

## **WRHA Section of Pediatric Dentistry Guidelines on the use of General Anesthesia for Pediatric Dental Patients**

Developed by the WRHA Section of Pediatric Dentistry Working Group

This document has been developed to provide guidance for Manitoba dental practitioners when considering dental treatment under general anesthesia for their pediatric patients. The working group reviewed two pertinent documents, which serve as the basis for these guidelines.(1, 2)

### **American Academy of Pediatric Dentistry (AAPD) Policy on Early Childhood Caries (ECC): Unique Challenges and Treatment Options<sup>(1)</sup>**

The AAPD's Policy on Early Childhood Caries (ECC): Unique Challenges and Treatment Options indicates that children with ECC require immediate intervention.<sup>(1)</sup> However, they emphasize the use of non-surgical interventions when possible to postpone or reduce the need for surgical treatment approaches.<sup>(1)</sup> The following is the official AAPD Policy Statement.

Policy statement: "The AAPD recognizes the unique and often virulent nature of ECC. Non-dental healthcare providers who identify ECC in a child should refer the patient to a licensed dentist for treatment and establishment of a dental home. Immediate intervention is indicated, and **non-surgical interventions should be implemented when possible to postpone or reduce the need for surgical treatment approaches.** Because children who experience ECC are at greater risk for subsequent caries development, preventive measures (e.g., dietary counseling, reinforcement of toothbrushing with fluoridated toothpaste), more frequent professional visits with applications of topical fluoride, and restorative care are necessary."<sup>(1)</sup>

### **AAPD Guideline on Behavior Guidance for the Pediatric Dental Patient (2)**

The AAPD Guideline on Behaviour Guidance for the Pediatric Dental Patient provides a thorough overview of general anesthesia and factors that must be considered when deciding on the use of general anesthesia, indications for its use along with contraindications.

The AAPD states that "General anesthesia is a controlled state of unconsciousness accompanied by a loss of protective reflexes, including the ability to maintain an airway independently and respond purposefully to physical stimulation or verbal command. The use of general anesthesia sometimes is necessary to provide quality dental care for the child. Depending on the patient, this can be done in a hospital or an ambulatory setting, including the dental office. Additional background information may be found in the Guideline on Use of Anesthesia Care Personnel in the Administration of Office-based Deep Sedation/General Anesthesia to the Pediatric Dental Patient. The need to diagnose and treat, as well as the safety of the patient, practitioner, and staff, should be considered for the use of general anesthesia. Anesthetic and sedative drugs are used to help ensure the safety, health, and comfort of children undergoing procedures. Increasing evidence from research studies suggests the benefits of these agents should be considered in the context of their potential to cause harmful effects. Additional

research is needed to identify any possible risks to young children. “In the absence of conclusive evidence, it would be unethical to withhold sedation and anesthesia when necessary”.”(2)  
The WRHA Section of Pediatric Dentistry has reviewed the AAPD Guideline and has chosen to adopt the AAPD Guidelines with some modifications/enhancements.

**The decision to use general anesthesia must take into consideration all of the following:**

- alternative modalities (e.g., nitrous oxide/oxygen inhalation if an option in your office, protective stabilization, sedation if an option in your office);
- age of the patient;
- risk benefit analysis;
- treatment deferral (e.g., Interim Therapeutic Restorations (ITR)/Alternative Restorative Techniques (ART), silver diamine fluoride, allow for eruption of all primary teeth, delay treatment until child can tolerate treatment in the chair, until teeth can exfoliate);
- dental needs of the patient;
- the effect on the quality of dental care;
- the patient’s emotional development; and
- the patient’s medical status.

• **Objectives: The goals of general anesthesia**

- provide safe, efficient, and effective dental care;
- eliminate anxiety;
- reduce untoward movement and reaction to dental treatment;
- aid in treatment of the mentally, physically, or medically compromised patient; and
- eliminate the patient’s pain response.

• **Indications: General anesthesia is indicated for:**

- patients who cannot cooperate due to a lack of psychological or emotional maturity and/or mental, physical, or medical disability;
- patients for whom local anesthesia is ineffective because of acute infection, anatomic variations, or allergy;
- the extremely uncooperative, fearful, anxious, or uncommunicative child or adolescent;
- patients requiring significant surgical procedures (e.g., multiple teeth requiring restorative treatment (fillings and stainless steel crowns) or extraction);
- patients for whom the use of general anesthesia may protect the developing psyche and/or reduce medical risk; and
- patients requiring immediate, comprehensive oral/dental care.

• **Contraindications: The use of general anesthesia is contraindicated for:**

- a healthy, cooperative patient with minimal dental needs;
- a patient with minimal dental needs, including very young children, that can be addressed with therapeutic interventions and secondary prevention (e.g., ITR, fluoride varnish, silver diamine fluoride) and/or treatment deferral;
- parent/patient/practitioner convenience; and

- predisposing medical conditions which would make general anesthesia inadvisable.
- Documentation: Prior to the delivery of general anesthesia, appropriate documentation shall address the rationale for use of general anesthesia, informed consent, instructions provided to the parent, dietary precautions, and preoperative health evaluation. Because laws and codes vary from province to province, each practitioner must be familiar with provincial guidelines. Minimal requirements for a time-based anesthesia record in keeping with hospital/health region policy should include:
  - appropriate operative reports, recording the specific dental treatment performed with corresponding tooth numbers;
  - the patient's heart rate, blood pressure, respiratory rate, and oxygen saturation at specific intervals throughout the procedure and until predetermined discharge criteria have been attained;
  - the name, route, site, time, dosage, and patient effect of administered drugs, including local anesthesia;
  - adverse events (if any) and their treatment; and
  - that discharge criteria have been met, the time and condition of the patient at discharge, and into whose care the discharge occurred.

References:

1. Policy on Early Childhood Caries (ECC): Unique Challenges and Treatment Options. *Pediatr Dent.* 2017;39(6):62-3.
2. Behavior Guidance for the Pediatric Dental Patient. *Pediatr Dent.* 2017;39(6):246-59.