

Complexities of Basic Science

To the Editor:

"ANESTHESIOLOGY" publishes an eclectic and attractive mixture of articles, allowing the well-served reader to enjoy a broad commentary concerning advances in anesthesia in its many subspecialty aspects. The science behind most articles lies within the general reader's domain of understanding and comprehension. But not all articles are immediately accessible. The content of others, particularly those concerning basic science research, can pose a quandary. Often, such articles are accessible only to those with specialized knowledge. By its nature, basic science research exists in an isolated sphere. But is it inevitable that the journal's readership be polarized into those who understand basic science articles and the rest who unsuccessfully attempt to understand or who do not attempt in the first place.

The essence of easy access to complicated science is richness in description and explanation. A synthesis of information from many sources can introduce the general reader to concepts driving the research and furthermore permit the reader to locate the overall context. The common reader is entirely dependent upon such basic guidance, and an introductory preamble can serve not only to inform but to also capture the reader's imagination. In this way, the reader may join the investigators in the excitement of the scientific chase.

ANESTHESIOLOGY's basic science reports do not always include the distinct and determined preamble necessary to entice the hesitant reader. Instead, the common reader finds dense scientific text with uncomfortable English usage, an economy of background information, and an often absence of explanatory cartoons and diagrams other than those involved in the portrayal of results. The latter, the visual image that lies at the heart of information conveyance in contemporary society, is missed as a mechanism to illustrate ideas. But in their defence, authors of the basic science article may generously but not correctly assume that the reading audience already possesses the knowledge necessary to interpret and understand their article. In all, the distinct pleasure of reading basic science reports remains beyond easy access by the journal's wider audience.

Competing Interests

The author declares no competing interests.

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In Reply:

We thank Dr. Sill for his articulate description of a problem which has vexed this journal since its inception and with which most journals that publish both clinical and basic science struggle. Because our understanding of the biologic basis for pathology and pharmacology progresses and scientific methods become ever more refined and complex, it becomes increasingly difficult to translate important new findings to a wide audience of readers. Despite these difficulties in translation, most of our day-to-day clinical practice evolved from or is explained by such basic science. Consultant physicians need to know when and why they act, and that means keeping abreast of new knowledge in the basic and clinical sciences.

In several recent surveys of readers of ANESTHESIOLOGY, the message has come out loud and clear that progress in science is valued and that science needs to be made more accessible to the nonexpert and more relevant to the busy clinician. To that end, several years ago we added boxed text at the start of each article describing what is already known about the topic and what the current article tells us that is new; this feature has been well received. Recognizing that more needs to be done to make ANESTHESIOLOGY interesting, relevant and accessible to the practicing anesthesiologist, a new Executive Editor was recently approved and one of us (James P. Rathmell) was elected to this post.

Therefore, we ask you to watch carefully in the months ahead as ANESTHESIOLOGY undergoes a major transformation aimed at engaging all of our readers. We want those practicing anesthesiology to enter the journal often and take away new information that will continually improve their knowledge and skills both in the laboratory and in the everyday practice of medicine. Starting in this issue, changes will begin to appear. The look and feel of the journal will now be similar, no matter how you choose to view its contents: in the printed version, *via* the Internet, or on a tablet or mobile platform (fig. 1). This Month in Anesthesiology, an easy-to-read summary of key articles in each issue, will be integrated across all platforms and enhanced, as Dr. Sill has suggested, with interesting images relevant to the content of each article. Our hopes are that the eye-catching images, brief and easy-to-understand summaries, and uniform entry point for each issue will entice readers to explore articles they may once have ignored. In just a few brief sentences, we will explain what the article is about and why it pertains to their own world of clinical anesthesiology. Navigation will be made easier, with just a single hyperlink click on any electronic platform taking readers from summary to accompanying editorial to full text article. But wait, there is more. ANESTHESIOLOGY has printed a Literature Review for some time now; this section summarizes relevant articles from other journals from diverse areas of science and medicine that will impact the field of anesthesiology. Our analyses suggest that the Literature Review is accessed by few readers but highly regarded by those who do stumble to the rear of each edition,



Fig. 1. Example of new presentation of original investigations on a mobile device.

where this section is hidden. We have renamed the section “Science, Medicine, and the Anesthesiologist,” reformatted the section to resemble the look and feel of the journal as a whole, moved it to the front of each edition, and added eye-catching images to draw readers in for a closer look. Later in 2014, we will be adding expanded features, to include infographics that provide intuitive visual representations of complex data derived from published articles; we will also be searching for appealing ways to incorporate more audio and video content in to the electronically accessible versions of the journal. These are just the first changes slated to appear in 2014. We will be actively engaging readers to better understand how *ANESTHESIOLOGY* can benefit all who have interest in the field, clinicians and scientists alike. Do not hesitate to share your own ideas on how to make our journal more interesting and accessible to you.

Competing Interests

The authors declare no competing interests.

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Performance of Retrograde Light-guided Laryngoscopy for Tracheal Intubation

To the Editor:

In a prospective, randomized, open-label, parallel-arm study, Yang *et al.*¹ showed that retrograde light-guided laryngoscopy (RLGL) enabled beginners to intubate patients more

successfully and quickly than conventional direct laryngoscopy. Many things of this study were done correctly. They chose well-validated endpoints: the Cormack and Lehane grades and duration and success rate of tracheal intubation. They have a large number of subjects (200) and attempt to control most of the factors that can significantly affect the laryngeal visualization and subsequent tracheal intubation, such as patient's upper airway anatomy and position, experience of the intubator, uses of anesthetics, and neuromuscular blocking drugs, and many more.^{2,3} All of these are strengths in the study design. However, in this study, other important factors seemed not to be well addressed, such as blade size, type of tracheal tube, use of stylet, and external laryngeal manipulation with the two techniques.

The authors reported that the incidence of Cormack and Lehane grades 3 and 4 laryngeal views was 20% in the RLGL group and 43% in the direct laryngoscopy group, respectively. We would like to know whether a consistent method of Macintosh blade selection was used in the two groups. The proper function of a Macintosh blade is dependent on using an appropriate length of blade. In order to lift the epiglottis out of the line of sight, the Macintosh blade must be long enough to put tension on the glossoepiglottic ligament. Thus, selecting a right blade based on patient's characteristics is necessary for adequate laryngeal visualization. Moreover, in some patients, it may be appropriate to change the length of the blade one time in order to obtain proper blade function.²

Likewise, in method section, it was unclear whether use of optimal external laryngeal manipulation to improve laryngeal views was allowed in the direct laryngoscopy group. According to figure 1 in the article,¹ a large flashlight with weight of approximately 200 g was placed on the caudal edge of the thyroid cartilage for RLGL in the RLGL group. We are concerned that weight of flashlight and backwards force produced by holding the flashlight in place would have resulted in an analogous optimal external laryngeal manipulation. Benumof and Cooper⁴ demonstrated that optimal external laryngeal manipulation can improve the laryngoscopic view by at least one whole grade in adults. Thus, we cannot exclude the possibility that such an analogous optimal external laryngeal manipulation would have biased overall study results into the RLGL group. This may also be an explanation of retrograde transtracheal light transmission to improve laryngoscopy and subsequent tracheal intubation.

In addition, it has been shown that types of tracheal tubes may significantly affect ease, duration, and success rate of tracheal intubation.^{5,6} When a stylet-tracheal tube is used, moreover, stylet bend angles have significant influences on ease of tracheal tube passage and success rate of tracheal intubation.⁷ Thus, we argue that a clear description for types of tracheal tubes and adjuvant use of stylet in method section would further improve the transparency of this study.

Finally, this study excludes the patients with a body mass index of greater than 30 kg/m². Because thickness of the soft tissues of the neck can affect transtracheal light