Report on Pediatric Deaths Related to General Anesthesia in Dentistry as Required by Business and Professions Code Section 1601.4, subdivision(b), for the Period from January 1, 2017 to August 1, 2023

Introduction

AB 2235 (Thurmond, Chapter 519, Statutes of 2016), known as Caleb's Law, required the Board to provide a report to the California State Legislature, at the time of its sunset review, on pediatric deaths related to general anesthesia in dentistry. This requirement is codified in BPC section 1601.4, subdivision (b). SB 501 (Glazer, Chapter 929, Statutes of 2018) subsequently amended BPC section 1601.4, subdivision (b), to include pediatric deaths related to deep sedation.

SB 501 also required the Board to review available data on all adverse events related to general anesthesia and deep sedation, moderate sedation, and minimal sedation in dentistry and relevant professional guidelines, recommendations, or best practices for the provision of dental anesthesia and sedation care. (BPC § 1601.4, subd. (a)(1).) In addition, SB 501 required the Board to report to the California State Legislature, by January 1, 2022, any findings relevant to inform dental anesthesia and sedation standards. (BPC § 1601.4, subd. (a)(2).) The Board began collecting data on patient deaths and hospitalizations on January 1, 2017. As required by SB 501, the Board submitted the Report to the California State Legislature Regarding Findings Relevant to Inform Dental Anesthesia and Sedation Standards on December 22, 2021. The Board received a letter from the Association of Oral and Maxillofacial Surgeons (AAOMS) on November 17, 2021, expressing concerns that the report had omitted provider specificity data, intended patient sedation level data, and AAOMS anesthesia guidelines. It was determined that due to the last-minute nature of the concerns raised by AAOMS, Board staff would review the concerns and submit a supplemental report to the California State Legislature. On May 22, 2022, the Board submitted the Supplemental Report to California State Legislature Regarding Findings Relevant to Inform Dental Anesthesia and Sedation Standards, which provided additional reporting categories and made corrections to the previously submitted report.

These reports of the Board meet the requirement of BPC section 1601.4, subdivision (b). For the purposes of this report, a pediatric or minor patient is defined as a patient under the age of 13. This definition is based on the specifications of SB 501 related to patient monitoring during the administration of general anesthesia, deep sedation, and moderate sedation. (BPC §§ 1646.1, subd. (d), and 1647.2, subd. (c)(2).)

After reviewing data on patient deaths and hospitalizations reported to the Board between January 1, 2017 and August 1, 2023, the Board identified one pediatric death in which general anesthesia or deep sedation was administered during the performance of a dental procedure. This death was investigated by the Board, and the findings appear below.

Background

BPC section 1680, subdivision (z), requires licensees to report all of the following:

A. The death of a patient during the performance of any dental or dental hygiene procedure.
B. The discovery of a death of a patient whose death is related to a dental or dental hygiene procedure performed by the licensee.
C. Except for a scheduled hospitalization, the removal to a hospital or emergency center for medical treatment of any patient to whom oral conscious sedation, conscious sedation, or general anesthesia was administered, or any patient as a result of dental or dental hygiene treatment.

Caleb's Law added the requirement that licensee reports be submitted on a form approved by the Board. (BPC § 1680, subd. (z)(2).) In 2017, the Board created the Courtesy Form for Reporting Dental Patient Death or Hospitalization, which is available on the Board's website.

The form includes all of the following information:

- The date of the procedure.
- The patient's age in years and months, weight, and sex.
- The patient's American Society of Anesthesiologists (ASA) physical status.
- The patient's primary diagnosis.
- The patient's coexisting diagnoses.
- The procedures performed.
- The sedation setting.
- The medications used.
- The monitoring equipment used.
- The category of the provider responsible for sedation oversight.
- The category of the provider delivering sedation.
- The category of the provider monitoring the patient during sedation.
- Whether the person supervising the sedation performed one or more of the procedures.
- The planned airway management.
- The planned depth of sedation.
- The complications that occurred.
- A description of what was unexpected about the airway management.

- Whether there was transportation of the patient during sedation.
- The category of the provider conducting resuscitation measures.
- The resuscitation equipment utilized.

Reported Findings

The Board collected data from all reports submitted to the Board via the Courtesy Form for Reporting Dental Patient Death or Hospitalization between January 1, 2017 and August 1, 2023. The Board also reviewed complaints submitted from patients, as well as from guardians, governmental agencies, and law enforcement. For this reporting period, the Board received 516 incident reports. Of the 516 incident reports, the Board determined that:

- 215 reports related to incidents in which oral conscious sedation, moderate sedation, deep sedation, or general anesthesia was administered, and the patient was subsequently hospitalized.
- 28 reports related to incidents in which oral conscious sedation, moderate sedation, deep sedation, or general anesthesia was administered, and the patient died during or shortly after the dental procedure.

Of the 28 reports of death during or shortly after a dental procedure in which sedation/anesthesia was administered, the Board found 1 report of an incident in which general anesthesia or deep sedation was administered to a pediatric patient resulting in a death during a dental procedure. A summary of the reported death is as follows:

On June 12, 2017, the patient presented for dental rehabilitation under general anesthesia, which was administered by a dental anesthesiologist in a dental office. During the procedure, the patient experienced a life-threatening cardiac rhythm that required emergency medication and defibrillation. The incident was reported to the Board on June 15, 2017. The case was assigned to an investigator on June 15, 2017. The investigative report and all records were sent to an anesthesia expert, who determined that the attending dentist did not deviate from the standard of care in the dentist's care and treatment of the patient. On February 1, 2018, the case was closed with no violation.