

## **Boot Camp 2015 –Practice Exam**

### **For the Answers, please go to Online University Site - Boot Camp 7**

**1. AT is a 43-year old newly started on insulin. Circle the survival topic that is essential for AT to know before discharge.**

- a. managing insulin doses when traveling across time zones
- b. how to adjust his insulin dose before exercise
- c. signs of hypoglycemia
- d. how to adjust insulin dose based on carbohydrates consumed

**2. Which of the following are characteristics of peripheral arterial disease?**

- a. Ingrown toenails
- b. Pulses difficult to palpate due to edema
- c. Callus formation on the ball on the foot
- d. Intermittent claudication

**3. In the process of providing medical nutrition therapy for a person with diabetes, the goal is to improve overall diabetes control by**

- a. Providing a written meal plan
- b. Emphasizing portion control
- c. Assisting the person to make self-directed behavior changes
- d. Using carbohydrate counting

**4. For a person with type 1 diabetes who is using intensive diabetes therapy, meals and snacks can be scheduled according to**

- a. Usual eating habits
- b. Insulin action times
- c. The calorie content
- d. Meal spacing

**5. JJ is 45 years old and has had type 2 diabetes for 5 years. He would like to begin an exercise program, which includes jogging 3 times a week with a friend for 2 miles, which takes about 30 minutes. He takes a sulfonylurea to control his diabetes. If his blood glucose 80 before exercise, how much carbohydrate will he need to consume to prevent hypoglycemia?**

- a. None
- b. 15 g CHO
- c. 30 g CHO
- d. 45 g CHO

**6. MJ is a 78-year-old with type 2 diabetes taking 2 daily insulin injections. Since MJ lives alone, which of the following is MOST important to assess:**

- a. ability to check urine ketones
- b. level of activity
- c. level of social support
- d. ability to accurately draw up and inject his insulin

- 7. What are symptoms of angina for people with diabetes and cardiac autonomic neuropathy?**
- Fatigue, dyspnea, and diaphoresis
  - Crushing chest pain
  - Pain radiating to the jaw
  - Burning pain in legs
- 8. Hyperglycemia during hospitalization is associated with poor outcomes due to**
- Decreased insulin resistance, increased insulin secretion and increased counter regulatory hormones.
  - Increased free fatty acids, ketones, lactate, and inflammatory cytokines.
  - Increased nitric oxide levels
  - Increased risk of alkalosis
- 9. Which of the following statements best reflect the goal of glucose management in the hospital setting.**
- Better to let blood sugars run too high rather than too low.
  - Oral medications are the therapy of choice to manage inpatient hyperglycemia.
  - All patients admitted with a blood glucose greater than 126 mg/dl, should be started
  - On an insulin drip.
  - Insulin therapy is the treatment of choice to manage inpatient hyperglycemia.
- 10. Under Medicare guidelines, which of the following statements is most accurate?**
- Patients with type 2 diabetes are covered for 100 strips every 3 months.
  - Patients with diabetes can re-take the group classes every calendar year with
  - approval from their referring MD
  - Medicare Part A will cover the costs of Diabetes Self-Management Program
  - Under Medicare, only group classes are reimbursed.
- 11. What professional instructional staff are required to establish a recognized diabetes program?**
- At least one health care professional with a CDE
  - A RN and a RD, one of which has a CDE
  - Either a RN, RD or PharmD with recent education in diabetes
  - A health care professional with chronic disease management experience
- 12. A patient arrives at the educator's office for his individual assessment and states that he only wants to learn how to use his new glucose meter. What is the best approach in this situation?**
- The educator should gently inform the patient that they are required to cover 7
  - different content areas
  - Focus on the areas where the educator has the most knowledge and skills to impart
  - Acknowledge the patients request and frame the response based on the educators desired program outcomes.
  - Base the education on the needs of the individual patient

**13. Which of the following statements is true regarding preconception care for women with existing diabetes:**

- a. Spontaneous abortion rates have been found to correlate with A1c values during the first trimester.
- b. Preconception glucose control can eliminate the risk of congenital anomalies and spontaneous abortion.
- c. Most women in the United States with type 1 and type 2 diabetes achieve optimal glycemic control prior to pregnancy.
- d. Major malformations occur after 8 weeks gestation.

**14. Which of the following medications are approved for use in pregnancy?**

- a. HMG-CoA reductase inhibitors (Statins)
- b. ACE Inhibitors
- c. Human insulin
- d. Thiazolidinediones

**15. Pregnancy is said to be a diabetogenic state. Which of the following statements best describes this phenomenon?**

- a. during the second half of pregnancy, the need for insulin increases as the placenta
- b. Produces hormones that cause insulin resistance.
- c. Significant rate of hypoglycemia during the last trimester due to increased prolactin production.
- d. insulin pump therapy is contraindicated during pregnancy due to increased risk of hypoglycemia.
- e. Hyperglycemia persists after delivery in most women with gestational diabetes.

**16. Mrs. S is 25 pounds overweight, has type 2 diabetes and a normal A1c. She takes canagliflozin (Invokana) and follows her meal plan. In discussing preconception care, the educator will suggest which of the following?**

- a. delay conception until she achieves a 25 pound weight loss
- b. discontinue Invokana and start patient on insulin
- c. start patient on prenatal vitamins
- d. discontinue canagliflozin and start glyburide

**17. A woman with type 1 or type 2 diabetes should seek preconception counseling 3-6 months prior to conception. Which is the most important topic to discuss:**

- a. an exercise plan
- b. insulin needs may increase two to threefold during pregnancy
- c. target glucose goals
- d. preventing constipation

**18. Which of the following are desirable blood glucose goals for women with gestational diabetes, according to the American Diabetes Association.**

- a. fasting 60-105 mg/dl, 1 hour post prandial 100-140 mg/dl
- b. fasting 60-90 mg/dl, 2 hour post prandial 100-140 mg/dl
- c. pre meal < or = to 95 mg/dl, 1 hour post prandial < or = to 140 mg/dl, 2 hour post
- d. prandial < or =120 mg/dl
- e. fasting 70-130 mg/dl, 1 hour post prandial <180 mg/dl

**19. The American Diabetes Association recommends universal screening for at risk pregnancies as soon as possible after the confirmation of pregnancy. Criteria for high risk include:**

- a. glycosuria, obese, > 25 years of age, strong family history of diabetes
- b. The same risk factors for type 2 as listed in the ADA standards of medical care.
- c. Obese, >35 years of age, member of high-risk ethnic group, strong family history of diabetes.
- d. Glycosuria, > 25 years of age, member of high-risk ethnic group, strong family
- e. history of diabetes

**20. Which of the following is a correct retinopathy screening guideline according to the American Diabetes Association.**

- a. For both Type 1 and Type 2 diabetes, a dilated eye exam should be done upon diagnosis.
- b. Eye examinations must be provided in-person by an experienced Ophthalmologist or Optometrist.
- c. Laser photocoagulation should be provided to patients with non-proliferative retinopathy.
- d. Patients with new onset type 2 diabetes require a dilated eye exam upon diagnosis.

**21. Which of the following is a true statement about microvascular disease.**

- a. Erectile dysfunction is an indicator of nephropathy,
- b. Smoking increases risk of microvascular disease.
- c. Alcohol consumption decreases neuropathic pain.
- d. Proteinuria is an early indicator of retinopathy.

**22. Mr. J is an 89 year old, who lives alone and has mild retinopathy. His A1c is 9.7% and the MD is written a prescription to start him on intensive insulin therapy. The prescription reads - 3 units of Humalog before each meal and 10 units of Lantus at bedtime. Pt to add 1 unit of Humalog to mealtime dose for every 50 points BG above 150. What would be the best first response to this situation?**

- a. Contact the prescribing doctor and ask to change the patients regimen to 10 units of 70/30 BID.
- b. Start by instructing the patient on how to safely withdrawal and inject insulin.
- c. Assess the patient's ability to inject 4 times a day and calculate insulin dose based on blood glucose.
- d. Assess the patient's knowledge of hypoglycemia identification and treatment.

**23. Mrs. S is having trouble sleeping and complains of waking up with frequent nightmares. Her insulin dose includes 5-8 units of Novolog at breakfast and dinner and 12 units of NPH bedtime. She complains that her before bed blood sugar is often greater than 300, so she takes extra Novolog insulin before going to bed to bring it down. What is your best response?**

- a. Instruct patient to decrease the NPH insulin by 2 units to prevent nocturnal hypoglycemia.
- b. Contact provider and request to discontinue NPH and start Lantus instead.
- c. Provide her with a NPH Sliding Scale that she can adjust if her BG is above target at bedtime.
- d. Discuss safety concerns with patient regarding taking Novolog insulin at bedtime.

**24. Mr. C is 47 year old firefighter who injects 15 units of Detemir at night and 10 units 70/30 in the morning. He also injects Bydureon once a week. His A1C is 7.3% and his goal is to lower his A1c below 7%. His blood glucose levels are in the low 100s in the morning, but frequently above 130 before lunch and above 180 pre-dinner. What is the best action?**

- a. Encourage him to eat and additional 15 gms of carbohydrate at breakfast.
- b. Hold the 70/30 insulin for a few days to determine his baseline blood glucose during the day and recalibrate his am insulin dose.
- c. Increase the am 70/30 insulin to 12 units.

d. Switch the 70/30 insulin to 50/50 insulin.

**25. Which of the following BEST describes insulin resistance?**

- a. Lack of sufficient insulin receptors on fat and muscle cells.
- b. Visceral adipose tissue.
- c. A physiological condition where insulin becomes less effective at lowering blood glucose levels.
- d. Excessive triglyceride levels

**26. Which factor is often associated with insulin resistance?**

- a. Hypogonadism
- b. Acanthosis Nigricans
- c. Excessive hunger
- d. Waist line less than 35 inches

**27. A finding often associated with peripheral arterial disease includes:**

- a. diminished pulses on lower extremities
- b. excessive hair on toes
- c. leg cramps when resting
- d. stasis ulcers

**28. According to the CDC, what best describes the future prevalence of diabetes in the U.S.?**

- a. 50% of people above the age of 20 will have type 2 diabetes.
- b. The rate of type 1 and type 2 diabetes will triple by the year 2050.
- c. 1 out of 3 persons will have type 2 diabetes by the year 2050.
- d. 1 out of 2 persons will have diabetes by the year 2050.

**29. Which of the following interventions is most likely to decrease the prevalence of diabetes in the U.S.**

- a. Encourage people to drink more red wine.
- b. Community based programs that promote daily, healthy lifestyle activities.
- c. Taxing sugary drinks.
- d. Increasing availability of gastric bypass surgery.

**30. According to the American Diabetes Association Standards of Care, who should be screened for type 1 diabetes?**

- a. High risk individuals, based on family history of autoimmune diseases.
- b. All teenagers at puberty.
- c. High risk ethnic groups
- d. All individuals starting at the age of 45

**31. Which of the following is the correct glucose goal for a 6-12 year old child with type 1 diabetes?**

- a. Pre meal blood glucose 70-130 mg/dl
- b. Post meal blood glucose less than 200 mg/dl
- c. A1c less than 7%
- d. Pre meal blood glucose between 90- 130 mg/dl

**32. Choose the correct inpatient glucose goal(s) for non-critical patients.**

- a. Fasting blood glucose less than 126 mg/dl
- b. Post meal blood glucose less than 200 mg/dl
- c. Pre meal blood glucose less than 110 mg/dl
- d. Pre meal blood glucose less than 140 mg/dl

**33. A patient received 3 units of regular insulin before dinner, but couldn't eat due to nausea and vomiting. His blood glucose 2 hours after his insulin injection is 82 mg/dl.**

**Which of the following is the BEST action to prevent hypoglycemia?**

- a. Give the patient a Glucagon injection
- b. Give the patient D50 IV push
- c. Have the patient eat 7 lifesavers
- d. Start an IV of D5W

**34. What best describes the ADA recommended fat intake for people with diabetes?**

- a. Limit saturated fat to less than 7%
- b. Limit trans fats, saturated fat to less than 10%, cholesterol to less than 300 mg a day.
- c. Limit trans fats, saturated fat to less than 7%, cholesterol to less than 300 mg a day.
- d. Avoid all deep fried foods.

**35. Circle the statement that reflects the action of glucagon.**

- a. enhances lipogenesis
- b. inhibits glycogenolysis
- c. promotes protein synthesis
- d. enhances glycogenolysis

**36. John is 59 years old with type 2 diabetes for 16 years and a history of heart disease.**

**Which of the following classes of medications should he be on based on ADA guidelines?**

- a. Blood pressure medication and Vitamin D
- b. Statin and B12 replacement
- c. Aspirin and alpha lipoic acid
- d. Statin and Blood pressure meds

**37. Which of the following studies demonstrated that keeping A1C less than 7% decreased risk of complications for type 2?**

- a. United Kingdom Prospective Diabetes Study
- b. Diabetes Control and Complications Trial
- c. Diabetes Prevention Program
- d. Trial for Diabetes in Youth

**38. Which of the following class diabetes medication can cause weight gain?**

- a. SGLT-2 Inhibitors
- b. GLP-1 Agonists
- c. .DPP-IV Inhibitors
- d. Thiazolidinediones

39. **AJ has been instructed to take glyburide 5 mg twice a day. AJ frequently skips breakfast and has first meal at noon. What would be the best recommendation for AJ?:**
- Test blood glucose and take glyburide in morning if BG is greater than 130 mg/dl.
  - Take am glyburide before first meal at noon
  - Hold morning glyburide and only take before dinner glyburide
  - Insist that AJ eat breakfast and take am glyburide
40. **TR is taking 15 units of glargine at bedtime and 4 units of Humalog before each meal. TR is experiencing about 3 episodes of hypoglycemia a week, usually before lunch. What initial change in self-management would you recommend?**
- decrease the glargine dose by 2 units
  - decrease the humalog before breakfast
  - ask TR to monitor 2 hour post-prandial glucose levels
  - ask TR to increase carbohydrate intake by 15 gms at breakfast
41. **KL is a 24 year is being treated DKA. What is the most important action to take before the insulin drip is stopped?**
- Start IV drip of 5% dextrose
  - Monitor for hypokalemia
  - Make sure there is a glucagon emergency kit in the room
  - Give sub-q insulin
42. **Mr. Pasteur is started on the following insulin regimen: 22uNPH/10uReg before breakfast, 5u Reg before dinner and 10uNPH before bedtime. His BMI is 33. His evening blood glucose levels are running 180 – 210 mg/dl. Which of the following changes would best help get his bedtime glucose levels to goal?**
- Increase before dinner NPH insulin
  - Increase am NPH insulin
  - Increase the dose of regular insulin before dinner by 30%
  - Evaluate carbohydrate intake at dinner
43. **John has uncontrolled type 1 diabetes for the past 10 years. What are signs that he is has autonomic neuropathy?**
- excess perspiration on lower extremities and gastroparesis
  - bradycardia and skin infections
  - gastroparesis and fixed heart rate
  - hypotension and acanthosis nigricans
44. **Of the following, which risk factor combination is most predictive of retinopathy?**
- hypertension and prolonged hypoglycemia
  - hypertension and hyperglycemia
  - history of stroke and hyperglycemia
  - history of previous foot ulceration or amputation

**45. You suspect your 16 year old client, may have disordered eating. Which behavior may be an indication that MZ has disordered eating?**

- a. She avoids all junk foods
- b. Her blood glucose log book has BG levels at target, but her A1c is 11.2%
- c. She cuts down on calories when clothes start getting tight
- d. She exercises for 30-60 minutes each day

**46. During a diabetes education session, you notice your patient on insulin is beginning to sweat profusely and is having difficulty speaking. What is the best action?**

- a. Get a meter to check her BG levels
- b. Give her Glucose gel
- c. Call the doctor for orders
- d. Give half a glucagon injection

**47. MZ is started on Lantus insulin at bedtime. Circle the most important teaching point for this patient.**

- a. How to adjust Lantus dose based on bedtime blood glucose
- b. How to adjust Lantus insulin dose based on am glucose
- c. Goals for am blood glucose
- d. How to adjust insulin dose based on carbohydrates consumed

**48. One of the most important factors to consider when individualizing a meal plan for a person with diabetes include:**

- a. Medical history and type of diabetes
- b. Laboratory data and weight
- c. Laboratory data and weight
- d. Cultural background and food preferences