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## Research Article

# The Preschool Child in Acute Dental Care - Sedation and Physical Restraint in Collaboration with Guardians

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### ABSTRACT

This article is aimed at dentists who treat children under 6 years of age for acute dental care requiring sedation, and where physical restraint may be necessary. Physical restraint means the occasional holding of the child so that invasive procedures can be performed, with little risk of inflicting physical and/or mental harm. Where circumstances require sedation and physical restraint, emphasis should be placed on the dentist's preoperative information to the guardian for consent. It is crucial that the guardian decides on an active or passive role regarding support of the child. The recording of this information follows lege artis treatment regulations.

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### Introduction

Acute dental care that includes physical restraint of the preschool child may only be performed under oral or rectal sedation to meet the ethical requirements. In this context, the physical restraint is defined as an occasional/intermittent holding of the child, not the use of any device. In most countries, it is not considered lege artis to force children and young people to undergo dental care [1-6]. Instead, staff attitudes and treatment principles are based on respect for the child regardless of age, gender, abilities, social status, or ethnicity [1-6]. Children are therefore routinely prepared for dental procedures by including them to understand the purpose of the treatment, based on maturity [1-6]. To achieve this, the dental staff aims to create a sense of security for the child using methods such as Tell-Show-Do, prior to invasive and non-invasive procedures. Thus, negative effects may be prevented, such as the development of dental fear or behaviour management problems, which in turn may cause absence from dental appointments, contributing to poorer oral health [7-14]. However, the sudden need for dental treatment combined with a child's immaturity can make acute dental care impossible.

### Preoperative Sedation and Physical Restraint of the Preschool Child

When an acute dental situation arises and the child is unable to cooperate, preoperative sedation is required, orally or rectally [15]. Sedation is advocated primarily to alleviate the child's adverse reactions due to unexperienced procedures and/or dental staff [15]. Preoperative sedation is therefore crucial when the child needs to be held during the critical moments of dental procedures. A contradiction is that physical restraint itself may trigger a child's reaction to resist. Therefore, predetermined, intermittent physical restraint is necessary, despite the muscle-relaxant effect of the sedative.

### Aim

The aim is to advocate a treatment model for the acute dental care of the preschool child. The model incorporates sedatives and predetermined physical restraint, and requires the guardian's consent.

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## Dental Staff

### I Knowledge and Preparation

Procedures outside the usual treatment routines, such as physical restraint, challenges the dental team regarding knowledge, praxis, and collaboration. The child's verbal and physical reaction to being restrained can be emotionally stressful for the dental team. This requires beforehand discussions and planning of coercive elements [1, 2]. The dental team must agree on all strategies and their respective roles during the restraint of the child.

### II Literature

The literature does not offer scientifically based guidance on how preschool children may be physically restrained during acute dental care. Nonetheless, dental staff daily face acute situations with preschool children where quick decisions must be made, and treatment carried out. Since each child's circumstance is unique, bringing structure into the acute dental situation with a well-thought-out guide model is desirable.

### III Guide Model

The proposed guide model for acute dental care of the immature or not prepared preschool child should include, i) the dentist's decision on sedation and physical restraint, ii) information to the guardian, iii) guardian's consent, iv) guardian's decision on active or passive role in restraining the child, v) sedation and intermittent restraint of the child,

vi) attentiveness to the child's/guardian's reactions during the acute treatment, vii) postoperative discussion.

The dental staff must be aware that restraining a child equals an act of force when the procedure is not ethically justified. The ethical approach includes compassion, sensitivity, and striving to facilitate the experience for the child and guardian. To minimize the risk of unnecessary physical and mental suffering while intermittently restraining the child, only the least amount of force should be used [1, 2]. Scientific data in dentistry, illuminating the experiences and requirements of children, guardians and caregivers during acute situations, is lacking. On the other hand, medical healthcare staff are offered support in similar ethical dilemmas through observational studies that illustrate working methods and staff reactions [16-18]. The dental staff can receive some guidance through these studies but need to create a scientific plateau for updating acute routines.

### Physical Restraint

The physical restraint can be planned and designed as follows:

i) The preschool child is placed in the treatment chair, ii) A staff member holds the child's head from behind, iii) A dental nurse assists and/or holds the child's hands on its stomach, iv) The guardian holds the child's hands or only offers emotional support. In cases where the child is physically more anxious, it is required that the legs are also held (Figure 1). The physical restraint must be performed with a well-balanced force.



**Figure 1:** Examples of physical restraint of sedated preschool children during acute dental care. Dentists, staff, and guardians participate.

### Preschool Children

Preschool children differ in maturity within their age group regarding communication methods and abilities. In the acute dental situation, every child may experience a higher impact of anxiety, fear, and pain [19]. Medical conditions and/or functional variations may also prevent

children from cooperating and coping with the acute dental situation [14]. Even when the child is prepared to receive acute treatment, it needs support and understanding from the staff. In the acute situation, the child needs to be encouraged by an adult offering emotional support [9]. The child's right to decide over the own body (the autonomy principle), must always be protected regardless of the therapy choice.

Imposing acute dental care on children should be a last choice when other options to relieve pain and suffering within a reasonable time are lacking [1-6].

### Caregiver

Dental literature lacks data on how guardians experience the child's acute treatment. From the knowledge of children's hospital care, Kristensson-Hallstrom (1999) stated that guardians showed interest in cooperating with the staff to benefit the child's recovery [16]. Even insecure guardians showed a willingness to play an active role in decisions regarding their children [16]. To be able to optimally represent the child's interests, it is crucial that the dentist communicates a physical restraint strategy to the guardian. The guardian should be informed if alternative therapies are available. Additionally, the role of the guardian must be established to be either only an emotional support or actively hold the child [1]. Regardless of whether an active or passive role is chosen, consent must be given.

Treatment that involves child restraint requires emotional commitment on the part of the guardian. The guardian's instinct to protect the child from coercion, force and suffering comes into conflict with the requirement to interact and have a meaningful dialogue with the dental staff. The child's physical and verbal protests can easily arouse the guardian's insecurity, sadness, and even outrage. Such feelings can overshadow the understanding of the situation and undermine further interaction with the dental team. In comparison, Svendsen *et al.* found that the interaction between healthcare professionals and guardians was strained when children were physically forced to undergo invasive medical procedures [17]. The role of the guardians then varied between either becoming more or less involved in the restraining or completely handing over the task to the staff [17].

### Absence of Consent

A dilemma arises when the guardian opposes sedation and/or the child's restraint. The guardian's unwillingness to give consent may be due to insufficient information and guidance. The guardian's fears need to be acknowledged through calm and methodical discussions. Conceptions and fears need to be met with distinct information, support and understanding. If the situation remains strained, seeking advice from other professional experts may be helpful. After discussion with specialist dental care, treatment under general anaesthesia may be applicable, if resources are available. A contradiction is that the anaesthesiologist initially also needs to exercise physical restraint. Further locked communication requires additional immediate handling. Meanwhile, administering analgesics and relevant advice is crucial to minimize the child's suffering. When all possibilities to come to an agreement with the guardian have been exhausted, a report of concern should be made to the social services [20].

### Ethical Values

Ethical values and principles, as well as their implementation, must not be abandoned when the preschool child is acutely treated [1-6]. Using physical restraint in dental care is the second-best choice and should not be performed without sedation. The child's right to receive the best

possible experience in all situations is indisputable [3-6]. Physical restraint should be considered only when routine procedures are not sufficiently helpful in an acute situation [1-6]. Compulsory dental procedures must be justified with good reason. However, when physical restraint is the ultimate solution to alleviate acute conditions and suffering, the treatment method needs to be based on knowledge and preparation [1, 2]. Nonetheless, surrounding world analysis shows that children are still subjected to coercion and unjustified physical restraint [21-23].

### Postoperative Discussion

When the acute treatment is completed, questions and reflections from the child and guardian must be acknowledged. If direct opportunity for postoperative discussion has not been possible, a later appointment should be offered. The opportunity to express feelings and ask questions helps the child and guardian to come to an emotional conclusion. The postoperative discussion is a prerequisite for the continued dental care.

### Documentation

Documentation that confirms the guardian's position must be recorded.

### Consent

Children and guardians have agreed to the publishing of pictures.

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