



TEXAS STATE BOARD OF DENTAL EXAMINERS
1801 Congress Avenue, Suite 8.600, Austin, Texas 78701

Advisory Committee on Dental Anesthesia
March 2025 Report and Recommendations

On March 7, 2025, the Advisory Committee on Dental Anesthesia (ACDA) met to review de-identified data provided by the staff of the Texas State Board of Dental Examiners (TSBDE). There were no public comments made during the open meeting. The ACDA consists of members of the dental and medical community appointed pursuant to Board rule 22 Tex. Admin. Code §100.12. The six members present and participating in the preparation of this report were:

Dr. Shelby DeMayo, DDS (Chairperson) – Periodontist, Level 3 Provider

Dr. Zeeshan Moorani, DDS – Pediatric Dentist, Level 2 Provider

Dr. Penelope Duke, MD – Physician Anesthesiologist

Dr. Vincent Cavaretta, DDS - Oral and Maxillofacial Surgeon, Level 4 Provider

Dr. Jinsoo Kim, DDS - Dental Anesthesiologist, Level 4 Provider

Dr. Matthew Palmer, DDS – General Dentist, Level 1 Provider

The ACDA was provided a data set pulled from available cases in the TSBDE's complaint files. The criteria to identify these cases came from the statutory authorization for the ACDA in Chapter 258, Subchapter E of the Texas Occupations Code and Board rule 22 Tex. Admin. Code §100.12.

The criteria applied to select the sixteen cases for review were as follows. The TSBDE staff determined all jurisdictional cases where an official investigation was resolved during September 1, 2023 through August 31, 2024 (Fiscal Year 2024), which involved a sedation or anesthesia-related death or incident. Determination of a death or incident was made by applying the criteria present in 22 Tex. Admin. Code §100.12(c)(1),

[a] death shall be considered anesthesia-related if the dental treatment involved the administration of an anesthetic or sedative agent in the dental office, including local anesthesia, and a death occurred. An incident shall be considered anesthesia-related if the dental treatment involved the administration of an anesthetic or sedative agent in a dental office, including local anesthesia, and the Dental Review Panel identified a

complication associated with the administration of the anesthetic or sedative agent.

After compiling the full body of responsive cases, staff determined which cases were resolved by the TSBDE during the prior fiscal year. The body of cases considered for this report were resolved by the TSBDE on or before August 31, 2024, representing cases closed in Fiscal Year 2024.

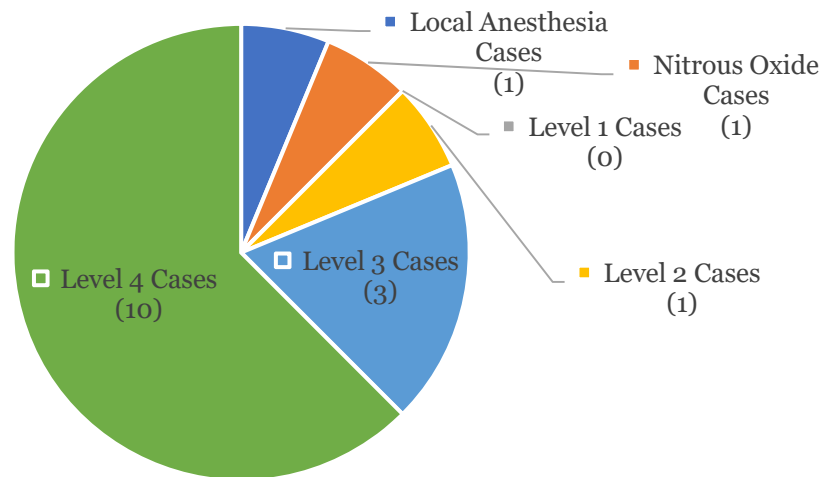
For purposes of the cases identified, “resolved” means closed by the TSBDE through any type of case resolution. This means that the group of cases provided to the ACDA may contain closed investigations that did not result in a public disciplinary action against the licensee in question. The ACDA does not review the disposition status of the resolved cases, and is not provided any identifying information related to the licensee. The resolution date for purposes of identifying data comes from the official date of disposition in the TSBDE’s records, not the date when a licensee or complainant was notified of the outcome of a case.

The data provided to the ACDA by TSBDE staff was de-identified and remained confidential throughout the review process. For purposes of the ACDA’s review, “de-identified” means that the data did not include identifying information of a patient or health care provider; the name, address, or date of birth of the patient or a member of the patient’s family; or the name or specific location of a health care provider who treated the patient. These de-identification and confidentiality provisions were applied by statutory direction pursuant to Tex. Occ. Code §258.206. However, the ACDA was provided with summary information on each complaint and provider, including the Dental Review Panel review for each case (redacted as necessary), along with the full information identified in Board rule 22 Tex. Admin. Code §100.12(c)(2).

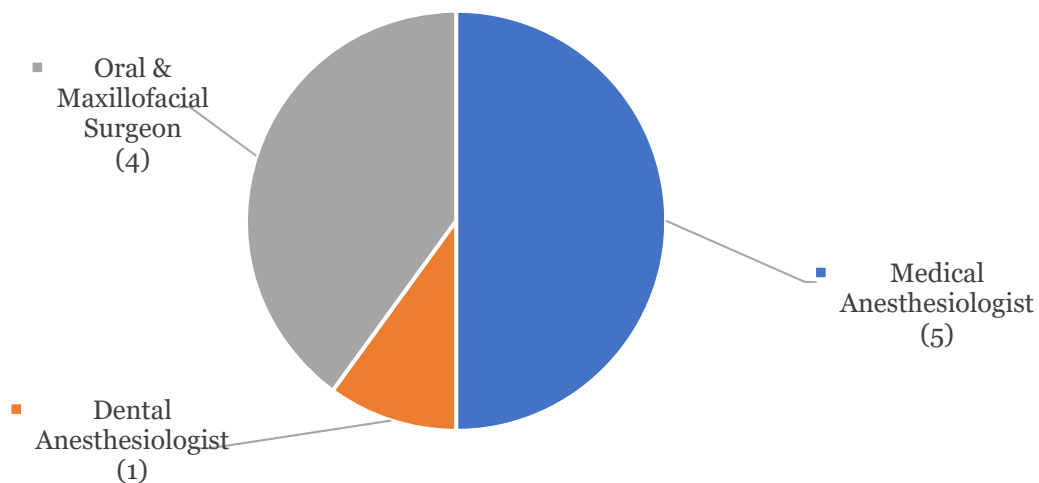
I. Review of Data Provided to Committee

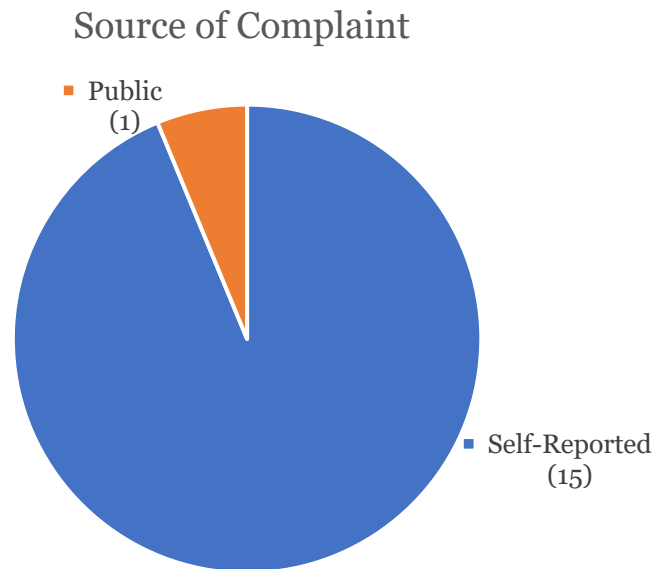
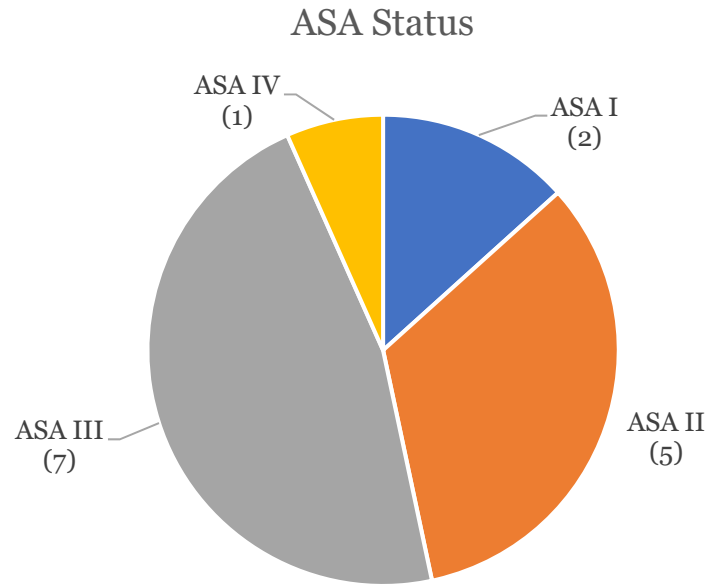
The ACDA reviewed de-identified data provided by the TSBDE's staff pursuant to the methodology discussed in the summary *supra*. The data set for the meetings of the ACDA included sixteen de-identified cases, with patient ages ranging from 4 to 79 years in age. Below are selected data points for the cases included in the ACDA's review.

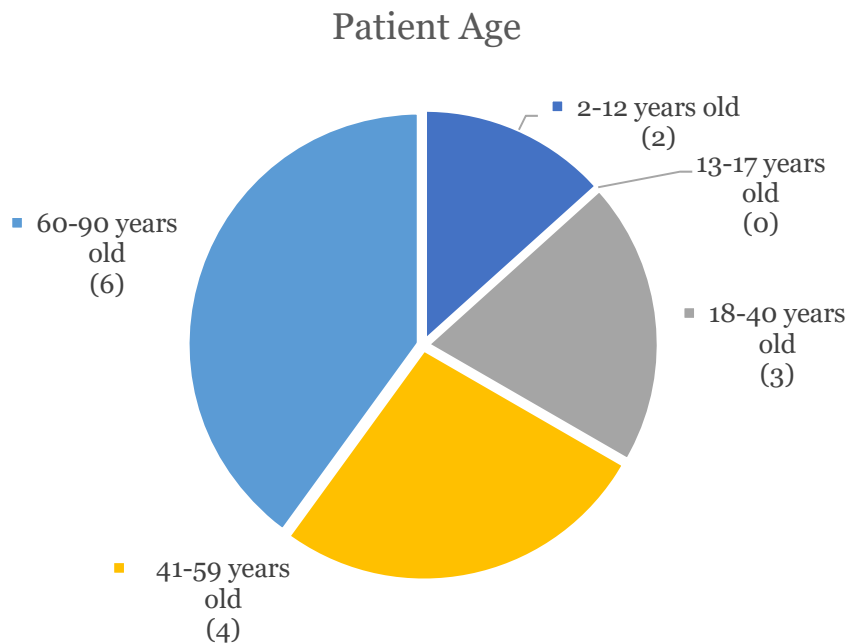
Highest Level of Sedation or Anesthesia Administered



Providers Who Administered Level 4 Sedation/Anesthesia







The ACDA conducted a review of the data associated with each of the sixteen cases during its meeting on March 7, 2025. After a thorough review of the available data, the ACDA provides the following trends, recommendations and guidance to the TSBDE for consideration.

II. Trends

During discussion of the data, the ACDA identified the following trends present in the cases reviewed:

1. Patient Selection – Adverse events occurred in patients in 5 out of the 16 cases where the providers made poor choices pertaining to patient selection. The ACDA noted the following:
 - a) Providers started cases on days when the patient’s comorbidities did not present as well controlled.
 - b) Providers relied on medical consults as a form of clearance, when in fact, consults are one factor in a host of parameters that should be used to determine case suitability.
 - c) The medical consultation form needs to include all information about the procedure. Examples of what should be included are how long the surgery will take, how much local anesthesia is expected and which type, and all

post-operative medications. There is a big difference in 1 dental extraction and 1-2 implants compared to full mouth extractions, an alveoloplasty, or placement of 9-10 dental implants for a 6-hour surgery.

- d) Delegating medical consult letters to administrative staff was discussed and how this potentially needs to be done by well-trained administrative staff or by treating dentists themselves.
2. Local anesthetic dosage – Two out of the 16 cases involved adverse events precipitating after administering local anesthetic beyond the maximum recommended dose (MRD).
 3. Recordkeeping – The ACDA noted some recordkeeping errors.

III. Recommendations

Based upon the discussion of cases available to the ACDA, the committee makes the following recommendations to the TSBDE for consideration and possible action:

1. Update Board Rules Regarding Medical Consults – The ACDA recommends the TSBDE define:
 - a) what should be included in medical consults:
 - i. Specific procedures, estimated duration, estimated blood loss, etc. For example, “12 surgical teeth extractions with alveoloplasty and placement of 4 implants anticipated to last 3 hours with estimated blood loss of X ml” instead of “extractions & implants under sedation.”
 - b) that a consult does not equal clearance. A clearance ultimately lies in the hands of the dentist. A consult is a request for information that can help a dentist judge whether the patient is well suited to undergo the proposed procedure.
2. Update Board Rule Relating to Preoperative Checklist – Board rule 22 Tex. Admin. Code §110.13 requires dentists administering nitrous oxide or Level 1, 2, 3, or 4 sedation/anesthesia to create and maintain a preoperative checklist. Subsection (c) lists the documentation a preoperative checklist must include. The ACDA recommends the TSBDE update the rule to add the following to the checklist:
 - a) Calculation of max local anesthetic that can be administered. While the committee recognizes that this may not prevent all instances of local anesthetic beyond MRD, it may prevent some, as a provider who has calculated and written the max dosage prior to a procedure may feel more of a sense of responsibility to stick to what the provider wrote himself/herself before administering. As an example, please see below a copied section from the American Academy of Pediatric Dentistry’s (AAPD)

procedural sedation form. *At this time, the committee is only recommending adding local anesthetic calculations, not sedative calculations.*

Drug Dosage Calculations

Sedatives

Agent _____ Route _____ mg/kg X _____ kg = _____ mg + _____ mg/mL = _____ mL
 Agent _____ Route _____ mg/kg X _____ kg = _____ mg + _____ mg/mL = _____ mL
 Agent _____ Route _____ mg/kg X _____ kg = _____ mg + _____ mg/mL = _____ mL

Emergency reversal agents

For narcotic: NALOXONE IV, IM, or subQ Dose: 0.1 mg/kg X _____ kg = _____ mg (maximum dose: 2 mg; may repeat to maintain reversal)
 For benzodiazepine: FLUMAZENIL IV (preferred), IM Dose: 0.01 mg/kg X _____ kg = _____ mg (maximum dose: 0.2 mg; may repeat up to 4 times)

Local anesthetics (maximum dosage is based on weight; to calculate **maximum volume**, divide maximum dosage by agent concentration)

2% Lidocaine 4.4 mg/kg X _____ kg = _____ mg + 20 mg/mL = _____ mL
 4% Articaine 7 mg/kg X _____ kg = _____ mg + 40 mg/mL = _____ mL
 3% Mepivacaine 4.4 mg/kg X _____ kg = _____ mg + 30 mg/mL = _____ mL
 0.5% Bupivacaine 1.3 mg/kg X _____ kg = _____ mg + 5 mg/mL = _____ mL

3. Update Board Rules Regarding Reversal Agents – The ACDA recommends the TSBDE clarify guidelines on using reversal agents and monitoring thereafter. Reversal agents often have temporary duration shorter than the sedative, and re-sedation can occur after the reversal wears off.
4. Change Statute Relating to Confidential Investigation Files – Section 254.006 of the Texas Occupations Code provides that the Board's investigation files are confidential. The ACDA recommends changing the statute to allow sedation/anesthesia providers to review de-identified investigation cases, which involve a sedation or anesthesia-related death or incident as defined in 22 Tex. Admin. Code §100.12(c)(1), for educational/learning purposes. The ACDA believes that reviewing the cases will help providers have a better understanding of the importance of patient selection. The ACDA also recommends that the Board allow continuing education credit for providers who review such cases.

The ACDA would like to thank the TSBDE team for their support and assistance with the meetings. We all strive to make dental care and sedation/anesthesia safe and effective for Texas residents.