

PREVENTIVE DENTISTRY FOR PERSONS WITH SEVERE DISABILITIES

Purpose of this Module

The purpose of this module is to acquaint dental professionals with the various components of a preventive dental program for persons with severe mental and physical disabilities. Similarities and differences between the disabled and general population will be addressed, together with information on adaptive oral and physical management.

Learning Objectives

After reviewing the written material, the participant will be able to:

1. Describe two methods of communicating an individual's oral health status to direct care staff.
2. Describe the relative areas of responsibility of the dental and direct care staff for the oral hygiene of residents.
3. Describe the degree of support in toothbrushing activities typically required by persons with different levels of mental retardation.
4. List three physical disabilities that would significantly impact oral hygiene procedures.
5. List three issues that should be considered before selecting POH techniques or materials.
6. Describe two modifications of ordinary toothbrushes for persons with physical limitations.
7. Describe two commercially available modified toothbrushes appropriate for some persons with physical or mental disabilities.
8. Describe the role and limitations of antimicrobial agents in this population.
9. Describe three positioning techniques appropriate to providing oral hygiene procedures for persons with severe disabilities.
10. List three significant issues in designing an oral hygiene program in an institution for persons with severe mental retardation.

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INTRODUCTION

The goals and purpose of preventive dental services for persons with severe disabilities, including personal oral hygiene procedures, are no different than those for the general population. However, the physical, cognitive and behavioral limitations presented by severely disabled individuals require modification of usual preventive practices including the choice of materials and techniques utilized. The authors have assumed that the dentist and dental hygienist are familiar with current preventive practice, including the use of sealants and antimicrobial agents.

Although the challenge of providing services to this special population is shared by institutional programs and private dental professionals, much of the information presented in this module will focus on the issues of institutional staff involved with implementing personal oral hygiene (POH) programs. Within the institutional setting, it is usually the responsibility of the dental staff to prescribe a personal oral hygiene plan for each resident, to periodically monitor the effectiveness of this plan and to appropriately modify the plan as needed. It is usually the responsibility of the direct care staff to carry out plaque control and other preventive measures prescribed by the dental staff. The training of the direct care staff in POH procedures is often a joint responsibility between the dental staff and the staff training department or section. It is not necessary for each direct care staff person to be trained by a dentist or dental hygienist. Usually this is accomplished through other direct care staff or staff trainers who have been trained in brushing, flossing and other preventive procedures. Most experienced clinicians agree that poor oral hygiene usually reflects an administrative or supervisory deficit rather than a lack of proper staff training.

Although the dentist maintains overall responsibility for preventive as well as restorative services, the dental hygienist together with other auxiliaries usually are the dental professionals most involved with these programs.

MODIFYING PLAQUE CONTROL TECHNIQUES

Development of a Personal Oral Hygiene (POH) Program

The dental hygienist usually leads the dental team in the development and monitoring of an individual's POH program. This program is developed utilizing information obtained at the first dental examination, discussions with appropriate direct care staff, consultations with other professionals from the program team and occasionally from visits to the residential area where oral hygiene procedures will be carried out. Pertinent information including the person's cognitive and physical limitations and abilities, the ability to cooperate with POH procedures, the level of periodontal health and caries risk, the level and rate of plaque and calculus accumulation, significant drugs used (including sugar content) and type and consistency of diet will impact the selection and prescription of specific POH techniques.

Once the specific oral hygiene procedures have been selected they should be documented into the dental record, provided to the direct care staff in writing, and fully discussed with the direct care staff responsible for the individual's POH program. It is at this time that any individualized follow-up staff training can be provided. The procedures prescribed include toothbrush selection and use, flossing techniques and materials (e.g., floss holder) needed, antimicrobial agents prescribed, mouth props or restraints required, and positioning techniques indicated.

One of the vital components of a successful POH program is monitoring to determine if the procedures are being performed as prescribed. This will allow the dental practitioner to evaluate the program's effectiveness and make modifications as needed. Monitoring is often accomplished using a "checklist" or other measurement of staff compliance with prescribed procedures. Evaluation of effectiveness is often made at the time of recall for periodic prophys.

Impact of Cognitive Limitations

The level of mental functioning and the individual's capacity for interaction with others dictates the level of home care that can be performed by the individual and his/her degree of dependency on the care giver. There are numerous strategies for categorizing the level of care giver support necessary for adequate oral hygiene. One of these includes the following categories:

1. Independent toothbrushing — no assistance;
2. Partial independent toothbrushing — with staff assistance including prompting by verbal instructions or by physical manipulation (staff's hand over person's hand);
3. Complete staff dependence requiring no significant behavior management;
4. Complete staff dependence requiring head stabilization, lip retraction and mandibular pressure to maintain oral access; or
5. Complete staff dependence requiring more than one staff person. The additional staff person(s) would provide physical stabilization of the person necessary for adequate oral hygiene procedures to be safely completed.

Although cognitive limitations significantly impact the degree of support necessary for successful POH, there is no clear correlation between levels of mental functioning and the degree of support needed. For example, one person with moderate mental retardation may develop, with help, into an independent brusher while another individual who is only mildly retarded may need considerable assistance in carrying out personal oral hygiene. Additionally, the impact of cognitive limitations is compounded by physical, medical and behavioral limitations which may be present.

Persons with mild or moderate levels of mental retardation can usually learn toothbrushing by using pictures, modeling, the tell-show-do approach and the other techniques through group or individual instruction. Gross and fine motor coordination, and the cognitive ability to adapt the toothbrush to the teeth and gingiva are necessary skills for independent brushing. Many independent brushers fail to brush long enough and an egg timer is often helpful. The timer can be set at 30 seconds, then 60 seconds, then 90 seconds, and finally 120 seconds to encourage the individual to brush for an adequate length of time. Persons with mild retardation may also be able to utilize oral irrigation devices when pre-

scribed, accomplish flossing (with or without a floss holder) and occasionally successfully use disclosing tablets or solutions. Persons with moderate mental retardation are usually able to successfully manipulate an automatic toothbrush, although, they will require more repetitive training for all oral hygiene procedures. This group of individuals is usually successful in most prescribed toothbrushing techniques including the scrub, wiggle-jiggle, sulcus cleaning, rolling and circular methods. Daily supervision, motivation and follow-up are the keys to successful POH for this group of individuals.

Persons with severe and profound mental retardation represent the majority of the institutionalized populations. Their gross and fine motor coordination and cognitive abilities are usually significantly reduced. Persons with severe mental retardation are limited to the push-pull or scrub brushing motions and will often isolate brushing to one area or one side of the mouth. These individuals are encouraged to assume as much responsibility as possible for their oral hygiene needs to promote independence; however, *much follow-up by the care giver is necessary to ensure good oral health*. A sequential task approach to POH training is helpful for these individuals. People with profound mental retardation are totally dependent on others for their daily oral hygiene needs. The focus for these individuals is to promote acceptance of POH procedures through nonverbal communication and desensitization techniques. Individuals with severe or profound cognitive deficits often have accompanying physical disabilities discussed in the following section.

Impact of Physical Limitations

The physical disabilities presented by many individuals, with or without accompanying mental retardation, contribute to the difficulties in achieving and maintaining adequate oral hygiene. A major physical disorder often encountered in the institutional setting is cerebral palsy which has been extensively reviewed in Module 4. The presence of scoliosis, severe swallowing dysfunction, drooling and an exaggerated gag reflex in these individuals often requires that the individual be placed in the most upright position possible for POH procedures. Placing the patient in a wheelchair with or without extra positioning pillows instead of prone is often helpful. The reduction or elimination of the use of toothpaste to reduce gagging and provide better

vision for the care giver is usually indicated. Since many of these individuals inadvertently occlude during procedures, some sort of home-use mouth prop is helpful to gain access and to protect the care giver. In caring for persons with severe scoliosis and/or high risk of aspiration, the use of a toothbrush with attached suction is helpful. The latter group includes persons with tracheostomies and feeding gastrostomies. The tracheostomy should be kept clear at all times during POH procedures. Module 16 describes the unusually heavy calculus build up experienced by persons with gastrostomies. Some individuals have such severe scoliosis and contractures that POH procedures must be done with the person prone on a stretcher or bed, which makes these procedures very difficult to accomplish. Very fragile individuals, especially those on oxygen supplementation or on a monitor require medical consultation prior to oral hygiene. For those requiring clearing of a tracheostomy, two suction tips should be used; one for the tracheostomy and a second one for oral debris and liquids to prevent contamination of the tracheostomy. For persons with severe microstomia, a very small toothbrush, (infant/child size) modified with a long handle may prove helpful.

Communication and sensory deficits are common in this population. Visual cues for the person with a hearing impairment, and tactile and auditory cues for the person with visual impairment will facilitate communication. Discussion with the members of a person's interdisciplinary team will reveal much information as to the extent of the sensory deficit(s) and which communication techniques have proven effective.

Selection of POH Material/Techniques

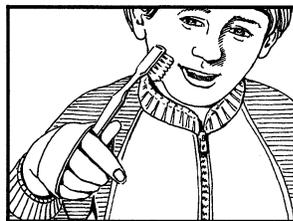
Devices used in the mouth to control plaque should be selected on an individual basis and training in their use is necessary to prevent damage to oral tissues. As previously stated, the selection of materials and techniques for any person's POH program is made at the initial evaluation. The POH goals, techniques and materials should be reevaluated periodically. This reevaluation should include feedback from the direct care staff or care giver. There are a wide variety of oral care products available for use. When deciding on the appropriate devices to be tried, the following issues should be considered:

- # ability of the individual or care giver performing daily oral hygiene;

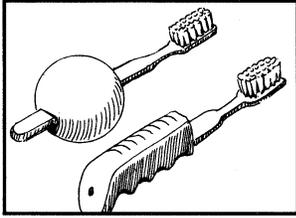
- # time constraints placed on staff or care giver;
- # level of person's cooperation;
- # physical and environmental conditions where oral care is provided; and
- # degree of parent involvement.

The choice of a toothbrush for persons with disabilities is often the same as for the general population. Usually a soft nylon bristle, rounded end, multi-tufted brush with a long strong neck is the preferred choice. Brushes with longer handles facilitate reaching the posterior teeth. In an institutional setting, the choice of a cheap, low quality, low-bidder toothbrush is often counter productive and can lead to hard and soft tissue damage to the resident. An extra soft bristle brush is sometimes indicated for people with unusually sensitive periodontal conditions or severely abraded enamel. The size of the brush head is determined by the size of the oral cavity and the person's ability to open. As with any individual, the proper application of the toothbrush is far more important than toothbrush choice.

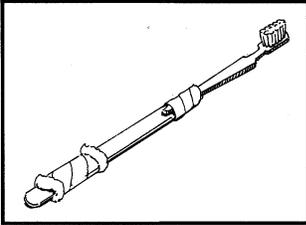
Adaptation of existing toothbrushes by changing the size and shape of the handle will allow for sufficient grasping in patients with poor motor coordination, grip problems or extreme spasticity. The use of adaptive aids is particularly important and rewarding for the potential self brusher who has limited motion or limited hand dexterity. These adaptive aids can usually be purchased or easily constructed from items found in any local pharmacy or hardware store. The following are some examples:



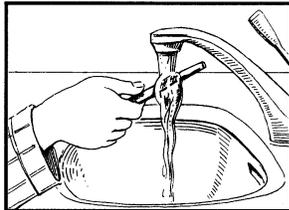
Attach the brush to the person's hand with wide elastic bands or use Velcro fasteners.



For persons with limited grasp, enlarge the brush handle with a sponge, rubber ball or bicycle handle grip.



For persons who cannot raise their hand or arm, lengthen brush with ruler, tongue depressor, or long wooden spoon.



For persons with limited grasp, enlarge the brush handle with a sponge, rubber ball or bicycle handle grip.

When the individual needs specially designed adaptations of oral hygiene devices, the occupational therapist or rehabilitation nurse are usually quite helpful. Creativity combined with follow-up evaluation is needed for success. Consultation with staff in other facilities may provide helpful ideas.

There are numerous commercially available modified toothbrushes that have been designed for special patients. This usually entails the modification of the handle and special designs for bristle placement. A list including description and source of some modified brushes and other materials currently available (1995) is presented in Appendix A. The commercial life of many of these modified brushes is uncertain and is probably the reason that few have been fully evaluated by dental professionals, and the results published in professional journals. One exception to this is the Collis Curve[®] toothbrush which several studies have found either more effective or more efficient than regular manual brushes or automatic toothbrushes. One study also found the Action 2[®] toothbrush to be helpful.

Many individuals with a grip problem and limited fine motor control find an automatic toothbrush with its typically fat handle an advantage in performing plaque removal. There are many popular commercial choices available. Several studies have found the automatic toothbrush to be superior to manual brushes for some individuals. However, most studies that compare the effectiveness of toothbrush choices, whether manual, adapted, commercially modified or automatic, have found that improvement in oral hygiene levels occurs regardless of which toothbrush is used, indicating that toothbrush choice is far less important than conscientious use and follow-up. The prescription for an automatic toothbrush can be an expensive but effective choice.

If chosen, an automatic toothbrush should be assigned to a single individual; the sharing of automatic brushes and brush heads is unacceptable due to infection control concerns. All toothbrushes, manual or automatic, and other oral hygiene aides (e.g. floss holders) should carry a personal identification. The handles of most toothbrushes and floss holders can be identified in a variety of ways including the use of an engraver (e.g. Sears Craftsman[®]). Storage of toothbrushes and all oral hygiene aides should be in a manner that permits drying, prevents cross contamination, permits easy access and should be as normalizing as possible. Mesh 4 x 8 inch bags with drawstrings make good storage containers for POH items. The use of large boards with toothbrush hooks to store multiple toothbrushes often results in cross contamination, sharing of brushes and is stigmatizing.

For many severely disabled patients, the foaming caused by toothpaste together with copious amounts of saliva stimulated by toothbrushing obstructs visualization of the areas to be brushed and can stimulate gagging. Some individuals may ingest excessive amounts of toothpaste. An alternative for these persons is the elimination of toothpaste during brushing. The toothbrush can simply be moistened with water or a flavorful mouth wash. If toothpaste is to be used, any ADA approved fluoride containing dentifrice is acceptable, but should be used in small amounts (no larger than a small pea). There is a commercially available (1995) dentifrice that is non foaming, safe for ingestion and has a pleasant taste (NASA Dent[®]) but the need for such a toothpaste with this population is questionable.

For people who are able to cooperate and tolerate more complete plaque removal, flossing may be added to the daily oral care program. This is not the case with many institutionalized individuals. Embrasures between the teeth should be smooth and free of calculus in order to have effective plaque removal. Since tissue damage can occur due to improper flossing techniques, careful instruction with frequent evaluations should be conducted. The staff or individual performing flossing should demonstrate their ability to be effective and to avoid tissue damage; verbal instruction alone is inadequate. If flossing is extremely difficult, limiting the procedure to a few embrasures or the anterior teeth only is superior to total abandonment of any flossing. The avoidance of the all-or-nothing approach will pay dividends in improved oral health. Floss holders are highly recommended because many individuals may inadvertently or intentionally bite or clench during flossing procedures. There are a variety of floss holders available; a long handle to keep fingers protected and an easy-to-thread design are important considerations. Persons with limited dexterity may benefit from the use of holders. Holders can also be helpful in flossing posterior teeth where gagging may be a problem.

Oral irrigation devices such as the Water Pik® are rarely indicated for the disabled population. They are generally messy to use and most studies show that they do not remove plaque but only food debris. In specific instances oral irrigation devices may be indicated to deliver prescribed antimicrobial agents. Other devices may be prescribed by the dentist or dental hygienist for plaque control in special circumstances. These include interdental rubber tips, interproximal brushes, wooden toothpicks, knitting yarn and floss threaders. Specific instructions for the direct care staff or care giver in use and monitoring the effectiveness of these devices is necessary for success. Toothettes® or similar swabs do not remove plaque and should not be used as a toothbrush substitute, although they are occasionally indicated for the application of prescribed antimicrobial agents. Also most studies show that Plax®, an intraoral detergent, is ineffective in removing plaque and is contraindicated. Plaque disclosing techniques are usually quite messy and are rarely indicated for this population. Most severely disabled people cannot properly handle disclosing tablets and if a disclosing tech-

nique is indicated, a liquid agent directly applied to the tooth surface by the care giver using a cotton tip or swab is preferable.

The use of antimicrobial agents, especially chlorhexidine mouth rinse, has been proven effective in reducing the severity of plaque accumulation and gingivitis. There has been an increased interest in use of these agents with the disabled population since adequate mechanical plaque removal remains a problem. Since the usual method of rinsing and expectorating is difficult for the person with severe disabilities, alternative methods such as a spray or application by swab (e.g. Toothette®) is often indicated. The swallowing of chlorhexidine does not present a hazard as it is not absorbed through the gastrointestinal system. Staining with chlorhexidine use may be greater in this population due to higher levels of plaque and calculus present but this disadvantage is offset by the therapeutic gains of reduced gingivitis and plaque levels. Any alteration in taste perception is difficult to evaluate in persons with severe disabilities.

The use of other antimicrobial agents may also be indicated. These include Listerine® mouthwash, stannous fluoride gels and mouthwashes, povidone iodine (Betadine®) mouthwashes, sanguinarine products, (e.g. Viadent®), baking soda and hydrogen peroxide, Listerine® and similar mouthwashes have proven effective anti-plaque agents, are cheaper than chlorhexidine and do not cause problems with staining and taste alteration. They do, however, contain alcohol and should be used with caution in patients who may swallow them. Some clinicians have found that brushing with a powdered oxygenating agent (e.g. Vince®), instead of toothpaste or toothpowder, to be helpful. Professionally prescribed stannous fluoride gels are generally more effective anti-plaque agents than commercially available fluoride mouthwashes, but their application is more difficult with this population. Foam or plastic trays are usually contraindicated due to lack of patient cooperation and frequent bruxism. Professionally constructed acrylic mouthguard-type trays are difficult to fabricate for uncooperative individuals, difficult for direct care staff to use and are frequently misplaced. The application of fluoride gels by toothbrush after normal brushing has been completed is often the method of choice. The storage of stannous fluoride gels may also present a safety problem in some environments. Sodium

fluoride gels are not considered effective anti-plaque agents but may be prescribed for their anti-carries activity in some individuals. All anti-microbial agents should be prescribed for a specific length of time (e.g. 3 weeks to 3 months) and their effectiveness should be closely monitored. It is especially important to document and demonstrate effectiveness as the direct care staff or care giver often perceives these POH procedures as additional duties.

Positioning and Restraint Techniques

All positioning techniques used by a care giver for providing daily oral health care must allow for:

- # Head stabilization — to allow proper brushing and prevent injury;
- # Access to the mouth by allowing adequate lip and cheek retraction and toothbrush placement; and
- # Visibility to confirm toothbrush placement and effective plaque removal.

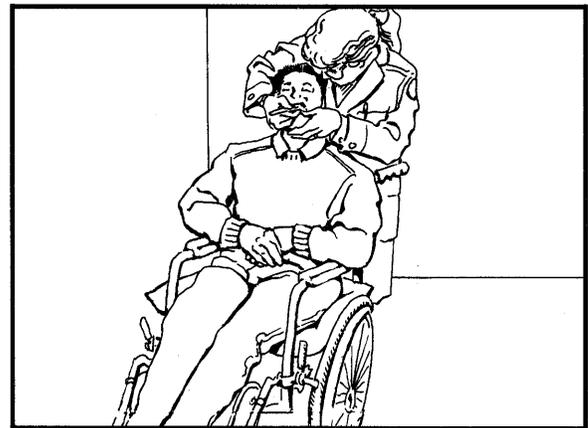
In most cases the care giver is positioned behind the patient. The head is firmly supported in the lap or arms with the care giver kneeling or sitting. If arm control of the patient is difficult, gentle restraint through the positioning of the care giver's legs may be used. Description of the successful positioning technique should be added to the patient's medical/dental chart, especially in those facilities where staff turnover is frequent.

Generally, the free arm and body cradles the head for support and the palm of the hand rests around the mandible. The middle, ring, and pinky fingers should remain on the chin, and the forefinger and thumb are used to retract the lips and cheeks. Lip retraction to adequately see the teeth and gingiva is an important part of the toothbrushing procedure. Do not try to stop all patient movement; go with the movement. An increase in pressure to stabilize the person often tends to agitate and increase movement. Stop frequently, maintaining arm and hand contact and allow the person time to take deep breaths and relax. Tongue spasticity tends to be a real adversary to brushing. Keeping the individual's teeth in a closed position until lingual access is necessary, reduces stress for the individual and provides better visualization. It is also helpful to initially approach all patients from the front and then talk them through the procedure as care is provided. Keeping a person with physical

disabilities (e.g. cerebral palsy) in his/her molded chair, wheelchair or some type of seated arrangement greatly facilitates POH procedures. Also, for ambulatory individuals, it may be helpful, in a bathroom environment, to seat the person in a regular straight chair for POH procedures. However, it is unnecessary for POH procedures to be carried out in a bathroom; elimination of toothpaste eliminates most of the need for expectoration and therefore toothbrushing can be performed in any locale. Any drooling encountered can be contained by the use of an ordinary towel.

The following illustrations demonstrate various techniques for care giver toothbrushing.

** See note on page 10 (Drawings here and on previous pages, courtesy of Johnson and Johnson Inc.)



Wheelchair standing -

Stand behind wheelchair. Use your arm to brace person's head against chair or your body. Use pillow for person's comfort.



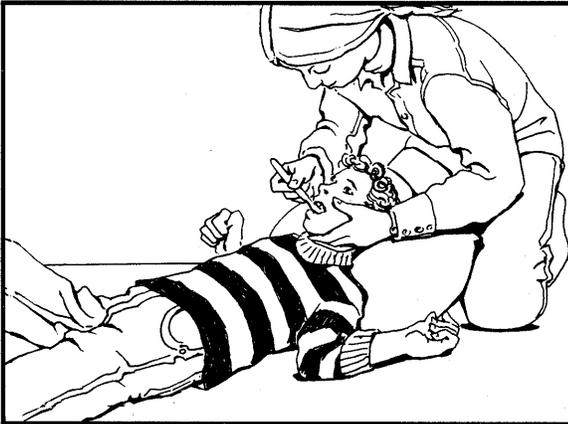
Wheelchair sitting -

Or sit behind wheelchair. Remember to lock chair wheels first, then tilt chair back into your lap.



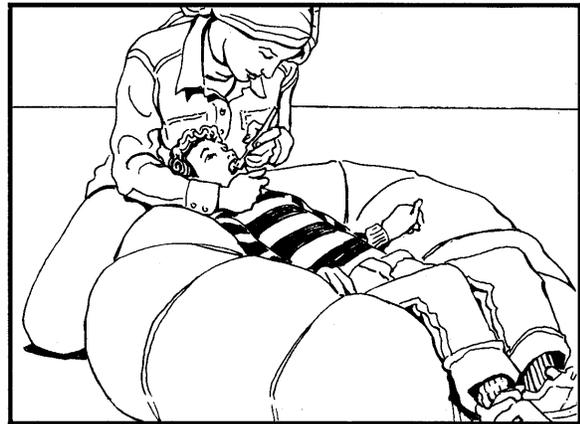
Bed or sofa -

Patient lies on bed or sofa with head in your lap. Support individual's head and shoulder with your arm.



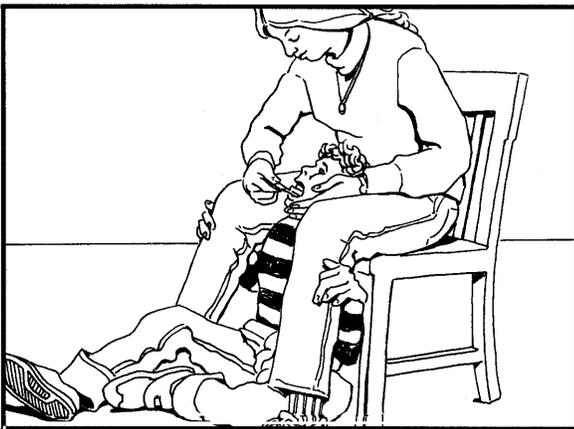
Lying on floor -

Patient lies on floor with head on pillow. You kneel behind his/her head. You can use your arm to hold person still.



Beanbag chair -

For people who have difficulty sitting up straight, a beanbag chair lets them relax without fear of falling. Use same position as for bed or sofa.



Sitting on floor -

Patient sits on floor; you sit behind person on chair. Individual leans head against your knees. If individual is uncooperative or uncontrollable, you can place your legs over his/her arms to keep them still.

When POH procedures are rejected by an individual, certain restraint positions may need to be incorporated into the program to assure success. The least restrictive alternative is always considered first. The use of any type of hold that is considered a restraint must be authorized and implemented in accordance with the facilities' and state's regulations governing the use of restraints. The issues involved with therapeutic restraint use have been extensively reviewed in Module 6. Unfortunately, many direct care staff in an institutional setting will erroneously insist that toothbrush holds are not permissible when they are faced with carrying out POH procedures on a difficult resident. The use of therapeutic restraints needed for health care delivery should be clearly addressed and the evidence of support from the highest administrative staff should

be widely disseminated. One example of a tooth-brushing protocol involving restraints is presented in Appendix B.

The use of Molt® mouth props are common in the dental clinic setting, however, the prescriptive use of this mouth prop for POH procedures is usually contraindicated due to damage to teeth (including extraction) and other oral tissues as a result of improper use even with extensive staff training. They are also difficult to sterilize, easy to lose and expensive. Taped tongue blades with gauze padding can also cause inadvertent oral damage, are messy to use and pose an infection control danger. An alternative is the Open Wide® mouth prop which can be safely used by direct care staff and care givers to maintain mouth opening. The Open Wide® consists of a durable foam core head attached to a tongue depressor shaped stick. It is inserted into the mouth horizontally but can be turned vertically to provide more opening. It is durable, easy to clean and reuse, and is relatively inexpensive. Ordering information can be found in Appendix A.

DESIGNING AN ORAL HYGIENE PROGRAM IN AN INSTITUTIONAL SETTING

In any given 100 institutional facilities one would encounter 100 different oral hygiene programs. This is due to the major diagnosis of the residents (MR/MI/SA), total number and functional level of residents, physical grouping of residents, number and type of professional staff available, number and type of direct care staff available, physical size of the facility, attitudes and commitment of the administration and budgetary issues. One facility in the Southeast has several dental assistants supervised by a dental hygienist assigned solely to POH procedures for the facility's residents. This is an unusual and perhaps unique program. In most residential facilities the dental staff is responsible for designing an effective plaque control program for the institution, and staff from residential services, serving as surrogate parents, is responsible for carrying out each resident's oral hygiene. The training of the direct care staff, as well as the training program design, is often the responsibility of the dental staff or may be a joint responsibility together with residential services staff. It is unnecessary for all direct care staff to be trained by dental professionals. Occasionally, the facility's staff

training department is responsible for POH training with input from the dental staff concerning goals, learning outcomes and lesson plans. The dental professional most involved with the development of an institutional POH program is the dental hygienist.

Monitoring the effectiveness of a POH program is a major responsibility of the dental staff. Some method of documenting the provision of oral care in the living area must be developed. A "flow sheet" or POH "check list" is often utilized for this purpose and may be combined with other personal hygiene goals for the resident. It should not only track toothbrushing, but should document any other POH procedure prescribed for the resident, including the care and cleaning of prosthetic and other removable appliances. Although the completed check list is no guarantee that the procedures have been effectively completed, most direct care staff want to do a good job and will make an effort to improve when they are shown the consequences of inadequate daily care on the oral health of the resident. The rewarding and encouragement of good effort to provide oral care should also be a part of the feedback procedures. The frequency of monitoring these check lists will vary depending on the needs of the resident and the performance of the staff. Also, feedback to the direct care staff regarding the level of oral hygiene each time a resident is seen in the dental clinic should be developed. This feedback should include evaluation of gingival health as well as plaque levels. The presence of severe gingivitis together with total absence of plaque usually indicates the resident's teeth were only brushed just before the dental appointment. This feedback procedure should also contain suggestions as to materials and techniques needed for acceptable oral hygiene. Feedback can be entered in the medical chart or entered on a specially designed form that is completed after each dental visit. In order to properly evaluate the level of oral health, the dental staff should be thoroughly familiar with all generally accepted dental indices.

Although there should be a clear understanding of the division of responsibilities between the dental staff and the direct care staff, these decisions are not made in an arbitrary fashion but through a concerted team process. Additionally, these relative responsibilities may vary somewhat from unit to unit depending on the personalities and commitment of the staff involved. A team approach versus an adversarial approach is much more effective in the devel-

opment of a successful program. Communication between dental staff and direct care staff should not be limited to checklists, forms, memos, reports, and resident's records, but should include frequent visits to the residents's living area, telephone calls, and occasional hands-on participation in the provision and evaluation of POH procedures. One example of an independent toothbrushing program is shown in Appendix C. Components of a training program to provide direct care staff with skills to provide oral hygiene for dependent residents is shown in Appendix D.

Another important issue for a successful POH program is not requesting or demanding the direct care staff or care giver perform beyond reasonable expectations. Compromised POH is superior to total lack of care. If a highly resistive individual requires multiple staff members for tooth brushing, the schedule of POH three times per week may be a reasonable objective. Likewise, if a person clenches his/her teeth so that the successful use of a mouth prop is unlikely, brushing the facial surfaces only is a great improvement over no brushing at all.

PROFESSIONALLY APPLIED PREVENTIVE PROGRAMS

Most professionally administered preventive measures, like POH procedures, are the same for persons with disabilities as for the general population. These usually include evaluation, calculus removal, polishing, flossing, instructions to the care giver for oral hygiene, other prescriptive POH measures, and determination of recall need.

As with restorative care, the provision of prophylaxis must contend with the physical, cognitive and behavioral limitations of the individual. The majority of institutionalized persons do present significant behavior problems in the dental environment requiring special management; such as verbal prompting, physical assistance, restraint and occasionally sedation, including parenteral sedation and general anesthesia. For a dental hygienist to be effective she/he must have the help of a chairside assistant. The severe limitations of most patients require assistance even for the simplest procedure. If the patient requires sedation, the attendance of the dentist is mandatory. Since these services are so manpower intensive, the provision of a prophylaxis is not considered a simple procedure. If the resident requires parenteral sedation for prophylaxis

he/she is often provided this service by the dentist instead of the dental hygienist for manpower convenience. Some professional groups consider the use of parenteral sedation for prophylaxis or simple root scaling/planing inappropriate. However, if this is the only way preventive care can be safely provided, most institutional staff support the extra effort even if the period between recall visits is lengthened.

Individuals who are fed by gastrostomy (or permanent nasogastric tubes) usually develop supra-gingival calculus at an alarming rate even on primary dentition. More frequent recalls are usually indicated for these individuals even though providing prophylaxis procedures is quite difficult. Most of these patients have an exaggerated gag reflex and aspirate easily, requiring special attention to high volume intraoral evacuation to remove particles of calculus, water, and saliva. In the clinical management of these and other medically fragile patients, where maintenance of the airway is always a concern, the use of a pulse oximeter should be considered. Another individual considered somewhat medically fragile is the person with a tracheostomy. These tracheostomies often become partially clogged during dental treatment and require periodic suctioning. To avoid microbial contamination of the tracheostomy, two separate suction tips should be used; one for the oral cavity and another sterile tip for the tracheostomy. Some medically fragile patients cannot be brought to the dental clinic for prophylaxis, and preventive treatment must be accomplished at the residential unit. A portable prophylaxis unit and suction should be available bedside. Medical clearance should be obtained prior to preventive treatment for especially fragile patients, those with acute crises, or those on monitors or supplemental oxygen. Often prophylaxes are suspended for such patients. Most persons with disabilities will require sonic or ultrasonic scaling (e.g. Cavitron®) due to heavy calculus accumulation. Since these instruments produce considerable aerosol, the use of a pretreatment antimicrobial rinse or intraoral swabbing should be considered to reduce the environmental airborne microorganisms.

Most preventive procedures are focused on the prevention of periodontal disease, so common with this population. Even if the caries rate is relatively low for this group, some individuals do require intensive anticaries care. Routine application of

post-prophylaxis fluoride is common practice, even with adult patients, although a completely dry field is often difficult to obtain for these individuals. As previously stated, the use of foam or plastic trays for fluoride delivery is usually contraindicated due to lack of cooperation and bruxism. Individually constructed (and stored) acrylic trays may be constructed for the cooperative patient. Since restorative care is so difficult to provide for many of these individuals, the use of fissure sealants gain more attention. The problem of obtaining a dry field, so critical to successful sealant therapy, often precludes the use of pit and fissure sealants in those patients who need them the most. The frequency of recall visits will vary with the individual's needs. Many clinicians believe that the presence of heavy calculus and poor oral hygiene indicates the need for more frequent recalls than usual. One

institutional facility found that placing all residents on a two month recall system greatly reduced the amount of calculus accumulated and the time needed to complete a prophylaxis thereby increasing the total number of patients able to be served in one given day. Some clinicians feel that for those few patients for whom POH procedures are impossible, an annual recall system is adequate.

** Drawings were provided by permission and originally appeared in:

Perlman, S., Friedman, C. and Tesini, D. *Prevention and Treatment Considerations for the Dental Patient with Special Needs*. Published as an educational service by Johnson and Johnson Professional Dental Care, a Division of Johnson and Johnson Consumer Products, Inc.; Academy of Dentistry for the Handicapped; American Dental Hygienists' Association; and ARC.



APPENDIX A

Commercially Available Modified Toothbrushes (1995)

- I. The following brushes were evaluated in 1994 by a dental hygienist on the staff of a MR facility and includes feedback from direct care staff. All opinions as to effectiveness are subjective. Often samples for evaluation can be obtained from the sources listed.

COLLIS CURVE®

Description: Three (3) rows of bristles (soft or medium). Outer two rows are curved inward with a single short straight row running down the center.

Findings: The Collis Curve brush is a popular, commercially available adapted brush. It has the advantage of being able to cover buccal, occlusal and lingual surfaces simultaneously. However, in order for this to occur, the patient must be cooperative and hold his mouth open, as the brush can be difficult to insert and keep in place over the teeth. The “soft” brush is too soft and the bristles collapse and flatten. The “medium” holds up better as long as it can be maintained in place. It also loses its effectiveness if the teeth are large and in cases of significant malocclusion.

Source: Collis Curve, Inc.
313 W. 48th St.
Minneapolis, MN 55409
Phone (612) 822-2740

IMPROVE®

Description: Standard shaped head with the bristles arranged in a deep “V” groove design. Position over teeth to do simultaneous lingual-buccal brushing. Bristles are of medium hardness. Handle is a standard length and design.

Findings: Similar to the Collis Curve but easier to insert over teeth. It does not adapt to both lingual and buccal gingiva at the same time. When one side is at 45° angle, the other side no longer makes contact with the corresponding gingiva and cervical surface. It was not found to have any significant advantage over a standard design toothbrush.

Source: Prevent Care Products
Box 6
Pt. Pleasant, NJ 08742

ACTION 2®

Description: Double-headed brush with sides angled at 45°. Long, bendable handle.

Findings: This brush is very difficult to insert correctly, and when in the mouth, the heads are too small to cover the crowns and reach the gingiva. It is awkward to use and feels uncomfortable when in the mouth. Direct care staff found it difficult to use and impossible for the self-brushers to use successfully.

Source: Oranamics, Inc.
Hygiene Products
Atlanta, GA 30305

TWINBRUSH®

Description: Twin-heads angled at 45°. Outside rows softer than inside rows. Contoured handle. Two sizes: regular and small. Brush by placing over the anterior teeth and moving backward.

Findings: Easy to use and insert and seems to work best with a small amount of toothpaste. It is most effective for brushing the lingual posteriors. Bristles are average softness and hold up well

after brushing several weeks. The handle is comfortable to hold but could be longer for brushing others.* It would also be useful to have it textured rather than slick. As with other brushes designed for buccal-lingual brushing, it is not practical for patients who will not stay open or who have large and/or misaligned teeth. Direct care staff found it useful on appropriate residents. Self-brushers would have to be monitored to be sure the brush is maintained in the correct position during brushing.

*NOTE: Just introduced adaptations to enlarge and elongate the handles. (1994)

Source: Prevention Health Products, Inc.
Mill Pond Offices
Rt. 100
Somers, NY 10589
Phone (800) 858-6668

OMNIA-DENT®

Description: A six (6) sided brush with very small heads to allow brushing of all surfaces (both arches) at the same time. There is an interdental tip on the handle.

Findings: This brush is very impractical. The double side is not as useful as the instructions state, and the size of the brush makes it uncomfortable to use. The interproximal tips are too large to clean as they are intended. This brush would be unsatisfactory for use by MR patients.

Source: Omni-dent USA
8895 Lawrence Welk Dr.
Escondido, CA 92026
Phone (800) 328-8895

VAC-U-BRUSH®

Description: A suction brush designed for bedside use on patients who may be at risk of aspiration while receiving mouth care. It has a moderate length, wide handle with a suction attachment on the end. The head is small with a row of soft bristles set in a horseshoe pattern with a suction groove in the center for fluid removal.

Findings: The brush fits easily on all the bedside suction units tested. The head is small enough for a child-size mouth. The handle is able to be maneuvered comfortably by the operator. The nursing staff on the units was positive toward it. The bristles are soft but care should be taken in brushing any patients who are receiving anticoagulant to guard against excessive bleeding.

Source: Ora Genics, Ltd.
55226 S.E. International Way
Omark Industrial Park
Milwaukee, OR 97222
Phone (503) 224-2316

PLAK-VAC®

Description: This is an oral evacuation brush with a wide, long handle and a suction tip attachment on the end to fit on bedside suction units and chairside saliva ejector fittings. The head is small with the bristles set in a horseshoe pattern with an intake suction port in the center.

Findings: The small head and very soft bristles make this brush desirable for patients with very inflamed gingiva. The handle is longer than other suction brushes, which makes it more awkward to handle and maneuver. It was well received by the direct care staff on the skilled nursing unit.

Source: Prince Dental Care, Inc.
Trademark Corp.
1053 Headquarters Park
Fenton, MO 63026
Phone (800) 325-9044

CONTROL®

Description: Standard design head with an enlarged, octagon-shaped handle.

Findings: Large handle very comfortable for residents and staff to grip.

Source: Made by Teledyne/Water Pik, but no longer available in the United States. Any questions:
1-800-525-2020.

COLGATE PLUS®

Description: Diamond shaped head with a long curved handle. The outer bristles are very soft while the inner bristles are more firm.

Findings: The tapered head may help in insertion when the patient remains clenched. The long handle is comfortable and helps to reach the posteriors.

Source: Wherever toothbrushes are sold, or a Colgate-Palmolive Representative.

FLEX (AQUAFRESH)®

Description: Large, tapered head with soft bristles. The handle is long with section that is bent into a fanlike arrangement. The long part of the handle is covered with a textured rubber coating.

Findings: Except for the textured handle which offered a more secure grip, this brush did not offer any benefit over a standard tapered head brush. The flexed section did not seem to serve any real purpose.

Source: Any drug store/supermarket that sells toothbrushes.

AIM®

Description: Angled head with two rows of outside bristles at a 20° angle. The T-shape inner bristles (blue) have a straight surface. Youth and adult sizes.

Findings: This brush showed no real advantage over standard brushes. The handle is short and not comfortable to grasp.

Source: Wherever toothbrushes are sold.

II. The following are additional modified brushes, but have not evaluated as those described above in Section I.

DENTRUST®

Description: Another 45° angle toothbrush similar to the twinbrush described above.

Source: Oral Logic, Inc.
12621 Renton Ave. South
Seattle, WA 98178
Phone (800)-345-1143

RADIUS®

Description: Brush has a larger than average head with soft nylon bristles and large built up handle shaped for left or right hands. Also available in child size. The larger head allows for all sides to be brushed at the same time.

Source: Radius
Railroad & Peach
Kutztown PA 19530
Phone (800)-626-6223

GEMINUS®

Description: A uniquely designed brush with flexible horseshoe shaped grip with 2 brush heads to simultaneously clean the buccal and lingual surfaces and gingival margin. Pressure is applied by squeezing each side of the handle to allow the best contact with the teeth.

Source: Unknown.

III. Other Product Sources.

NASA DENT® DENTIFRICE

Description: (described in text, p. 4)

Source: Scherer Laboratories
Dallas TX 75234

OPEN-WIDE® MOUTHPROP

Description: (described in text, p. 7)

Source: Specialized Care Co.
Renee Port
Edison NJ 08820-3634
Phone (800) 722-7375

FLOSS AID® DENTAL FLOSS HOLDER

Description: (described in text, p. 4)

Source: Floss Aid Corp.
425 Reed St.
Santa Clara CA 95050-3109
Phone (800) 528-3384

IV. Other Information Sources.

National Oral Health Information Clearinghouse (NOHIC)

Description: A central resource for special care patients. NOHIC maintains a computerized catalog that provides descriptions and ordering information for a broad array of publications and other materials.

Source: Box NOHIC
900 Rockville Pike
Bethesda MD 20892
Phone (301)402-7364

The following institutions have indicated that they will provide, upon request, copies of the listed prevention information.

SOURCE

PREVENTION INFORMATION

Dental Program
Richmond State School
2100 Preston
Richmond, TX 77469

Oral Hygiene Motivational and Monitoring Program

Dental Program
Caswell Center Dental Clinic
2415 W. Vernon Ave.
Kinston, NC 28501

Oral Hygiene Deficiency Notice
Toothbrushing Protocol for Resistant Residents

Dental Program
Central Virginia Training Center
P.O. Box 1098
Lynchburg, VA

Accountability of Direct Care Personnel Guidelines
Oversight of Daily Plaque Removal Program
Training of Direct Care Personnel

Dental Program
O'Berry Center
400 Old Smithfield Rd.
Goldsboro, NC 27530-8464

Training - Direct Care Staff

Dental Program
Developmental Disability Clinic
Victoria Hospital
London Ontario, Canada

Individualized Hygiene Checklist Program

Dental Clinic
Murdoch Center
Butner, NC 27509

Training- Direct Care Staff
Independent toothbrushing program

Dental Clinic
Gracewood State School and Hospital
Gracewood, Georgia 30812

Direct Care Training Checklists

APPENDIX B

TOOTHBRUSHING PROTOCOL
The Toothbrushing Hold

It has been established that _____ will not allow staff to brush his/her teeth. The technique, The Toothbrushing Hold, will be administered in order to provide for his/her oral health. The technique may only be used by staff who have been trained by the Dental Department.

1. Seat the resident in a straight-back chair.
2. Staff #1 (brusher) stands behind resident, bracing middle of body against back of chair for stabilization. Right-handed brusher should stand behind resident's right shoulder, bracing resident's head with left hand and brushing resident's teeth with right hand. Left-handed brusher should stand behind resident's left shoulder, bracing head with right hand and brushing with left hand.
3. If resident grabs at brusher to prevent toothbrushing, brusher calls for Staff #2. Brusher is in charge.
4. Staff #2 approaches from opposite rear side of chair, crossing resident's hands as in a therapeutic hold, crouching or squatting down, bracing shoulder against back of chair for stabilization.
5. Staff #1 and #2 together brace chair to prevent resident from tipping over backwards.
6. Staff #3 should be called to stabilize feet if needed (e.g. kicking, trying to tip chair over, etc.). Staff #3 should approach from rear of chair either side, encircling legs at thigh level with arms, sliding arms down the legs to crisscross feet. Feet are elevated off floor as Staff #3 crouches or squats. Staff #3 braces resident's legs against staff's body. If resident spits, a towel can be placed over staff member's back.
7. When brushing is completed, staff members release hold in reverse order (i.e. Staff #3 releases first, then Staff #2) under directions of Staff #1.
8. If resident becomes unmanageable during brushing, Staff #1 is responsible for calling out for Staff #3 to release feet, then for Staff #2 to release hands. Staff #1 is also responsible for keeping resident from tipping over backwards.
9. Protocol can be used _____ daily.
10. Exceptions/Modifications to the above are as follows: (list exceptions)

Signature _____ Date _____

APPENDIX C

TOOTHBRUSHING PROTOCOL Independent Toothbrushing Program

Prerequisites for Enrollment in Independent Toothbrushing Program:

To be enrolled in the program the resident must:

1. Accept toothbrushing (does not resist);
2. Grip toothbrush, including modified handle;
3. Brush teeth on model;
4. Conceptualize the idea of toothbrushing; and,
5. Possess a degree of fine motor skills.

Program Objective:

To provide direct care staff with a method to train residents in independent toothbrushing while maintaining the health of the oral tissues.

Overview of the Program:

Dental disease is caused by failure to remove plaque accumulation from oral tissues. The most common forms of dental disease are gingivitis (inflamed gums without bone loss), periodontitis (inflamed gums characterized by bone loss), and dental caries (loss of tooth structure). It is our aim to remove as much plaque from the oral cavity as possible while encouraging independence for the resident.

The first step in obtaining independent toothbrushing is to evaluate the ability of the resident to process the technical skills involved in toothbrushing. The prerequisite form should aid the appropriate person in determining the resident's ability to achieve this goal.

After this determination is made, the primary care provider in the division assumes the role of "teacher." Using the backward chaining method, staff carefully guides the resident through the steps of toothbrushing. A significant amount of time may be required for the resident to accomplish this goal.

It is important to note the health of the oral tissues should be maintained regardless of the progress of the program. It is recommended that the staff continue to brush the resident's teeth until total independence is achieved.

Methodology:

There are several acceptable methods of toothbrushing, but the method of choice for the developmentally disabled population is the scrub method. This method takes into account the complex behavior and dexterity problems associated with developmentally disabled persons while not compromising the oral structures.

In the scrub method, the toothbrush is placed along the gumline and moved back and forth several times in a "scrubbing" motion. There should be short overlapping strokes until the whole mouth is covered. Each section requires a minimum of five strokes and enough pressure should be applied to the toothbrush to flex the bristles.

In most cases, plaque is an invisible sticky coating on teeth that can be easily removed with toothbrushing. Unfortunately, it is not uncommon to see plaque that appears thick and yellowish caked on the teeth of the developmentally disabled individual. This is due to poor oral hygiene habits of the caretakers and/or the resident. In response to such irritation, the tissue becomes inflamed and bleeds easily during toothbrushing. Within three days to a week following good oral hygiene the tissue should become pink and bleeding should subside.

Equipment Needed:

1. Toothbrush with proper I.D.
2. Gloves
3. Toothpaste or fluoride rinse
4. Cup
5. Towel

Sequential Tasks in Brushing Teeth:

No single technique for teaching the skill of tooth brushing can be used for all residents. However, any training method should consider 26 basic task components to an effective toothbrushing regimen. As the functioning level of the patient increases, task components may be grouped together.

1. Identifies own brush
2. Approaches sink
3. Turns on water
4. Wets toothbrush
5. Locates toothpaste
6. Removes toothpaste cap
7. Puts down cap
8. Spreads paste on brush
9. Puts down tube
10. Brushes all areas
 - a. Upper right (outside)
 - b. Upper anteriors (outside)
 - c. Upper left (outside)
 - d. Upper occlusals
 - e. Upper right (insides)
 - f. Upper anterior (insides)
 - g. Upper left (insides)
 - h. Lower right (outside)
 - i. Lower anterior (outside)
 - j. Lower left (outside)
 - k. Lower occlusals
 - l. Lower right (inside)
 - m. Lower anterior (inside)
 - n. Lower left (inside)
11. Removes brush from mouth
12. Spits out excess paste (optional)
13. Rinses brush
14. Puts down brush
15. Locates cup
16. Fills cup with water
17. Rinses mouth
18. Stores/throws cup away
19. Rinses sink
20. Turns off water
21. Locates towel
22. Wipes mouth and hands
23. Replaces/discards towel
24. Replaces toothpaste cap
25. Puts away toothpaste
26. Puts away toothbrush

Evaluation:

The Dental Clinic staff will monitor progress of the program monthly. A schedule will be made for monthly checks and suggestions will be rendered at that time to the appropriate personnel. Every effort will be made to help the resident achieve this toothbrushing goal. Because independent toothbrushing is an individual goal, it is difficult to suggest a time limit to mastering certain steps, but decisions will be made on a case by case basis.

APPENDIX D

A COMPREHENSIVE ORAL HYGIENE TRAINING PROGRAM

I. Introduction

The comprehensive oral hygiene training program is a method of training direct care staff in oral hygiene techniques. The program is offered monthly or semimonthly and consists of a one hour lecture session and two 20 minutes training sessions in the Dental Clinic or on the living units.

In the one hour lecture session, participants are given an overview of the program and criteria for selecting a resident for competence demonstration. The resident must have teeth in front and back of the mouth and must not exhibit moderate to severe aggression that would prohibit the staff from learning the oral hygiene techniques. Following the introductory material, participants receive a lecture on the etiology of dental disease and plaque control. There are demonstrations of toothbrushing and flossing techniques, denture care and behavior management techniques and positioning.

Approximately one week later the second session is held. Direct care staff are instructed to bring a resident so the dental clinic staff can observe the participant brush the resident's teeth. Participants are scored on the toothbrushing technique and overall efficiency on the Toothbrushing Training Checklist. A similar procedure and checklist is used for testing competency in flossing and denture care. Behavior management techniques and equipment and materials selection are also a part of the scoring. The participant is given immediate feedback regarding performance.

The final session is held the following week. This session is identical to the second session except the participant must score 80 or above to complete the program. If the participant scores less than 80, he must return for another session and score 80 or above to receive a certificate of completion.

II. Task Analysis

A. Toothbrushing

1. Equipment Needed

- a. Soft bristle brush with proper ID
- b. Toothpaste
- c. Water
- d. Gloves

For residents who spit or produce splatter, add face shield or protective eye wear with mask.

For residents who spit or produce splatter and have a know infectious disease (e.g. hepatitis carrier), add protective gown or clothes protection.

2. Task

- a. Assemble equipment, make sure resident's own toothbrush is used.
- b. Provide for privacy.
- c. Put on gloves.
- d. Inform resident of procedure.
- e. Wet brush.
- f. Apply pea-size amount of paste to toothbrush.
- g. Open resident's mouth. Use mouth prop if necessary.
- h. Brush from side to side all chewing surfaces of molars.
- i. Hold brush at a 45-degree angle, pointing toward the gum line.
- j. Brush the upper teeth, the inside of the upper teeth, the lower teeth, and the inside of the lower teeth in a circular motion flicking the brush away from the gum line. Brush the inside of the lower teeth and the inside of the upper teeth going back and forth by positioning the brush vertically with the front teeth.
- k. Brush tongue, upper palate, and gums.

- l. Have resident rinse mouth if capable, or drink water.
- m. Rinse toothbrush. Wipe dry with paper towel.
- n. Return all materials including brush to designated area.
- o. Remove and dispose of gloves and other protective gear.
- p. Wash hands

B. Flossing

1. Equipment Needed
 - a. Container of dental floss
 - b. Floss holder (optional) with proper ID
 - c. Gloves

For residents who spit or produce splatter, add face shield or protective eye wear with mask.

For residents who spit or produce splatter and have a known infectious disease (e.g. hepatitis carrier), add protective gown or clothes protection.

2. Task

- a. Introduce self and explain procedure.
- b. Provide for privacy.
- c. Assemble equipment, making sure resident has his/her own floss container and optional floss holder. Break off 18-20 inches of floss.
- d. Put on gloves and other protective gear as needed.
- e. Wind most of the floss around one of your middle fingers; wrap the rest around the other middle finger. Leave 1-2 inches of floss between the fingers. With your index fingers, press down on the unwound floss to pull it tight. If using floss holder, wind one side of the floss around center knob, follow the holder's indentations around the prongs and wind the remainder of the floss around the center knob.
- f. Open resident's mouth. Use mouth prop if necessary.
- g. Using a gentle sawing motion, slide floss between each tooth (beginning in the front and moving to the back, upper and lower). Scraping the side of the teeth with an up-and-down motion forming the letter "C" around each tooth. Do not cut into the gums or snap the floss.
- h. Have resident rinse mouth.
- i. Dispose of used dental floss.
- j. Rinse floss holder.
- k. Return all materials to designated area.
- l. Remove gloves and other protective gear.
- m. Wash hands.

C. Denture Care

1. Equipment Needed

- a. Resident's denture or practice denture (if needed for training purposes)
- b. Soft bristle brush or denture brush with proper ID
- c. Denture toothpaste or denture cream
- d. Water
- e. Gloves

2. Task

- a. Introduce self and explain procedure.
- b. Provide for privacy.
- c. Assemble equipment, making sure resident has his/her own toothbrush or denture brush.
- d. Put on gloves.
- e. Fill sink half full with water.
- f. Wet brush.
- g. Apply denture toothpaste (often liquid soap and water will do).
- h. Gently brush all surfaces of denture.
- I. Avoid bending any clasps, if present on denture or partial.
- j. Rinse denture or partial.
- k. Rinse toothbrush. Wipe dry with paper towel.
- l. Empty sink.
- m. Return all materials to designated area.
- n. Remove and dispose of gloves
- o. Wash hands.

TOOTHBRUSHING TRAINING CHECKLIST

Staff Name _____ Date _____

Score	0	1	2	3
Equipment and Materials				
Cup (wet washcloth or towel)				
Amount of Toothpaste				
Post Brushing Maintenance				
Handwashing				
Topography of Brushing				
Quadrant Brushing				
Surface Brushing				
Technique				
Evaluation				
Rt. Max. 1st Molar (Facial)				
Rt. Max. Cent. Inc. (Facial)				
Rt. Max. Cent. Inc. (Lingual)				
Lft. Max. 1st Molar (Facial)				
Lft. Mand. 1st Molar (Lingual)				
Lft. Mand. Cent. Inc. (Facial)				
Lft. Mand. Cent. Inc. (Lingual)				
Rt. Mand. 1st Molar (Lingual)				
Behavior Management				
Resident- Staff Interaction				
Positioning Techniques				

Score _____

Toothbrushing Training Checklist - Key to Scoring

Participant must score at least 36 of 45 points to obtain a passing score of 80%.

- | | |
|--|---|
| 1. Equipment and Materials | 0 - No cup present |
| Cup (wet wash cloth or towel) | 1 - Cup present but not used for rinsing |
| | 2 - Cup present and used for rinsing |
| Amount of Toothpaste | 0 - Unacceptable (too much) |
| | 1 - Acceptable (small ribbon) |
| Post Brushing Maintenance | 0 - Fails to rinse or dry brush |
| | 1 - Rinses brush but fails to dry brush |
| | 2 - Rinses and dries brush |
| Handwashing | 0 - Fails to wash hands or wear gloves |
| | 1 - Washes hands but fails to wear gloves |
| | 2 - Washes hands thoroughly with soap & dries them but turns faucet off with clean hands. Wears gloves. |
| | 3 - Washes hands thoroughly with soap, dries them, and turns faucet off with paper towel. Wears gloves. |
| II. Topography of Brushing | |
| Quadrant Brushing
(upper right, upper left, lower left,
lower right) | 0 - Brushes 1 or less quadrants |
| | 1 - Brushes 2 quadrants |
| | 2 - Brushes 3 quadrants |
| | 3 - Brushes all 4 quadrants |
| Surface Brushing
(cheek side, biting surface, tongue
side) | 0 - Inadequate contact of brush to tooth surface |
| | 1 - Brushes 1 surface |
| | 2 - Brushes 2 out of 3 surfaces |
| | 3 - Brushes all surfaces |
| Technique | 0 - Brushes with random strokes and light pressure |
| | 1 - Systematically brushes with light pressure |
| | 2 - Brushes using Scrub Method and moderate pressure |
| III. Evaluation | |
| Six selected teeth are stained with disclosing solution to determine the effectiveness of toothbrushing. The surfaces are scored from 0 (completely covered with plaque) to 3 (plaque free). | |
| IV. Behavior Management | 0 - No interaction |
| Resident - Staff Interaction | 1 - Minimal interaction |
| | 2 - Interaction (pleasant, verbal prompting and commands) |
| Positioning Techniques | 0 - Resident not seated |
| | 1 - Resident not seated or staff failed to use fingers to retract lips and cheeks |
| | 2 - Resident seated in chair with staff standing behind. Staff uses fingers to retract lips and cheeks. |

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Toothbrushes

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