## Editorial

# Patient Safety Data: How it Can Improve Our Performance

*We can't solve problems by using the same kind of thinking we used when we created them.*
**Albert Einstein**

This issue of *Aesthetic Surgery Journal* features several articles focusing on patient safety issues. In addition to a panel discussion and case report dealing with safety concerns, it includes 2 articles on advances in patient safety. The article by Drs. Bill, Clayman, Morgan, and Gampper and the accompanying commentary highlight the need for an understanding of lidocaine metabolism at the level of the P450 cytochrome oxidase system and the effects exerted by other substances on the performance of this enzyme system. Such information is useful to the clinician assessing whether a patient is at greater risk for lidocaine toxicity as a result of impaired ability to metabolize the lidocaine that is used during lipoplasty. The take-home message is clear: To prevent patient injury when performing aesthetic surgery, be mindful of drug interactions.

In another article, Drs. Stevens, Vath, and Stoker report that they achieved similar patient outcomes with abdominoplasty when performed alone and in combination with other aesthetic procedures including significant lipoplasty. They attribute their success to a regimen that included the use of prophylactic antibiotics, attention to prophylaxis of deep vein thrombosis, expedient surgery, avoidance of Foley catheters and bedpans, and almost immediate postoperative ambulation. Their findings contrast significantly with earlier and current reports regarding the perils of combined procedures in terms of adverse outcomes, including patient death.

The authors' efforts over a 10-year span clearly demonstrate that good protocols, executed faithfully, can prevent adverse events in certain surgical situations. The take-home message here is a bit more complex: The authors suggest that there need not be increased morbidity as a result of combined procedures, including significant lipoplasty performed at the time of abdominoplasty, provided the surgeon is capable of doing surgery their way. Before scheduling a variety of aesthetic procedures to be performed in a single surgical session, however, the reader might want to ponder the likelihood of replicating the methods the authors have developed and whether his or her patients might be at greater risk.

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Pooled data from multiple practitioners can be useful in identifying trends and making assessments on a broad basis. An individual surgeon's data may often appear better than pooled data, which is exactly why such data have much to teach us. The importance of the second study's results is in demonstrating that some surgeons can perform procedures exceptionally well, with a methodology that consistently delivers safe outcomes, far beyond the reported norm. In breast augmentation, whether it's a 3% reoperation rate or 25 years of clinical experience with no incidence of postoperative implant-space infection, such results demonstrate that the avoidance of complications or adverse outcomes involves more than just luck. Quality improvement requires that changes be made in the "real world," one patient at a time, and subject to adjustment — then, if they work, they are institutionalized. This is known as a "best practice."

What is the value of best practices in medicine? First, they are transferable from one practitioner to another. Second, they support evidence-based surgical practices, in combination with guidelines and improved access to knowledge. Algorithms such as those developed by John and Terrye Tebbetts and their 2004 Breast Augmentation Surgeons for Patients Initiative can provide effective management solutions to problems common in breast implant patients (capsular contracture, stretch deformity, infection/seroma, symptom surveillance, implant-size change, implant rupture).

Achievement of a superior surgical outcome should always be followed by reflection on what went right and

what mistakes were avoided as a means of learning how to repeat such results consistently. Conversely, when failures occur, progress toward improvement is often impeded when we engage in unscientific analysis or resort to naïve investigations, reprisals, and secretive behavior. For example, the problem of deep vein thrombosis with ensuing pulmonary embolism remains a vexing safety issue in all surgical patients, yet simplistic responses by state regulatory agencies to limit office-based surgery do not prevent its occurrence or morbidity/mortality in other venues. What is needed here is for the real problem to be addressed through scientific inquiry that will provide solutions.

Various approaches to reducing patient injuries, improving outcomes, and decreasing the cost of healthcare delivery have been suggested by organizations concerned with improvements in patient safety. Some represent Band-Aid patches to problems; others — such as careful hand-washing and safe-site surgery — are simple common sense. Ill-conceived patient safety initiatives can impair the credibility of better-conceived attempts to improve patient safety. At the time of this writing, physicians lack effective knowledge-management programs with which to capture and promulgate the lessons learned from both successful and unsuccessful surgical initiatives. If organizations within plastic surgery choose to raise the performance bar to improve patient safety, it is imperative that a structured framework of research and educational initiatives be set in place that will provide a comprehensive curriculum for our community of caregivers. Ideally such initiatives will take advantage of Internet-based technology and other electronic information resources so that meaningful data can be made available quickly and easily.

Where do we go from here to improve patient safety? A blueprint for the future would feature the combination of evidence-based medicine derived from scientific data, ongoing research to address basic science, and global trends in patient safety, along with the ongoing skills training of the plastic surgeon, applied one patient at a time, to achieve the safest, most optimal outcome. Data collection and its application through modern medical information technology will benefit both physicians and patients. It will provide far better guidance than any number of pleas in editorials or letters arguing for or against the use of new or controversial procedures or techniques. Data that document the high quality of care delivered and demonstrate safe practices may also be a partial solution to the professional liability crisis.

First, we in organized plastic surgery need a workable system for data submission by our members to address patient safety and outcome matters. The Tracking Operations and Outcomes for Plastic Surgeons (TOPS) initiative proposed by several organizations in plastic surgery is not the answer. TOPS is an expensive academic-research tool focused on the collection of slow-cycle data for procedural statistics and recertification; it does not offer feedback or provide useful insights to the individual physician. A better approach would be a program that permits the management of all patients throughout their treatment, provides a way to document the quality of care delivery, has the capacity to force functions to occur as a means of preventing errors (eg, requires documentation of allergies, medications, laboratory procedures, and informed consent), and delivers to the physician and staff useful information that will improve the overall — including economic — performance of the practice.

Second, we need to make patient safety a research priority. We must direct research to provide solutions for high-risk, problem-prone scenarios, such as a better understanding of what causes deep vein thrombosis in our patients and effective strategies for its prevention; the role of supplemental estrogen; and why some procedures, such as abdominoplasty, carry higher risks of patient mortality than lipoplasty. We still don't know enough about the effect of free fat after lipoplasty on pulmonary function. We have not studied the value of lipid-lowering (statin) drugs, which are alleged to provide protection for cardiovascular events, in patients undergoing plastic surgery — and the list goes on and on. The Aesthetic Surgery Education and Research Foundation is positioned to spearhead such research efforts and pledges that 100% of its donated funds will go directly to aesthetic research. The effective use of the pooled knowledge acquired by plastic surgeons through research and clinical experience will enable all of us to do our work better and more safely, to concentrate on our mission of service to our patients, and to fulfill our responsibility as physicians.

Despite all our best efforts, sometimes we encounter additional roadblocks to patient safety — the patients themselves. All too often, we see patients who request excessive surgery, who are not forthcoming about their medical history, who fail to follow preoperative or post-

operative instructions, or who pressure their doctors to meet unrealistic expectations. It is our responsibility to establish nonnegotiable patient safety parameters in our practices that reinforce our clinical decisions and to resist any temptation to deviate from them. Every aesthetic surgeon wants his or her patients to be happy — but our first responsibility is to keep them safe. ■

## Suggested Readings


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