Oral health for an ageing population

FDI World Dental Federation

Managing Older Adults Chairside Guide

Oral health and general health are closely linked. Oral health can be compromised by a number of chronic and infectious diseases that have oral symptoms. On the other hand, oral diseases can lead to infection, inflammation, and other serious impacts on overall health. Connections between poor oral health and other major non-communicable diseases (NCDs), such as cardiovascular diseases, cancers, chronic respiratory diseases, diabetes, and obesity are undisputed. Mental disorders such as dementia or Alzheimer's disease also affect the oral health of older adults.

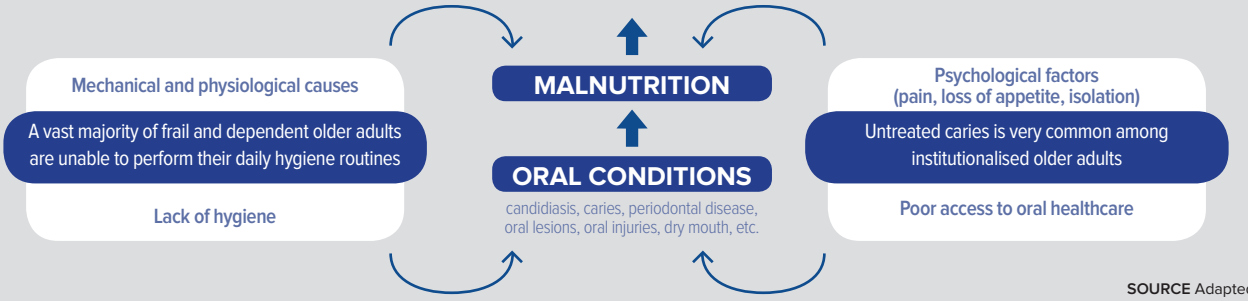
Older adults are particularly vulnerable, as they often have complicated clinical conditions. Chronic diseases such as diabetes and respiratory diseases, polypharmacy, frailty, and dependency for the activities of daily living (ADL) often accompany physiological ageing. Impaired vision, lower tactile thresholds, reduced dexterity, cognitive impairment, and dementia often jeopardize daily oral hygiene routines. In addition, tooth loss and edentulism may impair chewing ability and lead to a change in diet and limited food choices. It can also affect social interactions and, more generally, overall quality of life.

Furthermore, oral diseases share a range of common risk factors with other major NCDs, such as unhealthy diet, particularly one rich in sugar, tobacco use, and harmful use of alcohol. Thus, maintaining good oral health is crucial to sustain general health and vice versa.

Poor oral health has severe consequences on the general health of older adults

MAIN CAUSES OF DEATH

- Loss of autonomy
- Pulmonary infections
- Endocrine-metabolic disorders
- Gastro-intestinal disorders
- Cardiovascular disorders
- Musculo-skeletal disorders & falls



SOURCE Adapted from UFSBD

The following table provides instructions to effectively manage older adult patients. Defining your patient's level of dependency before doing any assessment is an important step of managing the health of older adults. To help you with this preliminary assessment, please refer to the Lucerne Care Pathway provided on the back page, which will guide you in defining your patient's depency level.

Defining your patient's level of dependency before doing any assessment is an important step of managing older adults

1 PRE-ASSESSMENT

1. To start your pre-assessment, you can start with simple questions:
- Can your patient brush his/her teeth him/herself?
- Can your patient open his/her mouth?
- Can your patient transfer/walk to a chair?
- Can your patient hold an X-ray?

2. Refer to your patient's medical history/medication/polypharmacy

3. Identify cause of increasing dependency/identify conditions threatening oral health

4. Specific risk factors:
- Functional problems with eating
- Taste disturbance and change in dietary habits
- Furcations / enamel pearls / root grooves and concavities
- Suboptimal restorations, dental prostheses and dentures, restorations with poor oral health
- Reduced salivary flow or salivary pH
- Poor oral hygiene
- Suboptimal fluoride exposure
- Family framework and support network
- Increased level of dependency, reduction in fine motor skills or possible disabilities
- Medical history (general and oral health pathologies)/comorbidities, medications, substance abuse

General health condition	Robust	Frail *(difficulties with instrumental activities of daily living)*		Dependent *(difficulties with basic activities of daily living, i.e. eating, moving from bed to chair, toothbrushing) homebound alone/homebound with family/nursing home*
Level of dependency	**None**	**Pre**	**Low**	**Medium**	**High**

2 ASSESSMENT

- Prepare for the growing risk of oral disorders as dependency increases
- Develop a strategic oral healthcare plan that includes both professional and self-care
- Monitor the oral healthcare plan with attention to the increasing complexity of delivering each element of the plan
- Participate with social and other medical services to assess health risks generally
- Examine patient's physical, cognitive, and social context for barriers to emergency palliative and elective oral care
- Consider additional diagnostic tests
- Assess long-term viability of oral health
- Assess long-term viability of oral health and management strategies
- Re-assess long-term viability of oral health-related preventive strategies
- Monitor the burden of oral care on the patient and on those providing care, including family and friends
- Consider use of the wider interprofessional healthcare team for delivery of care plans
- Adopt appropriate periodic recall intervals
- Determine appropriate periodic recall
- Increase frequency of periodic recalls as needed to assess elevated risks
- Review frequency of periodic recalls to manage elevated risk of oral disease
- Emergency palliative and elective oral care

3 PREVENTION

- Monitor effectiveness of the daily oral care plan
- Re-assess effectiveness of daily oral care plan
- Focus on the increasing challenge of preventing oral diseases and managing oral hygiene
- Pay specific attention to oral cancer: risk modification and education, tooth surface loss, mucositis
- Develop preventive strategies to reduce risk factors
- Re-assess the need to increase concentrations of fluoride in toothpastes and mouthrinses
- Consider prescriptions for caries and periodontal disease
- Adjust methods of delivering pre-dependency prescriptions as needed
- Prescribe application of preventive and therapeutic products by nurses and other care staff
- Offer relief from dry mouth as required
- Re-assess need for relief from dry mouth
- Relief from dry mouth
- Assess risk of adverse effects from polypharmacy
- Re-assess risk of adverse effects from polypharmacy
- Maintain contact with other members of the interprofessional healthcare team for better oral health outcomes
- Monitor possible oral lesions due to prostheses and other causes, such as smoking and drinking

Perform professional maintenance:
- 22,600 ppm fluoride varnish application on non-cavitated caries lesions four times a year
- Use remineralization agents, resin infiltration techniques, or therapeutic sealants as possible remedies
- Preserve tooth structure where possible
- Ensure topical fluoride (gel/foam/varnish) treatment is delivered after restoration
- Seal or repair defective restorations where possible. Replace only when necessary
- Perform prophylactic cleaning with removal of plaque-retentive features
- Filling of fissures and lesions by bioactive fluoride sealants
- Antiseptic varnish application on purified surfaces with/or 22,600 ppm fluoride at least twice a year and up to four times a year

Perform professional maintenance:
- Care-facility trainings focused on patients' needs and abilities

4 TREATMENT

- Routine dental check-up
- Plan treatment outcomes for easy maintenance
- Plan for ongoing maintenance, including restorative and surgical treatments, to maintain function and prevent or control infection and pain
- Design oral prostheses to simplify oral hygiene
- Offer palliative treatment on demand from the patient to control pain and infection and maintain social contacts and activities
- Consider long-term viability of restorations and prostheses
- Identify, repair, or replace strategically important teeth to maintain function
- Repair and maintain strategically important teeth with conservative treatments
- Intervene when an oral lesion lasts more than 15 days

5 HEALTH PROMOTION AND EDUCATION

- Develop homecare plan to prevent or control infection, pain, and dysfunction
- Develop daily oral care plan

Provide oral hygiene instructions (OHI) **to patients**
- 2 minutes twice-daily brushing with up to 1500ppm fluoride toothpaste / Up to 5,000 ppm fluoride (upon prescription or professional recommendations) in case of very high caries risks
- Use manual or powered toothbrush for an effective reduction of plaque and gingival inflammation
- Use soft, small-headed brushes with end-rounded bristles
- Daily interproximal cleaning with interdental brushes and/or dental floss in sites with narrow interdental spaces
- Additional approach to be adapted to patient as appropriate, with adjunctive use of dentifrices and/or mouth rinses with scientifically proven antiplaque/antigingivitis effects
- Daily cleansing of removable dentures
- In case of dry mouth or hyposalivation, sugar-free chewing gum and salivary substitutes
- Soft tissue care
- Chlorhexidine or fluoride mouthwash at different times

Provide oral hygiene instructions (OHI) **to carers**
- Provide assistance with daily hygiene routines that take into account the level of dependency and the overall health status of the elderly person.
- Provide assistance with tooth brushing: help the person you care for to brush his/her teeth for two minutes, twice a day using either a manual or electric toothbrush and a fluoride toothpaste. Avoid rinsing with water straight after brushing. FDI recommends toothpastes with up to 5,000 ppm fluoride (upon prescription or professional recommendations) in case of very high risks for tooth decay.
- Schedule regular appointments with a dentist (2 visits per year)
- Check that there are no sores or wounds in the oral cavity.
- Denture hygiene: cleanse and maintain removable dentures.
- Soft tissue care
- Encourage the person you care for to use chlorhexidine or fluoride mouthwash at different times.

- Explain implications of increasing dependency on oral health care and specific treatment outcomes, especially involving complicated oral prostheses
- Explain to the patient and other attending healthcare providers, including physicians, the conditions likely to complicate the management of oral health care as dependency increases
- Extend communication to all members of the interprofessional healthcare team
- Maintain communications with members of the interprofessional healthcare team
- Communicate with the patient and all carers, including family, friends, and members of the interprofessional healthcare team, to continuously adapt the level of palliative care

THIS CHAIRSIDE GUIDE IS BASED ON THE FOLLOWING PRINCIPLES

- Level-of-dependency-based approach: Interventions recommended may vary depending on the older adult's pre-assessed level of dependency. The different levels of dependency defined in this chairside guide are referred to as the Lucerne Care Pathway. They are derived from the Seattle Care Pathway for securing oral health in older patients. The chairside recommendations based on this model support targeted service-delivery strategies that avoid under- and over-treatment and foster a life-course approach to oral health.
- Prevention-based approach: prevention should always be considered to reduce care needs.

AS A DENTIST I CAN

- Contribute to general health promotion by discussing major shared risk factors with your patients and/or their carers (unhealthy diet, sugar consumption, tobacco use, dehydration).
- Foster daily oral hygiene routines in my older patients by providing them and/or their carers (lay and professional) with regular information.
- Implement minimally invasive interventions, which can have a particularly beneficial effect on older adults in terms of quality of life.

LUCERNE CARE PATHWAY

LEVEL OF **DEPENDENCY**	**DEFINITION**
No dependency CSHA level 1 & 2	Robust people who exercise regularly and are the most fit group for their age.
Pre-dependency CSHA level 3	People with chronic systemic conditions that could impact oral health but, at the point of presentation, are not currently impacting oral health. A comorbidity whose symptoms are well controlled.
Low dependency CSHA level 4	People with identified chronic conditions that are affecting oral health but who currently receive or do not require help to access dental services or maintain oral health. These patients are not entirely dependent, but their disease symptoms are affecting them.
Medium dependency CSHA level 5	People with an identified chronic systemic condition that currently impacts their oral health and who receive or do not require help to access dental services or maintain oral health. This category includes patients who demand to be seen at home or who do not have transport to a dental clinic.
High dependency CSHA level 6 & 7	People who have complex medical problems preventing them from moving to receive dental care at a dental clinic. They differ from patients categorized in medium dependency because they cannot be moved and must be seen at home.

CSHA Canadian Study of Health and Ageing

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Recognition

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Find out more

Quickly access the project page by scanning the following QR code using your mobile phone camera.

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