Dental health of disabled and medically compromised child

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Ph.D Preventive Dentistry

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A disabled individual

is a person who has one or more physical, medical, mental, or emotional problems that result in a limitation of the ability to function normally in fulfilling the activities of daily living (ADLs).

Disability includes all handicapping conditions or combinations and could be developmental in origin or acquired.

Classification of disabling conditions:

- **Physical disability such as cerebral palsy.**
- **Mental disability such as Down syndrome and mental retardation.**
- **Sensory disability like deafness and blindness.**
- **Medical compromise disability like diabetes and Acquired Immune Deficiency Syndrome (AIDS).**

It is important for dental providers to follow a few simple steps when treating these patients

------Medical, dental and health history

------Vital signs should be taken

--------Communicate clearly with a patient , caregiver.

-------Obtain consent for treatment and possible medical stabilization.

-------possible complications.

--------the time patient utilized medical stabilization .

--------patient’s tolerance for procedures.

-------appointment

--------Sign your name and professional title.

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Preventive and treatment services should evident to maintain oral health at higher level by:

- Application of topical fluoride for those who may be at higher risk for the development of carious lesion.
- general anesthesia. atraumatic restorative technique (ART).
- Dietary consideration Limit use of highly cariogenic food.
- Liquid oral medicines taken can be damaging for the dentition especially in chronic toothbrush dipped in fluoride mouthwash (0.2% sodium fluoride) as a part of the mouth cleaning routine.

People with physical (neurological) impairment:

1-Periodontal diseases and caries Enamel hypoplasia, mouth breathing,

-----remove badly worn and sensitive teeth.

-----Pureed diets are recommended for cerebral palsy patients who have difficulty in swallowing.

-------- manual toothbrush with an enlarged handle, elastic cuff

----Electric toothbrushes are not recommended

2----gingival hyperplasia

3-The malocclusion is due to skeletal problems.

---hyperactive bite and gag reflexes. If the gag reflex becomes a problem for the dental provider, keeping the patient in a semi upright position with chin down.

Visual Deficits:

- may range from correctable deficiencies to total blindness.

- -------a giant-sized toothbrush.
- ----------Red floss ,Green floss.
- This allows the patient to check the color of the floss for possible gingival bleeding.
- -------a floss-holding device is used.
- -------Some patients who have experienced cerebrovascular accident, using a mirror causes confusion and therefore is contraindicated.
- -------sensitized by "feeling" and "smell" of a clean mouth to test the success of oral hygiene measures

Hearing problems ❑

---communication can occur when the speaker is directly in front of the patient, ❑ at the same eye level and face to face.

----Clipboard and a red felt-tipped pen should be used when writing •❑ information.

----Nonverbal communication is recommended, such as smiling, hand •❑ holding, and shoulder touching.

Mentally retardation:❑

caregivers could use:❑

----Powered toothbrush •❑

----a super brush could be used instead, that allow three teeth surfaces •❑ cleaning to be involved.

--- CHX applications by various means and improve the periodontal •❑ condition.

Medically compromised patients:•

aspirating toothbrush. •

dipping the toothbrush into fluoride mouthwash. •

the gingival recession has occurred to the extent that the papilla • no longer fills the interdental space, an interproximal brush.

------Down syndrome:•

periodontal disease has been noted to be more prevalent, due to • combination of poorly controlled plaque levels and an alteration in phagocytosis of neutrophils. If gingival health is poor, chlorhexidine gel can be swapped around the mouth either on a brush or onto gauze.

Disclosing products •

The Prevention of Malocclusions

- Most of the malocclusions which are in present are cured by orthodontics are induced by functional and environmental factors and they can be prevented.

- Parent education, maintenance of good oral hygiene, care of deciduous dentition, early intervention for supernumerary teeth and prevention of oral habits are some of the important measures in prevention of malocclusions.For a long period of time, genetic has been primarily involved in malocclusions.

- Therefore, the development of occlusion has been considered as a result of nonbalanced growth of the craniofacial structure due to genetic combination.

Parent Counseling/Education

The pregnant mother should be educated regarding the intake of foods containing calcium and phosphorous specially during third trimester, as they would allow adequate formation of deciduous crowns. During post natal counseling, parents should be educated on the maintenance of good oral hygiene in their children. Brushing with the help of finger brush and cleaning of the deciduous teeth with clean and soft cotton cloth dipped in warm saline is recommended in early stages. This is important to prevent the initiation of rampant caries. Further, bottle feeding should be discouraged by the age of 18- 24 months to decrease the potential for nursing caries. Thechild should be encouraged to begin **brushing** on his own and should practice it twice a day. Parents must be advised to bring their children for regular dental assessment with the completion of the deciduous dentition in order to assess any anticipant decay and other dental problems.

Caries Control

If proximal caries of deciduous teeth is not treated, it may cause mesial migration of adjacent teeth. This would lead to increase potential for crowding resulting in malocclusion with the eruption of succeeding larger permanent teeth.

Initiation of caries can be prevented by dietary counseling, topical fluoride application, pit and fissure sealants and educating parents. Once caries is detected, the affected teeth should be restored with appropriate restorative materials. Sometimes it may be indicated to fit stainless steel crowns for badly decayed teeth to restore the functional occlusion and arch integrity.

Care of Deciduous Dentition

deciduous teeth by themselves act as the best natural space maintainers. Deciduous teeth not only maintain the space for their succeeding permanent teeth, but also guide the permanent teeth into their proper position preventing malocclusion.

Space Maintenance •

. When primary teeth are lost prematurely, migration of adjacent primary or permanent teeth can occur •
leading to crowding in the permanent dentition due to loss of space and reduction in arch length. Therefore, it is needed to indicate a space maintainer to maintain entire mesio-distal space created by the loss of space, restore the function as far as possible and to prevent over eruption of opposing tooth.

The following factors are important to consider when • planning a space maintainer.

Time elapsed from loss of tooth:. •
Dental age of the patient: •
Premature loss of deciduous second molar tooth:. •
Premature loss of deciduous first molar tooth:. •

:Management of Oral Habits •

- thumb sucking, nail biting, lip biting, tongue thrusting and mouth breathing have deleterious effects on oral health including development of malocclusion.

- The dentofacial changes include the proclination of the maxillary incisors, retroclination of the mandibular incisors, maxillary constriction and anterior open bite.

Education of parents •

using habit breaking appliances. •

:Extraction of Supernumerary Teeth •

- Extra teeth, which closely resemble the normal teeth are called as supplemental teeth, which are often observed to occur on lateral incisors. The most common supernumerary tooth is a mesiodens, which is a malformed, peg-like tooth that occurs between the maxillary central incisors. An extra tooth adjacent to the molar is called as a paramolar and when present distal to the last molar is called as distomolar.

:Management of Ankylosed Deciduous Teeth

Ankylosis is a condition where in a part orwhole of the root surface is directly fused to the bone. “submerged teeth”.

Deciduous teeth become ankylosed far more frequently than do permanent teeth, with an approximate ratio of 10:1. Ankylosis of deciduous teeth prevents the eruption of succeeding permanent teeth. the general rule is to extract it immediately and, if necessary, to insert an appropriate space maintainer

Management of Ectopic Eruption of Permanent First Molar

- These teeth appear to deviate from normal eruptive path ways and become “locked” behind the distal surface of deciduous second molar. Distal resorption of a second deciduous molar is common sequelae of this condition. Ectopic eruption of the permanent maxillary first molar resulting in premature exfoliation of primary second molar and loss of arch length. This result is not only crowding but also a class II molar relationship. Slight distal (proximal) stripping of second deciduous molar allows the permanent first molar to erupt in its proper place. Interproximal wedging with separating module, brass seperator or with helical orthodontic separating spring may facilitate the eruption of first permanent molar tooth.

Prevention of Canine Impactions•

- Maxillary canines are the most commonly impacted teeth, second only to third molars. Maxillary canine impaction occurs in approximately 2% of the population and is twice as common in females as it is in males. The function of maxillary canines is not limited to tearing of food, as commonly thought. They have a more important role in dynamic occlusion and relatedly, in lateral excursions of the mandible.

- Selective extraction of the deciduous canines around the age of 8- 9 years has been suggested by Williams as an interceptive approach to canine impaction in Class I uncrowded cases.
- Ericson & Kurol suggested that removal of the deciduous canine before the age of 11 years will normalize the position of the ectopically erupting permanent canines in 91% of the cases if the canine crown is distal to the midline of the lateral incisor.