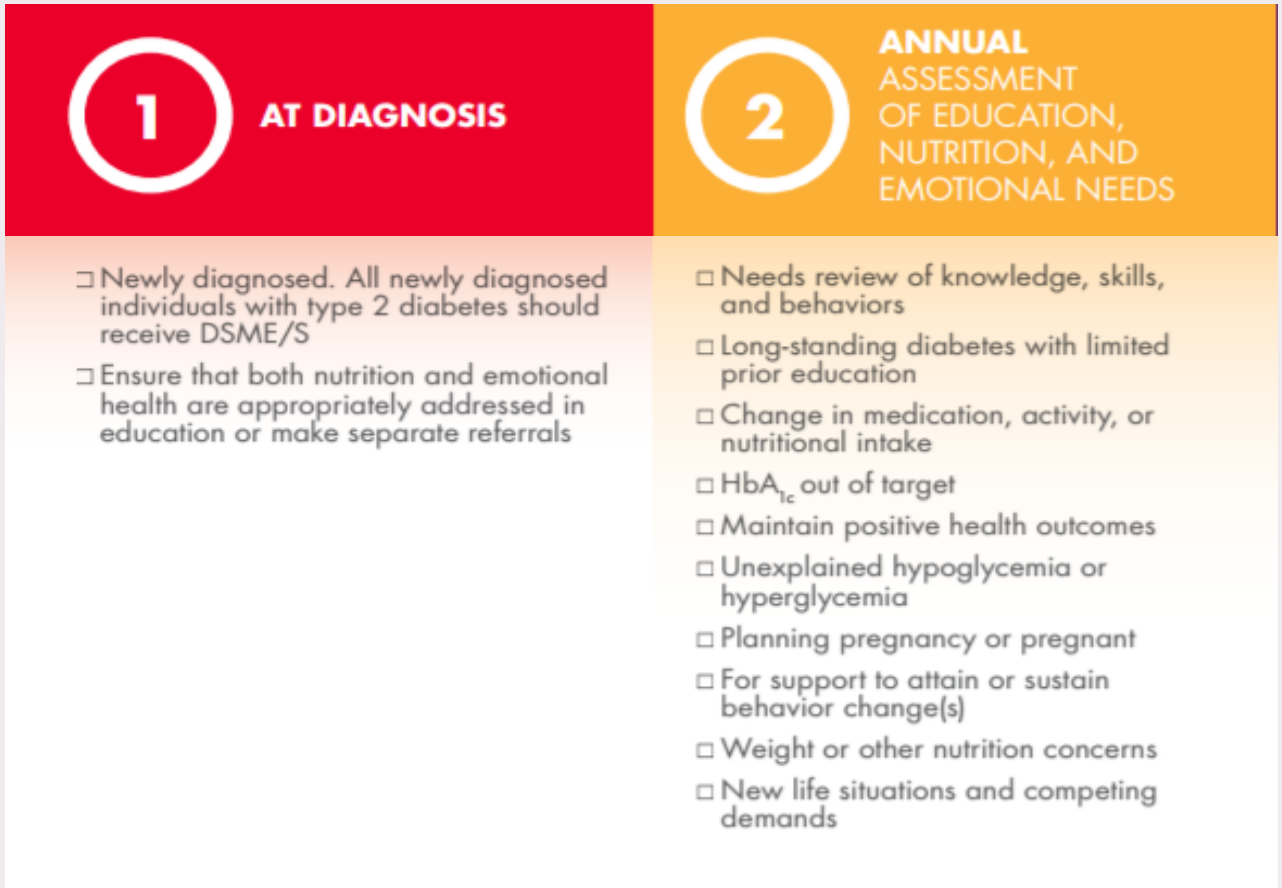
DSMES Algorithm of Care



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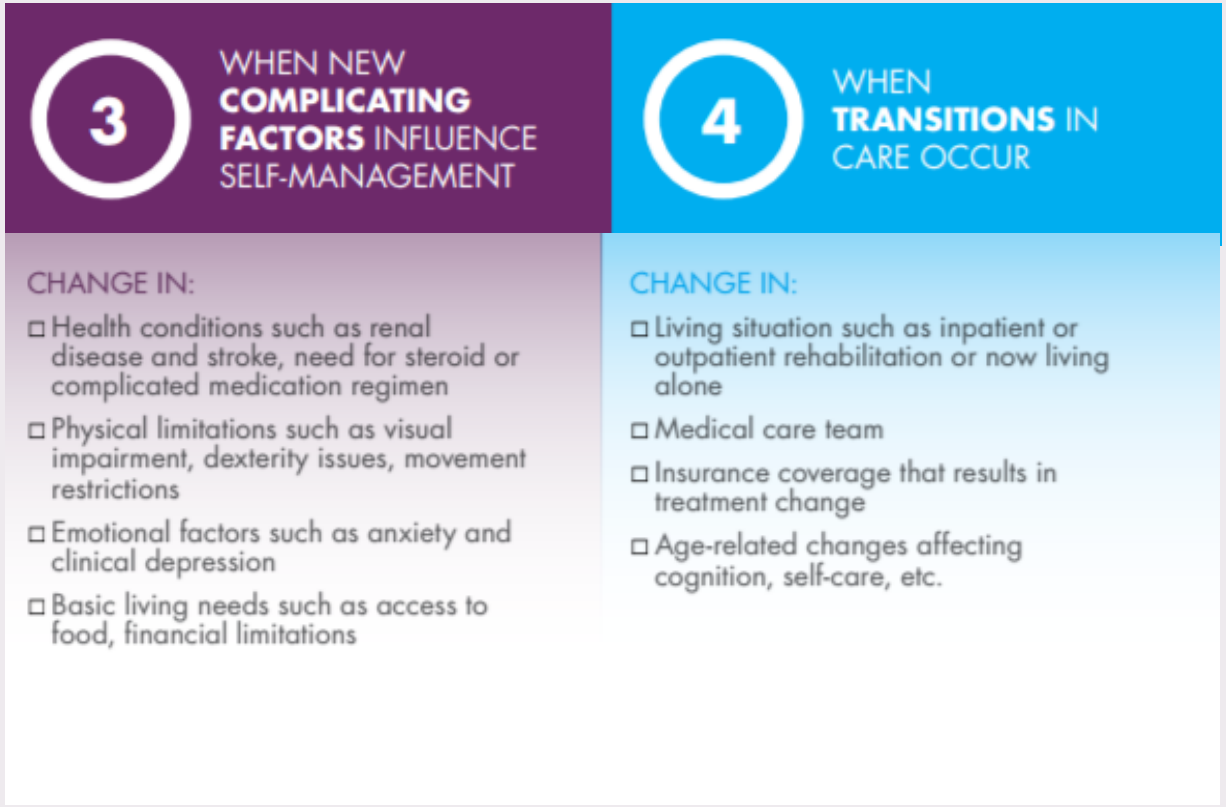

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DSMES (DSMNT) Reimbursement

- Education by “Recognized” or “Accredited” program
- **Written referral** by healthcare provider
- Medicare covers 10 hours of initial education in first year
  - 2 hours annually after that
- DSM*TRAINING* & MNT cannot be billed on same date
- **Medicare reimbursement includes prediabetes and telemonitoring services**

DSMES Reimbursement

- **G0108 (individual)**
  - Per 30 minutes
  - $54.70* (increased from $23.45)
- **G0109 (group)**
  - 2+ patients
  - Per 30 minutes/per patient
  - $18.69* (increased from $12.99)

*National Average rates. You can find state specific fee schedules at the **CMS website at: http://www.cms.gov/apps/physician-fee-schedule/overview.aspx**

Referral Form for DSMT / MNT

Diabetes Services Order Form (DSMT and MNT Services)

*Indicates required information for Medicare order

PATIENT INFORMATION

Patient's Last Name First Name Middle

Date of Birth ___/___/___ Medicare HICN # _____ Gender ___ Male ___ Female

Address City State Zip Code

Home Phone Work Phone Other Contact Phone

Diabetes self-management training (DSMT) and medical nutrition therapy (MNT) are individual and complementary services to improve diabetes care. For Medicare beneficiaries, both services can be ordered in the same year. Research indicates MNT combined with DSMT improves outcomes.

DIABETES SELF-MANAGEMENT TRAINING (DSMT)

Medicare: 10 hours initial DSMT in 12-month period, plus 2 hours follow-up DSMT annually

**Check type of training services and number of hours requested:*

- ☐ Initial group DSMT: ☐ 10 hours or ___ no. hrs. requested
- ☐ Follow-up DSMT: ☐ 2 hours or ___ no. hrs. requested
- ☐ Additional insulin training: ___ no. hrs. requested

*** Patients with special needs requiring individual DSMT**

Check all special needs that apply:

- ☐ Vision ☐ Hearing ☐ Physical ☐ Cognitive Impairment
- ☐ Language Limitations ☐ Other _____

*** DSMT Content**

- ☐ All ten content areas, as appropriate
- ☐ Monitoring diabetes
- ☐ Psychological adjustment
- ☐ Nutritional management
- ☐ Medications
- ☐ Preconception/pregnancy management or gestational diabetes management
- ☐ Diabetes as disease process
- ☐ Physical activity
- ☐ Goal setting, problem solving
- ☐ Prevent, detect and treat acute complications
- ☐ Prevent, detect and treat chronic complications

MEDICAL NUTRITION THERAPY (MNT)

Medicare: 3 hours initial MNT in the first calendar year, plus two hours follow-up MNT annually. Additional MNT hours available for change in medical condition, treatment and/or diagnosis.

** Check the type of MNT and/or number of additional hours requested:*

- ☐ Initial MNT ☐ Annual follow-up MNT
- ☐ Additional MNT services in the same calendar year, per RD recommendations ___ no. additional hrs. requested

Please specify change in medical condition, treatment and/or diagnosis:

_____

CURRENT DIABETES MEDICATIONS

Specify type, dose and frequency

Oral:

_____

Insulin:

https://www.diabeteseducator.org/practice/provider-resources/make-a-referral

Resources

Printed

- American Diabetes Association
  - www.diabetes.org
- Learning About Diabetes
  - www.learningaboutdiabetes.org

Nutrition

- www.calorieking.com

Apps / social media

- www.diabeticconnect.com
- www.diabeteswhattoknow.com

Resources for Training

- www.diabeteseducator.org
- www.peersforprogress.org
- https://cme.aapa.org/

Role of PAs in Diabetes Education

- **Identify** educators, dietitians, and other resources within the community
- **Mentor** – help train office staff (at all levels!)
- **Collaborate** and communicate – make sure educators (and patients) know goals
- **Refer** – encourage patients to keep education visits

Summary of Key Messages

- Utilize Guideline / Recommendations to help inform appropriate selection of therapies in light of disease burden & comorbidities
- Diabetes is a self-management disease
  - The person with diabetes “in charge” 24/7
  - Diabetes education is effective
- Everyone with diabetes should receive education
  - 7 key areas for behavior change
  - Education can take up to 10 hours a year – or more!
  - Continuous reassessment and ongoing support is essential
- Tailor education messages to meet needs
  - Consider literacy
- Locate resources to help!

"Education is the most powerful weapon which you can use to change the world."

Nelson Mandela

"Each patient carries his own doctor inside him. They come to us knowing that truth. We are at our best when we give the doctor who resides in each patient, a chance to work."

Albert Schweitzer, MD

Post-Test Question #1

Your primary care practice cares for a large number of people with diabetes (PWD). You have availability of a diabetes self-management education and support (DSMES) service and wonder which times are considered critical times to refer for this service. Which of the following are these times?

1. At diagnosis
2. Annually
3. When complications arise
4. When transitions of care take place
5. **All of the above situations**

Post-Test Question #2

You have just referred a person with type 2 diabetes for diabetes self-management education and support (DSMES). Which of the following outcomes would you expect based on participation in this program?

1. Increase in diabetes-related costs
2. Increased patient confusion about their diabetes
3. **Improved quality of life & coping**
4. No appreciable change in HbA1c

Post-Test Question #3

You are caring for a person with diabetes and want to refer for DSMES services. What attributes would make this program more successful?

1. Short but intense course
2. **Behavioral support**
3. Independent of medical care
4. Didactic delivery
5. Carried out by a physician

References

- Powers MA et al. Joint Position Paper: Diabetes self-management education and support for type 2 diabetes. 2015. DOI: 10.1177/0145721715588904. Anticipate using the revised paper that will be published in 2019/2020 (in advance of AAPA meeting).
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- Diabetes Education Accreditation Program: https://www.diabeteseducator.org/practice/diabetes-education- accreditation-program-(deap). Accessed 20190704

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