

Emerging Type 2 Diabetes Treatment Strategies: Practical Solutions for a Complex Environment

Method of Participation

There are no fees for participating and receiving CME/CPE credit for this activity. During the period October 1, 2012, through November 30, 2013, participants must (1) read the learning objectives and faculty disclosures; (2) study the educational activity; (3) complete the posttest by recording the best answer to each question in the answer key on the evaluation form; (4) complete the evaluation form; and (5) submit the evaluation form with answer key to Postgraduate Institute for Medicine (PIM).

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Media

Online journal supplement

System Requirements:

PC-based participants:

Windows 7, Vista, XP, 2003 Server, or 2000

Macintosh-based participants:

Mac OS X 10.4.11 (Tiger) or newer

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Accreditation

Physician Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Postgraduate Institute for Medicine and Impact Education, LLC. Postgraduate Institute for Medicine is accredited by the ACCME to provide continuing medical education for physicians.

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(Universal Activity Number - 0809-9999-12-257-H01-P)

Type of activity: Application

Posttest Questions

1. Which of the following statements regarding the use of intensive glycemic therapy to control cardiovascular end points in patients with long-term type 2 diabetes at high risk for CV events is FALSE?

- The ACCORD and VADT studies used combinations of oral agents and insulin therapy to achieve outcomes
- The goal of therapy in ACCORD and AD-

VANCE was an A1C level of $<6.0\%$ and $\leq 6.5\%$ in VADT

- c. Trends observed in ACCORD, ADVANCE, and VADT suggest that patients without overt CVD, shorter duration of disease, and lower baseline A1C level benefit from intensive treatment strategies
- d. Intensive antidiabetic therapy in ACCORD was associated with a 22% increase in total mortality
- e. None of the above are false

2. Which of the following is consistent with the ADA's and the AACE/ACE's recommendations for efforts to reduce the global CVD risk in patients with type 2 diabetes?

- a. A1C level $\leq 6.5\%$ and $<7.0\%$, respectively; blood pressure $<130/80$ mm Hg; and LDL-C level <100 mg/dL
- b. A1C level $\leq 6.0\%$ and $<6.5\%$, respectively; blood pressure $<120/70$ mm Hg; and LDL-C level <110 mg/dL
- c. A1C level $\leq 6.5\%$ and $<7.0\%$, respectively; blood pressure $<120/80$ mm Hg; and LDL-C level <100 mg/dL
- d. None of the above

3. Which of the following statements regarding newer therapies in patients with type 2 diabetes is true?

- a. Incretin-based therapies improve beta cell function, stimulate insulin secretion, inhibit glucagon secretion, reduce the risk of hypoglycemia, and reduce appetite
- b. The DPP-4 inhibitors sitagliptin, saxagliptin, and linagliptin increase endogenous GLP-1 and reduce A1C level
- c. In order to achieve therapeutic goals with DPP-4 inhibitors, they may need to be combined with metformin or a statin
- d. GLP-1 receptor agonists enhance glucose-dependent insulin secretion, suppress glucagon release, slow gastric emptying, and are associated with increased satiety and increased weight loss
- e. All of the above

4. The addition of an incretin-related agent to _____ may help address residual postprandial hyperglycemia, lower the risk of hypoglycemia, and minimize weight gain.

- a. Basal insulin
- b. Sulfonylurea
- c. Thiazolidinediones
- d. Acarbose

5. All of the following limit the application of results from randomized controlled clinical trials to "real world" settings EXCEPT:

- a. Placebo comparators
- b. Surrogate measures of disease improvement
- c. Strict inclusion criteria
- d. Routine monitoring of patients
- e. Below-average adherence to therapy

6. Choose the answer that best completes the following statement: Comparative effectiveness research utilizes nontraditional decision support tools used for managing the evolving complexity of pharmacologic treatment in place of results from _____.

- a. Markov modeling
- b. Bayesian analysis
- c. Randomized clinical trials
- d. Indirect and mixed treatment comparisons
- e. Network analysis

7. True or False: The CORE Markov model showed that treatment with once-weekly exenatide extended-release resulted in greater improvements in A1C level and body weight compared with sitagliptin and pioglitazone at 6 months.

- a. True
- b. False

(Continued)

8. In value-based pharmacy benefits, which minimize the patient's share of the cost of care while maintaining high-quality treatment outcomes, copays have been reduced for all of the following except:

- a. Asthma
- b. Infectious disease
- c. Diabetes
- d. Hypertension
- e. Lipid-lowering therapy

9. Regarding emerging models designed to improve the quality of healthcare, which of the following statements is false?

- a. The PPACA has motivated providers and other stakeholders to focus on the value of care provided
- b. The PPACA has motivated providers and other stakeholders to focus on the volume of care delivered
- c. The evolving payment/delivery paradigm rewards value through the use of value-based purchasing, shared savings, gain-sharing models, bundled payments, and capitation
- d. The CMS 5-Star Rating System coordinates care among providers and motivates providers to improve adherence
- e. The CMS 5-Star program and, going forward, plans achieving at least 4 stars receive financial bonuses along with higher rebates, whereas plans with 3 stars or less receive no economic rewards and are flagged as "low quality" on the Medicare website.

10. The total cost of diabetes care rises as the A1C level increases, most likely due to:

- a. Cost of medication
- b. Greater number of micro- and macrovascular complications
- c. Low patient adherence to prescribed treatment
- d. Need for more frequent blood glucose monitoring
- e. Need for a greater number of medications to control A1C level

Postsurvey

What is your profession?

- MD/DO Pharmacist NP/RN
 Case Manager Other _____

What best describes your primary role?

- Pharmacy Director Medical Director
 Clinical Pharmacist Pharmacy Consultant
 PBM Pharmacist Integrated Health System Pharmacist
 Quality Director or Associate Network Physician
 CMS/Government Policy Other Pharmacist
 Other Clinician Case Manager
 Other _____

How many years have you been in your area of responsibility?

- <5 5-10 11-20 >20

Is your primary responsibility in a managed care health setting? Yes No

To what extent do you agree with the following statements? (Please select the appropriate number on the scale.)

- 1 = Strongly Disagree 2 = Disagree
3 = Somewhat Disagree 5 = Somewhat Agree
5 = Agree 6 = Strongly Agree

Incretin-based therapies developed as a treatment for type 2 diabetes (GLP-1 agonists and DPP-4 inhibitors) both increase or sustain the level of circulating GLP-1 but employ different mechanisms of action within the GLP-1 pathway.

Strongly Disagree 1 2 3 4 5 6 Strongly Agree

Overall results of the DURATION study indicate that the mean change from baseline in A1C level for patients receiving extended-release exenatide was significantly greater than that observed in patients receiving twice-daily exenatide, sitagliptin, or insulin glargine.

Strongly Disagree 1 2 3 4 5 6 Strongly Agree

Managed care algorithms frequently position metformin as the primary first-line agent, and in many cases, it is the only real step-edit in place as barriers to the other classes of drugs have mostly been removed.

Strongly Disagree 1 2 3 4 5 6 Strongly Agree

In addition to traditional CER approaches (such as systematic reviews, meta-analyses, and retrospective claims analyses), Markov modeling and Bayesian analysis can be applied to predict patient outcomes in scenarios where clinical trials are not feasible.

Strongly Disagree 1 2 3 4 5 6 Strongly Agree

Now that you have completed the activity, how frequently do you intend to engage in this behavior in your position or practice setting?

(1= Never; 5 = Always; check box if this decision or authority is outside your usual scope of practice)

I support implementation of a value-based benefit design for type 2 diabetes management in my setting.

1 2 3 4 5 OR Not within my scope of practice

I support implementation of CER as a tool to view all available evidence describing the risks and benefits of each therapeutic choice for type 2 diabetes.

1 2 3 4 5 OR Not within my scope of practice