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REFERENCES

1. Balagué N, Combescure C, Huber O, Pittet-Cuénod B, Modarressi A. Plastic surgery improves long-term weight control after bariatric surgery. *Plast Reconstr Surg.* 2013;132: 826–833.
2. American Society of Plastic Surgeons. 2012 Plastic Surgery Statistics Report. Available at: http://www.plasticsurgery. org/Documents/news-resources/statistics/2012-Plastic-Surgery-Statistics/body-contouring-after-massive-weight-loss. pdf. Accessed October 9, 2013.
3. Sarwer DB, Fabricatore AN. Psychiatric considerations of the massive weight loss patient. *Clin Plast Surg.* 2008;35:1–10.
4. Coon D, Michaels J V, Gusenoff JA, Purnell C, Friedman T, Rubin JP. Multiple procedures and staging in the massive weight loss population. *Plast Reconstr Surg.* 2010;125:691–698.
5. Coon D, Gusenoff JA, Kannan N, El Khoudary SR, Naghshineh N, Rubin JP. Body mass and surgical complications in the postbariatric reconstructive patient: Analysis of 511 cases. *Ann Surg.* 2009;249:397–401.

19 percent underwent thigh lifting, and 14 percent underwent brachioplasty. Forty-five percent of them had multiple-site surgery but mostly in sequential procedures over two to four operating times. Usually, body-contouring procedures begin with abdominal dermolipectomy. If a circular or major abdominoplasty is planned, it is performed initially in a unique intervention. Rarely, if skin excess is moderate, classical anterior abdominoplasty is combined with another unique procedure. Brachioplasty, mammaplasty, and thigh lifting are usually performed during a second or third operating time.

In conclusion, as proposed by Segreto et al. and practiced in our department, we suggest a sequential approach to offer a safe and satisfying procedure to patients. However, as this treatment needs several hospitalizations, health insurance reimbursement is more difficult.

DOI: 10.1097/PRS.0000000000000042

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Reply: Plastic Surgery Improves Long-Term Weight Control after Bariatric Surgery

Sir:

We would like to thank Segreto et al. for the interesting comment concerning our previous work about plastic surgery after bariatric surgery. We agree with our colleagues on the importance of sequential management of these patients. First, this approach will diminish the surgical risks associated with multiple procedures in a unique operating time (e.g., infection, thromboembolic events). Second, postbariatric patients are exposed to chronic anemia and iron deficiency. Therefore, a sequential procedure avoids blood transfusion that can be needed after important bleeding when multiple surgical operations are performed at the time. Third, deficiencies in vitamins, albumin, and mineral elements (e.g., zinc, copper), which are frequent in these patients, lead to prolonged postoperative healing time. Finally, this sequential approach will permit a gentle, progressive change of the patient's morphology and improve the patient's self-esteem and self-image.

In our institution, 97 percent of patients underwent abdominoplasty, 32 percent underwent mammaplasty,

Are the New Changes in Our Operating Rooms Really Making Us Safer and Better Surgeons?

Sir:

It is with great interest that I read Dr. Buchman's Editorial asking whether we are really safer and better as a result of new changes in the operating room.[1] Although it is important that this question is asked, it saddens me to see that many critically needed, proven, and evidence-based safety tools are used so ineffectively and poorly. Unfortunately, Dr. Buchman's experience is not unusual.

Ever since the publication of the report "To Err Is Human: Building a Safer Health System" by the Institute of Medicine 13 years ago, it has been widely demonstrated and accepted that human factors are the main cause of complications and casualties in medicine.[2] It is truly experience from and analogies with aviation that have led medicine to integrate the tools of crew resource management into daily practice.[3]

We can define crew resource management as "the way to improve efficiency and security by making optimum use of all available resources of a team, especially the human factor." It does not make much difference if you are flying a Dreamliner, leading a military

operation, or performing a mammaplasty. A breakdown in the human factors of teamwork and communication is typically the culprit in a poor outcome. The human factor is the common denominator for success or failure in all high-risk operations.

Those organizations that have implemented crew resource management effectively have created reliable systems to get everybody in the team on board. No surgeon can perform a procedure all by himself or herself. Sometimes, we may tend to think so and—worse—we may give our team the impression we are able to do it. However, we all should know that many people contribute to the success. If every member of a team is aware of her or his responsibility for the positive outcome, we have already made a huge step forward.

One very efficient way surgeons build their team is by constantly encouraging their team members to speak up. Statistics show that up to 50 percent of nurses will not speak up to the surgeon when they see a problem arising. In over 14,000 clinical units of safety culture data, an average 20 percent of caregivers across a very large population say they would be hesitant to speak up.[4] Also, analysis of failures shows that in up to 90 percent someone along the line saw it coming and did not mention it. Telling everyone involved in the operation that we are grateful if they do speak up, and that we will never blame them for doing so, is probably the single most important element of effective crew resource management.[5] Furthermore, it is easy to introduce. Personally, I believe that encouragement to speak up should be the first item on the time-out before incision.

This has nothing to do with a hospital administration forcing teams to call each other by their first names. The new tools are not here to break down hierarchy. Of course, there are members of the team who have higher responsibilities, and the surgeon certainly has a team leader function. However, we must prevent hierarchical barriers from becoming an obstacle to speaking up. We can do so by explicitly requesting team members to cross-check and speak up. A nurse saying, "Professor, I am concerned that there is still a pulsating artery under the platysma," shows a better and more efficient culture of safety than someone thinking to himself, "Oh, Bob has overlooked a bleeder—he'll certainly have to drain a hematoma."

Another reason why crew resource management is not working for many surgeons is that they had no input and therefore no investment in the implementation of the World Health Organization Safe Surgery Checklist in their operating room.[6] The most important sentence on this model is, "This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged." Customization with surgeon input is the key to an efficient and effective checklist.[7]

Checklists are here to stay. Thus, surgeons might as well take the lead in how they are used. Hospital administrators must not be the only ones who decide what has to be on a checklist, and how it should be conducted. Checklists imposed from above, without input from surgeons, become useless and possibly counterproductive.

Furthermore, many checklists are overused, even abused. I dare to say that many checklists (and some other human factor safety tools) have actually been perverted. The reason for this is that they are designed by hospital administrators and lawyers to be an instrument for their purposes. The essentials of a checklist are not that all the boxes are checked and there is a signature in the right space. This is a lawyer's point of view, which is different from ours. They have been educated to search for liability and guilt, to get compensation, and in some cases punish someone—and then continue business as usual. This is contrary to all safety-relevant efforts. "What is wrong?" is a much better question than "who is wrong?" If the sole purpose of the checklist becomes seeing who signed or who did not check all the boxes, something is wrong. I would be much in favor of using a checklist as pilots and astronauts do, namely, reading out loud every item and checking it by voice. A properly designed checklist is a trigger for having an efficient, scripted conversation with cross-checking of critical safety items among members of the surgical team.[8]

I fully agree with Dr. Buchman that anonymous reporting is not a good solution. It would be more preferable and effective to measure parameters of safety culture, analyze gaps, and address them. Creating a culture of candor where everyone who speaks up is assured that no measures will be taken against her or him enhances safety much more than tools of total control.

Who is to blame for what crew resource management programs have become in our operating rooms? We are, the physicians personally in charge of our patients. Over the years, we have continued our "we are the champions" mentality and not given these evidence-based tools the attention they deserve.

So is it too late? No, but we must actively take a leadership role in the implementation of crew resource management programs for the safety of our patients. If you read the definition of crew resource management above, it could just as well serve as a definition of leadership. We as surgeons must not leave this to others. Without our leadership, patient safety will not be what it can and should be.

Creating this culture of safety in our operating rooms is not easy, and there is no doubt that unstable teams are a great problem.[9] It is much easier for a flight crew or a commando group to brief and debrief with the whole team. Nevertheless, we should take the lead in addressing these difficulties and find innovative solutions that fit into our workplace and its culture. Our main challenge will be integrating the social aspects of expert teamwork into the technical side of surgery so that we can work collaboratively in an increasingly complex environment.

I am absolutely sure that Dr. Buchman and I basically want the same, namely, the best for our patients.

That is why we are physicians. However, we need to accept that medicine has changed and that there is good and well-documented evidence for tools and training to improve the human factors in our operating rooms. Let us take our responsibilities and lead this improvement process. We cannot leave this to administrators and lawyers, who may have other priorities.

So, to answer Dr. Buchman's question, "Yes, these tools are making us safer and better surgeons." However, it is up to us as surgeons to make sure they are effectively implemented. It is a responsibility we cannot abdicate to others.

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REFERENCES

1. Buchman SR. Are the new changes in our operating rooms really making us safer and better surgeons? *Plast Reconstr Surg.* 2013;131:1205–1206.
2. Oppikofer C. Commentary on: Six things every plastic surgeon needs to know about teamwork training and checklists. *Aesthet Surg J.* 2013;33:449–551.
3. Harden SW. Six things every plastic surgeon needs to know about teamwork training and checklists. *Aesthet Surg J.* 2013;33:443–448.
4. Leonard M. Co-Chief Medical Officer, Pascal Metrics. Personal communication.
5. Reid J. Speaking up: A professional imperative. *J Perioper Pract.* 2013;23:114–118.
6. Borchard A, Schwappach D, Barbir A, Bezzola P. A systematic review of the effectiveness, compliance, and critical factors for implementation of safety checklists in surgery. *Ann Surg.* 2012;256:925–933.
7. Oppikofer C. Checklists in plastic surgery: A powerful safety tool (if used correctly!). *Plastic Surgery Pulse* 2009. Available at: http://www.plasticsurgerypulsenews.com/8/article_dtl.php?QnCategoryID=77&QnArticleID=172 .Accessed March 1, 2014.
8. Harden S. LifeWings Partners LLC. Personal communication.
9. Mazzocco K, Petitti DB, Fong KT, et al. Surgical team behaviors and patient outcomes. *Am J Surg.* 2009;197:678–685.

Reply: Are the New Changes in Our Operating Rooms Really Making Us Safer and Better Surgeons?

Sir:

I thank Dr. Oppikofer for his response. I believe that he and I do ultimately want the best for our patients. I also believe that many of the administrators and lawyers want the same thing; however, their perspective, as Dr. Oppikofer observes, is much different from that of the surgeons that are on the line every day. I also agree that surgeons need to take the lead instead of heeding the "cry of the noncombatants." As Dr. Oppikofer has so aptly pointed out, "Our main challenge will be integrating the social aspects of expert teamwork into the technical side of surgery so that we can work collaboratively in an increasingly complex environment." Perhaps the most important element of that challenge is to acknowledge, understand, and instill a culture that abides by the primacy of teams. However, there is a key difference to what surgeons would call a team and what health care administrators would have us believe is a team. There is a very important distinction between a true team and a group of people amassed in an operating room often dictated by scheduling conflicts. Teams work together with complementary skills and a committed common purpose. Teams practice and drill to achieve excellence, which includes performance goals and mutual accountability. Teams have hierarchies but still value all the individual elements that lead to excellence because each team member is keenly aware of his or her contribution and responsibility for an exceptional outcome. We cannot mandate scripted behaviors to disparate groups of individuals and then have the audacity to call them a team, which seems to be the modus operandi of many of the health safety officers in our larger health care institutions today. Instead, I suggest a rethinking of the way our operating rooms work presently, with less focus on scheduling conflicts and more focus on team building and team maintenance. Such changes require the leadership of a surgeon and the dedication and commitment to purpose of the nurses, technicians, and other collaborating physicians that work together to develop an identity as a team. True teams demonstrate loyalty, respect, and pride in the excellent care they deliver. When the Institute of Medicine implored the promotion of team functioning, I am sure they were looking at models such as cardiac teams that are considered untouchable and sacrosanct, and not the current paradigm of random staffing that facilitates throughput at the expense of excellence. Multiple timeouts; stacked, extensive, rote checklists; and calling everyone by their first name are poor substitutes for a team.

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DISCLOSURE