

## Certification Examination for Diabetes Care and Education Specialists

## **Examination Content Outline**

## Effective July 1, 2024

#### I. Assessment (37)

- A. Physical and Psychosocial (12)
  - 1. Diabetes-relevant health history (diagnosis, duration, symptoms, complications, treatment, comorbidities, healthcare utilization)
  - Diabetes-specific physical assessment (biometrics, site inspection, extremities, etc.)
  - 3. Social determinants of health (economic, living situation, healthcare access, social supports, and food/housing insecurity)
  - General health history (family, medical, mental health, substance use, surgical, allergies and medication)
  - 5. Diabetes measures and other laboratory data
  - Mental health wellbeing (adjustment to diagnosis, coping ability, etc.)
  - Considerations related to diabetes self-care practices (cognitive, physical, language, cultural, spiritual, family/caregiver dynamics, fears and myths, life transitions, etc.)
- B. Self-Management Behaviors and Knowledge (15)
  - 1. Disease process
  - 2. Eating habits and preferences
  - 3. Activity habits and preferences
  - Medication practices and preferences (prescription, nonprescription, complementary and alternative medicine)
  - Monitoring and data collection (glucose, ketones, weight, dietary intake, activity, etc.)
  - 6. Use of resources
  - Use of technology (monitors, smart delivery systems, apps, online education, patient portals, etc.)
  - 8. Risk reduction of acute and chronic complications
  - 9. Problem solving
- C. Learning (10)
  - 1. Goals and needs of learner
  - 2. Readiness to learn and change behavior
  - 3. Preferred learning styles (audio, visual, observational, psychomotor, individual vs. group, virtual, etc.)
  - 4. Literacy, numeracy, health literacy, and digital literacy
  - Considerations related to learning (developmental stage, physical abilities, language preferences, cultural, spiritual, psychosocial, economic, family/caregiver dynamics, learning disabilities, etc.)

### II. Care and Education Interventions (105)

- A. Disease Process and Approach to Treatment (22)
  - 1. Diagnosis and classifications
  - 2. Pathophysiology including honeymoon period, dawn phenomenon
  - 3. Modifiable and non-modifiable risk factors
  - 4. Lifestyle management (activity, food, sleep, and stress)
  - 5. Pharmacological approaches and options
  - 6. Treatment goals (glycemic metrics, blood pressure, lipids, risk reduction, quality of life)

- B. Individualized Education Plan (17)
  - Develop plan based on assessment, in collaboration with person with diabetes/pre-diabetes and care team
  - 2. Identify instructional methods
  - 3. Set S.M.A.R.T. goals
- C. Person-Centered Education on Self-Care Behaviors (58)
  - 1. Nutrition Principles and Guidelines
    - a) American Diabetes Association (ADA) and Academy of Nutrition and Dietetics nutrition recommendations (meal planning, macro/micronutrients, dietary approaches, etc.)
    - b) Carbohydrates (types, food source, sugar alcohol and substitutes, carbohydrate counting)
    - c) Fats (types, food source)
    - d) Protein (food source, renal disease, wound care)
    - e) Alcohol (amount, precautions)
    - Food and medication integration (medication timing, meal timing, etc.)
    - g) Food label interpretation (nutrition facts, ingredients, health claims, sodium, etc.)
    - h) Weight management
    - i) Dietary and herbal supplements
    - Special considerations (food allergies, food aversion, gastroparesis, celiac disease, metabolic surgery, failure to thrive, disordered eating, etc.)
  - 2. Physical Activity
    - a) ADA and American College of Sports Medicine recommendations
    - b) Benefits, challenges, and safety (comorbidities, post exercise delayed onset hypoglycemia, etc.)
    - c) Activity plan (frequency, intensity, time, and types)
    - Adjustment of monitoring, food, and/or medication for planned and unplanned activities
  - 3. Medication Management
    - a) ADA/European Association for the Study of Diabetes (EASD) guidelines
    - b) Medications (class, action, administration, side effects, contraindications, etc.)
    - Medication selection (cardiorenal protection, glycemic efficacy impact on weight, types and duration of diabetes, cost, hypoglycemia risk)
    - d) Medication adjustment
    - e) Insulin delivery systems
    - f) Immunizations
  - 4. Monitoring and Interpretation
    - a) Glucose (device selection, use, testing techniques, metrics)
    - b) Ketones
    - c) A1C
    - d) Blood pressure
    - e) Weight
    - f) Lipids
    - g) Kidney health



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- h) Hepatic function
- 5. Acute Complications: Causes, Prevention, and Treatment
  - a) Hypoglycemia and hypoglycemia unawareness
  - b) Hyperglycemia
  - c) Diabetic ketoacidosis (DKA)
  - d) Hyperosmolar hyperglycemic state (HHS)
- Chronic Complications and Comorbidities: Causes, Prevention, and Treatment
  - a) ADA Clinical Practice screening recommendations
  - b) Eye disease (retinopathy, cataracts, glaucoma, etc.)
  - c) Sexual dysfunction
  - d) Neuropathies
  - e) Nephropathy
  - f) Vascular disease (cerebral, cardiovascular, peripheral, etc.)
  - g) Lower extremity problems (ulcers, Charcot foot, etc.)
  - h) Dermatological (wounds, ulcers, site reactions)
  - i) Infection (genitourinary tract, pulmonary, skin and soft tissue)
  - j) Dental and gum disease
  - k) Other comorbidities (depression, cognitive dysfunction, thyroid disease, celiac disease, obesity, sleep apnea, polycystic ovarian syndrome, etc.)
- 7. Problem Solving
  - a) Sick days
  - b) Surgery and other procedures
  - c) Changes in schedules (shift, religious, cultural, etc.)
  - d) Travel
  - e) Emergency preparedness
  - f) Assistive and adaptive devices (talking meter, magnifier, etc.)
  - g) Substance use (alcohol, tobacco, marijuana, caffeine, etc.)
- 8. Living with Diabetes and Prediabetes
  - a) Life changes
  - b) Transitions of care
  - Special populations (pediatric, adolescence, geriatric, transplant, etc.)
  - d) Pre-conception planning, pregnancy, post-partum, and gestational diabetes
  - e) Psychosocial wellbeing (depression, disordered eating, distress, etc.)
  - f) Role/Responsibilities of care (individual, family, team)
  - g) Safety (sharps disposal, medical ID, driving, etc.)
  - h) Personal hygiene (dental, skin, feet, etc.)
  - Social/Financial considerations (employment, insurance, disability, discrimination, school issues, etc.)
- D. Evaluation, Documentation, and Follow-up (8)
  - 1. Evaluate the effectiveness of interventions related to:
    - a) achievement and progress toward goals
    - b) self-management skills
    - c) psychosocial wellbeing
    - d) weight, eating habits, medications, activity
    - e) glycemic metrics
  - Revise, document, and communicate individual's plan for follow-up care, education, support, and referral

#### III. Standards and Practices (8)

- A. Describe the current National Standards for Diabetes Self-Management Education and Support (NSDSMES)
- Describe the National Diabetes Prevention Program Standards (National DPP)
- C. Apply practice standards (AACE, ADA, Endocrine Society, etc.)
- D. Describe population health strategies
- E. Collaborate with other healthcare professionals to advance team-based care
- F. Advocate for people with diabetes (access to medications and supplies, care in institutional settings, policies, etc.)
- G. Promote primary and secondary diabetes prevention strategies in at risk individuals and populations
- H. Promote evidence-based care and education
- Recognize the impact of disparities (economic, access, gender, ethnicity, geographic, etc.)
- J. Incorporate principles of diversity, equity, and inclusion