When Can the Recovery Process Be Delegated to Staff?

As dentist sedation and general anesthesia (GA) providers, we spend a tremendous amount of time and effort preparing for intraoperative anesthetic emergencies. We all know that airway problems are the leading cause of morbidity and mortality in the dental office. So, we focus on these events. We have checklists. We have simulation. We have mandated continuing education in sedation and GA with a focus on preventing and managing emergencies. We have Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), and Basic Life Support (BLS). Recently, however, there have been a small number of adverse anesthetic events that have occurred, not intraoperatively, but during recovery under supervision by support personnel.

In the dental office, recovery personnel are overwhelmingly dental assistants who are not autonomously licensed for this role. Rather, they receive inconsistent training to assist with sedation and GA, but legally they cannot independently assess the patient. The dental assistants “monitoring” the patient during sedation/GA under direct supervision of the permit-holding dentist also do not have the authority to evaluate the patient. This includes so called “dental sedation assistants,” which are recognized in some states, who are also not authorized to evaluate the patient.* Rather, their role in the operator-anesthetist/sedationist model is to continually inform the supervising dentist of the patient’s vital signs and ideally to alert the dentist to any unusual findings on the monitor that might need immediate intervention. This is an enormous responsibility for unlicensed personnel without formal accredited training. Having said that, I have encountered many extremely well-trained dental assistants who have an impressive knowledge of patient monitoring, a well developed idea of the status of patients under sedation/GA, and the ability to be of remarkable help during urgencies and emergencies that can occur in the dental office setting. Many of these assistants take ACLS or PALS although they cannot legally perform any of the tasks of ACLS or PALS and the courses are beyond their skill set – for example, advanced airway management, the diagnosis of aberrant cardiac rhythms, or the independent dosing of resuscitative medications. The recent push by some states to require dental assistants to take ACLS and/or

PALS, courses designed for medical professionals and paramedics, may “look good” on paper, but in actuality, taking BLS for the health care provider once a year (instead of the requisite 2 years) in combination with high fidelity office-based simulation along with emergency preparedness education and other training is more advantageous. And it is more appropriate for their training and level of clinical responsibility.

So what of the recovery phase? The dental assistant by state rules cannot make an evaluation of a patient under sedation or GA. They are unlicensed paramedical personnel. So, when is it safe for the dental assistant to independently monitor a patient recovering from sedation/GA while the supervising dentist is available in the facility? Certain criteria need to be met. All dental/surgical procedures should have been completed, and the patient must be awake, or at the very least have recovered consciousness, with a full return of protective reflexes, including the ability to respond purposely to physical stimulation and/or verbal command. Reflex withdrawal from a painful stimulus (movement from a pinch or sternal rub) does not meet this definition. Accordingly, there must be no possibility that a patient return to a state of unconsciousness or respiratory depression because of a lack of continual stimulation from surgery, verbal command, or movement/transport. The patient must be able to maintain their own airway, even in the head down/airway obstructed position, without assistance. For routine dental or dento-alveolar surgery, supplemental oxygen should very rarely be needed for healthy patients to maintain normal oxygen saturation after awakening and during recovery. No additional sedative/analgesic medications are expected to be administered and the maximum effects of all sedative/analgesic medications should have been already experienced by the patient. This last condition is particularly important for drugs with longer onset, such as intravenous morphine, intramuscular ketamine, and orally administered medications. If all of these conditions are met, one would expect the patient will only become more awake over time.

However, it can occur that some of our patients “fall asleep” in recovery when the stimulation of the dental/oral surgical procedure and/or transfer to recovery has passed. If, however, the above criteria are met, such that the patient had already awakened, they are still easily arousable with verbal command or light physical stimulation, and they can maintain their own airway without special positioning, it is acceptable for the assistant to recover the patient. This does require vigilance by the dental assistant and emphasizes that training is needed specifically for the recovery phase,

* Relates to California rules; some states, eg, Washington, do not specifically state that Dental Anesthesia Assistants are qualified to monitor a patient.

even for a well-trained intraoperative assistant. This also highlights that the patient should not be placed on supplemental oxygen as slowly dropping oxygen saturation should be a sign that requires the dental assistant to awaken the patient and call for the supervising dentist to re-evaluate the patient. If supplemental oxygen or other interventions, such as a head tilt/chin lift or active stimulation, are required, the supervising dentist must be immediately informed. It is the supervising dentist's responsibility to then re-evaluate the patient to ensure that the patient has recovered sufficiently to be under the care of a dental assistant. If not, the supervising dentist should assume recovery responsibilities until the above criteria are met. It is recognized that as more major and/or lengthy oral and maxillofacial surgical procedures are performed in offices, registered nurses trained in surgical and postanesthesia recovery are required where airway issues may be encountered and adjunctive analgesics and other medications may need to be administered. Otherwise, the anesthesia provider should assume recovery responsibilities.

Further, the supervising dentist should not start another case until he or she has re-evaluated the previously anesthetized patient and confirmed that they are truly awake and meet discharge criteria or will do so shortly. It should be a "Never Event" that the dentist should start another sedation/GA and be required in the recovery area to manage an emergency. There may certainly be a rare situation where this occurs, but it should not be due to the sedative level of the patient. Rather, some other medical emergency may occur unrelated to sedation or GA as no one can foresee all events that might happen.

Dentists have an admirable safety record in providing sedation and GA in the dental office. We should all be aware that these efforts extend into the recovery period as well. Vigilance does not stop at the end of the procedure. We need to remember that the recovery phase of sedation and GA are important parts of our anesthetic care.

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Publication Note

In this issue of *Anesthesia Progress*, the American Society of Dentist Anesthesiologists has published their newly revised Parameters of Care. Many specialty groups publish various guidelines, advisories, and parameters of care in their respective journals. Examples include the American Society of Anesthesiologists and the American Academy of Pediatrics with the American Academy of Pediatric Dentistry. The specialty journal for dentist anesthesiologists is *Anesthesia Progress*. Therefore, it is appropriate to publish these newly revised Parameters in our journal.

These parameters are written specifically for dentist anesthesiologists to help guide them in the safest possible delivery of sedation and anesthesia practice whether in a single fixed location, in multiple satellite locations, or in a mobile practice utilizing multiple

dental offices. Issues related to personnel and state anesthesia practice evaluations are also addressed. The ASDA's long-standing policy is that it respects the right of other dental organizations to publish their own guidelines and parameters of care.

Other organizations are also welcome to publish guidelines, advisories, or parameters if *Anesthesia Progress* is their official journal. In an upcoming issue, the Japanese Dental Society of Anesthesiology will be publishing guidelines related to the use of moderate sedation, which should be interesting to those of us who practice in other countries.

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