

Diabetes, Cardiovascular Disease, and Death

- ▶ Diabetes is the 7th leading cause of death listed on US death certificates.
- ▶ Cardiovascular disease (CVD) is the leading cause of death among people with diabetes—about 68% (2 of 3 patients) die of heart disease or stroke.
- ▶ Overall risk for death among people with diabetes is about twice that of people without diabetes.

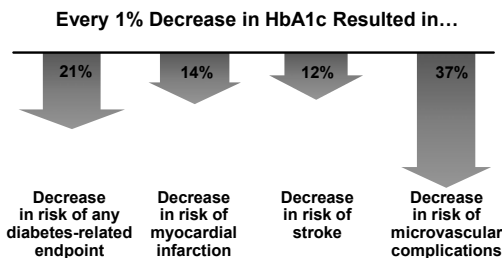
<http://ndep.nih.gov/diabetes-facts/index.aspx#linkedtodisabetes>. Accessed October 9, 2011.

Microvascular Complications: Key Statistics

- ▶ 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.

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



*According to the United Kingdom Prospective Diabetes Study (UKPDS) 35.
*The study population was 82% White, 10% Asian Indian, and 8% Afro-Caribbean.

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

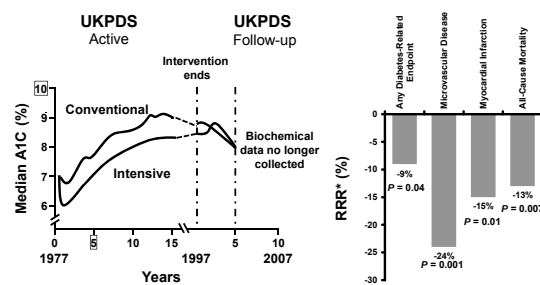
Impact of Intensive Therapy for Diabetes Mellitus: Summary of Major Clinical Trials

Study	Microvascular	CVD	Mortality
UKPDS 33 (7.0 vs. 7.9%)	↓	↔	↓
DCCT / EDIC* (7.2 vs. 9.1%)	↓	↔	↓
ACCORD (6.4% vs. 7.5%)	↓	↔	↑
ADVANCE (6.3% vs. 7.0%)	↓	↔	↔
VADT (6.9% vs. 8.4%)	↓	↔	↔

UKPDS = UK Prospective Diabetes Study; DCCT/EDIC = Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications; ACCORD = Action to Control Cardiovascular Risk in Diabetes; ADVANCE = Action in Diabetes and Vascular Disease; VADT = Veterans Affairs Diabetes Trial.
Bergental RM, et al. *Am J Med*. 2010;123:374e9-e18. UK Prospective Diabetes Study (UKPDS) Group. *Lancet*. 1998;352:854-865. Holman RR, et al. *N Engl J Med*. 2008;358(15):1577-1589. DCCT Research Group. *N Engl J Med*. 1993;329:977-986. Nathan DM, et al. *N Engl J Med*. 2005;353:2643-2653. Gerstein HC, et al. *N Engl J Med*. 2008;358:2545-2559. Patel A, et al. *N Engl J Med*. 2008;358:2560-2572. Duckworth W, et al. *N Engl J Med*. 2009;360:129-139. Hayward RA, et al. *N Engl J Med*. 2015;372:2197-2206.

■ Initial trial
□ Long-term follow-up

UKPDS-T2DM: Long-term Follow-up and "Legacy Effect"



* Relative Risk Reduction for Intensive Therapy UKPDS, United Kingdom Prospective Diabetes Study

Bisley CJ, et al. *Br J Diabetes Vasc Dis*. 2008;8(2):2-247. Holman RR, et al. *N Engl J Med*. 2008;358:1577-1589.

Diagnostic Measures of Hyperglycemia

Tests	"Prediabetes"	Diabetes
Fasting plasma glucose (mg/dL)*	100-125 Impaired fasting glucose	≥ 126
Two-hr glucose during OGTT (mg/dL)*	140-199 Impaired glucose tolerance	≥ 200
HbA1c (%)*	5.7-6.4 High risk	≥ 6.5
Random plasma glucose (mg/dL) in patient with classic symptoms of hyperglycemia	NA	≥ 200

*Should be confirmed by repeat testing on a separate day
OGTT = oral glucose tolerance test

ADA. *Diabetes Care*. 2016; 39(1):S14-S80.

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



- ▶ Short diabetes duration
- ▶ Long life expectancy
- ▶ No cardiovascular disease
- ▶ Long diabetes duration
- ▶ Short life expectancy
- ▶ Complications, comorbidities
- ▶ History of severe hypoglycemia

ADA. Diabetes Care. 2016;39(1):S1-S11.
Garber MJ. Endocr Pract. 2016;Jan;22(1):84-113

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

Patient Case: George

- ▶ 58 y/o African-American male presents for 6 month follow-up.
 - ▶ PMHx: T2DM x 2 yrs / Dyslipidemia x 3 yrs, / HTN x 3 yrs
 - ▶ CC: Recent weight gain and "bouts of feeling dizzy".
- ▶ Currently Medications:
 - ▶ metformin 1000 mg BID
 - ▶ glyburide 5 mg BID
 - ▶ simvastatin 40 mg daily
 - ▶ losartan 50 mg daily.
- ▶ Patient claims to be "mostly" adherent to medication therapy but noticed he continues to gain weight despite his efforts.
- ▶ Family Hx: Mother died of heart failure at 59. Father diagnosed with CAD at age 68 w/ CABG at 78. Died at age 81 of CHF

Clinical Measures: George

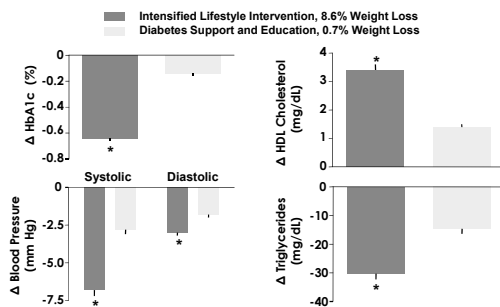
- ▶ Wt: 225 lbs Ht: 70 in. BMI: 32.3 kg/m² Waist circ: 40 in.
- ▶ BP: 146/92 mm Hg (bilaterally) HR: 78 bpm
- ▶ HbA1c: 7.3% Random Glucose: 187 mg/dL
- ▶ eGFR: 52 mL/min/1.73 m²
- ▶ Creatinine: 1.6 mg/dL
- ▶ Total Cholesterol: 186 mg/dL
- ▶ HDL-C: 41 mg/dL
- ▶ TG: 225 mg/dL
- ▶ LDL-C: 130 mg/dL
- ▶ hsCRP: 2.0 mg/dL

Considerations for Selecting Therapies

- ▶ Current HbA1c and magnitude of reduction needed to reach goal
- ▶ Potential effects on body weight and BMI
- ▶ Potential for hypoglycemia – age, lack of awareness of hypoglycemia, disordered eating habits
- ▶ Effects on CVD risk factors – blood pressure and blood lipids
- ▶ Comorbidities – CAD, heart failure, CKD, liver dysfunction
- ▶ Patient factors – adherence to medications and lifestyle changes, preference for oral vs injected therapy, economic considerations

Inzucchi SE et al. Diabetes Care 2012; 35:1364-1379.

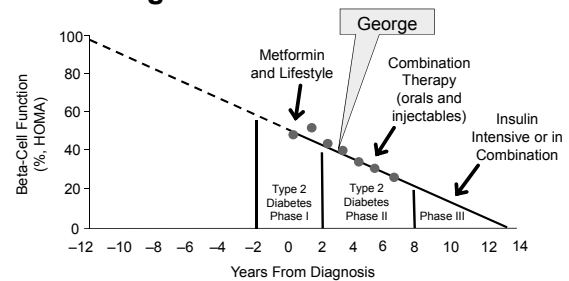
Weight Loss Reduces Cardiometabolic Risk Factors in Patients With Type 2 Diabetes



Randomized, controlled trial; n = 5145; Patients with type 2 diabetes, age >18 y; Mean ± SE
Intensified lifestyle intervention (n = 2496) vs. diabetes support and education (n = 2463) therapy; *P<0.001 between groups

Look AHEAD Research Group. Diabetes Care. 2007;30:1374-1383.

Advancing Therapies Within Stages of T2DM



Criteria for Advancing to the Next Stage?
HbA1c Level Not at Target

HOMA = homeostasis model assessment.
Based on data from UKPDS 16. Diabetes. 1995;4(11):1249-1258.

Symptoms of Hypoglycemia

- ▶ **Neurogenic (autonomic)**
 - Caused by falling glucose and increased epinephrine/norepinephrine
 - Symptoms typically identified by the patient as indicative of an episode
 - ▶ Trembling
 - ▶ Palpitations
 - ▶ Sweating
 - ▶ Anxiety
 - ▶ Hunger
 - ▶ Tingling
 - ▶ Dry mouth
 - ▶ Pupil dilation
- ▶ **Neuroglycopenic**
 - Caused by glucose deprivation in the CNS
 - Symptoms
 - ▶ Cognitive impairments
 - ▶ Difficulty concentrating/thinking
 - ▶ Confusion
 - ▶ Behavior changes
 - ▶ Difficulty speaking
 - ▶ Weakness/tiredness
 - ▶ Headache
 - ▶ Seizures
 - ▶ Loss of consciousness

CNS=central nervous system.
Briscoe VJ, Davis SN. *Clin Diabetes*. 2006;24(3):115-121;Cryer PE et al. *Diabetes Care*. 2003;26(8):1902-1912; Cryer PE. *Hypoglycemia in Diabetes: Pathophysiology, Prevalence, and Prevention*. Alexandria, VA: American Diabetes Association; 2009; Workgroup on Hypoglycemia, American Diabetes Association. *Diabetes Care*. 2005;28(5):1245-1249.

Hypoglycemia | ADA / Endocrine Society Classification

Severe Hypoglycemia

- Event requiring assistance of another to take corrective action, such as actively administering carbohydrates, glucagon, or take other corrective actions

Documented Symptomatic Hypoglycemia

- Event during which typical symptoms of hypoglycemia are accompanied by a measured blood glucose (BG) <70 mg/dL (3.9 mmol/L)

Asymptomatic Hypoglycemia

- Event not accompanied by typical symptoms but with a measured BG <70 mg/dL (3.9 mmol/L)

Probable Symptomatic Hypoglycemia

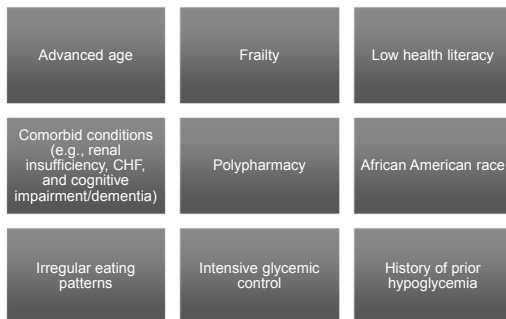
- Event during which symptoms typical of hypoglycemia are not accompanied by a BG but that was presumably caused by a value <70 mg/dL (3.9 mmol/L)

Pseudo-hypoglycemia

- Event during which the person with diabetes reports any of the typical symptoms of hypoglycemia with a measured BG concentration >70 mg/dL (3.9 mmol/L) but is approaching that level

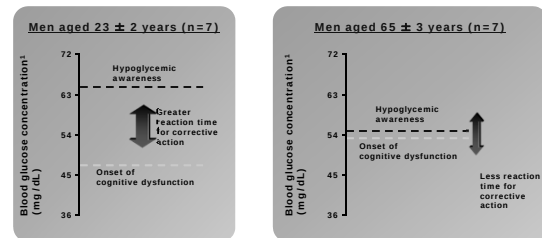
Seaquist ER, et al. *Diabetes Care*. 2013;36:1384-1495.

Hypoglycemia | Risk Factors



Chelliah and Bruge *Drugs Aging*. 2004; Alagiakrishnan K and Mereu L. *Post Graduate Medicine*. 2010;122:129-137
Lipska K et al. *Diabetes Care* 2013;36: 3535-3542.

Thresholds for Hypoglycemia Symptoms Vary With Age^{1,2,*}



With increasing age, potential reaction time between awareness and onset of symptoms is decreased, contributing to an increased risk for asymptomatic hypoglycemia and greater susceptibility to cognitive impairment^{1,2,*}

*Based on data in nondiabetic patients with no family history of diabetes.
1. Zimmet NN, Frier BM. *Diabetes Care*. 2005;28(12):2948-2961; 2. Matyka K et al. *Diabetes Care*. 1997;20(2):135-141.
Reprinted with permission from Zimmet NN, Frier BM. *Diabetes Care*. 2005;28(12):2948-2961. Copyright © 2005, American Diabetes Association.

Adverse Drug Events | Diabetes Drugs

Common contributing factors

- Intensive treatment
- Misunderstanding or errors in administration

Medications commonly associated with ED visits, age 65+

- Insulin
- Oral agents (especially sulfonylureas)

Budnitz D. N Engl J Med. 365:2002-2012.

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

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

Definitions

Diabetes Self-management Education (DSME)*

The process of facilitating the knowledge, skill, and ability necessary for diabetes self-care

Diabetes Self-management Support (DSMS)*

Support that is 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 DSME program, refer to registered dietitian

* CMS/Medicare uses DSMT – Diabetes Self-Management Training

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

Diabetes Self-Management Education

Why?

What?

Who?

Where?

How?

When?

Tools you can use

Why? Evidence for the Benefits of DSME

Improves...	Knowledge and behavior
	Clinical outcomes (HbA1c, weight)
	Quality of life & healthy coping
	Cost
Improvements enhanced when...	DSME is longer duration
	Follow-up support is given ("Diabetes Self-Management Support" / DSMS)
	Is individualized (age, culturally appropriate, etc.)

DSME = Diabetes self-management education

American Diabetes Association. Clin Diabetes. 2016 Jan;34(1):3-21

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	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

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

What Is the Focus of Education?



7 Self-Care Behaviors™

What it is Not.....

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

What it is.....

- Ongoing
- Collaborative goal setting – with patient and provider
- Behavior change support / trouble shooting



Who delivers DSME?

- ▶ Medical care providers: MD/DO, NPs, PAs
- ▶ Diabetes educators (RN, RD, Pharmacist, etc)
- ▶ Advanced certificates (CDE, BC-ADM)
- ▶ Peer counselors; community health workers
- ▶ Care managers
- ▶ "Diabetes champions" – in medical care practices

Where? How do you find DSME/S?

Individual care providers

- ▶ RD: www.eatright.org
- ▶ Diabetes educator: www.diabeteseducator.org
- ▶ CDE: www.ncbde.org

Recognized or accredited education programs

- ▶ ADA Recognized program: www.diabetes.org/erp
- ▶ AADE Accredited program: www.diabeteseducator.org/deap

National Diabetes Prevention Program

- ▶ Many are YMCA based
- ▶ Wide scale dissemination
- ▶ Lower cost approach
 - ▶ Uses "health coaches"
- ▶ 16 week program – based on DPP
 - ▶ Weight loss (7-10% body weight)
 - ▶ Increase activity (150-200 minutes/week)



<http://www.cdc.gov/diabetes/prevention/>

www.cdc.gov/diabetes/prevention

Am J Prev Med. 2008 Oct;35(4):357-63
Diabetes Educ. 2009 Mar-Apr;35(2):224-8, 232

How? A Patient-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 your diabetes?

How can we best help you?

What is one thing you are doing or can do to better manage your diabetes?

When? 4 Critical Times to Provide DSME/S

Diabetes Self-Management Education and Support for Adults with Type 2 Diabetes:
ALGORITHM of CARE

ADA Standards of Medical Care in Diabetes recommends all patients be assessed and referred for:



FOUR CRITICAL TIMES TO ASSESS, PROVIDE, AND ADJUST DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT



Powers MA. Clin Diabetes. 2016 Apr;34(2):70-80

Diabetes Self-Management Education and Support for Adults with Type 2 Diabetes: ALGORITHM ACTION STEPS

Four critical times to assess, provide, and adjust diabetes self-management education and support

AT DIAGNOSIS	ANNUAL ASSESSMENT OF EDUCATION, NUTRITION, AND EMOTIONAL NEEDS	WHEN NEW COMPLICATING FACTORS INFLUENCE SELF-MANAGEMENT	WHEN TRANSITIONS IN CARE OCCUR
PRIMARY CARE PROVIDER/ENDOCRINOLOGIST/CLINICAL CARE TEAM: AREAS OF FOCUS AND ACTION STEPS - Assess readiness and provide emotional support regarding diagnosis - Provide overview of treatment and management goals - Teach survival skills to address immediate requirements, such as use of medications, hypoglycemia treatment, and insulin administration - Identify and address barriers to education and ongoing support - Make referral for DSME/S and medical nutrition therapy (MNT)	PERSONAL ASSESSMENT OF EDUCATION, NUTRITION, AND EMOTIONAL NEEDS - Assess all areas of self-management - Review problem-solving skills - Identify strengths and challenges of living with diabetes	WHEN NEW COMPLICATING FACTORS INFLUENCE SELF-MANAGEMENT - Identify progress of factors that affect diabetes self-management and other treatment and behavioral goals - Consider referral to other health care team members - Review impact of complications and treatment with treatment and self-management	WHEN TRANSITIONS IN CARE OCCUR - Develop diabetes transition plan - Coordinate transition plan to new health care team members - Coordinate DSME/S regular follow-up care
DIABETES EDUCATION: AREAS OF FOCUS AND ACTION STEPS - Assess cultural influences, health beliefs, literacy, numeracy, readiness to learn, family support, and social support - Identify barriers to learning and address them - Establish goals, objectives, action, and evaluation - Monitor blood glucose, when to test, and when to seek help - Monitor activity, eating, and drinking to long-term goals/needs/limitations - Monitor, identify, and resolve needs and chronic complications - Monitor, identify, and resolve needs, including food, eating, and drinking - Set individualized learning, action, and evaluation goals - Develop personal strategies to address personal challenges - Develop personal strategies to address personal challenges	DIABETES EDUCATION: AREAS OF FOCUS AND ACTION STEPS - Assess readiness for the provision of self-management - Identify progress of factors that affect diabetes self-management and other treatment and behavioral goals - Consider referral to other health care team members - Review impact of complications and treatment with treatment and self-management	DIABETES EDUCATION: AREAS OF FOCUS AND ACTION STEPS - Assess readiness for the provision of self-management - Identify progress of factors that affect diabetes self-management and other treatment and behavioral goals - Consider referral to other health care team members - Review impact of complications and treatment with treatment and self-management	DIABETES EDUCATION: AREAS OF FOCUS AND ACTION STEPS - Assess readiness for the provision of self-management - Identify progress of factors that affect diabetes self-management and other treatment and behavioral goals - Consider referral to other health care team members - Review impact of complications and treatment with treatment and self-management

Referral Form for DSME/MNT

AADE American Association of Diabetes Educators

Diabetes Services Order Form (DSMT and MNT Services)

Referral requested information for medical review

PATIENT INFORMATION

Patient's Last Name: _____ First Name: _____ Middle: _____
Date of Birth: ____/____/____ Medicare/Medicaid: _____ Gender: ____ Male ____ Female

City: _____ State: _____ Zip Code: _____

Home Phone: _____ Work Phone: _____ Other Contact Phone: _____

Diabetes self-management training (DSMT) and medical nutrition therapy (MNT) are individualized and comprehensive 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 EDUCATION (DSMT)
Medicare: 18 hours initial DSMT in 12-month period, plus 8 hours follow-up DSMT annually.
Check type of training services and number of hours requested:
☐ Initial group DSMT ☐ 10 hours or less, no fee requested
☐ Follow-up DSMT ☐ 2 hours or less, no fee requested
☐ Additional initial training ☐ no fee requested

DIABETES 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 type of MNT and number of additional hours requested:
☐ Initial MNT ☐ Annual follow-up MNT
☐ Additional MNT services in the same calendar year, per RDI recommendations ☐ no additional fee requested

*Patients with special needs requiring additional DSMT:
Check if special needs that apply:
☐ Vision ☐ Hearing ☐ Physical ☐ Cognitive impairment
☐ Language limitations ☐ Other _____

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

***DSMT Content:**
☐ All or selected areas, as appropriate
☐ Monitoring diabetes
☐ Psychosocial adjustment
☐ Nutritional management
☐ Medications
☐ Preconception/pregnancy management or gestational diabetes management
☐ Diabetes as disease process
☐ Physical activity
☐ Goal setting, problem solving
☐ Motivation
☐ Personal, social and local chronic complications

CURRENT DIABETES MEDICATIONS
Specify type, dose and frequency:
Oral: _____
Insulin: _____

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

Patient Case: George

- ▶ 58 y/o African-American male presents for 6 month follow-up.
 - ▶ PMHx: T2DM x 2 yrs / Dyslipidemia x 3 yrs, / HTN x 3 yrs
 - ▶ CC: Recent weight gain and "bouts of feeling dizzy".
- ▶ Currently Medications:
 - ▶ metformin 1000 mg BID
 - ▶ glyburide 5 mg BID
 - ▶ simvastatin 40 mg daily
 - ▶ losartan 50 mg daily.
- ▶ Patient claims to be "mostly" adherent to medication therapy but noticed he continues to gain weight despite his efforts.
- ▶ Family Hx: Mother died of heart failure at 59. Father diagnosed with CAD at age 68 w/ CABG at 78. Died at age 81 of CHF

Tools You Can Use

- Ask....
 - Open ended questions
 - For patients solutions
 - For a teach back
 - For a SMART goal
 - What is needed for support
- Offer....
 - Written instructions to patients
 - Praise for efforts (not results!)
 - Referrals for DSME / MNT
 - Training for your staff

Health Literacy Screening Questions

- ▶ How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?
 - ▶ Never, Sometimes, Always
- ▶ How confident are you filling out medical forms by yourself?
 - ▶ Not at all, A little confident, Confident

Powers BJ, Trinh JV, & Bosworth HB. JAMA. 2010; 304(1):76-84.

Assessing Diabetes Distress

PHQ-2

Over the past two weeks, how often have you been bothered by any of the following problems?

Little interest or pleasure in doing things.

0 = Not at all 1 = Several days 2 = More than half the days 3 = Nearly every day

Feeling down, depressed, or hopeless.

0 = Not at all 1 = Several days 2 = More than half the days 3 = Nearly every day

PAID-1

During the past month consider how much you have worried about the future and possibility of serious complications?

Not a problem – Minor problem – Moderate problem – Somewhat serious – Serious problem

PHQ-2: Arroll B et al. Ann Fam Med. 2010 Jul; 8(4): 348–353.
PAID-1: McGuire BE et al. Diabetologia. 2010; 53:66-69

DSME | 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
- ▶ DSME & MNT cannot be billed on same date
- ▶ Does not include prediabetes

▶ 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>

Resources

Printed

- ▶ National Diabetes Education Program
 - ▶ www.ndep.nih.gov
- ▶ 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

Role of the PCP in Diabetes Education

- ▶ Identify educators and dietitians 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 patient is "in charge" 24/7
 - ▶ Diabetes education is effective
- ▶ Everyone with diabetes should receive education
 - ▶ There are 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!

"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