Evolution of Anesthesia Patient Safety Movement: Comment

To the Editor:

I read with great interest the excellent article on the Patient Safety Foundation.[1] However, I think that your readers may be interested to learn of the origin of efforts to improve quality of care and patient safety.

It began in the 1960s when the Board of Governors of the American College of Anesthesiologists, under the leadership of Dr. Tom Burnap, assumed the responsibility for evaluating quality of care and patient safety in anesthesiology. Members of the American College of Anesthesiologists attended national conferences on quality assessment to learn and apply the methodology to anesthesiology. These early activities led President "Rick" Siker to appoint a new committee on quality of care. I served as chair of the quality of care committee for 2 yr.

The committee developed criteria for evaluating quality of care, engaged in on-site inspection of departments of anesthesia at the request of hospital administrators, and advanced the concept of "practice parameters." When I became president during 1980 and 1981, the title of my presidential address was "Quality of Care: ASA's *Raison d'Etre*." Anesthesiology was the first medical specialty to develop a formal program for evaluating quality of care.

A few years later, "Jeep" Pierce established the Patient Safety Foundation, which elevated quality of care and patient safety to a whole new level.

Competing Interests

The author declares no competing interests.

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Evolution of Anesthesia Patient Safety Movement: Reply

In Reply:

We thank Dr. Brown for his insights regarding the integration of nascent quality of care methodologies and initiatives into the American College of Anesthesiologists in the 1960s (both organizations were located in Park Ridge, Illinois, in the 1960s and currently are located in Schaumburg, Illinois).[1] We had not included that information in our review of the evolution of the anesthesia patient safety movement.[2] As he appropriately notes, the development of quality of care activities provided a crucial contribution to the onset of the anesthesia patient safety movement in the 1980s. Drs. Brown, Siker, and others played important leadership roles in both organizations and advocated for the quality of care activities that would subsequently serve as the foundation of the movement. They appropriately should be credited for their diligent efforts to improve quality of care in anesthesiology.

The link between anesthesiology and patient safety arguably goes back to the death of 15-year-old Hannah Greer on January 28, 1848, during a chloroform anesthetic.[3] One hundred years ago, in its inaugural issue, *Current Researches in Anesthesia & Analgesia* (subsequently named *Anesthesia & Analgesia*) published an anesthesia patient safety article, "Morbidity and Mortality in Obstetrics as Influenced by Anesthesia."[4] Numerous studies on anesthesia-related mortality and morbidity followed. In 1978 through the 1980s, Jeffrey B. Cooper, Ph.D., John H. Eichhorn, M.D., and colleagues introduced the concepts of standards of patient monitoring and the study of human factors and critical incidents in analyses of anesthesia errors and mishaps.[5–8] These concepts provided the specialty with new opportunities to improve patient safety.

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This progression of new knowledge and approaches to patient safety, coupled with the preexisting organizational advocacy for quality of care described, in part, by Dr. Brown, provided the basis for the specialty to be able to respond to the swell in public interest in anesthesia patient safety that arose from the 1982 ABC television network's *20/20* production "The Deep Sleep: 6,000 Will Die or Suffer Brain Damage"[9] and to a concomitant growing medical malpractice insurance crisis for anesthesiologists in the United States. It was these unique challenges, in our opinion, that led to a sharp demarcation in 1982 between the previous steady but slowly progressive efforts to improve quality of care and the new tsunami of interest in rapidly developing and implementing a distinct anesthesia patient safety movement. Therefore, it is this period starting in 1982 that we designated for the purposes of our article as the start of the anesthesia patient safety movement.

Competing Interests

The authors declare no competing interests.

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Pressure Support Ventilation and Atelectasis: Comment

To the Editor:

We read with great interest the article by Jeong *et al.*[1] titled "Pressure Support *versus* Spontaneous Ventilation during Anesthetic Emergence—Effect on Postoperative Atelectasis: A Randomized Controlled Trial." Although many studies have looked at the potential effects of various intraoperative open lung ventilation strategies on postoperative pulmonary outcomes, recent evidence suggests that their potential benefits may be limited if no action is taken to minimize lung derecruitment during the emergence period.[2] Considering that postoperative atelectasis plays a central role in the development of postoperative pulmonary complications, and that maintaining positive pressure during emergence may help preserve lung aeration,[3] the research question of Jeong *et al.* is of paramount importance. However, we have some concerns regarding key aspects of the study's methodology.

First, we were especially worried about elements used to define and measure the incidence of atelectasis, the study's primary outcome. The authors' definition (more than three lung sections with a non-zero atelectasis score) is not standard[4] and has not been previously validated. Can the authors specify whether their definition was selected before conducting the study to reassure readers on the absence of data-driven threshold selection? Performing sensitivity analyses looking at different thresholds for the number of atelectatic lung sections necessary to classify the outcome would better assess the robustness of their findings.

Second, we were puzzled to read that Jeong *et al.* not only used a modified and unvalidated echographic pulmonary aeration loss score[5] but also introduced their own modifications, potentially further weakening the validity of their primary outcome classification. In particular, loss of lung sliding with lung pulse is not a sign of atelectasis but rather a sign of a well-aerated lung without ventilation. This finding could have indicated the presence of a mucous plug which may have been resolved after a simple coughing fit without causing any atelectasis. Including this sign in their atelectasis score seems problematic. We encourage the authors to use the lung ultrasound score, a validated echographic loss of aeration score, to report their results.[6]

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