Appendix II
Examination Content Outline

I. Assessment of the Diabetes Continuum (59)

A. Learning (19)
1. Goals and needs of learner
2. Learning readiness (attitudes, developmental level, perceived learning needs, etc.)
3. Preferred learning styles (audio, visual, observational, psychomotor, etc.)
4. Technology literacy and use (devices, software, apps, virtual coaching, patient portals, etc.)
5. Challenges to learning (concrete vs. abstract thinking, literacy and numeracy, language, cultural values, religious beliefs, health beliefs, psychosocial and economic issues, family dynamics, learning disabilities, etc.)
6. Physical capabilities/limitations (visual acuity, hearing, functional ability, etc.)
7. Readiness to change behavior (self-efficacy, value of change, etc.)

B. Health and Psychosocial Status (19)
1. Diabetes-relevant health history (diagnosis/presentation, duration, symptoms, complications, treatment, etc.)
2. General health history (family history, allergies, medical history, etc.)
3. Diabetes-specific physical assessment (biometrics, site inspection, extremities, etc.)
4. Data trends (laboratory and self-collected)
5. Current use of technology (meters, pumps, sensors, apps, software, etc.)
6. Treatment fears and myths (hypo/hyperglycemia, causes, complications, needles, weight gain, etc.)
7. Family/caregiver dynamics and social supports
8. Substance use (alcohol, tobacco, marijuana, caffeine, etc.)
9. Life transitions (living situation, insurance coverage, age related changes, etc.)
10. Mental health status (adjustment to diagnosis, coping ability, etc.)
11. Challenges to diabetes self-care practices (cognitive, language, cultural, spiritual, physical, economic, etc.)

C. Knowledge and Self-Management Practices (21)
1. Disease process
2. Eating habits and preferences
3. Activity habits and preferences
4. Monitoring (blood glucose, ketones, weight, etc.)
5. Record keeping (blood glucose, food, activity, etc.)
6. Medication taking habits (prescription, nonprescription, complementary and alternative medicine, etc.)
7. Use of health care resources (health care team, community resources, etc.)
8. Risk reduction (cardiovascular, etc.)
9. Problem solving

II. Interventions for Diabetes Continuum (88)

A. Collaborate with Individual/Family/Caregiver/Health Care Team to Develop: (18)
1. Individualized education plan based on assessment (selection of content, learning objectives, sequence of information, communication, etc.)
2. Instructional methods (discussion, demonstration, role playing, simulation, technology-based platforms, etc.)
3. Goals for lifestyle changes (S.M.A.R.T. goals, AADE-7, etc.)

B. Educate Based on Individualized Care Strategies (35)
1. General topics
   a) Classification and diagnosis
   b) Modifiable and non-modifiable risk factors
   c) Pathophysiology (auto-immunity, monogenic, insulin resistance, secondary diabetes, cardiometabolic risks, etc.)
   d) Effects and interactions of activity, food, medication, and stress
   e) Drug and non-drug treatment options (access, risk/benefit, etc.)
   f) Immunizations
   g) Therapeutic goals (A1C, blood pressure, lipids, quality of life, etc.)
   h) Laboratory test interpretation (A1C, lipids, renal and hepatic function tests, etc.)
   i) Evidence-based findings for decision support (Diabetes Prevention Program, Diabetes Attitudes Wishes and Needs study, clinical trials, etc.)
2. Living with diabetes and prediabetes
   a) Healthy coping (problem solving, complications, life transitions, etc.)
   b) Psychosocial problems (depression, eating disorders, distress, etc.)
   c) Role/Responsibilities of care (individual, family, team, etc.)
   d) Social/Financial issues (employment, insurance, disability, discrimination, school issues, etc.)
   e) Lifestyle management
   f) Record keeping (blood glucose logs, food records, etc.)
   g) Safety (sharps disposal, medical ID, driving, etc.)
   h) Hygiene (dental, skin, feet, etc.)
3. Monitoring
   a) Glucose (meter selection, continuous glucose sensing, sites, etc.)
   b) Ketones
   c) A1C
   d) Blood pressure and weight
   e) Lipids and cardiovascular risk
   f) Renal and hepatic (function studies, microalbuminuria, serum creatinine, etc.)
4. Nutrition principles and guidelines
   a) American Diabetes Association (ADA) and Academy of Nutrition and Dietetics nutrition recommendations (meal planning, macro/micronutrients, etc.)
   b) Carbohydrates (food source, sugar substitutes, fiber, carbohydrate counting, etc.)
   c) Fats (food source, total, saturated, monounsaturated, etc.)
   d) Protein (food source, renal disease, wound care, etc.)
   e) Food and medication integration (medication timing, meal timing, etc.)
   f) Food label interpretation (nutrition facts, ingredients, health claims, sodium, etc.)
   g) Alcohol (amount, precautions)
   h) Weight management (adult and childhood obesity, failure to thrive, fad diets, etc.)

Examination Content Outline Effective Starting July 1, 2019

i) Special considerations (food allergies, food aversion, gastroparesis, celiac disease, metabolic surgery, etc.)
j) Dietary and herbal supplements

5. Activity
   a) ADA and American College of Sports Medicine recommendations
   b) Benefits, challenges, and precautions (comorbid conditions, post exercise delayed onset hypoglycemia, etc.)
   c) Activity plan (aerobic, resistance training, etc.)
   d) Adjustment of monitoring, food, and/or medication
6. Medication management
   a) ADA, European Association for the Study of Diabetes (EASD), American Association of Clinical Endocrinologists (AACE) guidelines
   b) Medications (insulin, oral and injectable medications, administration, side effects, etc.)
   c) Delivery systems (pump therapy, devices, etc.)
   d) Medication adjustment
   e) Interactions (drug-drug, drug-food, etc.)
   f) Non-prescription preparations
7. Acute complications: causes, prevention and treatment
   a) Hypoglycemia
   b) Hyperglycemia
   c) Diabetic ketoacidosis (DKA)
   d) Hyperosmolar hyperglycemic state (HHS)
8. 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) Neuropathy (autonomic, peripheral, etc.)
   e) Nephropathy
   f) Vascular disease (cerebral, cardiovascular, peripheral, etc.)
   g) Lower extremity problems (ulcers, Charcot foot, etc.)
   h) Dermatological (wounds, yeast infection, ulcers, etc.)
   i) Infection (genitourinary tract, pulmonary, skin and soft tissue, etc.)
   j) Dental and gum disease
   k) Comorbidities (hypertension, heart disease, depression, cognitive dysfunction, thyroid disease, celiac disease, obesity, sleep apnea, polycystic ovarian syndrome, etc.)
9. Problem Solving and Other Management Issues
   a) Honeymoon period, dawn phenomenon
   b) Hypoglycemia unawareness
   c) Pump, device, and sensor
   d) Sick days
   e) Surgery and special procedures
   f) Changes in usual schedules (shift, religious, cultural, etc.)
   g) Travel
   h) Emergency preparedness
   i) Physical capabilities and limitations (visual acuity, hearing, functional ability, etc.)
   j) Assistive and adaptive devices (talking meter, magnifier, etc.)
   k) Pre-conception planning, pregnancy, post-partum, and gestational diabetes
   l) Special populations (pediatric, adolescence, geriatric, etc.)
   m) Transitions of care (pediatric, young adult, care settings, etc.)
   n) Substance use (alcohol, tobacco, marijuana, caffeine, etc.)
   o) Disparities (economic, access, sex, ethnicity, geographic, mental capabilities, etc.)

C. Evaluate, Revise and Document (26)
   1. Weight, blood glucose patterns, eating habits, medication management, activity
   2. Self-reports and/or device downloaded reports
   3. Evaluate the effectiveness of interventions in:
      a) achievement and progress toward goals
      b) self-management skills
      c) psychosocial adjustment
      d) unexpected challenges (loss of insurance, job change, etc.)
   4. Individual's plan for the continuum of care with health care team and follow-up education and support

D. Referral, Support, and Follow-Up (9)
   1. Issues requiring referral
      a) Education (diabetes, diabetes prevention program, peer, group vs. individual, behavioral, etc.)
      b) Medical Nutrition Therapy
      c) Exercise
      d) Lifestyle coaching
      e) Behavioral health
      f) Learning disabilities
      g) Medical care (foot care, dilated eye exam, pre-conception counseling, family planning, sexual dysfunction, etc.)
      h) Risk reduction (smoking cessation, obesity, preventative services, etc.)
      i) Medication management
      j) Sleep assessment
      k) Financial and social services
      l) Discharge planning, home care, community resources (visual, hearing, language, etc.)
   2. Support (community resources, care managers, peer, prescription assistance programs, etc.)
   3. Communication between diabetes educator and health care team

III. Disease Management (28)

A. Education Services Standards (8)
   1. Apply National Standards for Diabetes Self-Management Education and Support (NSDSMES)
      a) Perform needs assessment (target population, etc.)
      b) Develop curriculum (identify program goals, content outline, lesson plan, teaching materials, etc.)
      c) Choose teaching methods and materials for target populations
      d) Evaluate program outcomes (number of people served, provider satisfaction, patient satisfaction, effectiveness of diabetes education materials, etc.)
      e) Assess patient outcomes (behavior changes, A1C, lipids, weight, quality of life, emergency department visits, hospitalizations, work absences, etc.)
      f) Perform continuous quality improvement activities
      g) Maintain patient information and demographic database

B. Clinical Practice (18)
   1. Apply practice standards (AACE, ADA, Endocrine Society, etc.)
   2. Implement and support population management strategies
   3. Identify medical errors and employ risk mitigation strategies
   4. Mentor staff (clinical and non-clinical) and/or lay leaders in need of education
   5. Advocate formulary management of diabetes medications and supplies

C. Diabetes Advocacy (2)
   1. Promote primary and secondary diabetes prevention strategies in at risk individuals and populations
   2. Participate in community awareness, health fairs, media