Understanding Diabetes Risks and Identifying Strategies to Self-Manage for Better Health
Disclosure information: HRET, planners and the following speakers have disclosed they have no relevant financial interest or relationship with any manufacturer(s) or any commercial product(s) discussed in this educational activity. The following have provided disclosures: Aline Holmes, DNP, MSN, RN; Nancy Winter, MSN, RN, Thomas R. Ortiz, MD, FAAFP, Tyla Housman, Natalie Tappe RN MSN, Network Task Lead, Quality Insights Quality Innovation Network, and HRET planners.
Objectives

• Identify health risk behaviors for the diabetic population
• Learn strategies to reduce health risks and promote self-management in the diabetic population
• Understand the concept of Diabetes Self-Management in the reduction and control of HbA1c
2 out of every 5 Americans are expected to develop type 2 diabetes in their lifetime.
29 million Americans have diabetes and 1 in 4 don’t know it.
Approximately 1 of 3 adults with diabetes (and 1 of 5 adults with high blood pressure) has chronic kidney disease.
In 2012, diabetes and its related complications accounted for $245 billion in total medical costs and lost work and wages.
Understanding Health Risks

• What is a risk behavior
  – Actions that can potentially threaten individual health or the health of others

• First step
  – Increase awareness of risk behaviors

• Helps reduce the disease burden of diabetes

• Helps improve quality of life

1-https://www.healthypeople.gov/2020/topics-objectives/topic/diabetes
Diabetes Identification

• Criteria for Diagnosis of Prediabetes and Diabetes
  – A1C criteria
  – Fasting plasma glucose (FBG), or
  – 2 hour plasma glucose
  – Same tests used for both to screen and diagnose
# Diabetes Identification

<table>
<thead>
<tr>
<th>Prediabetes</th>
<th>Diabetes</th>
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<tbody>
<tr>
<td><strong>A1C</strong></td>
<td>≥6.5%</td>
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<tr>
<td>5.7–6.4%</td>
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<tr>
<td><strong>FPG</strong></td>
<td>≥126 mg/dL (7.0 mmol/L)</td>
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<tr>
<td>100–125 mg/dL (5.6–6.9 mmol/L)</td>
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<tr>
<td><strong>OGTT</strong></td>
<td>≥200 mg/dL (11.1 mmol/L)*</td>
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<tr>
<td>140–199 mg/dL (5.6–6.9 mmol/L)</td>
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<tr>
<td><strong>RPG</strong></td>
<td>≥200 mg/dL (11.1 mmol/L)†</td>
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</table>

*In the absence of unequivocal hyperglycemia, results should be confirmed by repeat testing.
† Only diagnostic in a patient with classic symptoms of hyperglycemia or hyperglycemic crisis. RPG, random plasma glucose.
Testing Criteria for Diabetes or Prediabetes in Asymptomatic Adults

• Type 2:
  – Should be considered in adults of any age who:
    • Are overweight or obese (BMI ≥25 kg/m² or ≥23 kg/m² in Asian Americans)
    • Have one or more additional risk factors for diabetes

• Testing should begin at age 45
Additional Risk Factors

• Physical inactivity
• First-degree relative with diabetes
• History of CVD
• High-risk race/ethnicity
  – (e.g., African American, Latino, Native American, Asian American, Pacific Islander)
• Hypertension
  – ≥140/90 mmHg or on therapy for hypertension
Additional Risk Factors

• HDL cholesterol level:
  – < 40 mg/dL for men
  – <50 mg/dL for women
  – and/or a triglyceride level >150 mg/dL (1.7 mmol/L)

• Women:
  – Polycystic ovary syndrome
  – Diagnosed with Gestational Diabetes

• A1c ≥ 5.7%, IGT, or IFG on previous testing

• Other clinical conditions associated with insulin resistance
  – (e.g., severe obesity, acanthosis nigricans)
Team Care Approach for Diabetes Management

• Can effectively help people cope with the vast array of complications from diabetes

• Can lower risk for:
  – Microvascular complications, such as eye disease and kidney disease
  – Macrovascular complications, such as heart disease and stroke
  – Other diabetes complications, such as nerve damage
Team Care Approach for Diabetes Management

• Can lower risk by:
  – Controlling ABCs
    • A1C, blood pressure, cholesterol and smoking cessation
  – Following an individualized meal plan
  – Engaging in regular physical activity
  – Avoiding tobacco use
  – Taking medicines as prescribed
  – Coping effectively with the demands of a complex chronic disease
Team Care Approach for Diabetes Management

• Patients who increase effective behavioral interventions and treatments can prevent or delay progression to:
  – Kidney failure
  – Vision loss
  – Nerve damage
  – Lower-extremity amputation
  – Cardiovascular disease

• Can lead to:
  – Increased patient satisfaction with care
  – Better quality of life
  – Improved health outcomes
  – Lower health care costs
AADE7™ Self-Care Behaviors: The Core of DSME Programs

American Association of Diabetes Educators (AADE)
Definitions

• Self-management:
  – An active, ongoing process that changes as the person’s needs, priorities, and situations change

• Diabetes Self-Management Education (DSME):
  – An ongoing process to facilitate a person’s knowledge, skill and ability for self-care
  – Incorporates needs, goals and life experiences of the person with diabetes
  – Guided by evidence-based standards
Definitions

• Support informed and shared decision-making, self-care behaviors, problem solving and active collaboration with the health care team to improve clinical outcomes, health status and quality of life

• Diabetes educators and others in the team can help people living with or at risk for diabetes
Purpose

• Understand diabetes disease process and risks and benefits of treatment options
• Incorporate healthy eating behaviors into lifestyle
• Incorporate physical activity into lifestyle
• Understand how to use medications safely and effectively
• Perform self-monitoring of blood pressure when prescribed
• Understand self-management needs during illness or medical procedures
Purpose

• Perform self-monitoring of blood glucose when prescribed
• Demonstrate how to interpret and use results for self-management decision making
• Understand how to prevent, detect and treat high and low blood glucose
• Prevent, detect and treat chronic diabetes complications
• Develop personal strategies to address psychosocial issues and concerns
• Develop personal strategies to promote health and behavior change
Importance of Referrals to DSME

• Patients may show compliance challenges after a diabetes diagnosis
• Referring to DSME can help patients:
  – Understand disease
  – Develop motivation to self-manage
  – Comply with healthcare providers’ advice and instruction
Common Compliance Challenges

• Medication
  – 77% of patients with diabetes take insulin as prescribed
  – 85% take other medications as prescribed

• Monitoring
  – Fewer than half (45%) monitor blood glucose as told

• Exercise and weight loss
  – Only 24 - 27% of patients follow instructions closely
Why refer to DSME?

- DSME promotes quality education for people with diabetes
  - ADA endorses the National Standards for Diabetes Self-Management Education and Support as the basis for ADA recognition
  - AADE Accreditation Program based on the National Standards
  - Both certifying bodies recognize DSME as a collaborative process to gain the skills and knowledge needed to modify behavior and successfully manage the disease and its related conditions
Why refer to DSME?

- Referring to a diabetes educator and supporting interaction with provider follow-up ensures better outcomes for patient (i.e. HbA1c reduction)
- Incorporating reminders and follow-up procedures can dramatically increase likelihood that patients will attend and complete self-management education, gain access to critical information, and have support throughout the course of disease
Algorithm of Care

• Provides an evidence-based depiction of when to identify and refer individuals to DSME

• Defines four critical time points for delivery and key information on the self-management skills necessary at each time
## Algorithm of Care

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

<table>
<thead>
<tr>
<th>At diagnosis</th>
<th>Annual assessment of education, nutrition, and emotional needs</th>
<th>When new complication factors influence self-management</th>
<th>When transitions in care occur</th>
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### Primary care provider/endocrinologist/clinical care team: areas of focus and action steps

- Answer questions and provide emotional support regarding diagnosis
- Provide overview of treatment and treatment goals
- Teach survival skills to address immediate requirements (safe use of medication, hypoglycemia treatment if needed, introduction of eating guidelines)
- Make referral for DSME/S and MNT
- Access all areas of self-management
- Review problem-solving skills
- Identify strengths and challenges of living with diabetes
- Identify presence of factors that affect diabetes self-management and attain treatment and behavioral goals
- Discuss effect of complications and successes with treatment and self-management
- Develop diabetes transition plan
- Communicate transition plan to new health care team members
- Establish DSME/S regular follow-up care
**Algorithm of Care**

### Diabetes Education: Areas of Focus and Action Steps *

<table>
<thead>
<tr>
<th>Assess cultural influences, health beliefs, current knowledge, physical limitations, family support, financial status, medical history, literacy, numeracy to determine content to provide and how:</th>
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<tbody>
<tr>
<td>- Medications: choices, action, titration, side effects</td>
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<tr>
<td>- Monitoring blood glucose - when to test, interpreting and using glucose pattern management for feedback</td>
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<tr>
<td>- Physical activity – safety, short-term vs. long-term goals/recommendations</td>
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<tr>
<td>- Preventing, detecting, and treating acute and chronic complications</td>
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<tr>
<td>- Nutrition – food plan, planning meals, purchasing food, preparing meals portioning food</td>
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<tr>
<td>- Risk reduction – smoking cessations, foot care</td>
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<tr>
<td>- Developing personal strategies to address psychosocial issues and concerns</td>
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<tr>
<td>- Developing personal strategies to promote health and behavior change</td>
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<th>Review and reinforce treatment goals and self-management needs</th>
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<tr>
<td>- Emphasize preventing complications and promotion quality of life</td>
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<tr>
<td>- Discuss how to adapt diabetes treatment and self-management to new life situations and competing demands</td>
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<tr>
<td>- Support efforts to sustain initial behavior changes and cope with the ongoing burden of diabetes</td>
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<tr>
<th>Provide support for the provision of self-care skills in an effort to delay progression of the disease and prevent new complications</th>
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<tr>
<td>- Provide/refer for emotional support for diabetes-related distress and depression</td>
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<tr>
<td>- Develop and support personal strategies for behavior change and healthy coping</td>
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<tr>
<td>- Develop personal strategies to accommodate sensory or physical limitation(s), adapting to new self-management demands, and promote health and behavior change</td>
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<table>
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<th>Identify needed adaptations in diabetes self-management</th>
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<tr>
<td>- Provide support for independent self-management skills and self-efficacy</td>
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<tr>
<td>- Identify level of significant other involvement and facilitate education and support</td>
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<tr>
<td>- Assist with facing challenges affecting usual level of activity, ability to function, health beliefs, and feeling of well-being</td>
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<tr>
<td>- Maximize quality of life and emotional support for the patient (and family members)</td>
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<tr>
<td>- Provide education for others now involved in care</td>
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<tr>
<td>- Establish communication and follow-up plans with the provider, family and others</td>
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*Educational content listed in each box is not intended to be all-inclusive, as specific needs will depend on the patient; however, these topics can guide the educational assessment and plan.*
Everyone with Diabetes Counts (EDC)

- National initiative
- Part of a five-year contract with CMS
- Aims to improve health outcomes and reduce issues of health disparities among people with diabetes
- Help clinicians, providers, practices, community partners and stakeholders build and support infrastructures that provide access to interactive, evidence-based DSME
DSME through Everyone with Diabetes Counts (EDC)

• DSME supports informed decision-making, self-care behaviors, problem-solving and active collaboration with the healthcare team to improve clinical outcomes, health status and quality of life.

• Trained educators and local community volunteers offer DSME throughout the country by using two different models:
  – Diabetes Empowerment Education Program (DEEP)
  – Diabetes Self-Management Program (DSMP) (originally developed at Stanford University School of Medicine)

• DEEP and DSMP incorporate the needs, goals and life experiences of the person with diabetes and are guided by evidenced-based standards.
What will participants learn?

• How to self-manage diabetes for a better quality of life
• How to understand diabetes and its risks
• The importance of:
  – Diet
  – Exercise
  – Keeping regular physician exams
  – Receiving annual foot and eye exams
  – Managing medications
  – Much more
• Overall, EDC teaches participants how to live healthier and have a better quality of life
EDC DSME Completers (August 2014-July 2016)

People Reached Nationally
Total DSME Completers 18,938
Rural 29.5% (5,585) Urban 70.6% (13,376)

Self-identified Race/Ethnicity of DSME Completers

- **Hispanic**: 12.7% (2,405)
- **Black**: 32.9% (6,224)
- **Asian**: 2.6% (484)
- **American Indian**: 1.3% (250)
- **White**: 34% (6,439)
- **Other**: 6.9% (1,307)
- **Pacific Islander**: 1.5% (288)

Number of Trainers Trained: 2,861
Teaching Tools
Questions?
Resources

2. http://clinical.diabetesjournals.org/content/33/2/97
4. American Diabetes Association/American Association of Diabetes Educators National Standards
5. Standards of Practice and Standards of Professional Performance for Registered Dietitians (Generalist, Specialty, and Advanced) in Diabetes Care
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