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**Nutrition Therapy for Adults with Diabetes**

*An interview with Jackie Boucher, RD, LD, CDE, Chief Operating Officer, Minneapolis Heart Institute Foundation, Minneapolis, MN*

*In 2013, the American Diabetes Association published updated guidelines on nutrition — Nutrition Therapy Recommendations for the Management of Adults with Diabetes. Instead of making specific recommendations for percentages of macronutrients, the guidelines focus on eating patterns.*

**The Road to Bariatric Surgery**

*An interview with Ilda Lingvay, MD, Associate Professor, Division of Endocrinology and Department of Clinical Sciences, The University of Texas Southwestern Medical Center, Dallas, TX*

*Bariatric surgery is the only intervention that can cause remission of diabetes. Understanding the underlying mechanism could lead to therapies with more widespread application. In the meantime, candidates for surgery should be carefully chosen and followed postoperatively to increase successful outcomes.*

**Targets, Goal Setting, and Treatment Options for Older Adults with Diabetes**

*An interview with Gene Wright, MD, Senior Advisor for Medical Affairs, Cape Fear Valley Health System, Fayetteville, NC*

*Treatment of diabetes in older adults must be individualized based on several factors, including their general health, life expectancy, comorbidities, and complications.*

**Your Host:** John Anderson, MD, American Diabetes Association, Nashville, TN

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**Educational Objectives**

The goal of this program is to improve the management of diabetes. After hearing and assimilating this program, the clinician will better be able to:

1. Recommend healthy eating patterns to patients with diabetes and make timely referrals to a dietitian.
2. Select appropriate patients for referral for bariatric surgery.
3. Provide lifelong postoperative follow-up care for patients who have undergone bariatric surgery.
4. Work with older patients with diabetes and their caregivers to set targets and goals for treatment.

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**Online Resources**

Standards of Medical Care in Diabetes, 2014 [http://care.diabetesjournals.org/content/37/Supplement_1/S14.full](http://care.diabetesjournals.org/content/37/Supplement_1/S14.full)

Nutrition Therapy Recommendations for the Management of Adults with Diabetes [http://care.diabetesjournals.org/content/37/Supplement_1/S120.full](http://care.diabetesjournals.org/content/37/Supplement_1/S120.full)

Readiness Ruler [www.centerforebp.case.edu/resources/tools/readiness-ruler](www.centerforebp.case.edu/resources/tools/readiness-ruler)


Diabetes in Older Adults [http://care.diabetesjournals.org/content/35/12/2650](http://care.diabetesjournals.org/content/35/12/2650)

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**Faculty Disclosure**

In adherence to ACCME Standards for Commercial Support, Audio-Digest requires all faculty and members of the planning committee to disclose relevant financial relationships within the past 12 months that might create any personal conflicts of interest. Any identified conflicts were resolved to ensure that this educational activity promotes quality in healthcare and not a proprietary business or commercial interest. For this program, the following was disclosed:

**Dr. Anderson** reported relationships with Amylin Pharmaceuticals (B), Daichii Sankyo Company, (B), Eli Lilly and Company (B), Novo Nordisk (B), and sanofi-aventis US (A). **Dr. Wright** reported relationships with Abbot Diabetes Care (A,C), Boehringer Ingelheim/Eli Lilly and Company (A,B,C), **Dr. Boucher, Lingvay**, and the members of the planning committee reported nothing to disclose.

A=Advisory panel B=Speakers bureau C=Consultant G=Grant or other research support
Nutrition Therapy for Adults with Diabetes

Interview with:
Jackie Boucher, RD, LD, CDE, Chief Operating Officer, Minneapolis Heart Institute Foundation, Minneapolis, MN

ADA nutrition guidelines
In 2013 the American Diabetes Association (ADA) published an updated position statement on nutrition: Nutrition Therapy Recommendations for the Management of Adults with Diabetes. The recommendations are for adults with type 1 or type 2 diabetes. The position statement addresses specific nutrients (ie, carbohydrates, proteins, fats). It also addresses eating patterns, because people do not eat individual nutrients but rather groupings of foods. The statement also covers energy expenditure and weight loss because ≥75% of people with diabetes, especially type 2 diabetes, are overweight or obese.

Macronutrients
There is no evidence to support intake of specific percentages of carbohydrates, proteins, or fats. Instead, the position statement emphasizes quality of food choices and portion control to prevent weight gain and enable weight loss.

Referral to a dietitian
An Institute of Medicine report (1999) recommends referring all people with diabetes to a registered dietitian for medical nutrition therapy. This is based on study outcomes showing a significant reduction in hemoglobin A1c when people learn about nutrition and match their food intake (eg, carbohydrates) with medication (eg, insulin).

In a study of >18,000 patients with diabetes, only 9% were referred to a dietitian over 9 years. Only 50% of patients with diabetes are referred for diabetes self-management education. Primary care physicians should refer patients for these services, which are covered by health insurance. People with diabetes should see a dietitian annually and when treatment changes significantly or other chronic conditions develop.

Weight loss
Diabetes is a progressive disease. Over time, most people with type 2 diabetes will require insulin. Patients should not feel as though they have failed because they need a new medication. Diet and exercise are equally important both before and after new medications are started.

For the position statement, studies on weight loss with ≥12 months of data, A1C levels measured at 12 months, and ≥80% retention rate were evaluated. There was no evidence to support one eating plan over another.

For weight loss, the emphasis should be on energy balance (eg, increased physical activity) and ongoing counseling and support. Based on the studies evaluated, weight loss is typically most successful early in the disease process. Weight loss at 1 year ranged from 1.9 to 8.4 kg. The greatest weight loss was achieved in a study of the Mediterranean-style eating pattern (≈13 lbs) and in the Look AHEAD (Action for Health in Diabetes) study (≈18 lbs).

These were intensive studies early in the disease. It is unclear whether the results can be replicated in clinical practice. Referral to a dietitian or other diabetes program for ongoing support is crucial to help patients be successful.

Glycemic control and other benefits
Some of the studies evaluated showed beneficial effects of weight loss on A1C levels at 12 months. There was ≈1.2% reduction in A1C with the Mediterranean-style eating pattern and ≈0.6% reduction in the Look AHEAD trial.

Some studies showed beneficial effects on cardiovascular (CV) risk factors (eg, triglycerides, high-density lipoprotein cholesterol, blood pressure). Others did not show CV benefits. The Look AHEAD trial showed additional health benefits of weight loss (eg, reduced sleep apnea, depression, and urinary incontinence and improved quality of life). There clearly are benefits to weight loss. However, clinicians must be realistic about how much weight loss patients can achieve and maintain; they should provide resources and support to help patients be successful.

Low-carbohydrate diets
Studies of low-carbohydrate diets tend to have high drop-out rates. Such diets probably are effective for some individuals. A low-carbohydrate diet can mean different things to different people. Even in the literature, varying definitions of “low-carbohydrate” can make it difficult to evaluate the effectiveness of these diets. The inability to compare studies makes it difficult to make recommendations.

Mediterranean-style eating pattern
The Mediterranean-style eating pattern is typically plant-based, including fruits, vegetables, whole grains, nuts, legumes (eg, lentils, fava beans, chickpeas), and olive oil. Moderate amounts of meat are eaten a few times a week, and the diet includes fatty fish (eg, salmon, herring), which contain omega-3 fatty acids. Wine is drunk with meals.

This eating pattern encompasses lifestyle as well as diet. Lifestyle behaviors in the Mediterranean include, eg, siestas and eating meals with family. Wine is consumed with a meal, which confers more health benefits than drinking it without food. Dessert is usually fruit.

Some research shows health benefits of the Mediterranean-style eating pattern. Some studies show improvement in glycemic control and other CV risk factors. However, results are not consistent, and some studies did not control for weight loss. An analysis by the Academy of Nutrition and Dietetics found that substituting 5% of saturated fat with monounsaturated fatty acids (eg, extra virgin olive oil) improves insulin sensitivity and other CV risk factors.

Challenges to obtaining fresh food
There is a national trend toward eating more whole foods grown locally. It is possible to obtain fruits and vegetables in season at a reasonable cost. If that is not available, frozen fruits and vegetables are the next best option, followed by canned foods.

PREDIMED study
The Effects of the Mediterranean Diet on the Primary Prevention of Cardiovascular Disease (PREDIMED) study randomly assigned ≈8,000 adults to a low-fat diet (control arm), a Mediterranean-style eating pattern supplemented with 1 liter of olive oil a week, or a Mediterranean-style eating pattern supplemented with mixed nuts. At the end of the study, both groups on a Mediterranean-style diet had a 30% reduction in CV endpoints (eg, stroke). The study included people with and without diabetes.

Sodium
The ADA position statement has different recommendations for sodium intake than those of the American Heart Association (AHA) and Centers for Disease Control and Prevention (CDC). The ADA recommends restricting sodium to <2,300 mg/day, while the AHA and CDC recommend <1,500 mg/day. The ADA writing committee concluded that the evidence is not strong enough to support a recommendation of <1,500 mg/day. They also recognized the difficulty of restricting sodium intake to this level.

The ADA recommendation is based on evidence only from studies of people with diabetes. For some people with diabetes, a lower sodium intake may help reduce blood pressure. Ultimately, clinicians must individualize recommendations based on each patient’s metabolic profile.

Garlic, herbs, and spices can be recommended as substitutes for salt to season food.

New recommendations
A new recommendation in the position statement advises clinicians to discourage people with diabetes from drinking sugar-sweetened beverages.

In the past, people with diabetes who experienced hypoglycemia often were advised to consume a carbohydrate with a protein in it. However, evidence suggests that protein decreases the insulin response.
The new recommendation for treating hypoglycemia is to choose a carbohydrate source without a protein.

**Clinical Pearl**

The new recommendation for treating hypoglycemia is to choose a carbohydrate source without a protein.

**Track 2:**

**THE ROAD TO BARIATRIC SURGERY**

**Interview with:**

Ilda Lingyay, MD, Associate Professor, Division of Endocrinology and Department of Clinical Sciences, The University of Texas Southwestern Medical Center, Dallas, TX

**Diabetes and medical intervention**

About 25% of patients in clinical practices have diabetes. Current medical interventions fall short of causing remission of the disease, long-term improvement, or reversal of beta-cell dysfunction. Bariatric surgery is associated with significant rates of diabetes remission.

**Remission of diabetes with bariatric surgery**

Rates of remission of diabetes with bariatric surgery are commensurate with the complexity of the procedure:
- ≈50% with adjustable gastric banding
- ≈75% with sleeve gastrectomy
- ≈80% with Roux-en-Y gastric bypass
- ≈90% with biliopancreatic diversion

These remission rates are sustained for at least the first few years after surgery.

**Sleeve gastrectomy**

Sleeve gastrectomy is a newer procedure that has become popular in the past 5 years because the risk-benefit ratio is favorable. The results are almost as good as with Roux-en-Y gastric bypass or biliopancreatic diversion, and there are fewer side effects and long-term metabolic and nutritional complications.

**Physiology of diabetes remission**

The physiology underlying diabetes remission with bariatric surgery elucidates researchers. The goal is to understand these mechanisms. Currently, only ≈1% of people with diabetes who are eligible for bariatric surgery have the surgery because of the limited number of surgeries that can be performed, cost, and risk-benefit ratio. Therefore, while it is effective, bariatric surgery is not a solution for the public health crisis.

Studying the physiology underlying remission could potentially lead to treatments for diabetes that are as effective as bariatric surgery but could be applied at a population level.

There are several hypotheses to explain remission with bariatric surgery. The hindgut and foregut hypotheses state that bypassing the proximal small intestine and delivering undigested food to the distal intestine causes hormonal changes that reverse diabetes. Another hypothesis relates to changing bile acid absorption and concentration. Other hypotheses suggest that stomach hormones (e.g., ghrelin), stomach restriction, food restriction, or weight loss potentially contribute to diabetes remission.

Adjustable gastric banding has no known hormonal component, and yet it is associated with ≈50% rate of diabetes remission. This suggests that food restriction itself, if sustained, can have a large impact on remission.

Research suggests that hormonal changes are not the prevailing factor or direct effect in remission of diabetes. It seems more likely that they produce a central effect that allows the patient to maintain the decreased caloric intake.

Finding a mediator or hormone that will allow patients to maintain caloric restriction could provide a solution to the problem of diabetes.

**Candidates for bariatric surgery**

Studies show that two factors are predictive of diabetes remission: greater amounts of weight loss and less advanced diabetes. Patients most likely to benefit from bariatric surgery are those psychologically motivated to adopt required long-term lifestyle changes (because they are likely to lose the most weight) and those early in the course of diabetes.

**Benefits beyond diabetes**

Bariatric surgery has positive effects beyond diabetes (e.g., on osteoarthritis, sleep apnea, depression, polycystic ovary syndrome, mortality). The more comorbidities patients have, the more likely they will be to benefit from the surgery.

**BMI cutoff**

According to National Institutes of Health guidelines (1991), patients with a body mass index (BMI) ≥40 or a BMI of 35 to 40 with comorbidity (e.g., diabetes) are eligible for bariatric surgery.

Guidelines from the American Association of Clinical Endocrinologists (AACE), the Obesity Society, and the American Society for Metabolic and Bariatric Surgery have expanded the indications for bariatric surgery to include patients with a BMI of 30 to 35 and comorbidities, adolescents, and patients >45 years of age (for whom bariatric surgery was previously considered too risky). Pay- ers have not yet generally adopted the new guidelines.

Studies looking at the effectiveness of bariatric surgery for people with diabetes at various BMI cutoffs have found equivalent benefits regardless of BMI. Any patient with diabetes can benefit from bariatric surgery.

**Training programs for surgeons**

There are accredited and nonaccredited surgeons and accredited and nonaccredited medical centers. There is a 1-year fellowship in bariatric surgery and a bariatric surgery board certification. Not all surgeons who perform bariatric surgery are fellowship trained or board certified. Some studies show that volume of surgeries and training of surgeons can affect long-term complications.

**Postoperative care**

Postoperative care is the most important part of treatment for patients undergoing bariatric surgery. There are several possible complications of the surgery, many of which are preventable. Lifelong follow-up is necessary and indicated. Many surgeries do not follow up with patients, which can result in worse outcomes.

The Endocrine Society and AACE have published guidelines on postoperative care of patients undergoing bariatric surgery. After surgery, patients should take multivitamins that contain all micronutrient minerals (e.g., copper, zinc, selenium) and folic acid (≥400 mg). After the more restrictive procedures that cause malabsorption (e.g., Roux-en-Y gastric bypass, biliopancreatic diversion) patients should take 2 multivitamins a day.

Physicians should test for common nutritional deficiencies (e.g., calcium, vitamin D, vitamin B₆, vitamin B₁₂, zinc, vitamin B₁, vitamin B₃, vitamin A) and supplement if needed. These should be measured 1 month before surgery and then 1, 3, 6, 9, and 12 months after surgery. Thereafter, they should be measured yearly, depending on how the patient is doing. After surgery, patients should consume ≥1,500 mg of calcium and ≥3,000 IU of vitamin D a day. Some patients get this from their diet. A good dietary review is needed to determine whether and how much supplementation is needed. Periodic measurement of the levels is needed to make sure the combination of diet and supplementation is sufficient to achieve the target levels. If it is not, adjust the dose of the supplement until the goal is met. This should be done for the other monitored vitamins and minerals as well.

A dual energy x-ray absorptiometry (DXA) scan should be performed 6 months and 1 year after malabsorptive bariatric surgeries and every 2 years thereafter. It should be performed every 2 years for procedures that are not malabsorptive. Adjust treatment based on the results.

Kidney stones are more common after bariatric surgery. Proper hydration and decreased intake of foods containing oxalates can help with prevention. For patients who have recurrent kidney stones, agents such as citrate can help.
Surgical complications
Complications within 30 days of surgery. These include leaks into the anastomosis, ulcerations, obstructions, pulmonary embolism, deep venous thrombosis, renal failure, and respiratory failure. The rate of these complications ranges from 2% (for adjustable lap banding) to 11% (for Roux-en-Y gastric bypass).

Long-term complications. These occur in 20% to 30% of patients and depend on the procedure. The most common complication is gallstones. Most surgeries include prophylactic cholecystectomy. Other possible complications are dehiscences, ulcers, and hernias (internal or external).

Primary care physicians should be aware of these complications and have a low threshold for evaluation.

Adjustment of medications after bariatric surgery
Good guidelines regarding medications for blood pressure, diabetes, and cholesterol following bariatric surgery do not exist. There is little evidence to support decisions to continue or stop these medications.

One approach is to decrease diabetes medications upon discharge from the hospital and follow up at short intervals in the first 3 months (3 or 4 visits). Continue to decrease medications as appropriate.

Avoid using short-acting insulin (eg, regular insulin), which will last longer than needed because of faster absorption. This could increase risk for hypoglycemia. If mealtime insulin is needed (although it should be avoided if possible), use rapid-acting insulin. If basal insulin is needed, decrease the dose and monitor for overnight hypoglycemia. The preferred agents are the ones with the least likelihood of causing hypoglycemia (eg, sodium-glucose cotransporter 2 [SGLT2] inhibitors, glucagon-like peptide-1 [GLP-1] receptor agonists, dipeptidyl peptidase-4 [DPP-4] inhibitors, metformin).

Unless the patient is hypoglycemic, metformin should most likely be continued even when the person is cured. There is a 30% rate of long-term recurrence of diabetes, and metformin may help to decrease the risk.

Although evidence is lacking, Dr. Lingvay generally continues statins in patients with diabetes after bariatric surgery. It is not known whether lifelong exposure to risk factors will be reversed by the surgery.

Antihypertensive medications should be adjusted to reach the goal of <140/90 mm Hg.

Patient responsibility
Patients must understand that they will need to monitored more closely after bariatric surgery than if they hadn’t had the surgery. Complications can arise at any time after surgery, even many years later. Patients require lifelong monitoring from their primary care physician.

Track 3:
TARGETS, GOAL SETTING, AND TREATMENT OPTIONS FOR OLDER ADULTS

Interview with:
Gene Wright, MD, Senior Advisor for Medical Affairs, Cape Fear Valley Health System, Fayetteville, NC

Diabetes and aging
The ADA and the American Geriatrics Society published a consensus report on diabetes in older adults in 2012. It addresses targets for older adults with diabetes, confounding issues, and simple strategies to overcome barriers.

The consensus report recommends individualizing targets for older adults based on their unique situations. For adults >65 years of age in good physical health, who have adequate resources and few to no complications, there is no evidence to suggest that goals should differ from goals for adults <65 years of age. Targets may be loosened for patients with a life expectancy of <10 years who have multiple comorbidities and complications. For patients who fall between the two extremes (eg, life expectancy of 10 to 15 years with comorbidities) targets must be individualized.

Guidelines from the Department of Veterans Affairs and Department of Defense
Guidelines from the U.S. Department of Veterans Affairs and the U.S. Department of Defense (2010) made the following recommendations:

• A1C target <7% for the “healthy elderly” (ie, no or mild microvascular complications and life expectancy >10 to 15 years)
• A1C target <8% for patients with longer-duration diabetes, possibly with comorbidities, and life expectancy >10 to 15 years
• A1C target 8% to 9% for patients with advanced complications

The guidelines take into account two principles: avoidance of acute complications of prolonged hyperglycemia and avoidance of acute complications of hypoglycemia.

Comorbid geriatric conditions
• Cognitive dysfunction
• Functional impairments (ie, inability to exercise or walk)
• Falls and fractures
• Depression
• Vision and hearing impairment
• Inadequate nutrition
• Polypharmacy

Setting goals for older patients
Some older adults are independent, while others depend on caregivers (eg, family, friends, neighbors). It is important to engage primary caregivers in goal setting and shared decision making.

For shared decision making, physicians should start by discussing what is happening in the patient’s life (eg, obstacles, barriers, what they can do, what they have difficulty doing). Physicians should then encourage patients to set goals. Using the Readiness Ruler tool, physicians can gauge how ready patients are to make a change by evaluating the importance of the change and the patient’s confidence and ability to achieve it.

SMART goal setting
With information from the Readiness Ruler, the physician and patient can engage in SMART goal setting and action planning. SMART is an acronym for specific, measurable, attainable, relevant (realistic), and timed (time-based).

Patients who make and share a commitment to change a behavior or set a goal are more likely to succeed. Writing down the goal increases the chance of accomplishing it from ≈5% to ≈15%. Telling someone else about the desire to make a change increases the chance of success to ≈25%.

Treatment considerations
Considerations when treating older adults include:

• Cost: Older patients with limited resources may have difficulty obtaining newer diabetes drugs.
• Safety: Avoid exposing older patients to increased risk for hypoglycemia.
• Efficacy.

Sulfonylureas
Sulfonylureas are used for older adults with diabetes, primarily because of their inclusion on formularies and low cost. They must be used cautiously. Avoid long-acting formulations. Sulfonylureas
should not be titrated to reduce A1C to very low levels. Ideally, sulfonylureas should be used in low doses as adjunctive therapy (eg, with metformin) along with an exercise program.

**Thiazolidinediones**

Generic forms of thiazolidinediones (TZDs) are now available, which has reduced their cost. Other advantages of TZDs include a low risk for hypoglycemia and association with a favorable lipid profile in adults >65 years of age. Physicians should discuss with patients advantages and disadvantages of medications.

**Newer medications**

Long-term effects of newer diabetes medications (eg, incretin-based therapies, SGLT2 inhibitors) are unknown. Some ongoing trials are looking at CV effects of the newer medications. Cost is a consideration for many older adults. However, the high cost of the newer medications may be balanced by reduced costs associated with hypoglycemia (eg, visits to emergency department, hospitalizations). Over the past 10 years, control of diabetes has improved. However, there has been an 11% to 12% increase in emergency department visits and hospitalizations for hypoglycemia. Some of the newer therapies provide modest declines in A1C with the advantage of low risk for hypoglycemia. Hypoglycemia can be particularly problematic for older adults; getting up in the night can lead to a fall and a hip fracture.

**Telemedicine**

Telemedicine is used effectively for monitoring pacemakers and cardiac disease, but use of this technology has yet to be translated to diabetes. Hopefully, it will in the future.

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**Suggested Reading**


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**Designation:** The Audio-Digest Foundation designates this enduring material for a maximum of 2 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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Registered Dietitians or Dietetic Technicians, Registered may claim up to 2 CPEUs (toward the self-study component of maintenance of registration requirements) for each issue of *Diabetes Insight* completed successfully. The Commission on Dietetic Registration (CDR) accepts *AMA PRA Category 1 Credit™* from organizations accredited by the ACCME.

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**Expiration:** The CME activity qualifies for *AMA PRA Category 1 Credit™* for 3 years from the date of publication.

**Cultural and linguistic resources:** In compliance with California Assembly Bill 1195, Audio-Digest Foundation offers selected cultural and linguistic resources on its website. Please visit this site: www.audiodigest.org/CCLResources.

**Estimated time to complete the educational process:**

- Review Educational Objectives on page 1: 5 minutes
- Take pretest: 10 minutes
- Listen to audio program: 60 minutes
- Review written summary and suggested readings: 35 minutes
- Take posttest: 10 minutes
1. For people with type 1 diabetes, the updated American Diabetes Association (ADA) position statement on nutrition recommends that _______ of daily food intake should be protein.

   (A) 10%  (B) 15%  (C) 20%  (D) The ADA makes no specific recommendation

2. Which of the following groups should be referred to a dietitian for medical nutrition therapy?
   (A) All patients with diabetes
   (B) Only patients with diabetes who are overweight or obese
   (C) Only patients with diabetes with hemoglobin A1c >7.5%
   (D) Only patients with diabetes with microvascular or macrovascular complications

3. The ADA position statement on nutrition recommends restricting sodium to:
   (A) <1,500 mg/day  (B) <2,000 mg/day  (C) <2,300 mg/day  (D) <3,000 mg/day

4. People with diabetes who experience hypoglycemia should be advised to consume a:
   (A) Carbohydrate with a protein in it
   (B) Protein
   (C) Carbohydrate without a protein
   (D) Carbohydrate with a fat

5. Remission of diabetes occurs in ≈ _______ of patients after sleeve gastrectomy.
   (A) 30%  (B) 50%  (C) 75%  (D) 90%

6. Which of the following factors are most predictive of remission of diabetes after bariatric surgery?
   1. Greater amounts of weight loss
   2. Higher baseline body mass index
   3. Less advanced diabetes
   4. More advanced diabetes
   (A) 1,2  (B) 1,3  (C) 2,3  (D) 1,4

7. After bariatric surgery, patients should be followed up for:
   (A) 1 year  (B) 5 years  (C) 10 years  (D) Life

8. After a patient has had bariatric surgery, primary care physicians should routinely measure:
   (A) Calcium
   (B) Vitamin B12
   (C) Vitamin A
   (D) All the above

9. According to guidelines from the U.S. Department of Veterans Affairs and the U.S. Department of Defense, what should the A1C target be for patients with longer-duration diabetes, possibly with comorbidities, and life expectancy >10 to 15 years?
   (A) <7%  (B) <8%  (C) <9%  (D) <10%

10. In adults >65 years of age, thiazolidinediones are associated with:
    (A) Favorable lipid profile
    (B) High risk for hypoglycemia
    (C) Lower efficacy than in younger patients
    (D) Decreased risk for bone fractures

Answers to DiabetesInsight Volume 05, Issue 13: 1-C, 2-D, 3-B, 4-D, 5-A, 6-C, 7-D, 8-A, 9-A, 10-C