**Unit: The Child Dental Patient/The Child Dental Patient with Developmental Disabilities**

**DEN:2400 Spring 2014 - Problem-Based Learning Exercise 1**

**Topic: Cerebral Palsy (Scenario 1)**

**Class Session (circle one):   Wednesday**

**Team #\_3\_**

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**Assessments**

**Pre-Appointment**

Before Nadia even steps into the office it will be useful to have had her become somewhat acclimated to the dental environment, so asking the parents to read her a book or show her pictures of common dental things on her tablet will be helpful in easing any possible anxiety she may have. It is also important to have a thorough medical/dental history review before the appointment. You would want to ask the parents Nadia's mental capabilities. As the dental hygienist, you want to be able to communicate each procedure that will be done during the appointment in a way that the patient can understand. It is also important to know if Nadia is on any medications? Does she suffer from any other co-morbidities, such as GERD, or seizures. It states that she has problems swallowing but does the patient have a problem with gagging? Does the patient have any other adverse reactions to things in the dental environment, such as taste or smells? How was Nadia’s last dental visit, and why has it been 3 years since she was at the dentist? What is her family home care like? Is she receiving daily fluoride, even if it's in her drinking water. How often is she eating soft meals, and what kind of soft meals are they? (This information will be useful to filling out CAMBRA and assessing Nadia’s caries risk level).

We know that Nadia is wheelchair bound, but is she able to be removed from the wheelchair or will the appointment need to occur while she is in the wheelchair. We know that Nadia has a tablet to communicate with, but does she use a hearing aid? If so, the dental environment can be very loud so maybe asking her not to have her hearing aid in for the appointment will help ease her anxiety. Does she have any visual problems? There are also different types of CP and it is important to know which type and how severe the patients CP is, for example is her CP only related to motor functions?

 It is also important to know if Nadia has any triggers, if so what are they and how are they managed. Is there a reward system set in place, and if so what is it? It is also very important to have the contact information of Nadia's’ medical team, such as doctors, physical therapist, these may be people that may need to be contacted during or after the appointment. Finally, since Nadia is only 8 years old it is safe to say that the informed consent will be provided by her parents, but that is still something that needs to be figured out before her appointment. All of these factors will help the dental team provide a comfortable environment and to cause no harm for the patient.

**Diagnosis**

It is very important to have a dental hygiene diagnosis for cerebral palsy patient because hygienists are able to determine certain things that will be happening in the patient's mouth. Since Nidia has not had a dental visit in 3 years, these are some possible dental hygiene diagnosis Nadia may have. Nadia may have gingivitis, carious lesions, tongue thrusting, non-nutritive chewing, bruxism due to spasms, attrition, and xerostomia. She may also have GERD, which cause dental erosion. Patients with cerebral palsy have a high prevalence of class II malocclusion as well. If the patient is taking any type of anticonvulsant medication, they more than likely have gingival hyperplasia.

**Planning**

During the patient's initial visit, it is important to take things slow and make sure that Nadia is comfortable with everything that is going on. It is important to be repetitive, simple, and direct when demonstrating each task to prevent the patient from becoming scared and/or overwhelmed. We should plan to utilize 4 handed dentistry, making sure to always have the same person present for Nadia’s comfort. To stabilize Nadia it can be discussed with her parents various additional tools, such as a sliding board. We can also discuss moving Nadia from her wheelchair to the dental chair only if the benefits outweigh the drawbacks to moving her. Make sure to speak at the patient's intellectual level and be prepared to demonstrate each step, for example, turn on the saliva ejector so the patient can hear it and feel it at the corner of the mouth. Then slowly introduce it inside the mouth, being careful not to trigger a gag reflex.

Even though Nadia is completely reliant on her parents for all of her needs she still needs to feel included in her care since we are working on her body and we need her to cooperate to get any work completed on her. A tell-show-do approach can also be very successful. During the initial visit, it will also be very important to examine the parents/caregivers knowledge of oral hygiene; especially they feed her and perform all of her oral home care. It is important to not assume her parents know what to do, and it is imperative that they are aware of and truly understand the basics. Maybe an electric toothbrush or floss holders will be useful. The electric toothbrush doesn’t require a great deal of work on the person utilizing the brush, and floss holders will allow the action of flossing to be completed without making Nadia feel as if her mouth is being filled with hands. Both interventions would need to be tried and tested to assure that they are effective and easier for both Nadia and her parents. Since she has problems swallowing, maybe dipping the toothbrush in a fluoridated mouthwash will be useful to expose her oral cavity to more fluoride. Furthermore, it's important to educate the parents that after eating, Nadia’s mouth should be rinsed with water to make sure food is not pooling in her mouth, which can become a caries risk. It is also important to make sure that the soft foods Nadia is getting is not full of sugars, or carbohydrates. Nadia might also have a hard time with oral clearance, and using her tongue muscle, if this is the case then instructing her parents to maybe use gauze after she eats to wipe out her mouth can be very useful. The overall goals of the initial appointment are to: a) assess what Nadia will need in the future when it comes to her oral health b) attempt build a positive relationship and establish a level of trust with Nadia and her parents. If things go smoothly then being able to deplaque her mouth, even with a toothbrush, and administer fluoride varnish would be wonderful, however since it has been 3 years since she last had any dental services we do not want to overwhelm her. You want to take things as slow and try and keep the appointment short with frequent breaks, and schedule another appointment within the next week. Have various mouth props available, as well as a variety of toothbrushes (exp: 3 sided brush, powered brush, etc.). Be fully prepared for a discussion on Fluoride, its frequency, how it is delivered, and who would deliver the treatment.

**Implementation**

We are checking for anything that is usually associated with Cerebral Palsy such as malocclusions and open bites that often go hand-in-hand with drooling. Drooling can result to the pooling of saliva in the anterior portion of the oral cavity and the unintentional loss of saliva from the mouth that may possibly cause discomfort and dryness. If Nadia allows it, we will use a dental charting to observe the shedding and eruption of her teeth. At 8 years old, she should have a mixed dentition.  Muscle tension from Nadia’s facial spasms can create dental traumas. We would look for any abrasion or attrition. Mouth guards can be a good solution; however, gagging or swallowing problems may make them uncomfortable or not wearable. It is important to check for Erosion since GERD occurs in many patients with Cerebral Palsy. Fluoride gel or toothpaste every day is essential for Nadia. Ideally, we would want to apply topical NaF Varnish 5% or Fluoride gel for this moderate to high-risk patient at this first appointment and at 6-month intervals.

Since Nadia has difficulty swallowing, food may stay in the mouth longer than usual. Nadia may pouch the soft food that tends to adhere to the teeth. As the clinician, we should inspect the mouth and wipe any remnants of food with gauze. Afterwards, we need to show the caregiver how to clean Nadia’s mouth after eating by gauze or rinsing with water.

Most importantly, we must educate the caregiver about how to care for Nadia’s daily oral hygiene. We would teach the caregiver the basics of brushing. Depending on the severity of the facial spasms and how she responds to texture, we would recommend a Powered toothbrush or the DenTrust 3-Sided Toothbrush. We would recommend she brush twice a day with Fluoride Toothpaste or dip into a Fluoride rinse. Nadia might be a biter or have muscle tension in the mouth to make brushing into a hard task; therefore, we would also demonstrate to the caregiver different standing positions to use to help with brushing. Further, we would ask the caregiver to also demonstrate and repeat all of the tasks shown to them.  We must emphasize that a consistent approach to oral hygiene is important: location, timing, and positioning.

We would ask that Nadia and her caregivers come back the following week for an update on how they kept up with their oral hygiene at home. We would want the caregivers to demonstrate what they had been doing again. If everything was well, we would want them to come back every 2-3 months or as needed.

**Evaluation/ Re-care length**

Nadia and her parents need to be informed that any issues she presently has will not be so easily fixed and in a short period of time. Being as realistic as possible will do well for them in the long run. Assure to encourage parents or aides (if present) in their efforts regardless of the outcomes. Upon Nadia’s next visit assessments, hopefully the following week after her initial appointment, need to be redone to accurately measure the success of her parents or caregivers oral home care implementation. Honestly, report to her parents what has improved and what still needs improvement, all the while being realistic about the goals. If unsuccessful, find another approach to achieving the set goals. Identify any further diagnosis, home care, referrals, etc. to improve treatment outcome and the strengths are areas that need improvement. Her next visit after her initial visit should be a week later, after the second visit she should be back in 6 weeks, her regular frequency should be every 2-3 months. We must determine how comfortable Nadia was at her initial appointment and subsequent visits, that information can be very helpful when trying to determine how many appointment she needs and the frequency of visits to our office.

Re-care length should be more frequent since a) it’s been a while since her last care b) She is on a variety of medications that can lead to GERD or increase the effects of GERD, as well as Xerostomia c) She should have mixed dentition and her progress needs to be closely monitored.

**Documentation**

It is very important to document all components of the dental hygiene process of care such as assessment, dental hygiene diagnosis, planning, Implementation, and evaluation of care for every appointment. Therefore, the dental hygienist should include the particular reason for the visit in the words of Nadia’s parents. The hygienist should also document any medications that Nadia is taking as well at the severity of her cerebral palsy. All oral hygiene recommendations were given the caregiver or the patient should be also documented. Note if any referral were given to the patient or any call that was made to her doctor. Since Nadia is in the transitional stage of dentistry, we need to document her progress of shedding of deciduous teeth and the exfoliation of permanent teeth, since cerebral palsy can delay the eruption of permanent teeth. Since radiographs, maybe out of the question due to her particular form of cerebral palsy clinical notes need to be thorough about her progress. Recognizes and note how parent reacted to the dental visit. In addition to that, it is important to state how Nadia let her parents help her with maintaining her oral health. So, her treatment plan will be based off of her need and what can and cannot be done due to her conditions.

**References:**

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