For individuals testing January 1, 2024 through June 20, 2024

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

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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

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I. Assessment (37)

A. Physical and Psychosocial (12)
1. Diabetes-relevant health history (diagnosis, duration, symptoms, complications, treatment, comorbidities, healthcare utilization)
2. 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)
4. General health history (family, medical, mental health, substance use, surgical, allergies and medication)
5. Diabetes measures and other laboratory data
6. Mental health wellbeing (adjustment to diagnosis, coping ability, etc.)
7. 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
4. Medication practices and preferences (prescription, nonprescription, complementary and alternative medicine)
5. Monitoring and data collection (glucose, ketones, weight, dietary intake, activity, etc.)
6. Use of resources
7. 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
5. 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)
1. 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)
   f) 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
   j) 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)
   d) 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.)
   c) 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
   h) Hepatic function

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5. Acute Complications: Causes, Prevention, and Treatment
   a) Hypoglycemia and hypoglycemia unawareness
   b) Hyperglycemia
   c) Diabetic ketoacidosis (DKA)
   d) Hyperosmolar hyperglycemic state (HHS)
6. 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
   c) 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.)
   i) 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
2. 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)
B. 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
I. Recognize the impact of disparities (economic, access, gender, ethnicity, geographic, etc.)
J. Incorporate principles of diversity, equity, and inclusion