# QMP's Plastic Surgery Pulse News

## Checklists in Plastic Surgery: A Powerful Safety Tool (If Used Correctly!)

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Since the publication of a study by the Safe Surgery Saves Lives Study Group in the New England Journal of Medicine in 2009,[1] checklists have started to be widely used in hospitals throughout the world. This has led to a tremendous improvement in surgical safety, which has been well documented by several studies.[2-4] Checklists have also been shown to be highly cost effective.[5]

In aviation and spaceflight, checklists are an indispensable part of the safety culture, as are briefing and debriefing before and after every mission (Fig.1). Emphasizing that safety mostly has to do with human factors and actively training crew members in the principles of crew resource management (CRM) have greatly improved both commercial and military aviation safety.[6] This is why traveling in an airplane is incomparably safer than being a patient in a hospital.

Improved aviation safety has made us more conscious of the power of checklists for safety in health care settings, particularly surgery. This prompted the World Health Organization (WHO) to publish their Surgical Safety Checklist, which includes a number of standardized items to check for every patient during the entire perioperative phase (Fig. 2). This list is available on the WHO website,[7] along with other resources for this safety initiative.

The presence of this checklist alone will not improve safety—it must be properly used. There is a danger in merely completing it and filing it away. Too often we adopt the WHO checklist, make sure a copy of it is signed and filed for every patient, and think that is it. However, checklists will never be effective if their only purpose is to be filed, because this may lead to a false sense of safety. Ensuring that the signature is in the right location is important and typically something that lawyers look for. And this is perfectly appropriate for documents such as consent forms, where proof of a patient's informed consent is required. However, checklists are not completed for the sake of the lawyers; they are completed for our patients' benefit.

Safety does not occur automatically with a signature on a sheet of paper. It is the result of a cultural change in which health care professionals integrate the use of checklists in every step of their work, just as every pilot, even those flying in a single-pilot aircraft, must check all items of the checklist at every step of the flight (Fig. 3). The use of the checklist, not the proof of it, is essential for improving patient safety.

In recent years, surgeons have been given more and more paperwork. Therefore we may not be ready to welcome yet another form, especially if we cannot recognize the importance of its use and think it is not adapted to our work. The WHO considered these concerns when making their checklist. Quite remarkably, the bottom line of the form states: "This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged."

Checklists are a vital tool to help us do the right thing at the right time. It is therefore essential that they are adapted to our particular work. Only then will they be accepted and integrated. Only then can they contribute to the culture of safety.

The WHO checklist is intended for operations under general anesthesia in a hospital setting. Plastic and aesthetic surgery only partly fit into this frame. Plastic surgery has many particulars that make it different from other specialties. Among these are the following:

- It is the most requested elective surgery.
- Most plastic surgeries are performed as outpatient procedures.
- Plastic surgery is often performed under local anesthesia.
- Plastic surgery is often performed in surgery centers owned by surgeons.

These factors must be considered when a checklist is created or adapted. In 2008, Rosenfield and Chang[8] published their personal checklist approach for improving operating room safety. Dr. Rosenfield explained that their checklist is continually being modified to improve its use according to their team's experience (personal communication, 2011).

More recently, Anger et al[9] published an experience with a customized checklist that covers the entire process of surgical decision making in plastic surgery.

The Safety Committee of the American Society for Aesthetic Plastic Surgery (ASAPS) has also encouraged members to use checklists by proposing a customization of the WHO checklist.[10] Some specific items have been modified and/or added to make it particularly suitable for our specialty. The goal is to encourage plastic surgeons to use well-adapted checklists, not only in the hospitals but with all of their surgical activity, especially operations in the office or ambulatory surgery center. Following are some

suggested modifications.

- At "signing in": Ask about the use of aspirin. Verify that clinical photography has been completed.
- At "time out": Has the briefing been done? With the team? With the patient? Is intermittent pneumatic compression connected?

Briefing is an important step toward making sure that the resources of the entire team are integrated to optimize safety and efficiency. It shows the role and importance of each member. Especially for operations that use local anesthesia, the patient should be considered a member of the team and included in the briefing. During preoperative briefings, all members are encouraged to speak up at any time during surgery to report observations that might affect safety.

There are also a number of items to check before the patient is dismissed from the outpatient surgery center.

These examples emphasize the importance of customizing checklists. These lists will be used correctly only if the entire team can see their benefit for the specific activity. Properly implementing a well-adapted surgical checklist is essential for promoting a culture of safety.

**Conclusion**

Our responsibility as plastic surgeons is to be leaders in the effort to implement and use checklists in our activities. Only by setting this example will beneficial cultural change occur and, in turn, safety improve. If checklists are designed and imposed by bureaucrats, they will be useless and probably lead to a false sense of security.

It has been shown that the initiative and drive behind every effort to promote patient safety has to come from the top management of an organization. In plastic surgery, the top management is often the surgeon; therefore we must create and introduce the checklists. If we can assume this responsibility quickly, the regulating authorities will recognize our effort. This is the best guarantee that they will not impose checklists that are less suitable and therefore less beneficial for our patients' safety.

**References**


1. Haynes AB, Weiser TG, Berry WR, et al. The Safe Surgery Saves Lives Study Group. A surgical safety checklist to reduce morbidity and mortality in a global population. N Engl J Med 360:491-499, 2009.
2. Haynes AB, Weiser TG, Berry WR, et al. The Safe Surgery Saves Lives Study Group. Changes in safety attitude and relationship to decreased postoperative morbidity and mortality following implementation of a checklist-based surgical safety intervention. BMJ Qual Saf 20:102-107, 2011.
3. Kao LS, Thomas EJ. Navigating towards improved surgical safety using aviation-based strategies. J Surg Res 145:327-335, 2008.
4. Conley DM, Singer SJ, Edmondson L, et al. Effective surgical safety checklist implementation. J Am Coll Surg 212:873-879, 2011.
5. Semel ME, Resch S, Haynes AB, et al. Adopting a surgical safety checklist could save money and improve the quality of care in U.S. hospitals. Health Aff (Millwood) 29:1593-1599, 2010.
6. Oppikofer C. Crew resource management in plastic surgery: lessons from aviation. Plastic Surgery Pulse News 1(1):35,38, 2009.
7. World Health Organization. Safe surgery saves lives: the second global patient safety challenge. 2009. Available at www.who.int/patientsafety/safesurgery/en.
8. Rosenfield LK, Chang DS. The error of omission: a simple checklist approach for improving operating room safety. Plast Reconstr Surg 123:399-402, 2009.
9. Anger A, Letizio N, Orel M, et al. The preoperative checklist in aesthetic plastic surgery. Rev Soc Bras Cir Plast 26:525-529, 2011.
10. Oppikofer C. Checking the checklist. Aesthetic Society News 15:4, 2011.


**PHOTOS**


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