

Instructions for Obtaining Journal CME Credit

ANESTHESIOLOGY's journal-based CME program is open to all readers. Members of the American Society of Anesthesiologists participate at a preferred rate, but you need not be an ASA member or a journal subscriber to take part in this CME activity. Please complete the following steps:

1. Read the article by Schultz *et al.* entitled "What tidal volumes should be used in patients without acute lung injury?" on page 1226 and the accompanying editorial by Putensen and Wrigge entitled "Tidal volumes in patients with normal lungs: One for all or the less, the better?" on page 1085 of this issue.
2. Review the questions and other required information for CME program completion (published in both the print and online journal).
3. When ready, go to the CME Web site: <http://www.asahq.org/journal-cme>. Submit your answers, form of payment, and other required information by December 31 of the year following the year of publication.

The American Society of Anesthesiologists is approved by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education programs for physicians.

The American Society of Anesthesiologists designates this educational activity for a maximum of 1 *AMA PRA Category 1 Credit*[™]. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Purpose: The focus of the journal-based CME program, and the articles chosen for the program, is to educate readers on current developments in the science and clinical practice of the specialty of Anesthesiology.

Target Audience: Physicians and other medical pro-

fessionals whose medical specialty is the practice of anesthesia.

Learning Objectives: After reading this article, participants should have a better understanding of the pathophysiology of lung injury related to mechanical ventilation and potential injury-prevention mechanical ventilation strategies.

Disclosure Information:

Authors - Marcus J. Schultz, M.D., Ph.D., Jack J. Haitsma, M.D., Ph.D., Arthur S. Slutsky, M.D., and Ognjen Gajic, M.D.

Grants or research support: None

Consultantships or honoraria: None

The article authored by Drs. Schultz, Haitsma, Slutsky, and Gajic was supported solely from institutional and/or departmental sources.

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Grants or research support: None

Consultantships or honoraria: None

The article authored by Drs. Putensen and Wrigge was supported solely from institutional and/or departmental sources.

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Drs. Bailey and Jameson have no grants, research support, or consultant positions, nor do they receive any honoraria from outside sources, which may create conflicts of interest concerning this CME program.

CME Article Questions

Based on the article by Schultz *et al.* entitled "What tidal volumes should be used in patients without acute lung injury?" and its accompanying editorial by Putensen and Wrigge entitled "Tidal volumes in patients with normal lungs: One for all or the less, the better?" in the June issue of ANESTHESIOLOGY, choose the one correct answer for each question:

1. Which of the following statements about tidal volume (V_T) is *most* likely true?
 - A. Normal predicted V_T should be based on height alone.
 - B. Normal V_T is 8-12 ml/kg.
 - C. Normal V_T is about 6 ml/kg.
 - D. Normal predicted V_T should be based on actual weight.

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2. Which of the following is least likely to be an advantage of using lower (e.g., 6 ml/kg) compared with higher (e.g., 12 ml/kg) tidal volumes in patients with acute lung injury and acute respiratory distress syndrome?
 - A. Decreased systemic inflammatory response
 - B. Decreased days of mechanical ventilation
 - C. Decreased mortality
 - D. Decreased atelectasis
3. Which of the following effects is *most* likely when using a mechanical ventilation strategy that includes a lower (e.g., 6 ml/kg) compared with a higher (e.g., 12 ml/kg) tidal volume?
 - A. Decreased arterial carbon dioxide levels
 - B. Increased myocardial contractility
 - C. Decreased requirements for positive end-expiratory pressure
 - D. Increased inspired oxygen concentration requirements
4. Which of the following statements concerning mechanical ventilation is *most* likely true?
 - A. Preventive mechanical ventilation strategies may have a greater impact on outcome in sicker patients.
 - B. In healthy patients undergoing anesthesia requiring mechanical ventilation, 5 cm H₂O positive end-expiratory pressure prevents atelectasis.
 - C. Based on the level of existing evidence, mechanical ventilation with lower (6 ml/kg) tidal volumes should be used in all healthy patients undergoing anesthesia.
 - D. Cyclic opening and closing of lung units reduces lung injury associated with regional atelectasis.
5. Which of the following statements concerning mechanical ventilation is *most* likely true?
 - A. Using lower tidal volumes (6 ml/kg) can improve hemodynamic tolerance to mechanical ventilation.
 - B. Using greater positive end-expiratory pressure can decrease fluid requirements.
 - C. Plateau airway pressures less than 35 cm H₂O during mechanical ventilation are considered safe.
 - D. Low tidal volumes (6 ml/kg) should not be used if plateau pressure is less than 25 cm H₂O.

All tests and requests for Category 1 credit must be submitted through the ANESTHESIOLOGY CME Web site at <http://www.asahq.org/journal-cme>. Participants should claim credit, in 15-minute increments, for a maximum of 1 hour of CME credit per journal issue (up to 12 credits per year). Two payment options are available:

Per-year fee: ASA Members \$60.00, Non-members \$90.00

Per-issue fee: ASA Members \$10.00, Non-members \$15.00

For either option, participants may pay using VISA or MasterCard.

If you have any questions regarding the ANESTHESIOLOGY continuing medical education program, please contact Ellen M. Bateman, Ed.D., Education Specialist, at (847) 825-5586 or via e-mail at e.bateman@asahq.org.