

REVIEW ARTICLE

Pediatric Dentistry for Children with Special Health Care Needs - A Review

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ABSTRACT

The management of children with special health care needs (SHCN) requires specialized knowledge acquired through special training, increased awareness, accommodative measures, and resources. A literature search was conducted to identify updated and evidence-based recommendations and dental management options available for children with SHCN. These recommendations will assist dentists in determining the most appropriate dental management and also help other medical professionals in understanding the need to maintain optimal oral health for children with SHCN and the importance of liaison with dental professionals.

Keywords: Dental home, Oral health, Pediatric, Preventive, Special health care

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INTRODUCTION

The American Academy of Pediatric Dentistry (AAPD) recognizes that providing both primary and comprehensive preventive and therapeutic oral health care to individuals with special health care needs (SHCN) is an integral part of the specialty of pediatric dentistry.^[1] The AAPD defines SHCN as "any physical, developmental, mental, sensory, behavioral, cognitive, or emotional impairment or limiting condition that requires medical management, health care intervention, and/or use of specialized services or programs. The condition may be congenital, developmental, or acquired through disease, trauma, or environmental cause and may impose limitations in performing daily self-maintenance activities or substantial limitations in a major life activity. Healthcare for individuals with special needs requires specialized knowledge, as well as increased awareness and attention,

adaptation, and accommodative measures beyond what are considered routine."^[2,3] Individuals with SHCN may be at an increased risk for oral diseases throughout their lifetime.^[2,4] Oral diseases can have a direct and devastating impact on the health and quality of life of those with certain systemic health problems or conditions. Patients with compromised immunity (e.g. leukemia or other malignancies and human immunodeficiency virus) or cardiac conditions associated with endocarditis may be, especially, vulnerable to the effects of oral diseases. Patients with mental, developmental, or physical disabilities who do not have the ability to understand, assume responsibility for, or cooperate with preventive oral health practices are susceptible as well. Oral health is an inseparable part of general health and well-being.^[4-6] The aim of this paper was to search the literature for updated and evidence-based recommendations and dental management options available for children with SHCN, to assist dentists to choose the best dental management, and also to help other medical professionals in understanding the need to maintain optimal oral health for children with SHCN and the importance of liaison with medical and dental professionals.

THE MANAGEMENT OF CHILDREN WITH SHCN

The management guidelines and recommendations are presented under the following headings.

Dental Home

Patients with SHCN who have a dental home are more likely to receive appropriate preventive and routine care. The dental home is defined as the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated, and family-centered way. Patients with SHCN who have a dental home are more likely to receive appropriate preventive and routine care. Moreover, the dental home provides an opportunity to implement individualized preventive oral health practices and reduces the risk of preventable dental/oral disease.^[7-9]

Informed Consent

All patients and their legal representatives must be able to provide informed consent before dental treatment.

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This should be documented in the dental record through a signed and witnessed form.^[10]

Scheduling Appointments

Important information to be collected by the dental team include: (1) Child's name, age, and chief complaint; (2) nature of SHCN; (3) the name(s) of the child's medical care provider(s); (4) length of appointment; and (5) the need for additional auxiliary staff to accommodate the patient. It is important to ensure that a patient's privacy is protected and no discrimination occurs on the basis of disability.^[7] The need for increased dentist and team time as well as customized services should be documented, so the office staff is prepared to accommodate the patient's unique circumstances at each subsequent visit.^[11]

Patient Assessment

An accurate, comprehensive, and up-to-date medical history is necessary for correct diagnosis and effective treatment planning. It is important to collect and document the following information: The chief complaint; history of presenting illness, which should be updated at each child visit; family and social histories; and a thorough dental history. Comprehensive head, neck, and oral examinations should be completed followed by caries risk assessment, and accordingly, an individualized preventive program, including a dental recall schedule, should be agreed with the child guardian and physician.^[11,12] A summary of the oral findings and specific treatment recommendations should be documented, and when appropriate, the patient's other care providers (e.g., physicians, nurses, and social workers) should be informed of any significant findings.

Medical Consultation

When appropriate, the physician should be consulted regarding medications, sedation, general anesthesia (GA), and special restrictions or preparations that may be required to ensure the safe delivery of oral health care. The dentist and staff always should be trained and prepared to manage a medical emergency.^[12,13]

Patient Communication

An attempt should be made to communicate directly with the patient. Dental staff may need to communicate in a variety of non-traditional ways. A parent, family member, or caretaker may need to be present.^[14,15]

Behavior Guidance

SHCN children may display resistant behaviors because of anxiety or a lack of understanding of dental care. With

the parent or caregiver's assistance, most patients with SHCN can be managed in the dental office using simple behavior management techniques such as tell, show, and do. Protective stabilization can be helpful in some patients as well the use of mouth props and blocks. However, in SHCN with severe behavioral problems, sedation or GA may be the only option to successfully perform dental treatment. The dentist should consider the evaluation of behavior using one of the behavioral analysis rating scales such as Frankl rating scale.^[13]

Preventive Strategies

The education of parents and caregivers is important for ensuring appropriate and regular supervision of oral hygiene. The dental team should develop an individualized oral hygiene program that suits each child. Brushing with a fluoride toothpaste twice daily should be emphasized. A toothbrush can be modified to enable individuals with physical disabilities to brush their teeth. Electric toothbrushes and floss holders may also improve patient compliance. It is the responsibility of caregivers to provide appropriate oral care when the child is unable to do so.^[14] A non-cariogenic diet, sugar-free liquid medicine, and use of sealants reduce the risk of caries in susceptible pits and fissures of primary and permanent teeth.^[15] Topical fluorides such as fluoride varnish may be indicated when caries risk is increased. Finally, preventive strategies for children with SHCN should address traumatic oral and dental injuries. This would include advice about the risk of trauma, especially in individuals with seizure disorders or motor skills/coordination deficits. Prevention of traumatic dental injuries also includes the use of mouth guards and advice on what to do if traumatic dental and oral injuries occur. In addition, dental staff should be aware that children with SHCN are more likely to be victims of physical abuse and sexual abuse and neglect when compared to children without disabilities.^[16]

Restorative Care

Most children with SHCN are at high caries risk, and therefore, definitive treatment of primary teeth with preformed metal crowns (PMCs) is more favorable over time than intracoronal restorations. A review of the literature comparing PMCs and Class II amalgams concluded that, for multi-surface restorations in primary teeth, PMCs are superior to amalgams.^[17-19] The selection of more durable restorations is particularly important in patients receiving treatment under sedation or GA. PMCs are likely to last longer and possibly decrease the need for sedation or GA with its increased costs and its inherent risks.

Barriers

Oral health staff should be familiar with community-based resources available for SHCN including support for language and cultural barriers, financial cover, and help with transportation.^[20]

Referral

If patient's needs are beyond the skills of the practitioner, he/she should make necessary referrals to ensure the overall health of the patient.

CONCLUSION

Oral health care and dental management of children with SHCN require pre-treatment planning and proper assessment. The entire dental team should be educated on how best to care for children with special needs. Dentists should choose the best dental management and also help other medical professionals in understanding the need to maintain optimal oral health for children with SHCN and the importance of liaison with medical and dental professionals.

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