

The Role of Artificial Intelligence in Respiratory Care

Self-Directed CE Post-Test

Instructions: Choose the best answer for each question.

1. In respiratory care, artificial intelligence (AI) should primarily be viewed as:

- A. A replacement for respiratory therapists
- B. A decision-support tool
- C. An autonomous provider of patient care
- D. A substitute for provider orders

2. Which of the following is one way AI may support respiratory therapists?

- A. Making final treatment decisions without clinician review
- B. Replacing bedside patient assessment
- C. Identifying trends in physiologic data
- D. Overriding institutional protocols

3. AI early warning systems are most useful when they identify:

- A. A single abnormal value without context
- B. Trends that may suggest patient deterioration
- C. Patient preferences about treatment
- D. The exact diagnosis without clinician input

4. Which of the following is one way AI may help identify respiratory deterioration?

- A. By replacing the need for patient assessment
- B. By tracking changes in respiratory rate, oxygen needs, and other trends over time
- C. By making final treatment decisions for the respiratory therapist
- D. By ignoring patient data and following a fixed schedule

5. When an AI-generated documentation tool creates inaccurate findings, the respiratory therapist should:

- A. Finalize the note because AI is usually correct
- B. Delete the entire chart note
- C. Verify, edit, and correct the documentation before finalizing
- D. Ask AI to make the treatment decision

6. Which of the following is an example of an AI hallucination in clinical documentation?

- A. Summarizing a documented assessment accurately
- B. Flagging a missed patient effort on a ventilator waveform
- C. Creating findings or treatments that did not occur
- D. Listing the patient's current oxygen device correctly

7. AI-supported ventilator analysis may help identify:

- A. Auto-PEEP, double triggering, and missed patient effort
- B. Patient anxiety without bedside assessment
- C. Patient consent preferences
- D. The exact medication dose to order

8. What is a key difference between closed-loop ventilator modes and AI decision support?

- A. Closed-loop modes never use rules
- B. AI directly changes ventilator settings
- C. Closed-loop modes can automatically adjust defined ventilator parameters
- D. AI replaces the need for respiratory therapists

9. Which of the following is a limitation of AI in respiratory care?

- A. It can recognize trends in large amounts of data
- B. It can support documentation workflows
- C. It can reflect bias in training data
- D. It can assist with alarm filtering

10. Which statement best summarizes the respiratory therapist's role when using AI?

- A. The RT should follow AI recommendations without question
- B. The RT remains clinically and legally responsible for patient care decisions
- C. AI removes the need for clinical judgment
- D. AI should be used only for billing and scheduling