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Bag-Mask Ventilation during Tracheal Intubation of Critically Ill Adults

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RESPONSE

The authors reply: Doody asserts that the role of bag-mask ventilation during rapid-sequence induction and tracheal intubation of critically ill adults is so well established as to preclude the need for our recent randomized trial. We disagree. The question of whether to administer bag-mask ventilation between induction and laryngoscopy during emergency intubation has been debated for more than 50 years, and data from randomized, controlled trials are limited. Currently, some experts recommend bag-mask ventilation,¹ whereas other experts explicitly recommend against it.² Provision of bag-mask ventilation in clinical practice is highly varied. Even among anesthesiologists, who tend to favor bag-mask ventilation more than emergency medicine physicians do, less than half report routinely administering bag-mask ventilation after induction.³ Historical data from the units participating in our trial suggest that, before the start of the trial, 52.3% of the patients were receiving positive-pressure ventilation between induction and laryngoscopy and 47.7% were not.⁴ The results of our trial suggest that bag-mask ventilation is effective and safe in many patients who were previously not receiving bag-mask ventilation, although the efficacy and safety are uncertain in patients who are at high risk for aspiration.

Although 97.5% of the patients in our trial received preoxygenation, our trial protocol did not control the method of preoxygenation. We agree with Nielsen and Lim, as well as with Pal and Kertai, that preoxygenation is frequently inadequate during current clinical care. We share their curiosity as to whether the use of end-tidal oxygen and carbon dioxide monitoring before tracheal intubation could prevent complications outside the operating room.

We agree with Sklar et al. that tracheal intubation in the ICU is a high-risk procedure and differs from the situation in the operating room. Hence, interventions such as they propose require rigorous evaluation in randomized trials to determine their comparative effectiveness and safety.

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Since publication of their article, the authors report no further potential conflict of interest.

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