KCE REPORT 227Cs

Federaal Kenniscentrum voor de Gezondheidszorg
Centre Fédéral d'Expertise des Soins de Santé
Belgian Health Care Knowledge Centre

ABSTRACT

ORAL CAVITY CANCER: DIAGNOSIS, TREATMENT AND FOLLOW-UP

Belgian Health Care Knowledge Centre

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KCE REPORT 227Cs
GOOD CLINICAL PRACTICE

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Other reported interests:	Membership of a stakeholder group on which the results of this report could have an impact.: Paul Clement (BSMO, VWHHT, ASCO, ESMO), Sandra Nuyts (Vlaamse werkgroep Hoofd-en halstumoren), Elisabeth Van Eycken (BVRO) Owner of intellectual property rights (patent, product developer, copyrights, trademarks, etc.): Paul Clement (methods of inhibiting vascular proliferation)

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Layout:	Ine Verhulst

Disclaimer:	**The external experts were consulted about a (preliminary) version of the scientific report. Their comments were discussed during meetings. They did not co-author the scientific report and did not necessarily agree with its content.** **Subsequently, a (final) version was submitted to the validators. The validation of the report results from a consensus or a voting process between the validators. The validators did not co-author the scientific report and did not necessarily all three agree with its content.** **Finally, this report has been approved by common assent by the Executive Board.** **Only the KCE is responsible for errors or omissions that could persist. The policy recommendations are also under the full responsibility of the KCE.**

Publication date: 26 August 2014 (2nd print; 1st print: 08 July 2014)
Domain: Good Clinical Practice (GCP)
MeSH: Mouth Neoplasms; Head and Neck Neoplasms; Practice Guideline
NLM Classification: WE 707
Language: English
Format: Adobe® PDF™ (A4)
Legal depot: D/2014/10.273/57

How to refer to this document?

Grégoire V, Leroy R, Heus P, van de Wetering F, Hooft L, Scholten R, Verleye L, Carp L, Clement P, Deron P, Goffin K, Hamoir M, Hauben E, Hendrickx K, Hermans R, Kunz S, Lenssen O, Nuyts S, Van Laer C, Vermorken J, Appermont E, De Prins A, Hebbelinck E, Hommez G, Vandenbruaene C, Vanhalewyck E, Vlayen J. Oral cavity cancer: diagnosis, treatment and follow-up – Abstract. Good Clinical Practice (GCP) Brussels: Belgian Health Care Knowledge Centre (KCE). 2014. KCE Reports 227Cs. D/2014/10.273/57.

This document is available on the website of the Belgian Health Care Knowledge Centre.

FOREWORD

The diagnosis of a malignant tumour is something that arouses strong feelings and stirs up fear. We all know too many stories of relatives, friends, acquaintances for whom it had a fatal outcome in a relatively short time. And although today we can permanently cure a substantial number of people of their cancer, there are still cancer types with a considerably less favourable prognosis. We can include tumours of the head and neck in this less favourable group. Not only is the 5-year survival only 50%, treatments are also very tough, often mutilating and also psychologically very stressful. It hits us in the face, takes our breath away, grabs us by the throat... the expressions are ingrained in our language and reflect how it impacts us in our very identity.

Some of these tumours are rare, frequently requiring complex treatment and always calling for a multidisciplinary approach. And what is at least as important as for the treatment itself is the fact that this multidisciplinary approach continues into the aftercare and rehabilitation phase: speech therapy, nutritional advice and psychosocial support are just some of the disciplines that can contribute significantly to the overall quality as experienced by the patient.

Our special thanks go to the patients and patient groups that have accompanied and helped us throughout the whole process of developing this guideline. There is one patient to whose memory we would especially like to dedicate this work: Professor Peter Donceel, who was not just for both of us an appreciated colleague for many years, but who also advocated, throughout his career, a sickness and disability insurance that literally puts people back on their feet. Unfortunately, he lost his fight against cancer last year, but hopefully this guideline can contribute to help others to put every chance on their side so that they can return to an active life. Peter would undoubtedly have given this his full support.

Christian LÉONARD
Deputy general director

Raf MERTENS
General director

ABSTRACT

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LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
BCR	Belgian Cancer Registry
CEBAM	Belgian Centre for Evidence-Based Medicine
CPG	Clinical practice guideline
CRT	Chemoradiotherapy
CT	Computed tomography
DCC	Dutch Cochrane Centre
DKG	Deutsche Krebsgesellschaft
EGFR	Epidermal growth factor receptor
FDG-PET/CT	Fluorodeoxyglucose Positron emission tomography - computed tomography
GDG	Guideline Development Group
GRADE	Grading of Recommendations Assessment, Development and Evaluation
Gy	Gray, International System of Units (SI) unit of absorbed radiation
HNSCC	Head & neck squamous cell carcinoma
HPV	Human papilloma virus
IMRT	Intensity-modulated radiotherapy
KCE	Belgian Health Care Knowledge Centre
M0	Free of metastases
MRI	Magnetic resonance imaging
NIHDI (RIZIV/INAMI)	National Institute for Health and Disability Insurance
PET	Positron emission tomography
PET-CT	Positron emission tomography - computed tomography
PICO	Participants–Interventions–Comparator–Outcomes
RCT	Randomised controlled trial
SCC	Squamous cell carcinoma(s)

1. INTRODUCTION

Head and neck cancer refers to a group of rare cancers arising in the upper aerodigestive tract, including the oral cavity, larynx, oropharynx, hypopharynx, and very rare tumours arising in nasal cavity and paranasal sinus, nasopharynx, middle ear, salivary glands and skull base. The majority of these cancers are squamous cell carcinomas (SCC) and are associated with a history of smoking and alcohol use.

According to the data of the Belgian Cancer Registry (BCR), the incidence of head and neck cancers fluctuated between 2 460 in 2008 to 2 580 in 2011. In 2011, they were the 4th most frequent cancer type in males. In the period 2004-2008, 5-year overall survival was 44.6% in males and 52.0% in females, while the 5-year relative survival was 50% and 57%, respectively (www.kankerregister.org).

2. OBJECTIVES AND SCOPE OF THIS GUIDELINE

Recently, the KCE published a report on the organisation of care for adults with a rare or complex cancer. A concrete proposal for the organisation of care for patients with head and neck cancer is available on the KCE website (http://www.kcenet.be/files/KCE_219_proposal_cancer_head_and_neck.pdf). The objective of the present clinical practice guideline (CPG) is to reduce the variability in clinical practice and to improve the communication between care providers and patients.

During an initial scoping meeting it was decided to develop the CPG for head and neck cancer in 2 phases. This first part concerns the management of oral cavity cancer, the second part will deal with oropharyngeal, hypopharyngeal and laryngeal cancers and will be published in 2015.

The present guideline focuses on the staging, treatment, follow-up and supportive care for patients with confirmed oral cavity cancer. The aspects of screening for and prevention are out of scope.

This guideline is intended to be used by all care providers involved in the management of patients with oral cavity squamous cell cancer, including oral and maxillofacial surgeons, ear, nose, and throat surgeons, radiation oncologists, medical oncologists, pathologists, radiologists, nuclear medicine specialists, dentists, speech therapists, nutritional therapists, etc. It is also of interest for patients and their families, general practitioners, hospital managers and policy makers.

3. METHODS

3.1. Systematic review of the literature

First, a search in OVID Medline, the National Guideline Clearinghouse and the GIN database was done to identify recent (i.e. published after 2010) high-quality guidelines addressing the topic. Eighteen potentially relevant guidelines were appraised with the AGREE II instrument by two researchers independently. For this first part of the guideline, which focuses on oral cavity cancer, only the Deutsche Krebsgesellschaft (DKG) 2012[a] guideline could serve as a basis for adaptation because it was of sufficient quality, up-to-date and comprehensive.

In addition to the clinical questions in the DKG 2012 guideline, the following 11 clinical questions were selected by the guideline development group (GDG) and submitted to a systematic review of the literature, because they were deemed out-of-date or insufficiently elaborated in the DKG guideline:

1. What is the clinical effectiveness of PET/CT in the staging of head and neck squamous cell carcinoma (HNSCC)?
2. What is the clinical effectiveness of HPV testing in patients with HNSCC?
3. What is the clinical effectiveness of elective lymph node dissection in patients with cN0 oral cavity cancer?
4. What is the clinical effectiveness of lymph node dissection in patients with cN+ oral cavity cancer?
5. What is the clinical effectiveness of elective lymph node dissection of the contralateral neck in patients with cN+ oral cavity cancer?
6. What is the clinical effectiveness of PET or MRI in the detection of lymph node metastases after chemoradiotherapy?
7. What is the clinical effectiveness of neck dissection after chemoradiotherapy in patients with HNSCC?
8. What is the clinical effectiveness of IMRT in patients with locally advanced HNSCC?
9. What is the clinical effectiveness of induction chemotherapy in patients with HNSCC?
10. What is the clinical effectiveness of primary chemoradiotherapy in patients with non-resectable M0 HNSCC?
11. What is the clinical effectiveness of treatment interventions for metastatic disease or recurrent disease not eligible for curative treatment?

Some of these clinical questions were deliberately formulated in a general way, i.e. not focusing on oral cavity cancer alone, in order to be able to use the evidence for part two also. For six questions (questions 3, 4, 8, 9, 10 and 11) a literature search was done by the Dutch Cochrane Centre (DCC). For the remaining five questions, the searches were done by the KCE team.

Studies were searched in Medline, Embase and the Cochrane Library. For the diagnostic questions, systematic reviews, diagnostic accuracy studies and RCTs were searched; for the other research questions, systematic reviews, RCTs or comparative observational studies were searched. Only articles published in Dutch, English and French were included. The quality appraisal was performed using the AMSTAR checklist for systematic reviews, Cochrane Collaboration's tool for assessing risk of bias for RCTs and comparative observational studies, and the QUADAS-2 checklist for diagnostic accuracy studies.

For the topics for which no literature update was performed, the original recommendations were discussed with the GDG using the evidence provided by the DKG 2012 guideline. Three options were possible: acceptation without changes, acceptation with changes or omission. In case changes were proposed to the original formulation, these were not based on a systematic literature search but rather based on consensus.

[a] Wolff K-D. Mundhöhlenkarzinom - Diagnostik und Therapie des Mundhöhlenkarzinoms. 2012.

3.2. Formulation of recommendations

Based on the retrieved evidence, the first draft of recommendations was prepared by a small working group (researchers from KCE and Dutch Cochrane Centre). This first draft, along with the evidence tables, was circulated to the GDG prior to the face-to-face meetings. Based on the discussions in the GDG, a second draft of the recommendations was prepared and once more circulated to the GDG for final approval.

To determine the level of evidence and strength of each recommendation, the GRADE methodology was followed (Tables 1 and 2). The strength of a recommendation depends on the balance between all desirable and all undesirable effects of an intervention (i.e., net clinical benefit), the quality of available evidence, values and preferences, and the estimated cost (resource utilization). For this guideline, no formal cost-effectiveness study was conducted. GRADE was not applied to prognostic questions.

Adapted recommendations were also graded using the GRADE system to some extent, taking into account the following limitations:

- Full-texts of the studies referenced by the DKG guideline were not ordered;
- Only information available in the DKG guideline was used.

The recommendations prepared by the GDG were submitted to key representatives of the relevant stakeholders (see colophon), who acted as external reviewers of the draft guideline. They rated all recommendations with a score ranging from 1 (‘completely disagree’) to 5 (‘completely agree’) and discussed them at a meeting.

As part of the standard KCE procedures, a two-step validation of the report was conducted prior to its publication. The first part of the validation was performed by two internationally reputable scientific experts who critically reviewed the content of the report (see colophon). The second part of the validation, chaired by the Belgian Centre for Evidence-Based Medicine (CEBAM), focused on methodology; for this purpose the AGREE II checklist was used. The validation of the report results from a consensus or a voting process between the validators.

Declarations of interest were formally recorded.

Table 1 – Levels of evidence according to GRADE [$]

Quality level	Definition	Methodological Quality of Supporting Evidence
High	We are very confident that the true effect lies close to that of the estimate of the effect	RCTs without important limitations or overwhelming evidence from observational studies
Moderate	We are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different	RCTs with important limitations (inconsistent results, methodological flaws, indirect, or imprecise) or exceptionally strong evidence from observational studies
Low	Our confidence in the effect estimated is limited: the true effect may be substantially different from the estimate of the effect	RCTs with important limitations or observational studies or case series
Very low	We have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of the effect	

[$] *Balshem H, Helfand M, Schunemann HJ, Oxman AD, Kunz R, Brozek J, et al. GRADE guidelines: 3. Rating the quality of evidence. J Clin Epidemiol. 2011;64(4):401-6.*

Table 2 – Strength of recommendations according to GRADE [$]

Grade	Definition
Strong	The desirable effects of an intervention clearly outweigh the undesirable effects (the intervention is to be put into practice), or the undesirable effects of an intervention clearly outweigh the desirable effects (the intervention is not to be put into practice).
Weak	The desirable effects of an intervention probably outweigh the undesirable effects (the intervention probably is to be put into practice), or the undesirable effects of an intervention probably outweigh the desirable effects (the intervention probably is not to be put into practice).

[$] *Guyatt GH, Oxman AD, Kunz R, Falck-Ytter Y, Vist GE, Liberati A, et al. Going from evidence to recommendations.[Erratum appears in BMJ. 2008 Jun 21;336(7658): doi:10.1136/bmj.a402]. BMJ. 2008;336(7652):1049-51.*

4. CLINICAL RECOMMENDATIONS

The details of the evidence used to formulate the recommendations below are available in the scientific report and its supplements. The tables below follow the sequence of the chapters of the scientific report.

4.1. Diagnosis and staging

4.1.1. Patient information

Recommendation	Strength of Recommendation	Level of Evidence
The patient must be kept fully informed about his condition, the treatment options and consequences. Information should be complete and communicated in a clear and unambiguous way. Patient preferences should be taken into account when deciding on a treatment option.	Strong	Very low

4.1.2. Biopsy

Recommendations	Strength of Recommendation	Level of Evidence
A biopsy should be taken from the most suspect part of the tumour. The pathologist should be provided with any clinically relevant information. If the result is inconclusive, or negative but the tumour is suspect, the biopsy should be repeated.	Strong	Very low
When a patient with a diagnosis of oral squamous cell carcinoma is referred to another centre for work-up completion and treatment, and if no additional biopsies need to be performed in the reference centre, pathology specimens (slices and/or blocks) should be sent for revision to the reference laboratory for diagnosis confirmation upon request from the reference centre. Every uncommon tumour diagnosis beside classical squamous cell carcinoma should be reviewed by an expert from a reference laboratory.	Strong	Very low
The biopsy report should include: tumour localization, tumour histology, tumour grade, depth of invasion (if assessable), lymphatic, vascular and perineural invasion. Some other prognostic factors, such as growing pattern (infiltrative vs. pushing border), can be considered.	Strong	Very low

4.1.3. Conventional imaging techniques

Recommendations	Strength of Recommendation	Level of Evidence
Perform an MRI for primary T- and N-staging (i.e. before any treatment) in patients with newly diagnosed oral cavity cancer.	Weak	Very low
In case MRI is technically impossible (e.g. pacemaker, cochlear implant, etc.), likely disturbed (e.g. anticipated motion artefacts, etc.) or not timely available, perform a contrast-enhanced CT for primary T- and N-staging in patients with oral cavity cancer.	Weak	Very low

4.1.4. PET scan

Recommendations	Strength of Recommendation	Level of Evidence
In patients with stage III and IV oral cavity cancer, and in patients with high-risk features irrespective of the locoregional staging (e.g. heavy smokers), perform a whole-body FDG-PET/CT for the evaluation of metastatic spread and/or the detection of second primary tumours.	Weak	Low

4.1.5. Other staging interventions

Recommendations	Strength of Recommendation	Level of Evidence
To exclude synchronous secondary tumours in the head and neck area, all patients with oral cavity cancer should undergo clinical examination (including fiberoptic examination) of the upper aerodigestive tract. Endoscopy under general anaesthesia should be considered for better local staging of large tumours.	Strong	Very low
Patients with carcinoma of the oral cavity should be examined by a dedicated dental practitioner prior to commencing oncological treatment. The dentist should give preventive advice and perform necessary restorative work.	Strong	Very low

4.1.6. HPV testing

Recommendations	Strength of Recommendation	Level of Evidence
Due to insufficient evidence, routine p16 testing is not recommended in patients with oral cavity cancer. In patients without any of the common risk factors (e.g. smoking, alcohol abuse) for oral cavity cancer, testing for p16 can be considered, although there is no evidence at present that it alters treatment decisions in these patients.	Weak	No GRADE

4.2. Treatment of primary non-metastatic oral cavity cancer

4.2.1. Multidisciplinary treatment

Recommendations	Strength of Recommendation	Level of Evidence
Oral cavity carcinoma must be treated on an interdisciplinary basis after upfront discussion of the case in question by a tumour board (*MOC/COM)*, comprising the specialist disciplines of oral and maxillofacial surgery, ENT, radiation oncology, medical oncology, pathology, radiology and nuclear medicine. The general practitioner, dentist and paramedical disciplines (e.g. speech therapist, nutritional therapist, and psychosocial worker) are recommended to be present. Continuity of care should be guaranteed through a cooperation between the hospital and the home care team.	Strong	Very low

4.2.2. Surgical treatment

Recommendations	Strength of Recommendation	Level of Evidence
Provided the patient's general condition permits it and the oral cavity carcinoma can be curatively resected, surgical resection of the tumour should be performed and followed by immediate reconstruction, when required.	Strong	Very low
The treatment for oral cavity carcinoma must take the patient's individual situation into account. The decision to perform surgery must be made on the basis of the ability to achieve tumour-free resection margins and postoperative quality of life. For locally advanced tumours, the postoperative functional consequences need to be prospectively and carefully assessed. For instance, when a total glossectomy (+/- total laryngectomy)	Strong	Very low

Recommendations	Strength of Recommendation	Level of Evidence
is the only oncologically suitable surgical option, non-surgical organ preservation protocols must be seriously considered.		
In case of a microscopically residual tumour (R1 resection), targeted follow-up resection should ensue with the aim of improving the patient's prognosis, whenever possible.	Weak	Very low
Continuity of the mandible should be preserved on tumour resection or restored post-resection, provided no radiological or intraoperative evidence has been found of tumour invasion of the bone.	Strong	Very low

4.2.3. Radiotherapy

Recommendations	Strength of Recommendation	Level of Evidence
Because of the increased caries risk induced by radiotherapy of the head and neck region, lifelong extra fluoride applications should be considered at least after the completion of radiotherapy.	Weak	Very low
Patients with small but accessible tumours (T1/T2) in the oral cavity (e.g. lips) may be treated with interstitial brachytherapy in selected cases.	Weak	Very low
Patients with advanced and non-metastatic oral cavity carcinoma who are not eligible for curative surgery (T4b, N3, unacceptable functional consequences, excessive comorbidity) should preferably be administered primary radiochemotherapy rather than radiotherapy alone.	Weak	Very low
Postoperative radiotherapy should be performed for advanced T categories (T3/T4), close (< 4 mm) or positive resection margins, tumour thickness > 10 mm, lymph node involvement (> pN1) and extra-capsular rupture/soft tissue infiltration. It should be considered for peri-neural extension or lymphatic vessels infiltration. For high-risk patients (e.g. close or positive resection margins, extracapsular spread) postoperative radiochemotherapy can be considered.	Strong	High
Postoperative radiotherapy should be fractionated conventionally (e.g. 60-66 Gy in 6 to 6.5 weeks, 2 Gy per day, 5 times a week).	Weak	High
Postoperative radiotherapy should be commenced as early as possible, i.e. within 6 weeks after surgery, and should be completed within 12-13 weeks after surgery.	Strong	Low

Recommendations	Strength of Recommendation	Level of Evidence
In concurrent (primary or postoperative) radiochemotherapy, radiotherapy should be fractionated conventionally (i.e. 2 fractions per day, 5 days per week) and chemotherapy should be platinum-based (100 mg/m² three times weekly in case of postoperative radiochemotherapy).	Strong	Very low
In view of the favourable benefit/risk balance, IMRT is recommended in patients with advanced oral cavity cancer.	Strong	Very low
Interruption of radiotherapy will be detrimental to tumour control and should be avoided.	Strong	Low
Radiochemotherapy should only be performed at facilities in which radiotherapy- or chemotherapy-induced acute toxicities can be adequately managed.	Strong	Very low
Due to insufficient evidence the combination of radiotherapy with EGFR inhibitors is not recommended in patients with oral cavity cancer.	Strong	Very low

4.2.4. Induction chemotherapy

Recommendations	Strength of Recommendation	Level of Evidence
In patients with oral cavity cancer, induction chemotherapy is not recommended.	Strong	Very low

4.2.5. Reconstructive surgery

Recommendations	Strength of Recommendation	Level of Evidence
Reconstructive measures should from the onset be integrated in the surgical approach. When planning reconstruction, consideration must be given to the entire oncological scenario. The anticipated functional or cosmetic improvement must justify the efforts involved in reconstruction.	Strong	Very low

4.2.6. Management of the neck lymph nodes

Recommendations	Strength of Recommendation	Level of Evidence
Management of the neck lymph nodes should follow the same treatment principles as those applied for the primary tumour (e.g. if the primary tumour is surgically treated, a neck dissection should be performed).	Strong	Very low
Perform a selective neck dissection of at least level I, II and III in all patients with a cN_0M_0 oral cavity SCC that is treated surgically.	Strong	Very low
A neck dissection can be omitted exceptionally in some patients with a $cT1N_0M_0$ oral cavity SCC, depending on the localisation and thickness of the tumour.	Weak	Very low
Perform a selective ipsilateral neck dissection of at least level I, II, III and IV with – if oncologically feasible – preservation of the sternocleidomastoid muscle, jugular vein and spinal accessory nerve in all patients with a $cN+M_0$ oral cavity SCC that is treated surgically.	Strong	Very low
Consider a contralateral neck dissection in patients with a non-metastatic oral cavity SCC that is at or crossing the midline or not clearly localized laterally.	Weak	Very low

4.2.7. Neck dissection after chemoradiotherapy

Recommendations	Strength of Recommendation	Level of Evidence
Consider performing a diagnostic evaluation of the neck with conventional imaging techniques (CT or MRI) or PET/CT three months after completion of primary (chemo)radiotherapy.	Weak	Very low
In patients with oral cavity cancer (N1-3) and complete response to chemoradiotherapy (assessed by FDG-PET/CT, CT or MRI), there is no data to support an additional lymph node dissection.	Weak	Very low

4.3. Histopathology

Recommendations	Strength of Recommendation	Level of Evidence
To avoid a positive resection margin (which is associated with a poorer prognosis), frozen sections taken intraoperatively may be useful.	Weak	Very low
A distance of at least 10 mm from the palpable tumour margin, whenever technically or anatomically possible, should be taken as a guide for resection to allow a minimal distance of 3-5 mm from the margin of the resected tissue to the primary tumour in the formalin-fixed specimen.	Weak	Very low
For discussion with the clinician, the histopathological findings must describe the exact localization of any existing R+ status. The anatomical topography must be clearly indicated when sending the tumour specimen to the pathologist. This may be done with suture markers or colour-coding. The histopathological result must include: tumour localization, macroscopic tumour size, histological tumour type, histological tumour grade, depth of invasion, lymphatic, vascular and perineural invasion, locally infiltrated structures, pT classification, details of affected areas and infiltrated structures, R status and p16 (if not done on biopsy).	Strong	Low
The histopathological findings from a neck dissection specimen must describe the anatomical topography, the side of the neck, type of neck dissection, eliminated levels, total number of lymph nodes plus number of lymph nodes affected, number of lymph nodes per level, level of the affected lymph nodes, diameter of the largest tumour deposit, additionally removed structures and, if present, extracapsular spread.	Strong	Low

4.4. Treatment of metastatic or recurrent disease not eligible for curative treatment

Recommendation	Strength of Recommendation	Level of Evidence
In patients with metastatic oral cavity cancer or recurrent disease that is not eligible for curative treatment, palliative chemotherapy or targeted treatment can be considered after discussion with the patient.	Strong	Very low

4.5. Locoregional recurrence

Recommendations	Strength of Recommendation	Level of Evidence
In patients with suspected recurrence in the head and neck that could not be confirmed or ruled out by CT and/or MRI, FDG-PET/CT may be performed.	Weak	Very low
Salvage surgery should be considered in any patient with a resectable locoregional recurrence having previously undergone radiotherapy or surgery. The procedure should only be performed by a surgical team with adequate experience of reconstructive techniques, and at a facility that offers suitable intensive care support.	Weak	Very low
Re-irradiation, possibly with curative intent, should be considered in any patient with a non-resectable locoregional recurrence having already undergone irradiation. Irradiation should take place only at facilities with adequate expertise and ideally as part of a clinical therapeutic study.	Weak	Very low

4.6. Follow-up

Recommendations	Strength of Recommendation	Level of Evidence
An individually structured follow-up schedule should be devised for each patient. The quality of life, side effects of treatment, nutritional status, speech, dental status, thyroid function, smoking and alcohol consumption, etc. should be surveyed periodically. There is no evidence to support routine use of imaging techniques for the detection of locoregional or metastatic recurrence during follow-up. Follow-up frequency, even in symptom-free individuals, should be at least every 3 months in the first and second year, every 6 months in the third to fifth year, and annually afterwards.	Weak	Very low

4.7. Rehabilitation and supportive treatment

4.7.1. Dental rehabilitation

Recommendations	Strength of Recommendation	Level of Evidence
In patients having undergone surgery and/or irradiation for carcinoma of the oral cavity, the masticatory function should be restored with the help of functional masticatory rehabilitation, using conventional prosthetics and/or implants. Surgical interventions (e.g. extractions) should be performed by professionals with experience in treating patients with head and neck cancer. The patients should undergo routine dental check-ups at a frequency depending on the individual patient case (usually every 4-6 months).	Strong	Very low
Infected osteoradionecrosis of the jaw is a serious treatment complication that should be managed in specialized centres.	Strong	Very low

4.7.2. Speech and swallowing rehabilitation

Recommendations	Strength of Recommendation	Level of Evidence
Patients with chewing, speaking and swallowing problems should be timely provided with appropriate functional therapy. The patients should be introduced to suitably qualified therapists prior to commencing treatment if the scheduled surgical or conservative procedures (e.g. radiotherapy) are likely to cause problems with chewing, swallowing and/or speech.	Strong	Low
Patients with dysphagia should undergo appropriate diagnostic procedures, e.g. clinical exam by the speech therapist, videofluoroscopy or fiber-optic endoscopy.	Strong	Low
Patients having eating and speaking problems due to carcinoma of the oral cavity and/or its management should have access to speech therapists and nutritional therapists with experience of such pathologies before, during and after treatment.	Strong	Low

4.7.3. Nutritional therapy

Recommendations	Strength of Recommendation	Level of Evidence
Patients should be regularly screened for malnutrition due to oral cavity cancer or its treatment. Patients at risk for malnutrition should receive timely and ongoing professional dietary counselling and nutritional therapy.	Strong	Low

4.7.4. Psychosocial counselling and support

Recommendations	Strength of Recommendation	Level of Evidence
Patients with oral cavity cancer (and their family, carers) should be offered dedicated psychosocial support on a continuous basis within the context of a multidisciplinary team.	Strong	Very low

5. IMPLEMENTATION AND UPDATING OF THE GUIDELINE

5.1. Implementation

The implementation of this guideline will be facilitated by the College of Oncology and the professional associations involved in this guideline. An online implementation tool similar to the tools accompanying previous guidelines will be developed (www.collegeoncologie.be). The scientific material of this guideline is intended to be disseminated by scientific and professional organisations. They can transform this material into attractive and user-friendly tools tailored to caregivers groups. They will also play a key role by a dissemination that makes use of diverse channels such as websites or sessions of continuing education.

The following barriers for implementation were identified:

- Most recommendations are based on evidence of low to very low quality, and clinicians may be reluctant to implement such recommendations.
- In some centres treating patients with head and neck cancer, dedicated dentists, nutritional therapists, speech therapists, etc. may not be available.
- Treatment with IMRT is not available in all radiotherapy centres in Belgium.
- Some recommendations stress the need for treatment at facilities with adequate expertise. However, at present the care for patients with head and neck cancer is not centralised, and no formal evaluation of the quality of care for these patients is organised.

5.2. Monitoring the quality of care

This guideline could be considered as a starting point to develop quality improvement programs that target all caregivers concerned.

It can be used as a tool to support health policies to improve the quality of care, e.g. through the support of actions to increase caregivers' awareness and to improve their practice, or through the development (or revision) of sets of process and outcome quality indicators. The development of quality indicators is scheduled after the completion of the second part of the guideline on head and neck cancer.

KCE previously recommended setting up an integrative quality system in oncology, covering the development and implementation of clinical practice guidelines, the monitoring of the quality of care with quality indicators, feedback to health care providers and organizations and targeted actions to improve the quality if needed.

5.3. Guideline update

In view of the rapidly evolving evidence, this guideline should be updated every 5 years. If, in the meantime, important new evidence would become available, this should be taken into consideration.

The KCE processes foresee that the relevance of an update would be yearly assessed for each published guideline by the authors. Decisions are made on the basis of new scientific publications on a specific topic (e.g. Cochrane reviews, RCTs on medications or interventions). Potential interest for groups of health practitioners is also considered in this process.

This appraisal leads to a decision on whether to update or not a guideline or specific parts of it to ensure the recommendations stay in line with the latest scientific developments.

POLICY RECOMMENDATIONS[b]

To the attention of the College of Oncology, the scientific and professional associations and EBMPracticeNet:

- **This guideline should be transformed and disseminated in procedures, protocols, educational programs, etc. that are in a user-friendly format for daily use. This should be done by the College of Oncology in close collaboration with the professional organisations.**
- **The dissemination of this guideline should be facilitated by a publication on the website of EBMPracticeNet.**

To the attention of the Ministry of Health and the Federal Public Service of Public Health:

- **To improve the quality of care and to decrease the dispersion of expertise and experience, reference centres with multidisciplinary teams of recognized clinical and technical expertise in head and neck cancer should be established and certified (http://www.kcenet.be/files/KCE_219_proposal_cancer_head_and_neck.pdf).**
  The formation of networks or functional relationships between reference centres and peripheral centres ("shared care model") will allow a delivery of care combining expertise and proximity.

  In peripheral centres only less complex well-described parts of the treatment can take place, and they should be performed under supervision of the reference centre. A peripheral centre should receive guidelines about when to confer with a reference centre about a patient with head and neck cancer.

[b] The KCE has sole responsibility for the recommendations.