Preventing Wrong-Site Surgery in Oral and Maxillofacial Surgery

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KEYWORDS

• Patient safety • Surgical checklists • Ambulatory oral surgery • Anesthesia care • Surgical training

KEY POINTS

- The complexity of the clinical tasks required to perform ambulatory oral and maxillofacial surgery has accelerated to the point that errors are inevitable; systems are needed to eliminate wrong-site surgery.
- Among the most valuable and proved methods to mitigate the risks of medical errors has been the development of surgical checklists.
- Although checklists have come slowly to oral and maxillofacial surgery and to other disciplines in dentistry, they may provide exceptional value in the complicated and less regulated environment of ambulatory oral surgical procedures.
- Today, wrong tooth extraction remains a frequent reason for professional liability claim against oral and maxillofacial surgeons.

Wrong surgical site surgery has gained great attention in hospitals and in ambulatory care as part of national patient safety standards efforts. All oral and maxillofacial surgeons working in the operating room have become well aware of these efforts but they have not been consistently incorporated into the ambulatory care setting as yet. This may be due to the incorrectly presumed lesser complexity of the ambulatory setting or the lack of institutional oversight in such settings. In addition, the operating room team is often less developed and less focused on the interprofessional environment in ambulatory care than it is in the hospital operating room setting. Nonetheless, the ambulatory oral and maxillofacial surgery setting faces exactly the same issues as the inpatient setting with regard to patient safety. Thus, it is time for the utility of these measures to be assessed by oral and maxillofacial surgeons and time to adapt their use appropriately to the setting or ambulatory oral and maxillofacial surgery.

These efforts to prevent wrong-site surgery and related complications began when it became common knowledge that deaths, complications, and disfigurement from medical errors were frequent and preventable clinical problems. Because a medical error, wrong-site surgery, is always preventable, mechanisms have been developed and evaluated to mitigate these risks. Among the most valuable and proved methods has been the development of surgical checklists.

Necessary processes must be in place and implemented continuously to prevent wrong-site surgery. Intent to reduce errors alone is not sufficient in reducing risk. To initiate these processes, organizations responsible for health care quality took action. In 2016 the Joint Commission

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Oral Maxillofacial Surg Clin N Am ■ (2017) ■–■
http://dx.doi.org/10.1016/j.coms.2016.12.003

released its updated patient safety goals for ambulatory care.[1] It included 2 goals pertinent to wrong-site surgery in oral and maxillofacial surgery. These are to identify patients correctly and to prevent mistakes in surgery:

"NPSG.01.01.01 Use at least two ways to identify patients. For example, use the patient's name and date of birth …"
"UP.01.01. 01 Make sure that the correct surgery is done on the correct patient and at the correct place on the patient's body"
"UP 01.02.01 Mark the correct place on the patient's body where the surgery is to be done"
"UP 01.03.01 Pause before the surgery to make sure that a mistake is not being made"

These updated elements of Joint Commission goals form the skeleton of surgical checklists. A surgical checklist is simply the means to assess that the Joint Commission goals are being met continuously in the care of every patient and for every medical/surgical intervention.

CAUSES OF WRONG-SITE SURGERY

To understand the value of checklists, it is helpful to reprise the causes of wrong-site surgery. The generic causes of wrong-site surgery have been ascertained and well summarized. Each of these causes is pertinent to the oral and maxillofacial surgery practice.[2] They include

1. The lack of a formal operationalized system to verify the correct patient and site
2. The lack of a checklist
3. The inconsistent use of the checklist
4. The lack of a cohesive surgical team with each team member empowered to assure patient safety
5. High volume of surgical cases or other time pressures
6. The complexity of the surgical site, multiple procedures, and coexisting pathology
7. The use of highly specialized equipment
8. Surgical site visualization
9. Competency and credentialing of the whole surgical team
10. Ability to access proper information on the patient and the planned procedure
11. Development of a coherent treatment plan
12. Patient charting or chart review errors
13. Patient confidentiality and security
14. Adequate staffing
15. Training of the surgical team
16. Culture of the surgical team
17. Multiple surgeons/physicians/dentists with pass-off miscommunication
18. Nonmarked surgical site or surgical site marking error
19. Miscommunication with the patient or responsible party
20. Not systematically reviewing the checklist during a preprocedure pause

Specific comment regarding the pertinence of this list to the oral and maxillofacial surgery team is notable. The ambulatory setting in oral and maxillofacial surgery has not traditionally included a checklist. A cohesive and well-trained clinical team is variable in that in some states, licensure and credentialing of dental assistants are not required. Although the specialized education of the surgical team toward oral surgery has been well promulgated by the American Association of Oral and Maxillofacial Surgeons through the Dental Anesthesia Assistant National Certification Examination (DAANCE) program, its use is variably regulated.[3] In addition, the DAANCE program focuses on basic sciences, evaluation of patients with systemic diseases, anesthetic drugs, monitoring, and emergencies. It does not focus on the national patient safety standards that are part of continuing education in the interprofessional hospital setting. Although this could be accomplished as part of allied health professions education, the only educational requirement for participation in DAANCE is Basic Life Support certification. The educational requirements to perform duties as part of the surgical team in ambulatory oral and maxillofacial surgery differ substantially from those in the hospital operating room. These differences in education create additional challenges toward achieving the national patient safety goals of the Joint Commission on Accreditation of Health Care Organizations (JCACO).

In addition, the oral surgery ambulatory clinical team can be variably educated and with a high turnover rate. The culture of the oral and maxillofacial surgery team can be different from that of the operating room. The empowerment of all team members to participate fully in the care of patients is variable. The consulting surgeon and the operating surgeon might be 2 different members of a group practice. Surgical sites are not typically marked. The treatment rendered is often not part of a cohesive/comprehensive treatment plan. Visualization of the surgical site in the oral cavity may be difficult. Miscommunication with the patient who may be sedated or given an anxiolytic is a source of error. There is typically no pause before initiating the procedure. From this overview, it is clear that the ambulatory oral and maxillofacial surgery environment faces special challenges in addressing these 20 causes of wrong-site surgery and that change in the