BEFORE THE NORTH CAROLINA STATE BOARD OF DENTAL EXAMINERS

IN THE MATTER OF: WILLIAM V. LINGER, D.D.S. (License No. 6917; Permit No. 0814)	)	**CONSENT ORDER**

THIS MATTER is before the North Carolina State Board of Dental Examiners [the "Board"] as authorized by N.C. Gen. Stat. § 90-41.1(b) for consideration of a Consent Order in lieu of a formal administrative hearing. Respondent William V. Linger, D.D.S. ["Respondent"] was represented by Kenneth L. Jones. The Investigative Panel [the "IP"] was represented by Douglas J. Brocker. The parties freely and voluntarily consent to the following:

FINDINGS OF FACT

1. The Board is a body duly organized under the laws of North Carolina and is the proper party to bring this proceeding pursuant to the authority granted to it in Chapter 90 of the North Carolina General Statutes, including the Dental Practice Act and the rules and regulations of the Board.

2. Respondent was licensed to practice dentistry in North Carolina in September 1998 and holds license number 6917 ["License"]. Respondent was issued and has held a moderate conscious sedation permit 0814 ("Sedation Permit") since September 5, 2012.

3. At all times relevant hereto, Respondent was subject to the Dental Practice Act and the Board's rules and regulations.

4. On March 8, 2022, the Board entered into a Consent Order with Respondent ["2022 Consent Order"], which is incorporated herein by reference.

5. Pursuant to the 2022 Consent Order, Dr. Linger's dental license was placed on probationary status and his sedation permit was restricted until certain conditions were completed, including requiring the use of another sedation provider, completing a comprehensive remedial course in sedation treatment, procedures, protocols, and recordkeeping, among other topics, and then having a sedation practice monitor once the course was completed.

6. Dr. Linger completed the comprehensive remedial course through the University of North Carolina ["UNC"] School of Dentistry by November 2022.

7. Pursuant to a Petition filed by Respondent previously, in May 2023, the Board stayed the requirement for Respondent to use another sedation provider and approved a sedation practice monitor ["Monitor"] selected by Respondent and approved by the IP.

8. For the first year thereafter, the Monitor submitted reports to the Board indicating that he reviewed identified patient sedation records and did not find any deficiencies.

9. On July 25, 2024, Respondent submitted a Petition to Eliminate the Monitor Requirement ["Monitor Petition"] of the 2022 Consent Order.

10. On July 31, 2024, a Board investigator ["Investigator"] conducted a probation visit and sedation inspection in anticipation of the IP responding to Respondent's Petition.

11. At the sedation inspection, the Investigator discovered that several of the required emergency medications at Respondent's office were expired.

12. In performing the example records review, the Investigator noticed some of the same issues involved in the 2022 Consent Order, such as administering large amounts of sedative medications and using reversal agents. The example records also indicated the use of artificial airways during procedures for what was required to be no more than a moderate sedation.

13. Based on the results of the probation visit and sedation inspection, including the example record review, the IP requested that Respondent provide it with the sedation treatment records during the second quarter of 2024 that were reviewed by the Monitor.

14. The IP subsequently received a revised Monitor report for the second quarter of 2024, the Monitor reports for the third and fourth quarters of 2024, and selected sedation records during those quarters for review and evaluation at its request.

15. The sedation records Respondent provided for the last three quarters of 2024 were reviewed by the Board, the Monitor, and two independent evaluators – one holding a moderate sedation permit and a dental anesthesiologist.

16. Review of those sedation treatment records, which included sedations done throughout Respondent's probationary period, demonstrated that Respondent

continued many of the practices that were supposed to be addressed in the comprehensive remedial sedation course at UNC.

17. For example, the sedation treatment records indicate that on multiple instances during the probationary period Respondent:

a. sedated patients with health conditions with potential significant consequences on sedation without documenting an adequate assessment of those conditions and the risk of sedation, including failing to properly assess patients' ASA status and failing to obtain a required consultation with a treating medical provider;

b. prescribed or administered oral preoperative benzodiazepine sedative medications to patients and then administered IV sedation;

c. administered large induction doses of midazolam and fentanyl consistently exceeding the recommended maximum induction dosages and continued to administer similar amounts as maintenance doses;

d. exceeded those maximum recommended dosages and failed to document any clinical justification or reason for exceeding those maximum amounts, including after the Board's amended sedation rules went into effect on June 17, 2024;

e. administered the sedation drug Precedex, in addition to large dosages of other sedative medications he was already providing, rather than using it to decrease the dosages of the other sedatives.

f. administered Precedex to a patient with hypotension, even though that is a known side effect, worsening the condition during the procedure;

g. utilized a nasopharyngeal airway orally, which is intended for emergency use where a patient cannot independently maintain an adequate airway, as in deep sedation and general anesthesia, and which is not appropriate for oral use;

h. continued to repeatedly administer the reversal agent flumazenil for non-emergency uses primarily to speed up recovery, without adequate time in recovery before discharge to ensure the patient did not re-sedate, and to at least one patient where its use was contraindicated; and

i. administered sedation for more than four hours without taking adequate measures to decrease the risk of Deep Vein Thrombosis ["DVT"], including on patients with multiple risk factors for DVT, such as age and obesity, and without documenting any efforts to address bladder control for procedures lasting more than 4 hours.

18. Review of the sedation records demonstrated the existence of multiple issues noted above during the probationary period, including while Respondent was required to supervise a CRNA administering sedative agents, contemporaneously or after completing the comprehensive course at UNC that was designed to address and remediate some or all these issues, and while he was being monitored.

19. Respondent has failed to remediate the violations and address significant potential patient safety concerns related to sedation in the 2022 Consent Order, despite the requirements of using another sedation provider, completing the comprehensive remedial course at UNC, and having a sedation practice Monitor.

20. Respondent provided documents and information in response to all requests from the Board during the IP's investigation and consented to participate in a settlement conference before the Board.

21. As part of the settlement conference, Respondent consented to the extension of the probationary period and the reinstatement of the restrictions on his sedation permit in the 2022 Consent Order.

22. During the investigation, the IP discovered no evidence that Respondent's conduct at issue caused any of the patients whose charts were reviewed to suffer physical injury, severe medical emergency, or long-term adverse health effects.

Based upon the foregoing Findings of Fact and with the consent of the parties hereto, the Hearing Panel enters the following:

CONCLUSIONS OF LAW

1. The Board has jurisdiction over the subject matter of this action and over Respondent.

2. Respondent was properly notified of this matter and has consented to the entry of this Consent Order.

3. Pursuant to the Board's definitions, both deep sedation and general anesthesia involve at least a partial loss of protective reflexes, including the ability to maintain an airway without assistance, produced by pharmacological agents. 21 N.C.A.C. 16Q .0101(14) and (22).

4. In his treatment and administration of sedation to multiple patients during the probationary period beginning in March 2022 through 2024, including in Findings of Fact 10-19, Respondent violated:

a. the terms and conditions of the 2022 Consent Order, and thereby committed unprofessional conduct in violation of N.C. Gen. Stat. § 90-41(a) (26) and 21 N.C.A.C. 16V .0101 (4);

b. the standard of care for administering moderate sedation and thereby violated N.C. Gen. Stat. § 90-41(a)(12); and

c. N.C. Gen. Stat. § 90-41(a)(6) and the Board's regulations concerning sedation, including:

i. 21 N.C.A.C. 16Q .0103(c)(3) [unexpired emergency medication] and (e) [patient assessment];

ii. 16Q .0301(b) and (f) [CRNA supervision and deep sedation]; and

iii. 16Q .0302(c)(2) [physician consult] and (d)(3) [exceeding maximum recommended dosage].

5. Pursuant to N.C. Gen. Stat. § 90-41 and 21 N.C.A.C. 16Q .0701, failure to comply with the provisions of 21 N.C.A.C. 16Q, including those noted above, may result in suspension or revocation of Respondent's License and Sedation Permit.

6. By violating the Dental Practice Act and the Board regulations after entry of the 2022 Consent Order, as noted herein, Respondent is subject to potential additional discipline by the Board, including suspension or revocation of his License and Sedation Permit.

Based upon the foregoing Findings of Fact and Conclusions of Law and with the consent of the parties hereto, it is ORDERED as follows:

ORDER OF DISCIPLINE

1. Respondent surrenders Sedation Permit 0814 effective upon entry of this Consent Order. As a result of Respondent's surrender of his Sedation Permit, Respondent shall not administer any level of sedation to patients nor supervise a CRNA or any other person administering sedation. Notwithstanding the surrender of his Sedation Permit, Respondent:

   a. may administer to patients, if clinically appropriate to do so: (i) local anesthetic; (ii) nitrous oxide; and (iii) anxiolysis but only in strict compliance with 21 NCAC 16Q .0101(3) and the interpretive statements attached to this Consent Order;

   b. may utilize an independent provider who is authorized to administer general anesthesia without supervision, such as an anesthesiologist or a permittee with a mobile/itinerant permit issued by the Board and who is in good standing to administer sedation or general anesthesia to his patients; and

   c. shall keep records demonstrating his use of a mobile/itinerant permit holder for each patient to whom sedation or general anesthesia is administered and shall provide such records to the Board upon request.

2. The 2022 Consent Order and its terms and conditions shall expire upon entry of this Consent Order, and Respondent's License 6917 shall no longer be on probationary status and shall be considered in good standing, absent a future order of the Board as noted below.

3. If Respondent in the future applies for any level of sedation permit in North Carolina, he shall provide satisfactory evidence that he has met all applicable requirements in effect at the time of his application, which for moderate conscious sedation includes submitting an application meeting all the requirements that currently are set forth in 21 NCAC 16Q .0102(a)-(c) and .0301(a)-(f), including:

a. completing a sedation training course or program meeting all requirements in the Rule and approved by the IP in advance after the surrender of his Sedation Permit; and

b. passing an evaluation and facility inspection by a permit holder selected by the Board and after completing the training course.

4. If Respondent subsequently applies for any level of sedation permit in the future, Respondent agrees to the following as conditions of obtaining such a permit:

a. A new Sedation Practice Monitor selected by the IP ["Monitor"] shall be present in Respondent's office for first ten (10) patients to whom he administers sedation and report to the Board promptly any violations observed or upon conclusion of those first ten sedations.

b. Thereafter, the Monitor shall meet with Respondent regularly and no less than quarterly to review example patient charts selected by the Monitor, not by Respondent or employees at the office(s) where

he practices. During these meetings, the Monitor shall examine a minimum of ten example patient records to determine Respondent's compliance with the Dental Practice Act, the Board's rules, and the applicable standard of care concerning: (i) sedation treatment, procedures, and protocols; (ii) recordkeeping, including documentation of all required elements of patient treatment and sedation records; and (iii) any other issues identified by the Monitor. Respondent shall ensure that the Monitor prepares and timely submits to the Board quarterly reports with the findings concerning those issues for the quarter, **including identifying the specific patient treatment records reviewed**. The IP reserves the right to review the charts that the Monitor selects for his/her report, which records Respondent shall provide to the IP upon its request. The Monitor reports shall be due no later than April 30, July 30, October 30, and January 30 for the previous quarter in each year. Respondent is responsible for payment of all costs associated with this monitoring. If the Monitor reports information to the Board indicating that Respondent may be engaging in a violation of the Board's statutes or regulations or this Order, Respondent understands that such findings may result in further disciplinary action by the Board, including potential license suspension, following notice to Respondent and an opportunity to be heard. If the Monitor's reports and the Board's inspections demonstrate no

violations of the Dental Practice Act or the Board's rules continuously for three years, then Respondent may petition the Board to eliminate this requirement.

c. Respondent shall violate no provision of the Dental Practice Act or the Board's rules.

d. Respondent shall neither direct nor permit any of his employees to violate any provision of the Dental Practice Act or the Board's rules.

e. Respondent shall permit the Board or its agents to inspect and observe his office, conduct a random review of patient chart records, and interview employers, employees, and coworkers at any time during normal office hours.

f. Respondent's dental license shall be placed on probationary status for three years subject to the above conditions and any other conditions the Board deems necessary at the time of a potential permit reinstatement.

5. The Board shall retain jurisdiction of this matter and Respondent to enforce the provisions herein or enter orders as necessary in the future.

This the 14th day of April 2025.

NORTH CAROLINA STATE BOARD OF DENTAL EXAMINERS *

THE NORTH CAROLINA STATE
BOARD OF DENTAL EXAMINERS

Casie S. Goode
Director of Investigations

STATEMENT OF CONSENT

I, William V. Linger, D.D.S., do hereby certify that I have read the foregoing Consent Order in its entirety. I assent to its terms and conditions set out herein freely, voluntarily, and without coercion or duress. I acknowledge that there is sufficient evidence to form a factual basis for the findings of fact herein, that the findings of fact support the conclusions of law, that I will not contest the findings of fact, the conclusions of law, or the order in any future proceedings before or involving the Board, including in any proceeding seeking to obtain a sedation permit in the future. I knowingly waive any right to seek judicial review, appeal, or otherwise later challenge this Consent Order once entered. I agree to service of the Consent Order to the email or mailing address of my counsel in this matter and waive service by any other method. I understand that the Board will report the contents of this Consent Order to the National Practitioner Data Bank and that this Consent Order will become part of the Board's permanent public record. I further acknowledge that this required reporting may have adverse consequences in other contexts and any potential effects will not be the basis for a reconsideration of this Consent Order. I have consulted with counsel before signing this Consent Order and voluntarily agreeing to the surrender of my Sedation Permit.

This the 8th day of April 2025.

William Linger (Apr 8, 2025 13:57 EDT)

William V. Linger, D.D.S.

INTERPRETIVE STATEMENT REGARDING
ADMINISTRATION OF ANXIOLYSIS
TO ADULT AND GERIATRIC PATIENTS
Date Issued: March 13, 2023

To protect the public interest, the North Carolina Board of Dental Examiners ("Board") provides interpretation and guidance regarding acceptable standards of care to administer anxiolytics to adult and geriatric patients, consistent with the Board's rules. This statement addresses acceptable anxiolytic drugs, permissible dose amounts, and the appropriate timing of a single dose that constitutes anxiolysis and, therefore, does not require the dentist to hold a current, unrestricted sedation permit. Proper administration and dosages of drugs for minimal conscious sedation are set forth in the Board rules, 21 NCAC .0504 to .0507, and beyond the intended scope of this interpretive statement, except to distinguish it from anxiolysis. This statement is further limited to the administration of anxiolysis to adult and geriatric patients and does not address pediatric patients, which the Food and Drug Administration defines as being younger than 17 years old. The Board will issue a separate interpretive statement addressing the administration of anxiolysis to pediatric patients.

Definitions in Board's Sedation Rules

> "**Anxiolysis**" – pharmacological reduction of anxiety through the administration of a single dose of a minor psychosedative, possibly in combination with nitrous oxide, to children or adults prior to commencement of treatment on the day of the appointment that allows for uninterrupted interactive ability in an awake patient with no compromise in the ability to maintain a patent airway independently and continuously. Nitrous oxide may be administered in addition to the minor psychosedative without constituting multiple dosing for purpose of these Rules. 21 NCAC 16Q .0101(3)
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> "**Minor psychosedative/Minor tranquilizer**" – pharmacological agents that allow for uninterrupted interactive ability in a patient with no compromise in the ability to maintain a patent airway continuously and without assistance and carry a margin of safety wide enough to render unintended loss of consciousness unlikely. 21 NCAC 16Q .0101(28)
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> "**Minimal conscious sedation**" – conscious sedation characterized by a minimally depressed level of consciousness, in which the patient retains the ability to independently and continuously maintain an airway and respond normally to tactile stimulation and verbal command, provided to patients 13 years or older, by oral or rectal routes of administration of a single pharmacological agent, in one or more doses, not to exceed the manufacturer's maximum recommended dose, at the time of treatment, possibly in combination with nitrous oxide. Minimal conscious sedation may be provided for behavioral management. 21 NCAC 16Q .0101(27)

A dentist may administer anxiolysis, as defined in the Board's rules, without need for a sedation permit issued by the Board. However, a dentist may not administer minimal conscious sedation, as defined by the Board's rules, without a current, unrestricted permit that allows a dentist to administer at least minimal sedation (hereafter, "Permit"). Therefore, a dentist who is seeking to

administer anxiolysis but does not have a Permit must exercise caution to ensure he or she is not actually administering minimal conscious sedation, in violation of the Board's rules.

Under the Board's Rule 21 NCAC 16Q .0101(3), set out above, anxiolysis is the administration of a "single dose" of a "minor psychosedative" prior to and "on the day of" treatment. The Board offers the following guidance regarding the interpretation and application of these three terms to assist dentists in remaining compliant with the Board's rules and acceptable standards of care.

A Single Dose

An important distinction between anxiolysis and minimal conscious sedation is the use of a single dose of an appropriate pharmacological agent for anxiolysis. Minimal conscious sedation allows providers to administer more than one dose as long as they do not exceed the manufacturer's maximum recommended daily dosage. In contrast, under the Board's rules, the proper administration of anxiolysis involves and allows only a single dose.

A dentist remains within the Board's definition of anxiolysis by administering an anxiolytic in an amount not exceeding the manufacturer's maximum recommended individual dose ("dose"). A dentist must review the FDA-approved manufacturer's label and be familiar with recommended doses for different populations, which may be significantly lower than the recommended dose for a young, healthy, Caucasian adult. For example, lower doses are recommended by manufacturers for special populations where the elimination half-life of the drug is longer. The actual dose a dentist prescribes or administers must be individually tailored to meet the patient's personal and health circumstances but cannot exceed the maximum individual dose.

The single dose of anxiolytic may be administered all at once or in divided/partial doses, provided the total amount administered or prescribed does not exceed the maximum amount recommended for an individual dose. The maximum individual dose for anxiolysis is different than the maximum recommended daily dosage ("dosage"), which typically would be taken in multiple doses over a 24-hour period.

The following table provides some common examples with the maximum total dose amount that may be administered for anxiolysis, whether all at once or in divided/partial doses.

Examples of Maximum Single Dose for Commonly Used Anxiolytics:

Agent	Adult Patient	Elderly/Debilitated Patient*
Alprazolam (Xanax)	0.5 mg	0.25 mg
Diazepam (Valium)	10 mg	2.5 mg
Lorazepam (Ativan)	4 mg	2 mg

*The federal regulations governing drug labeling define "elderly" or "geriatric" as patients aged 65 years or older. *See 21 CFR § 201.57(c)(9)(v)*. "Debilitated" as used here means a patient with a debilitating disease, such as renal, hepatic, or pulmonary disease.

Minor Psychosedative – Permissible Anxiolytics

Another important distinction between anxiolysis and minimal conscious sedation is the limitation of anxiolysis to minor psychosedative agents. Under the Board's rules (above), a minor psychosedative is one that carries a "margin of safety wide enough to render unintended loss of consciousness unlikely."

A dentist complies with this limitation by administering pharmacological agents that function as antianxiety drugs and which carry a wide enough margin of safety, in compliance with the Board's rules. Certain benzodiazepines generally are considered the preferred drugs for the management of preoperative anxiety in the dental setting.

Example benzodiazepines that generally may be used safely as anxiolytics for adult and geriatric patients without the need for a Permit:

- Alprazolam
- Clorazepate
- Diazepam
- Halazepam
- Lorazepam
- Prazepam

Example benzodiazepines that do not comply with the Board's rules or the standard of care for the administration of anxiolysis and would require a Permit :

- Midazolam
- Triazolam

See, e.g., Sedation, Stanley F. Malamed, pp. 100-109, 6th edition (2018).

On The Day of Treatment

For anxiolysis, the Board's rule states that the psychosedative agents must be administered "prior to commencement of treatment on the day of the appointment." The Board recognizes that the necessary reduction of anxiety for some patients may require that they take medication before bed the night before as well as in the morning prior to the treatment, provided that it is safe for the patient and clinically appropriate to do so.

A dentist remains in compliance with the Board's rules by administering or prescribing a divided dose of a psychosedative agent within the 24-hour period prior to the commencement of treatment, provided the total amount prescribed or administered does not exceed the manufacturer's maximum recommended individual dose, as discussed above, and doing so is safe, necessary, and appropriate for a particular patient. A dentist administering anxiolysis may not administer multiple doses, but in these circumstances may, for example, divide a single dose and instruct the patient to take one partial dose before bed the night before and the other partial dose in the morning prior to the appointment.

Summary Guidance for Patient Safety in Anxiolysis

To maximize patient safety, a dentist should administer the lowest possible effective dose of an anxiolytic, individualized according to the patient's health and personal circumstances, after conducting a thorough examination and assessment. Even the manufacturer's maximum recommended individual dose could be excessive depending on the patient's circumstances. Within the parameters set forth in this statement, the dentist is responsible for determining an appropriate amount of an anxiolytic medication and potentially titrating or dividing that single dose to reach, and not exceed, the desired reduction of anxiety based on the individualized patient assessment.

For dentists without a current sedation permit, the following actions would violate the Board's regulations and could result in disciplinary action or other adverse events or results:

- prescribing or administering more than a single dose of an anxiolytic per visit,
- prescribing or administering an amount exceeding the maximum recommended single dose of an anxiolytic,
- prescribing a medication not appropriate for anxiolysis, or
- prescribing an anxiolytic to be taken other than within the 24 hours surrounding a dental procedure or visit.

INTERPRETIVE STATEMENT REGARDING
ADMINISTRATION OF ANXIOLYSIS
TO PEDIATRIC PATIENTS
Date Issued: May 17, 2023

To protect the public interest, the North Carolina Board of Dental Examiners ("Board") provides interpretation and guidance regarding acceptable standards of care, consistent with the Board's rules, to administer anxiolytics. On March 13, 2023, the Board issued an Interpretive Statement Regarding Administration of Anxiolysis to Adult and Geriatric Patients, which is available on the Board's website.

The Board now issues this separate statement addressing the administration of anxiolysis to pediatric patients, which the Food and Drug Administration defines as being younger than 17 years old. This statement includes acceptable anxiolytic drugs, permissible dose amounts, and the appropriate timing of a single dose that constitutes anxiolysis and, therefore, does not require the dentist to hold a current, unrestricted sedation permit.

The Board's Sedation Rules

A dentist may administer anxiolysis, as defined in the Board's rules, without need for a sedation permit issued by the Board. However, a dentist may not administer minimal conscious sedation or moderate pediatric conscious sedation, as defined by the Board's rules, without a current, unrestricted permit that allows a dentist to administer that level of sedation (hereafter, "Permit"). **Therefore, a dentist who is seeking to administer anxiolysis but does not have a Permit must exercise caution to ensure he or she is not actually administering minimal or moderate pediatric conscious sedation, in violation of the Board's rules.**

The Board's rules define **anxiolysis** as the "pharmacological reduction of anxiety through the administration of a single dose of a minor psychosedative, possibly in combination with nitrous oxide, to children or adults prior to commencement of treatment on the day of the appointment that allows for uninterrupted interactive ability in an awake patient with no compromise in the ability to maintain a patent airway independently and continuously." 21 NCAC 16Q .0101(3). A **minor psychosedative** is defined as one that carries "a margin of safety wide enough to render unintended loss of consciousness unlikely." 16Q .0101(28).

In comparison, under the Board's rules, **minimal conscious sedation** is "characterized by a minimally depressed level of consciousness," is "provided to patients 13 years or older" by administration of "one or more doses" of a pharmacological agent, and "may be provided for behavioral management" by a dentist holding a Permit to do so ("Minimal Permit"). 16Q .0101(27). **Moderate pediatric conscious sedation** is "characterized by a drug induced depression of consciousness, during which patients respond to verbal commands, either alone or accompanied by light tactile stimulation," may be provided to pediatric patients up to 18 years of age, and "may be provided for behavior control" by a dentist holding a Permit to do so ("Pediatric Permit"). 16Q .0101(30).

Thus, under the Board's rules, pediatric anxiolysis is limited to administration of a single dose of an anxiolytic agent for purposes of anxiety reduction. The patient remains alert and responsive. Anxiolysis may not be administered for behavioral management or control. If the pediatric patient is behaving in an uncooperative manner that requires behavior control or management through sedation, anxiolysis is not appropriate and the patient should be referred to a dentist who holds a Pediatric Permit, or a Minimal Permit if 13 years or older.

Administration of Pediatric Anxiolysis

Anxiolysis should be administered to the pediatric patient as a single dose on the day of the appointment. It should not be administered as a divided dose to a pediatric patient. The preferred practice for a pediatric patient is to provide the anxiolytic agent to the patient on-site prior to the appointment to ensure the dentist can monitor the patient's reaction to the anxiolytic agent until the patient is ready for the dental procedure.

The proper dose of the anxiolytic agent must be calculated based on the pediatric patient's weight. The dentist must review the FDA-approved manufacturer's label for the selected drug and be familiar with maximum recommended dose, if included on the label, as well as contraindications and other warnings applicable to the pediatric patient. Some drug labels do not include maximum recommended doses for pediatric patients, not necessarily because the drug is not safe for pediatric patients, but due to the lack of adequate pediatric studies to provide the data.

If a drug label does not include pediatric dosing information, the dentist must review additional scientific resources to confirm that the drug is appropriate for anxiolysis in pediatric patients and, if so, the proper drug amount by weight for a single dose. As a best practice, the dentist should be familiar with and follow the guidelines for safe pediatric sedation developed collaboratively by the American Academy of Pediatric Dentistry and the American Academy of Pediatrics.

The following table provides some common examples with the maximum dose that may be administered for anxiolysis.

Examples of Maximum Single Dose for Commonly Used Pediatric Anxiolytics:

Hydroxyzine (Vistaril, Atarax)	0.6 mg/kg
Diphenhydramine (Benadryl)	1.5 mg/kg
Diazepam (Valium)	0.4 mg/kg

Source: PDR.net

Permissible Anxiolytics

As discussed above, the Board's rules limit anxiolysis to the use of minor psychosedative agents, which are those that carry a "margin of safety wide enough to render unintended loss of consciousness unlikely."

A dentist complies with this limitation by administering pharmacological agents that function as antianxiety drugs and which carry a wide enough margin of safety, in compliance with the Board's

rules. Preferred anxiolytic agents for pediatric patients include certain antihistamines, hormones, and benzodiazepines that carry a wide enough margin of safety.

Example agents that generally may be used safely as anxiolytics for pediatric patients without the need for a Permit:

- Hydroxyzine
- Diphenhydramine
- Diazepam
- Melatonin

Example benzodiazepines that do not comply with the Board's rules or the standard of care for the administration of anxiolysis and would require a Permit :

- Midazolam
- Triazolam

See, e.g., Sedation, Stanley F. Malamed, pp. 100-109, 6th edition (2018).

Local Anesthesia

Local anesthetic agents are cardiac depressants. In a pediatric patient, an excessive dose of local anesthetic may be what pushes the child over the desired level of anxiolysis into minimal or moderate sedation, or into a dangerous overdose condition. To minimize the chance of accidental overdose, the dentist should calculate the maximum allowable safe dosage based on the child's weight prior to starting the procedure.

As a best practice, the dentist should be familiar with the guidance on local anesthesia for pediatric dentistry issued by the American Academy of Pediatric Dentistry.

Summary Guidance for Pediatric Patient Safety in Anxiolysis

To maximize patient safety, a dentist should administer the lowest possible effective dose of an anxiolytic, calculated by weight and individualized according to the patient's health and personal circumstances, after conducting a thorough examination and assessment. Even the manufacturer's maximum recommended individual dose could be excessive depending on the patient's circumstances and the administration of other agents, including local anesthetics and nitrous oxide. Within the parameters set forth in this statement, the dentist is responsible for determining an appropriate amount of an anxiolytic medication to reach, and not exceed, the desired reduction of anxiety based on the individualized patient assessment.

For dentists without a current sedation permit, the following actions in treating pediatric patients would violate the Board's regulations and could result in disciplinary action or other adverse events or results:

- prescribing or administering more than a single dose of an anxiolytic per visit,
- prescribing or administering a divided dose of an anxiolytic for a single visit,
- prescribing or administering an amount exceeding the maximum recommended single dose of an anxiolytic, or
- prescribing a medication not appropriate for anxiolysis.