

CPG for root caries in (vulnerable and care-dependent) elderly

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SUMMARY

1. Introduction

Many vulnerable elderly suffer from moderate to poor oral health. When admitted to a residential care facility, this appears to be the case for more than 80% of the patients. Root caries has proven to be a very common condition amongst this group; the risk in the elderly is increased as the cervical parts of the teeth are often exposed as a result of trauma to the gingiva, or due to periodontitis or periodontal treatment.

2. Accountability

This KIMO clinical practice guideline (CPG) concerns the prevention and treatment of root caries (also referred to as cervical caries) in (vulnerable and care-dependent) elderly.

The KPR is intended for dentists, dental specialists and oral hygienists. Other (oral) healthcare providers are also at liberty to use this guideline to their own benefit.

This guideline has been developed at the initiative of the Kennisinstituut Mondzorg (KIMO) (Institute of Expertise for Oral Healthcare) by a Clinical Practice Guideline panel (CPG panel) presided over by Em. prof. dr. C. de Baat, former professor of gerodontology.

3. Clinical questions

Five clinical questions have been identified for this guideline, divided over the assessment of risk and treatment. The condensed questions and subsequent recommendations are described below and focus on elderly persons with specific attention for vulnerable and care-dependent elderly.

Clinical question 1a. *On the basis of which risk factors for root caries should periodic dental check-ups for elderly be performed at shorter intervals?*

Recommendations:

In the event of root caries or deterioration of oral hygiene, in cases of polypharmacy and/or hyposialia-inducing medication, a reduction in the time interval between periodic dental check-ups is recommended. The interval depends on the general condition of the patient and other risk factors, but should not exceed more than six months.

Clinical question 1b. *Which medication increases the risk of hyposialia and hence the risk of root caries in elderly, and which policy is recommended for this?*

Recommendations:

It is recommended that there is access to an up-to-date overview of medication from the pharmacy and to be vigilant with regard to medication-induced hyposialia. This concerns certain types of medication (see table 1.) and polypharmacy.

In case of doubt regarding the occurrence of hyposialia, the practitioner can determine the rate of secretion in rest and following stimulation.



In the event of hyposialia resulting from medication, practitioner can consult the prescriber of the medication and the pharmacist to see if it is possible to alter the medication.

Table 1. Medication registered in the Netherlands for which there is evidence that reduced function of the salivary glands is listed as a side effect

Medication group	Medicine
Bisphosphonates	Alendronic acid
Tricyclic antidepressants	Amitriptyline
Antiarrhythmics	Atropine
Antihypertensive medication	Clonidine
Antidepressants (selective serotonin reabsorption inhibitors)	Fluoxetine Paroxetine Sertraline
Diuretics	Furosemide
Medication for urine incontinence	Oxybutynin Solifenacin Tolterodine Darifenacin
Antiemetics	Scopolamine
Sympathicolitics	Metoprolol

Clinical question 1c. With which anamnestic and/or clinical findings are radiological studies indicated in order to preserve the oral function of important teeth?

Recommendations:

Visual and tactile inspection is recommended as a first option for diagnostics. If on the basis of this, active root caries is identified for the first time, radiological studies by means of bitewings are recommended in order to assess the approximal surfaces.

In patients with a history of root caries, it is recommended that the time interval between radiological studies using bitewings be reduced, even if visual and tactile inspection reveals no (active) root caries.

Clinical question 2a. Which preventative means and measures are recommended in order to prevent root caries and in order to maintain and retain the function of important teeth?

Recommendations:

The prescription of toothpaste containing 5.000 ppm fluoride is recommended for elderly suffering from root caries, to be accompanied by instructions to use this once or twice a day when brushing their teeth. If the effect of this is insufficient or if this is not feasible, a recommended additional measure would be to professionally coat all exposed root surfaces with a varnish or fluid containing a high concentration of fluoride (normally this is 5% NaF (22.600 ppm fluoride)).

In cases of polypharmacy and/or hyposialia-inducing medication, the brushing of teeth once or twice daily using toothpaste containing 5.000 ppm fluoride can be considered.

Clinical question 2b. At what stage and how should root caries be treated restoratively, taking the patient's general conditions into consideration?



Recommendations:

It is recommended that root caries be treated non-restoratively for as long as this is acceptable, using intensive preventative self-care and if necessary, professional preventative care.

The timing of the decision to proceed with restorative treatment depends on:

- 1) the risk of serious damage,
- 2) the identified or expected lack of effectiveness of a non-restorative approach and
- 3) the patient's resilience.

It is recommended that the removal of all the centrally located affected tissue be avoided if there is a risk of exposing the pulp chamber and/or the pulp channel. The use of a restorative material that is expected to yield good adhesive retention and optimal seams with the gums is also recommended. If the site is contaminated with moisture, glass ionomer cement is the preferred restorative material to be used.

5. Advice on prevention

For basic advice on the prevention of root caries please refer to the advice issued by the **Ivoren Kruis**.

For advice regarding oral care in residential care facilities, please refer to the **Richtlijn mondzorg voor zorgafhankelijke cliënten in verpleeghuizen. (Guideline for oral care in care-dependent clients in nursing homes)**

6. Comprehensive guideline

The comprehensive clinical practice guideline for Root caries in (vulnerable and care-dependent) elderly can be found at <https://www.hetkimo.nl/richtlijnen/wortelcaries-bij-ouderen/introductie/>

Please note that the comprehensive version of this guideline is in Dutch.

