



## Challenges in Maintain Routine Oral Hygiene of Depended Eldery- Some Practical Advices

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### Abstract

In the older ages, medicine as well as dental medicine helps the people to maintain the condition of the whole body. Important and a very significant factor is the maintenance of general health is general hygiene and especially oral hygiene. Oral hygiene is very often insufficient and mostly neglect by the nursing and supportive medical staff in hospitals and home residences towards depended elderly. Powerless and diseased elderly patients, regardless of their desire and habits, are in many cases unable to continue self-maintaining hygiene and are dependent on the people around them. It is necessary to define standards of treatment and dental care for a growing population of the elderly, especially those who are dependent on other people's assistance. Moreover, it is important to properly educate all categories of oral health caregivers about oral hygiene; its implementation and performance in elderly disable patients. Achievement and implementation of oral hygiene is interdisciplinary with close cooperation between caregivers and doctors of general and dental medicine.

**Keywords:** Oral hygiene; Depended elderly; Supportive medical staff; Caregivers

### Introduction

Human aging is a universal biological process associated with continuous and progressive changes at the microscopic and macroscopic levels. External signs of aging, are more visible on our appearance but in the inside, especially after 65 years, and much earlier [1].

The intensity of ageing is individual, depending on many factor such as lifestyle, habits, genetics and many systemic and malignant diseases. They significantly affects the quality and durability of life, as well as the permanence of quality old age. The elderly are more and more among us, and there are many studies dealing with various aspects of aging. In the older ages [2-5].

Medicine helps the people to maintain the condition of the body, as well as the dental medicine. Important and a very significant factor is the maintenance of hygiene, especially of oral hygiene. Oral hygiene is insufficient and mostly neglected by the nursing and supportive medical staff in hospitals and home residences especially towards depended elderly. Powerless and diseased elderly patients, regardless of their desire and habits, are in many cases unable

to continue self-maintaining hygiene and are dependent on the people around them. Care and knowledge of helping to maintain oral hygiene are left to the various profiles of people involved in oral health caregiving to the elderly. Unfortunately, due to their lack of knowledge of the issue, the viability of oral health and all oral supplements is variable from the institution to institution, and from country to country. In the institution were the oral health measurements are on declarative implementation, the results are questionable, very often leading to the deterioration of the general health condition and systemic diseases. The system approach in maintenance of oral hygiene is often fragile but the consequences for oral and general health serious [6,7].

In institutions for the elderly care, as well as in hospitals where they are undergoing different treatment of chronic or acute systemic diseases, some of the reasons have been identified that obstacle the implementation of oral hygiene procedures. These are: 1) Lack of motivation of the elderly individual to maintain oral health. 2) Current oral status of the individual unrecognized for professional dental intervention. 3) Systematically unsolved or neglected education of supportive medical staff how to perform

oral hygiene. 4) Insufficient understanding to the caregivers and patients of importance of the role of oral health in the overall health of the organism. As the population of elderly, living in care or assisted living facilities continues to increase with inadequate number of medical staff, especially nursing and supportive medical staff, it is necessary to define standards of treatment and dental care for growing of this group of population. Dependent elderly rely on other people's assistance and their oral health needs have to be recognized on time for interdisciplinary close cooperation between caregivers and doctors of dental and general medicine [8-11].

The number of dental interventions that can be done with the patient in the bed is very limited and very often exclusively use in emergency treatments. Further education of the doctors of dental medicine on the specifics of changes and conditions in older life is also of the utmost importance [12].

#### Specificities of oral hygiene of dependent elderly in the bed

Many elderly are supplied with all types of removable dentures. Although dentures are made of artificial materials, the importance of maintaining them and hygiene is indisputable because their surface is perfect medium for bacteria to retain and reproduce. Bacterial species such as *Staphylococcus aureus*, *Streptococcus mutans*, *Klebsiella pneumoniae* and *Escherichia coli* can be isolated from the porous acrylic material of the prosthesis, which cause serious diseases, especially in frail and immune compromised elderly individuals. The prosthesis is still a foreign body in the mouth and needs to be removed overnight in order to relieve the mucosa of the oral cavity from constant pressure. It is usually dipped in one of disinfectant solutions. Chronic oral candidiasis, which is most common clinically observed as an erythematous change on the surfaces of mucosal and alveolar ridges covered with a prosthesis, is regularly associated with the removal of the prosthesis from the mouth and its inadequate hygiene [13-16].

The role of the doctors of dental medicine is not only prosthetic aids for the patient, but also the education on how to perform their hygiene. The emphasis is on the importance and role of cleaning procedure for maintaining the health of the oral cavity, but also for the long duration of prosthetic appliance. Care for the hygiene of prosthetic appliances in persons who cannot carry it out on their own should be taken over by: the family, caregiver, supporting medical staff or, if available, dental hygienists educated with the cleaning process [17-19].

It is important to emphasize that oral hygiene should be carried out unreservedly on a daily basis, and therefore adjusted education of medical staff is very important on providence of oral hygiene for the elderly in bed [20].

#### General instructions for oral hygiene procedure

1. The caregiver should wash his / her hands in accordance with the guidelines for hand hygiene in healthcare facilities before and after performing oral hygiene and wear disposable gloves throughout the procedure for own protection as well as patient's protection.
2. Oral hygiene of elderly in bed should be carried out in an upright position of the head and upper body, lifting the backrest of the bed and supporting the head with pillows. A plastic apron round the patients neck should be used for keep her / him dry.
3. A brief examination of the oral cavity before performing oral hygiene is recommend to identify possible changes in the oral mucosa or teeth that would require the intervention of a doctor of dental medicine.
4. Brief and clear instructions should be given to the patient, as he or she may at any time raise his / her hand or perform other physical sign to indicate the necessary moment for rest, during oral hygiene procedure.

#### Performances of Oral Hygiene

##### Persons fully or partially edentate

- The caregiver helps the patient to brush their teeth twice a day, in the morning and in the evening, or perform the procedure instead of patient.
- The caregiver is standing or sitting in front or directly next to the patient, and all necessary hygiene products are on the side table next to the bed, at his fingertips.
- The head of the patient should be held upright to prevent aspiration of the toothpaste and immobilized by a gentle grip of the lower jaw opposite the arm.
- If the patient has a partial denture, it should be removed from the mouth and gently placed on a firm surface to avoid falling and fracturing of the prosthesis.
- The recommended brushing method is the modified Bass technique with the use of fluoride paste
- The interdental spaces are cleaned with a suitable size interdental brush or any other available hygiene product for interdental spaces (thread, holder thread, rubber sticks)
- To remove excess toothpaste from the mouth by rinsing with water, it is possible to spit the water into a plastic or metal container provided for this purpose or ordinary plastic cup.

### Persons with partial or complete dentures

- The denture is extracted from the mouth with a gentle, rotational motion while moving the cheeks to one side.
- In case of partially edentate persons with partial dentures, brush the remaining teeth.
- Dentures are cleaned with non-abrasive pastes and brushes adapted for cleaning the dentures, with care not to fall and break the dentures.
- If the denture is cleaned from food residue after a meal, after cleaning, the denture should be rinsed under water and gently returned to the mouth.
- Clean the mucosa of the oral cavity before returning the prosthesis with gauze soaked in water or chlorhexidine fluid, systematically the vestibule of the upper and lower jaws, alveolar ridges and palate, taking care not to induce the urge to vomit.
- In the evening, place the denture in a glass of water or prepared solution for storing the dentures.
- In the morning, before inserting the prosthesis in the mouth, rinse the prosthesis under a jet of clean water.

### Persons without consciousness, complete inability to cooperate or difficult swallowing

- Use a toothpaste in order to avoid aspiration, but only use the technique of brushing and cleaning interdental spaces
- Due to the inability to cooperate and / or swallow the brush, use moistened gauze or gauze soaked in chlorhexidine fluid, pass all teeth, partially or completely edentulous alveolar ridges. After completion of the procedure, it is necessary to dry the mouth with a clean towel or hygiene paper, especially the corners of the lips, in order to prevent the occurrence of angular heilitis and, if necessary, apply a nourishing and anti-drying agent.

### Conclusion

In the older ages, medicine helps the people to maintain the condition of the body, as well as the dental medicine. Important and a very significant factor in body system condition is the maintenance of hygiene, especially of oral hygiene. It is insufficient and mostly neglected by the nursing staff in hospitals and home residences especially towards depended elderly. Oral hygiene should be carried out unreservedly on a daily basis. Adjusted education of caregivers medical or paramedical staff is therefore very important on providence of proper oral hygiene for the elderly in bed.

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