

Multiple Choice Assessment Questions

1. **Malignancies associated with type 2 diabetes include which of the following?**
 - a. Breast cancer
 - b. Colon cancer
 - c. Pancreatic cancer
 - d. All of the above

2. **Endogenous insulin functions in the body in which of the following ways:**
 - a. Endocrine action only
 - b. Mitogenic action only
 - c. A and B

3. **TRUE or FALSE: Asp-B10 insulin was a form of insulin that never came to market due to a 10-fold increased occurrence of cancer in animals during premarketing studies.**

4. **The authors of the Hemkens trial concluded that:**
 - a. Insulin dose is positively associated with cancer risk.
 - b. Insulin glargine is the most concerning of all of the insulin analogues, in regards to cancer risk.
 - c. The risks of uncontrolled type 2 diabetes must be weighed with the benefits of treatment.
 - d. All of the above

5. **TRUE or FALSE: In the Jonasson trial, all groups which received any doses of insulin glargine were found to have a significantly higher risk of developing breast cancer.**

6. **The Currie trial may be more applicable to the general population than some of the other studies reviewed due to:**
 - a. It compared oral medications to insulin.
 - b. It followed patients for a long time period (about 2.4 years)
 - c. It differentiated between the insulin analogues, allowing for examination of the differing effects that specific structural changes have on malignancy.
 - d. A and B
 - e. All of the above

7. **TRUE or FALSE: Yang and colleagues concluded that hyperglycemia is associated with an increased risk of cancer, while the use of insulin to gain glycemic control is associated with a decreased risk of cancer.**

8. **Which of the following is FALSE regarding research trials?**
 - a. Retrospective trials can prove causation, for example, proving that insulin glargine causes cancer in patients with type 2 diabetes.
 - b. Caution should be exercised when interpreting retrospective cohort studies because bias and confounders are more likely to be present in retrospective studies than in prospective studies.
 - c. A prospective randomized clinical trial would be necessary to conclude definitively whether or not there is an association between insulin and cancer.
 - d. One of the issues with the retrospective trials analyzed in this review is the short length of follow-up.

9. **The following conclusions about therapy for diabetes and cancer risk can be drawn from the available literature at this time:**
 - a. The association between insulin and cancer risk is a multifaceted issue that will require multiple research endeavors to answer fully.

- b. There may be an increased risk of cancer associated with insulin and sulfonylurea use when compared to metformin use.
- c. It appears that the association between insulin use and cancer risk does not pertain to a specific type of insulin, but insulin in general.
- d. Hyperglycemia can increase the risk of developing malignancies, thus glycemic control is paramount.
- e. All of the above

10. Position statements from which of the following groups concur that no changes should be made to diabetes care in regards to insulin use, taking into account the current evidence:

- a. American Association of Endocrinologists
- b. Food and Drug Administration
- c. American Diabetes Association
- d. All of the above

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How long did it take you to read the program and complete this test?

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My signature certifies that I have independently taken this CE examination.

CE Assessment Answers

Please circle your answers (one answer per question).

1.	A	B	C	D	
2.	A	B	C		
3.	T	F			
4.	A	B	C	D	
5.	T	F			
6.	A	B	C	D	E
7.	T	F			
8.	A	B	C	D	
9.	A	B	C	D	E
10.	A	B	C	D	

Program Evaluation - Must be completed for credit.

Please rate the following items on a scale from 1 (poor) to 4 (excellent).

- Overall quality of the article 1 2 3 4
- Relevance to pharmacy practice 1 2 3 4
- Value of the content 1 2 3 4

Please answer each question, marking whether you agree or disagree.

4. This course met the learning objectives. Agree Disagree

Impact of the Activity

The information presented (check all that apply):

- Reinforced my current practice/treatment habits
 - Will improve my practice/patient outcomes
 - Provided new ideas or information I expect to use
 - Adds to my knowledge
6. Will the information presented cause you to make any changes in how you do your job? Yes No
7. How committed are you to making these changes?
(Not committed) 1 2 3 4 (Very committed)
8. Do you feel future activities on this subject matter are necessary and/or important? Yes No

Follow-Up

As part of our ongoing quality-improvement effort, we would like to be able to contact you in the event we conduct a follow-up survey to assess the impact of our educational interventions on professional practice. Are you willing to participate in such a survey? Yes No

