Module 1: Standards of Medical Care in Diabetes-2017 review

In this module participants will develop a working knowledge of the Standards of Medical Care in Diabetes, 2017 by reviewing the entire standard online and completing a learning assessment of key points related to community practice and the care of patients living with diabetes.

Module 1 Learning objectives:

Upon completion of this program, the pharmacist should be able to:

1. Review the evidence-grading process used in the development of the standard
2. Identify key clinical findings to guide the care of a patient with diabetes
3. Utilize the standard in the development of recommendations for patients and other members of the healthcare team.

Instructions:

1. Print this module
2. Access the Standards of Medical Care in Diabetes, 2017 on-line by visiting: http://care.diabetesjournals.org/content/diacare/suppl/2016/12/15/40.Supplement_1.DC1/DC_40_S1_final.pdf
3. Save the PDF or bookmark the web address for future review.
4. Review the introductory material about the standard and the Table of Contents
5. Scan sections identified in the learning assessment questions below
6. Record answers within this document
7. Submit learning assessment answers in the online portal after all information has been collected.
Learning assessment:

1. In the Introduction to the standard (S1-S2) authors describe the overall intent of the *Standards of Medical Care in Diabetes* and differentiate the types of information that can be found in the standard. Which of the following statements is correctly matched?
   a. The *Standards of Care* document is an official ADA position statement that is updated annually to provide key clinical practice recommendations.
   b. An *ADA position statement* is an article that is submitted by a member of the PPC to stimulate action by the ADA in an effort to update practice.
   c. A *Consensus Report* is the result of an extensive review by the ADA.
   d. None of these statements are correct.

2. In the Introduction to the standard (S1-S2), descriptions of the ADA evidence-grading system are presented. Which of the following is/are correct?
   a. Level A evidence results from well-conducted, generalizable, randomized and well-controlled trials that are adequately powered.
   b. Level B evidence results from a well-conducted case-control study.
   c. Level C evidence results from uncontrolled studies.
   d. Level E evidence results from clinical experience.
   e. All of the above.

3. In the Summary of revisions which of the following sections of the 2017 update did not experience a revision?
   a. Section 5
   b. Section 7
   c. Section 11
   d. Section 2

4. As indicated in the Summary of revisions, in which section of the standard was a recommendation added to include specific recommendations for the treatment of neuropathic pain?
   a. Section 9
   b. Section 10
   c. Section 2
   d. Section 4

5. Which of the following is not a component of the Chronic Care Model as described in section 1. Promoting Health and Reducing Disparities in Populations?
   a. Delivery system design moving to a reactive care delivery system.
   b. Self-management support.
   c. Decision support.
   d. Community resources and policies to support healthy lifestyles.
6. According to the information provided in Section 1, what percentage of patients are failing to reach recommended targets for glycemic, blood pressure or cholesterol control?
   a. 45-67%
   b. 33-49%
   c. 27-40%
   d. 10-15%

7. Which of the following tests may be used by a medical provider to diagnose diabetes?
   a. Fasting plasma glucose test
   b. 2-h plasma glucose test following 75-g oral glucose tolerance test
   c. NGSP certified point of care A1C test
   d. All of the above
   e. A and B

8. For what period of time should a patient scheduled for a FPG test refrain from eating or drinking?
   a. 12 hours
   b. 8 hours
   c. 9 hours
   d. Fasting is not required

9. In which of the following scenarios would a health care provider diagnose diabetes?
   a. NGSP laboratory-provided A1C result of 6.3%
   b. A random plasma glucose result of 206 mg/dL in a patient complaining of polyuria, polydipsia and extreme thirst
   c. A 2 hour PG result of 195 mg/dL following a 75G anhydrous glucose challenge
   d. None of these

10. At what age should all individuals begin receiving a screening for diabetes?
    a. 50 years
    b. 55 years
    c. 45 years
    d. 60 years

11. GD is a 44 year old Asian American male who has well controlled hypertension and a BMI of 24 kg/m². He visited his nurse practitioner today for a diabetes screening and received a result of 98 for a FPG test. How long can he wait before completing another diabetes test, according to the screening guidelines?
    a. 3 years
    b. 2 years
    c. 1 year
    d. He was diagnosed with diabetes today based upon this information
12. DL is a 67 year old patient with diabetes and is visiting the pharmacy for his annual influenza vaccine. During the intake process, he advises the technician that he received a pneumonia shot 3 years ago and a tetanus/whooping cough shot just before his granddaughter was born 7 years ago. Other than those, he hasn’t received any immunizations since he was in the military. According to the immunization recommendations, which vaccines should he now receive (in addition to the influenza vaccine).
   a. DL should receive an initial hepatitis B vaccine to begin the 3 dose series
   b. DL should receive one dose of PCV13 and possibly receive an initial hepatitis B dose
   c. DL should receive PPSV23
   d. DL can only receive the influenza vaccine at this time

13. According to E level evidence, a patient who receives a diagnosis of type 2 diabetes should also be screened for celiac disease.
   a. True
   b. False

14. Upon diagnosis with diabetes which of the following referrals are appropriate?
   a. Eye care professional to conduct a dilated eye exam
   b. Registered dietitian for medical nutritional therapy
   c. Provider of Diabetes Self-Management education
   d. Dentist for a comprehensive exam
   e. All of the above

15. Which of the following responses is true regarding the recommendations for depression?
   a. Screening for depression should occur at diagnosis, at the onset of new complications and at least annually
   b. Referrals for depression should be made only at patient request
   c. Referrals for depression are not necessary, as medications can be prescribed by the internist or other prescriber of diabetes medications
   d. None of these

16. Which of the following matches the current recommendations of critical time points in which Diabetes Self-management Education should be evaluated?
   a. At diagnosis
   b. Annually
   c. When complicating factors arise
   d. When care transitions occur
   e. All of the above

17. Which of the following is not a goal of medical nutrition therapy (MNT)?
   a. Instructing patients on calculating macro and micro-nutrient amounts in the foods available for a meal
   b. Promoting healthful eating of a variety of nutrient-dense foods
   c. Achieving and maintaining body weight goals and attaining glycemia, blood pressure and lipid goals
   d. Maintaining the pleasure of eating and supporting personal and cultural needs
   e. All of the above
18. Which of the following it the recommended sodium intake of a person with diabetes
   a. The same as the general population, <2,300 mg
   b. <1,500 mg
   c. There are no sodium restrictions in diabetes
   d. None of these

19. Regarding physical activity, which of the following statements are included in the standard?
   a. All adults should decrease sedentary behavior by interrupting prolonged sitting at least every 30 minutes
   b. Adults with diabetes should plan to engage in resistance training at for at least 30 minutes on 5 days per week
   c. Children and adolescents with pre-diabetes should participate in physical activity at least 60 minutes 2 days per week
   d. All adults with diabetes should participate in moderate physical activity for a minimum of 60 minutes each day

20. All patients with diabetes who smoke should be encouraged to:
   a. Quit
   b. Switch to e-cigarettes
   c. Use alternate forms of tobacco
   d. None of these

21. The Diabetes Prevention Program (DPP) demonstrated that intensive lifestyle interventions could reduce the incidence of type 2 diabetes by _______ over 3 years.
   a. 33%
   b. 67%
   c. 58%
   d. 22%

22. What was the weight reduction target in the DPP?
   a. 15 pounds
   b. 7% of current weight
   c. 30 pounds
   d. 10% of current weight

23. What was the physical activity target in the DPP?
   a. 150 min of physical activity per month
   b. 150 min of physical activity per day
   c. 150 min of physical activity per week
   d. Physical activity was not recommended due to microvascular complications

24. Long term use of metformin may cause a biochemical deficiency in which of the following vitamins?
   a. Vitamin D
   b. Vitamin A
   c. Vitamin C
   d. Vitamin B12
25. Which of the following statements regarding self-monitoring of blood glucose (SMBG) is correct according to the standard?
   a. Patients using insulin pumps or intensive insulin injection regimens should perform SMBG at multiple times during the day to prevent hypoglycemia and hyperglycemia
   b. Patients using non-insulin therapies do not need to perform SMBG
   c. Patients using non-insulin therapies should test twice daily at alternating times
   d. SMBG has been replaced by continuous glucose monitoring

26. Which of the following is correct regarding A1C testing
   a. A1C testing should be completed every 6 months in patients who are at goal
   b. A1C testing should be completed every 3 months in patients who are not at goal
   c. A1C testing must be performed every 3 months in all patients with diabetes
   d. A and B

27. The guidelines recommend treating all patients to an A1C goal of less than 7%
   a. True
   b. False

28. If a patient has an A1C of 6.7% what is the corresponding mean post meal glucose?
   a. 164 mg/dL
   b. 139 mg/dL
   c. 176 mg/dL
   d. 130 mg/dL

29. When choosing a glycemic treatment target that is more or less stringent than 7% for a patient, which of the following are modifiable risk factors?
   a. Relevant comorbidities
   b. Life expectancy
   c. Resources and support systems
   d. Disease duration

30. Which of the following is/are true for hypoglycemia prevention and management?
   a. Hypoglycemia should be assessed at every visit
   b. A 15 to 20 g dose of glucose is the preferred treatment for a conscious individual experiencing hypoglycemia
   c. Glucagon should be prescribed for all individuals at risk of clinically significant hypoglycemia (< 54 mg/dL)
   d. All of the above

31. When working with patients who are obese, which of the following is not included in the current recommendations?
   a. BMI should be calculated and documented at each encounter
   b. Diet and physical activity should be prescribed to achieve a 15% weight loss within 6 months
   c. When selecting glucose therapy, weight considerations must be made
   d. Metabolic surgery should be recommended as a treatment for patients with type 2 diabetes with a BMI ≥ 40 kg/m²
32. The recommended starting insulin dose range for patients with type 1 diabetes is:
   a. 0.2 to 0.5 units/kg/day
   b. 20 units daily
   c. 0.4 to 1.0 units/kg/day
   d. 10 units daily with titration

33. FP is a 47 year old Asian American female with diabetes. She is currently using metformin with her A1C above the personal goal set by her health care team. Her prescriber contacted the pharmacy asking for assistance in starting the patient on a basal insulin dose. The prescriber would like you to recommend a weight-based dose. FP weighs 190 lb. Which of the following starting doses is recommended?
   a. 8-17 units
   b. 19-39 units
   c. 10 units
   d. None of these

34. Which of the following glucose lowering classes contributes to weight loss, lower blood pressure and increased LDL?
   a. Dopamine-2 agonists
   b. Amylin mimetics
   c. SGLT-2s inhibitors
   d. GLP-1 receptor agonists

35. Blood pressure should be measured at every routine visit
   a. True
   b. False

36. Which of the following is the blood pressure goal for most patients living with diabetes and hypertension?
   a. < 140/90
   b. <120/80
   c. <160/80
   d. <130/80

37. The recommended intensity of statin therapy for a person with diabetes who is 37 years old with ASCVD risk factors is:
   a. None
   b. Moderate to high
   c. High
   d. Moderate plus ezetimibe

38. Which of the following statin therapies is properly matched?
   a. High intensity statin: fluvastatin XL 80
   b. High intensity statin: atorvastatin 40
   c. Moderate intensity statin: rosuvastatin 20mg
   d. Moderate intensity statin: simvastatin 40 mg
39. FP is a 47 year old male with diabetes and no other atherosclerotic cardiovascular disease risk factors. He arrives at the pharmacy counter asking if he should take a baby aspirin daily. Which of the following is a correct response?
   a. FP should use a dose of 162 mg/day
   b. FP should use dial platelet therapy
   c. FP should not take a daily aspirin
   d. FP should use a dose of 75 mg/day

40. At what point should a patient with type 1 diabetes be referred for a urinary albumin test?
   a. Yearly beginning at diagnosis
   b. Patients with type 1 diabetes do not need an albumin test
   c. After 5 years of diabetes
   d. None of these

41. In patients with type 2 diabetes, which of the following is correct regarding comprehensive eye examinations?
   a. An eye exam should be scheduled annually beginning five years after diagnosis
   b. An eye exam should be scheduled immediately and then every 5 years
   c. An eye exam should be scheduled immediately and then every one to two years depending upon the results of the exam and the level of glucose control
   d. None of these

42. All patients with diabetes should have an annual foot exam and receive preventive foot care instruction.
   a. True
   b. False

43. A reasonable A1C target for an older adult with intermediate co-existing conditions and a fall risk would be:
   a. <6%
   b. <8%
   c. <10%
   d. It is not necessary to treat to goal in this patient

44. What is the A1C goal across all pediatric age groups?
   a. <6.5%
   b. <7.5%
   c. <8%
   d. <9%

45. Which of the following is a one-hour postprandial glucose targets in diabetes and pregnancy?
   a. <120mg/dL
   b. <126 mg/dL
   c. ≤140 mg/dL
   d. <90 mg/dL