Infographics in Anesthesiology

A Volatile Tale of Two Institutions

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The modern day perioperative environment is saturated with data, yet extracting actionable information remains challenging. Infographics are graphic, visual representations of information. They allow us to “think with our eyes,” leveraging our most powerful sense to search for and understand relationships within data. By turning quantitative information into a visual form, we are able to rapidly interpret vast amounts of information, transforming rows of data into compelling stories. Here we present an infographic that shows the results of our efforts to decrease anesthetic costs by encouraging the use of isoflurane, as has been attempted previously.

At Hospital A, no volatile anesthetic interventions were made, and anesthesia machines there have all three vaporizers (fig. A). At Hospital B, most anesthesia machines have sevoflurane and isoflurane vaporizers, with desflurane vaporizers available when requested (fig. B). Hospital B had several presentations on reducing costs by using isoflurane and temporarily instituted an alert within its anesthesia information management system that suggested isoflurane when sevoflurane was detected. Changes in behavior can be seen via software that can display a monthly weighted average of individual anesthetists’ volatile anesthetic choice in relation to the cost-reduction interventions (fig. C).

We told our cost story by asking our anesthesia information management system the right question. These stories tell us what is really happening within our operating rooms and provide usable information relevant to the individual anesthesiologist. This can help us understand the impact of specific interventions on the practice of an anesthesia group and each individual member.

References