

Systematic Review

Quality Assessment of Clinical Practice Guideline Providing Recommendations for Oral Cancer: A Systematic Survey

Katalina Muñoz ^{1,2} , Nicolás Portalier ³ , Daniel Ortuño ³, Naira Figueiredo Deana ^{1,4,5} ,
Wilfredo Alejandro González-Arriagada ^{3,6,*}  and Carlos Zaror ^{1,4,*} 

- ¹ Center for Research in Epidemiology, Economics and Oral Public Health (CIEESPO), Faculty of Dentistry, Universidad de La Frontera, Temuco 4811230, Chile; kamunoz2018@udec.cl (K.M.); naira.figueiredo@ufrontera.cl (N.F.D.)
- ² Master Program in Dentistry, Faculty of Dentistry, Universidad de La Frontera, Temuco 4811230, Chile
- ³ Faculty of Dentistry, Universidad de Los Andes, Santiago 7620001, Chile; nportalier@miuandes.cl (N.P.); dortuno@uandes.cl (D.O.)
- ⁴ Department of Paediatric Dentistry and Orthodontics, Faculty of Dentistry, Universidad de La Frontera, Temuco 4811230, Chile
- ⁵ Doctoral Program in Sciences in Applied Cellular and Molecular Biology, Universidad de La Frontera, Temuco 4811230, Chile
- ⁶ Clínica Universidad de Los Andes, Santiago 7620001, Chile
- * Correspondence: wgonzalez@uandes.cl (W.A.G.-A.); carlos.zaror@ufrontera.cl (C.Z.); Tel.: +56-22-618-3100 (W.A.G.-A.); +56-45-259-6716 (C.Z.)

Abstract

The aim of this systematic survey was to evaluate the quality of clinical practice guidelines (CPGs) that provide recommendations for the detection, diagnosis, and treatment of oral cavity cancer (OCC). We conducted a systematic search in MEDLINE, EMBASE, Epistemonikos, CPG websites, and scientific societies to identify documents providing recommendations for the detection, diagnosis, and treatment of OCC. Two reviewers independently assessed the included CPGs using the AGREE II instrument. We calculated standardized scores for the six domains and provided a final recommendation for each CPG. We identified twenty-five CPGs published between 2019 and 2024. The mean scores (higher scores indicate better domain assessment) per domain were as follows: scope and purpose, $80.5 \pm 11.6\%$; stakeholder involvement, $55.6 \pm 16.7\%$; rigor of development, $48.3 \pm 20.1\%$; clarity of presentation, $83.8 \pm 8.2\%$; applicability, $33.6 \pm 19.1\%$; and editorial independence, $57.3 \pm 22.4\%$. The overall mean rate was 4.8 ± 0.8 , with a maximum score of seven. Reviewers recommended five guidelines for use in practice, twelve were recommended with modifications, and eight were not recommended. The overall quality of CPGs on OCC was suboptimal. CPG developers should strengthen the use of systematic, transparent methodologies and frameworks for evidence synthesis and recommendation formulation, thereby improving the quality of recommendations and facilitating implementation across diverse clinical contexts.



Academic Editor: Dorina Lauritano

Received: 19 May 2026

Revised: 15 July 2026

Accepted: 21 July 2026

Published: 30 July 2026

Copyright: © 2026 by the authors.

Licensee MDPI, Basel, Switzerland.

This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution \(CC BY\)](https://creativecommons.org/licenses/by/4.0/) license.

Keywords: mouth neoplasms; head and neck cancer; AGREE II; clinical practice guidelines

1. Introduction

Oral cavity cancer (OCC) is a serious disease that affects the tissues of the oral cavity and oropharynx. It represents a major public health problem due to its high morbidity and mortality rates [1]. In 2024, the International Agency for Research on Cancer (IARC), through the Global Cancer Observatory (GLOBOCAN), reported 389,846 new cases and

188,438 deaths worldwide attributable to cancers of the lip and oral cavity [2]. This burden of disease imposes a significant economic burden on health systems, not only through diagnosis and treatment but also through follow-up and subsequent rehabilitation [3]. In addition, oral cancer significantly compromises patients' quality of life across multiple domains, not only because of the treatment and adverse effects associated with the different therapeutic options but also due to esthetic or functional alterations as consequences of the surgical treatment [4].

Early detection, through timely screening and accurate diagnosis, along with appropriate management, is therefore crucial to improving clinical outcomes and prognosis in patients with oral cancer. However, most cases of oral cancer are diagnosed at advanced stages, which significantly affects treatment options and prognosis [5]. The diagnostic complexity and the wide range of available therapeutic options may hinder clinical decision-making. In this context, clinical practice guidelines (CPGs) play a fundamental role, particularly when appropriately contextualized through adoption, adaptation, or de novo development.

CPGs are systematically developed documents created by clinical experts that provide evidence-based recommendations to assist healthcare professionals and patients in making informed decisions in specific clinical situations [6]. The most reliable guidelines are those based on a systematic analysis of the evidence, include an assessment of the body of evidence, and use a transparent methodology to formulate recommendations [7]. Evaluating the quality of oral cancer guidelines is essential to ensure that they offer accurate, up-to-date, and evidence-based guidance.

The most recent quality assessment of CPGs for OCC was conducted by Madera et al. [8,9] and published in 2018; since then, eight years have elapsed. Given the ongoing evolution of scientific evidence, CPGs must be regularly updated to maintain their validity and relevance [10]. Evidence shows that although trustworthiness guidelines have improved in recent years, these improvements have been modest, and their quality remains suboptimal, making their implementation unreliable and their use difficult for patients, clinicians, and policymakers [11]. Suboptimal quality may adversely affect patient care or be of debatable applicability [12]. Therefore, the aim of this study was to evaluate the quality of clinical practice guidelines published over the past eight years that provide recommendations for the detection, diagnosis, and treatment of OCC.

2. Materials and Methods

We conducted a systematic survey evaluation of the quality of CPGs for oral cancer following a previously published methodology [13,14]. We report this systematic review in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist [15] (Supplement S1).

2.1. Eligibility Criteria

We included guidelines or documents in Spanish, English, or Portuguese that provided recommendations on the detection, diagnosis, and/or treatment of OCC. Guidelines focused on head and neck cancer or salivary malignancies were also eligible when they included recommendations applicable to the management of oral cavity cancer, such as those related to diagnosis, staging, pathology assessment, surgery, radiotherapy, systemic therapy, or follow-up. Eligible sources comprised those developed by regional, national, local, and scientific society organizations, as well as documents produced by expert panels or explicitly listing the authors or experts involved in the process. We only considered documents based on a review of the evidence underpinning the recommendations. When

multiple publications from the same organization or by the same author group were identified, we selected the most recent version.

We excluded documents without recommendations, discontinued CPGs, letters to the editor, and conference abstracts. In addition, we excluded CPGs developed to treat patients during the COVID-19 pandemic and guidelines that did not provide recommendations specifically addressing OCC or its management.

2.2. Information Sources

We conducted a systematic search of MEDLINE, EMBASE, and Epistemonikos from 28 October 2017 (the last reported search date by Madera et al. [8]) to 15 July 2025. We did not impose any restrictions on language or publication status. We supplemented the search by screening the websites of guideline developers, CPG repositories, scientific societies, and Ministries of Health. In addition, we examined the reference lists of the selected CPGs and of systematic reviews assessing the methodological quality of CPGs for OCC patients to identify additional guidelines that met the inclusion criteria. Details of the search strategy are provided in Supplement S2.

2.3. Guideline Selection

Two researchers (K.M., N.P.) independently screened the records in two stages using Rayyan[®] software (www.rayyan.ai) to identify studies that met the inclusion criteria: first by title and abstract, and subsequently by full-text review. A third reviewer (C.Z.) resolved disagreements between researchers.

2.4. Data Collection Process

Two reviewers (K.M., N.P.) independently extracted the following characteristics from each CPG: first author, year, country, level of development, organization, methodological framework, scope, guideline type, anatomical location, target population, funding sources, systematic review methods, strength and articulation of the recommendations, external review, update statement, quality assessment methods, and recommendation development.

2.5. Qualitative Appraisal of CPGs

We extracted qualitative data using the Modified National Guideline Clearinghouse Extent Adherence to Trustworthy Standards instrument (modified NEATS instrument) [16]. We rated the search strategy item as “yes” when the guideline reported search terms consistent with the recommendation questions and searched MEDLINE in combination with at least one additional database. We also rated the study selection item as “yes” when explicit eligibility criteria were reported and aligned with the recommendation questions.

Reviewers rated the strength of recommendations item as “yes” when the guideline explicitly reported this item and when the accompanying evidence summaries discussed both benefits and harms relevant to the population and intervention, including outcomes important to patients. We rated the articulation of recommendations item as “yes” when recommendations clearly specified the population, intervention, and comparator (when not implicit) and indicated a clear direction of the recommendation.

Reviewers rated the external review item as “yes” when the guideline reported external review by relevant clinical experts. Finally, we rated the update statement item as “yes” when the guideline explicitly stated that it would be updated.

2.6. Quantitative Appraisal of CPGs

Two reviewers (K.M., N.P.) independently assessed the quality of each guideline using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) tool. The AGREE II instrument comprises 23 items across six domains: 1. scope and purpose, which addresses

the objective of the guidelines; 2. stakeholder involvement, which reflects the opinions of the intended users; 3. rigor of development, which assesses the quality of the CPG development process and its recommendations; 4. clarity of presentation, which concerns the structure of the guidelines; 5. applicability, which highlights barriers and facilitators to CPG implementation and considers the financial implications of implementing the recommendations; and 6. editorial independence, which demonstrates transparency in the formulation of the guideline recommendations. Each of the 23 items is rated on a 7-point Likert scale. AGREE II provides two overall quality ratings for each guideline: (i) an overall score from 1 to 7; and (ii) a reviewer recommendation classifying it as “recommended,” “recommended with modifications,” or “not recommended” [17].

2.7. Data Synthesis

We calculated the total AGREE score by summing the individual items within each domain and scaling the total as a percentage of the maximum possible score for that domain [17]. The reviewers reassessed discrepancies exceeding three points or any item with a standard deviation (SD) ≥ 1.5 to reach consensus [13,18]. We calculated the standardized score for each domain (range 0–100%). We classified the CPG as high quality when at least three domains scored 60% or higher, including the developmental rigor domain [13,18].

We calculated overall inter-reviewer agreement using the intraclass correlation coefficient (ICC) and its 95% confidence interval (95% CI) for each of the 23 items of the AGREE II instrument. We categorized agreement according to the scale proposed by Landis and Koch: weak (0.01–0.20), moderate (0.21–0.40), strong (0.41–0.60), substantial (0.61–0.80), and very strong (0.81–1.00) [19]. We calculated descriptive statistics, including mean, median, standard deviation, and interquartile range, for the score of each domain in each CPG.

We assessed the distribution of AGREE II domain scores using the Shapiro–Wilk and D’Agostino–Pearson normality tests, complemented by visual inspection of normality plots. Because the data exhibited outliers, small and unequal subgroup sizes, and an ordinal overall assessment, we performed all analyses using nonparametric methods.

We calculated Spearman’s rank correlation coefficients to examine the associations between individual AGREE II domain scores and the overall guideline rate, thereby identifying the domains most strongly associated with overall methodological quality. Correlation strength was interpreted according to the criteria proposed by Schober et al. [20] as negligible (0.00–0.10), weak (0.10–0.39), moderate (0.40–0.69), strong (0.70–0.89), or very strong (0.90–1.00).

We explored associations between the overall AGREE II score and CPG features using the Mann–Whitney U test for two-group comparisons and the Kruskal–Wallis test for comparisons involving three or more groups. When appropriate, we conducted pairwise comparisons using Dunn’s post hoc test with Bonferroni correction for multiple testing. All statistical analyses were performed in RStudio (version 2026.05.1 + 225) using the e1071, rstatix, and fBasis packages. Statistical significance was set at $p < 0.05$.

3. Results

Figure 1 shows the study selection process according to PRISMA. The systematic search retrieved 3238 articles, and other sources identified five documents/articles. After excluding studies that failed to meet the inclusion criteria (Supplement S3), we included 25 CPGs in the final analysis.

The two reviewers achieved high overall inter-rater reliability throughout the process (ICC of 0.86; 95% CI 0.83–0.88). The ICC indicated substantial agreement for Domain 1 (0.63; 95% CI 0.47–0.77) and Domain 5 (0.72; 95% CI 0.60–0.81), very strong agreement for

Domain 2 (0.87; 95% CI 0.79–0.92), Domain 3 (0.85; 95% CI 0.81–0.89) and Domain 6 (0.81; 95% CI 0.68–0.89), and strong agreement for Domain 4 (0.52; 95% CI 0.34–0.70).

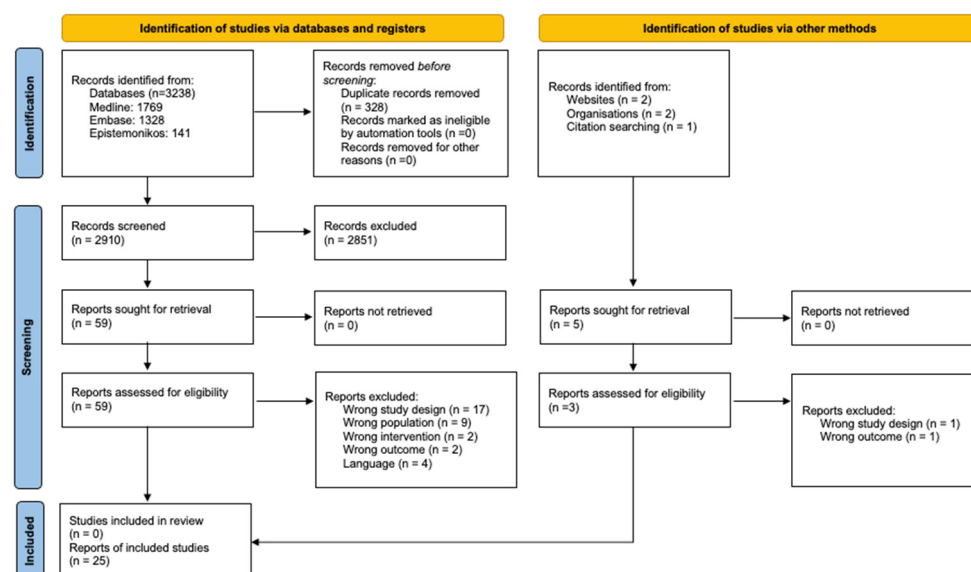


Figure 1. Flow diagram of selection process.

3.1. Characteristics of the Included Guidelines

Table 1 summarizes the characteristics of the included CPGs. Most guidelines dated from 2019 to 2024 and used English as the primary language (96%).

Regarding the country of development, the largest proportion of guidelines originated from the United States (24%), followed by France (16%), Spain (12%), and European multinational collaborations (12%). The United Kingdom and India each accounted for 8%, while Latin America, Canada, Japan, Germany, and South Korea each accounted for 4%. Regarding the anatomical location, most guidelines addressed specific OCC (40%), followed by head and neck cancers (HNC) (32%) and salivary gland malignancies (28%). Most of the guidelines focused exclusively on adult patients (92%), one was specifically developed for children and adolescents (4%), and one was developed for pediatric patients and adolescents (4%). In terms of guideline type, most publications corresponded to new guidelines (68%), whereas 32% represented updates to previously published recommendations. Overall, all the included guidelines covered a broad range of clinical aspects related to OC and HNC, including diagnosis, treatment strategies, surgical management, radiotherapy, systemic therapies, biomarker use, and follow-up recommendations (Table 1).

Concerning the methodological framework used for guideline development, 24% of guidelines employed GRADE methodology. Other frameworks included the Infectious Diseases Society of America-U.S. Public Health Service Grading System (IDSA-USPHS), the Guideline Resource Unit (GURU), the National Comprehensive Cancer Network (NCCN), and the National Institute for Health and Care Excellence (NICE). However, 36% of the guidelines did not clearly report the methodological framework used for evidence appraisal or recommendation development (Table 1).

Regarding methodological processes reported within the guidelines, 60% described the literature search strategies for health questions and 36% reported the selection process. Similarly, 52% reported the strength of recommendations, and 56% showed a clear wording of recommendations. Sixty-four percent of the guidelines described external review processes, whereas only 24% reported updating statements. Supplement S4 presents the methodological characteristics of the included CPGs.

3.2. Scope and Purpose

Figure 2 depicts the mean AGREE II scores by domain. The domain scope and purpose showed high performance across the included guidelines, with a mean score of $80.5 \pm 11.6\%$. Joo et al. achieved the highest score (97%) [21], followed by the American Society of Clinical Oncology Guidelines (ASCO Guidelines) (94%) [22–24] and the German Guideline Program in Oncology (GGPO) (94%) [25]. In contrast, Chaturvedi et al. [26] obtained the lowest score in this domain (39%) (Table 2). Most guidelines clearly defined their target population and overall objectives. However, some guidelines showed limitations in the formulation of the health questions, particularly in explicitly specifying key components such as the target population, interventions or exposures, comparators (when applicable), and outcomes.

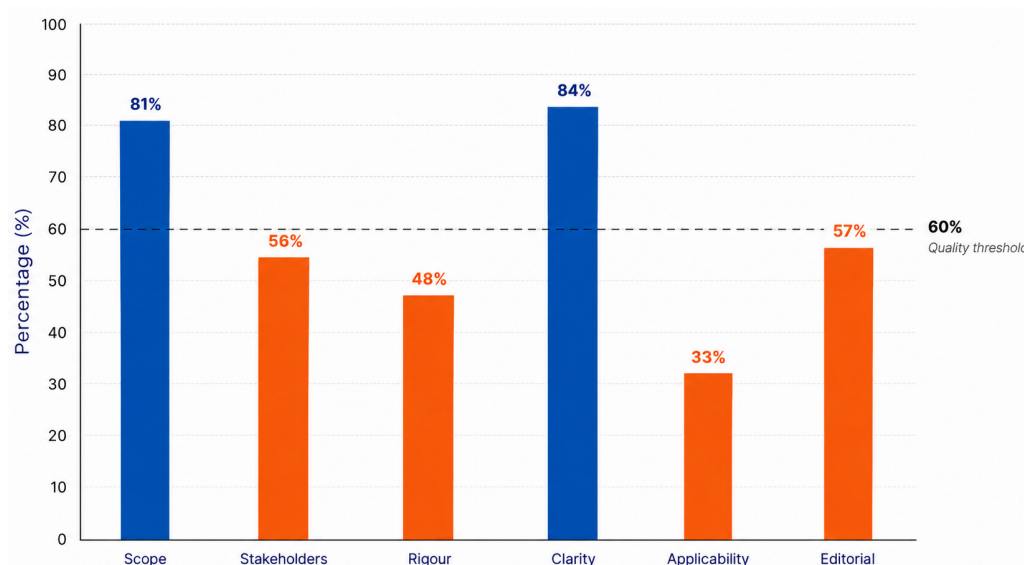


Figure 2. Mean AGREE II scores by domain.

3.3. Stakeholder Involvement

The stakeholder involvement domain obtained a mean score of $55.6 \pm 16.7\%$. The ASCO guideline had the highest score (89%) [23]. In contrast, the guidelines developed by Chaturvedi et al. [26], Pham Dang et al. [27], and Thariat et al. [28] had the lowest score, at 33% (Table 2). We identified several main limitations in this domain, specifically the insufficient reporting of the guideline development group's composition, including members' disciplines and expertise. In addition, few CPGs reported the participation of methodologists, and few guidelines described how authors considered the perspectives, experiences, or expectations of the target population during development.

3.4. Rigor of Development

The rigor of the development domain had a mean score of $48.3 \pm 20.1\%$, showing variability among guidelines. The guideline that achieved the highest score was the ASCO [23] with 93%. On the other hand, the lowest score was obtained by the French Society of Oncological Radiotherapy (SFRO) [29], at 13% (Table 2). Many guidelines provided only isolated comments on evidence gaps or uncertainty and did not conduct a formal assessment of the risk of bias or the certainty of the evidence. Although some guidelines reported the literature search strategy within the main document, others provided these methodological details in Supplementary Materials or supporting files. Table 1 presents additional information on the methodological processes for evidence identification, study selection, and recommendation development.

3.5. Clarity of Presentation

The clarity of presentation domain showed the highest overall performance among all domains, with a mean score of $83.8 \pm 8.2\%$. Caudell et al. [30], Cohen et al. [31], Homer et al. [32], Joo et al. [21], Koyfman et al. [23], and Matos et al. [33], achieved the highest scores, all above 90% (Table 2). Overall, the recommendations were clearly and consistently structured, providing specific and unambiguous recommendations. When recommendations were intentionally broad or less specific, the guidelines generally provided a clear explanation of the rationale underlying those recommendations. In addition, many guidelines enhanced clarity by summarizing recommendations in highlighted boxes, presenting clinical decision algorithms, or emphasizing key recommendations through formatting such as bold text.

3.6. Applicability

The applicability domain obtained the lowest mean score across all domains, $33.6 \pm 19.1\%$. Caudell et al. [30], Homer et al. [32], and Koyfman et al. [23] achieved the highest score (63%). In contrast, Sarradin et al. [34] had the lowest score, at 0%, followed by Thariat et al. [28] and Pham Dang et al. [27], both at 4%. The domain performed poorly mainly because the authors gave limited consideration to implementation aspects. Many guidelines did not discuss potential barriers to or facilitators of implementation, did not evaluate the implications for resource use, and did not provide clear criteria for monitoring or auditing the application of the recommendations in clinical practice.

3.7. Editorial Independence

Editorial independence showed a mean score of $57.3 \pm 22.4\%$. Geiger et al. [22], Maghami et al. [24], van Herpen et al. [35], and Cohen et al. [31] reported the highest score with 88%. In contrast, Sarradin et al. [34] had the lowest score of 0%, while Thariat et al. [28] and Pham Dang et al. [27] had 4% each (Table 2). We identified several main limitations in this domain, including incomplete reporting of financial conflicts of interest among members of the guideline development group. Specifically, few guidelines disclosed whether such conflicts existed or how authors managed them. In addition, several guidelines did not clearly report their funding sources or failed to include an explicit statement confirming that the views or interests of the funding body did not influence the development of the final recommendations.

3.8. Overall Assessment

Overall, the mean overall rating across all guidelines was 4.8 out of 7. Guidelines developed by organizations such as ASCO, NCCN, and other international scientific societies generally achieved higher methodological scores, whereas several consensus-based guidelines showed lower scores due to limited reporting of development processes and implementation considerations. In terms of overall recommendation, reviewers classified five guidelines as recommended (20%) [22–24,30,32], and twelve were recommended with modifications (48%) [21,25,31,33,35–42]. Based on the predefined quality criteria, they classified seven CPGs as high quality, defined as those scoring $\geq 60\%$ in at least three AGREE II domains, including the rigor of development domain.

3.9. Correlations and Associations of AGREE II Scores with Domains and Guideline Features

A significant correlation was observed between AGREE II domain scores and the overall rate. The overall AGREE II score showed moderate correlations with the scope and purpose ($\rho = 0.526$, $p = 0.007$), clarity of presentation ($\rho = 0.647$, $p < 0.001$), and editorial independence ($\rho = 0.436$, $p = 0.029$) domains. Strong correlations were observed

for stakeholder involvement ($\rho = 0.774$, $p < 0.001$), applicability ($\rho = 0.740$, $p < 0.001$), and rigor of development ($\rho = 0.851$, $p < 0.001$), with the latter demonstrating the strongest association with the overall guideline score.

Table 3 shows the association between AGREE II domain scores and guideline features. In the geographic comparison, guidelines developed in the Americas achieved significantly higher scores than those developed in Europe in the stakeholder involvement and clarity of presentation domains, as well as in the overall assessment.

Guidelines developed using the GRADE methodology scored significantly higher than those that did not explicitly report their development methodology in the scope and purpose, rigor of development, and editorial independence domains, as well as in the overall assessment. Compared with guidelines developed using alternative methodologies, GRADE-based guidelines also achieved significantly higher scores in the scope and purpose and rigor of development domains.

The validity of the guidelines (i.e., whether they were up to date) was not significantly associated with higher scores in any AGREE II domain or in the overall assessment. Regarding funding, guidelines that reported financial support only achieved significantly higher scores in the editorial independence domain.

Finally, key elements aligned with the NEATS reliability standards, including a reported search strategy and explicit grading of the strength of recommendations, were consistently associated with higher scores across all AGREE II domains and in the overall assessment.

Table 1. Clinical practice guidelines characteristics.

Author [Ref]	Country	Level of Development/ Developing Organization	Methodological Framework	Scope	Guideline Type	Anatomical Location	Population	Funding Sources
Baus-Dominguez et al. [36]	Spain	Scientific Society/Spanish Society for Oral Surgery (SECIB)	GRADE	Diagnostic, treatment	New	OC	Adults	None
Homer et al. [32]	UK	Scientific Society/UK National Multidisciplinary Head-and-Neck Cancer Working Group	NICE	Diagnostic, treatment	Update	H&N	Adults	NR
Matos et al. [33]	LATAM	Scientific Society/Latin American Cooperative Oncology (LACOG) Group, Brazilian Head and Neck Surgery Society (SBCCP—Sociedade Brasileira de Cirurgia de Cabeça e Pescoço), and Brazilian Head and Neck Cancer Group (GBCP—Grupo Brasileiro de Cancer Cabeça e Pescoço).	NR	Treatment	New	H&N	Adults	European Union's 2020
Homma et al. [38]	Japan	Scientific Society/Japan Society for Head and Neck Cancer	GRADE	Diagnostic, treatment	Update	H&N	Adults and children	Japan Society of Head and Neck Cancer, Ministry of Health, Labour, Welfare
Thariat et al. [28]	France	Scientific Society/The French Network of Rare Head and Neck Tumors (REFCOR)	HAS French Health Authority methodology	Treatment	New	SG	Adults	None
Sarradin et al. [34]	France	Scientific Society/The French Network of Rare Head and Neck Tumors (REFCOR)	HAS French Health Authority methodology	Treatment	New	SG	Adults	None
Pham Dang et al. [27]	France	Scientific Society/The French Network of Rare Head and Neck Tumors (REFCOR)	HAS French Health Authority methodology	Treatment	New	SG	Adults	None
Cancer Care Alberta [41]	Canada	Alberta Health Services-Cancer Care Alberta	Guideline Resource Unit (GURU)	Treatment	Update	OC	Adults	Cancer Care Alberta operating budget

Table 1. Cont.

Author [Ref]	Country	Level of Development/ Developing Organization	Methodological Framework	Scope	Guideline Type	Anatomical Location	Population	Funding Sources
Trigo et al. [43]	Spain	Scientific Society/Sociedad Española de Anatomía Patológica (SEAP), Sociedad Española de Oncología Médica (SEOM)	NR	Diagnostic	New	H&N	Adults	Merck
Van Herpen et al. [35]	Europe	Scientific Society/European Head and Neck Society (EHNS), the European Society for Medical Oncology (ESMO), European Society for Radiotherapy and Oncology (ESTRO)	ESMO methodology	Diagnostic, treatment	Update	SG	Adults	ESMO
Caudell et al. [30]	US	National Comprehensive Cancer Network	NCCN	Treatment	Update	H&N	Adults	NR
Geiger et al. [22]	US	Scientific Society/The American Society of Clinical Oncology (ASCO)	GRADE	Treatment	New	SG	Adults	ASCO
GGPO [25]	Germany	Scientific Society/German Guideline Program in Oncology (GGPO) of the Association of the Scientific Medical Societies (AWMF), the German Cancer Society (DKG) and the German Cancer Aid (DKH)	GRADE	Diagnostic, treatment	Update	OC	Adults	DKH
Lapeyre et al. [29]	France	Scientific Society/Société française de radiothérapie oncologique (SFRO)	NR	Treatment	New	OC	Adults	NR
Mesia et al. [44]	Spain	Scientific Society/Spanish Society of Medical Oncology (SEOM) Spanish Group for the Treatment of Head and Neck Tumors (TTCC)	Infectious Diseases Society of America-US Public Health Service Grading System (IDSA-USPHS)	Treatment	Update	H&N	Adults	None
Surun et al. [42]	Europe	Scientific Society/European Cooperative Study Group for Pediatric Rare Tumors (EXPeRT) EXPeRT + EU-funded PARTNER project (Pediatric Rare Tumors Network-European Registry)	IDSA-USPHS	Diagnostic, treatment	New	SG	Pediatrics/adolescents	European Union's Health Programme
Bhalavat et al. [45]	India	Scientific Society/Indian Brachytherapy Society (IBS)	NR	Treatment	New	H&N	Adults	NR
Chaturvedi et al. [26]	India	Scientific Society/Oral Cancer Task Force OCTF	NR	Diagnostic, treatment	New	OC	Adults	OCTF
Maghami et al. [24]	US	Scientific Society/The American Society of Clinical Oncology (ASCO)	GRADE	Diagnostic, treatment	New	SG	Adults	ASCO
Machiels et al. [39]	Europe	Scientific Society/European Head and Neck Society (EHNS), European Society for Medical Oncology (ESMO), European Society for Radiotherapy and Oncology (ESTRO).	ESMO methodology	Diagnostic, treatment	Update	OC	Adults	ESMO
Cervenka et al. [37]	US	Scientific Society/American Head and Neck Society, African Head and Neck Society	NCCN	Treatment	New	OC	Adults	AHNS
Cohen et al. [31]	US	Scientific Society/Society for Immunotherapy of Cancer (SITC)	NCCN	Treatment	New	H&N	Adults	None
Koyfman et al. [23]	US	Scientific Society/The American Society of Clinical Oncology (ASCO)	GRADE	Treatment	New	OC	Adults	ASCO

Table 1. Cont.

Author [Ref]	Country	Level of Development/ Developing Organization	Methodological Framework	Scope	Guideline Type	Anatomical Location	Population	Funding Sources
Joo et al. [21]	South Korea	Scientific Society/Korean Society of Thyroid-Head and Neck Surgery	American College of Physicians (ACP)	Treatment	New	OC	Adults	NR
Schilling et al. [40]	UK	Scientific Society/8th International Sentinel Node Biopsy Symposium, supported by the Head and Neck Cancer Foundation	NR	Treatment	New	OC	Adults	HNCF

ACP: American College of Physicians; ASCO: American Society of Clinical Oncology; IDSA-USPHS: Infectious Diseases Society of America-U.S. Public Health Service Grading System; DKG: Deutsche Krebsgesellschaft; ESMO: European Society for Medical Oncology; GRADE: Grading of Recommendations, Assessment, Development, and Evaluation; GURU: Guideline Resource Unit; H&N: head and neck; HNCF: Head and Neck Cancer Foundation; NCCN: National Comprehensive Cancer Network; NICE: National Institute for Health and Care Excellence; OC: oral cavity; OCTF: Oral Cancer Task Force; SG: salivary gland; UK: United Kingdom; US: United States.

Table 2. AGREE scores of CPGs by domain.

Author [Ref]	Scope and Purpose	Stakeholder Involvement	Rigor of Development	Clarity of Presentation	Applicability	Editorial Independence	Overall Rate	Overall Recommendation	Quality
Baus-Dominguez et al. [36]	86%	47%	59%	72%	15%	79%	5	Yes, with modifications	Low
Homer et al. [32]	72%	83%	60%	94%	63%	67%	6	Yes	High
Matos et al. [33]	83%	61%	46%	92%	52%	54%	5	Yes, with modifications	Low
Homma et al. [38]	86%	61%	59%	89%	31%	71%	5	Yes, with modifications	Low
Thariat et al. [28]	78%	33%	25%	78%	4%	25%	4	No	Low
Sarradin et al. [34]	78%	39%	44%	78%	0%	42%	4	No	Low
Pham Dang et al. [27]	78%	33%	39%	78%	4%	67%	4	No	Low
Cancer Care Alberta [41]	78%	39%	42%	83%	13%	33%	5	Yes, with modifications	Low
Trigo et al. [43]	78%	56%	27%	89%	29%	42%	4	No	Low
Van Herpen et al. [35]	72%	50%	46%	83%	42%	88%	5	Yes, with modifications	Low
Caudell et al. [30]	81%	61%	61%	94%	63%	33%	6	Yes	High
Geiger et al. [22]	94%	83%	77%	89%	46%	88%	6	Yes	High
GGPO [25]	94%	47%	69%	78%	38%	58%	5	Yes, with modifications	High
Lapeyre et al. [29]	81%	47%	13%	89%	29%	46%	4	No	Low
Mesia et al. [44]	67%	36%	22%	72%	6%	33%	4	No	Low
Surun et al. [42]	83%	50%	41%	75%	58%	63%	5	Yes, with modifications	Low
Bhalavat et al. [45]	81%	56%	32%	72%	42%	33%	4	No	Low
Chaturvedi et al. [26]	39%	33%	24%	67%	23%	58%	3	No	Low
Maghami et al. [24]	94%	83%	77%	89%	46%	88%	6	Yes	High
Machiels et al. [39]	83%	53%	46%	83%	42%	88%	5	Yes, with modifications	Low
Cervenka et al. [37]	81%	50%	39%	89%	29%	46%	5	Yes, with modifications	Low
Cohen et al. [31]	83%	72%	59%	92%	31%	88%	5	Yes, with modifications	Low

Table 2. Cont.

Author [Ref]	Scope and Purpose	Stakeholder Involvement	Rigor of Development	Clarity of Presentation	Applicability	Editorial Independence	Overall Rate	Overall Recommendation	Quality
Koyfman et al. [23]	94%	89%	93%	94%	63%	83%	6	Yes	High
Joo et al. [21]	97%	67%	74%	94%	27%	38%	5	Yes, with modifications	High
Schilling et al. [40]	72%	61%	34%	83%	38%	21%	5	Yes, with modifications	Low
Mean	80.5%	55.6%	48.3%	83.8%	33.6%	57.3%	4.8		
SD	11.6%	16.7%	20.1%	8.2%	19.1%	22.4%	0.8		
Median	81%	53%	46%	83%	31%	58%	5%		
IQR	8%	14%	26%	11%	23%	41%	1%		

Table 3. Comparison between AGREE II domain scores and guidelines features.

Variables	n	Scope and Purpose	Stakeholder Involvement	Rigor of Development	Clarity of Presentation	Applicability	Editorial Independence	Overall Rate
		Median [IQR]	Median [IQR]	Median [IQR]	Median [IQR]	Median [IQR]	Median [IQR]	Median [IQR]
Country								
America	8	83.0 [81.0–94.0]	66.5 [58.2–83.0] *	60.0 [45.0–77.0]	90.5 [89.0–92.5] *	46.0 [30.5–54.8]	68.5 [42.8–88.0]	5.5 [5.0–6.0] *
Asia	4	83.5 [70.5–88.8]	58.5 [50.2–62.5]	45.5 [30.0–62.8]	80.5 [70.8–90.2]	29.0 [26.0–33.8]	48.0 [36.8–61.2]	4.5 [3.8–5.0]
Europe	13	78.0 [72.0–83.0]	47.0 [39.0–53.0] *	41.0 [27.0–46.0]	78.0 [78.0–83.0] *	29.0 [6.0–42.0]	58.0 [42.0–67.0]	5.0 [4.0–5.0] *
p-value		0.132	0.047 *	0.074	0.029 *	0.184	0.578	0.013 *
Framework								
GRADE	6	94.0 [88.0–94.0] *,†	72.0 [50.5–83.0]	73.0 [61.5–77.0] *,†	89.0 [80.8–89.0]	42.0 [32.8–46.0]	81.0 [73.0–86.8] *	5.5 [5.0–6.0] *
NR	6	79.5 [73.5–81.0] *	56.0 [49.2–59.8]	29.5 [24.8–33.5] *	86.0 [74.8–89.0]	33.5 [29.0–41.0]	44.0 [35.2–52.0] *	4.0 [4.0–4.8] *
Other	13	78.0 [78.0–83.0] †	50.0 [39.0–61.0]	44.0 [39.0–59.0] †	83.0 [78.0–92.0]	29.0 [6.0–42.0]	46.0 [33.0–67.0]	5.0 [4.0–5.0]
p-value		0.004 *	0.228	0.002 *	0.831	0.460	0.027 *	0.017 *
Update								
New	16	82.0 [78.0–88.0]	53.0 [45.0–68.2]	42.5 [33.5–62.8]	86.0 [77.2–89.8]	30.0 [21.0–46.0]	56.0 [41.0–80.0]	5.0 [4.0–5.0]
Update	8	79.5 [72.0–83.8]	51.5 [45.0–61.0]	52.5 [45.0–60.2]	83.0 [81.8–90.2]	40.0 [26.5–47.2]	62.5 [33.0–75.2]	5.0 [5.0–5.2]
p-value		0.354	0.853	0.519	0.733	0.480	0.902	0.304
Funding								
None/NR	6/5	79.5 [78.0–81.5]	51.5 [38.2–62.5]	41.5 [26.5–59.2]	83.5 [76.5–92.5]	28.0 [5.5–33.8]	42.0 [33.0–67.0]	4.0 [4.0–5.0]
Yes	13	83.0 [80.2–94.0]	51.5 [49.2–66.5]	46.0 [41.8–71.0]	86.0 [81.8–89.0]	42.0 [30.5–47.5]	67.0 [57.0–88.0]	5.0 [5.0–5.2]
p-value		0.170	0.451	0.183	1.000	0.073	0.034 *	0.078
Search Strategy								
No	10	78.0 [73.5–80.2]	43.0 [33.8–54.5]	29.5 [24.2–37.8]	78.0 [72.8–81.8]	26.0 [4.5–35.8]	42.0 [33.0–55.0]	4.0 [4.0–4.0]
Yes	15	83.0 [81.0–94.0]	61.0 [50.0–77.5]	59.0 [46.0–71.5]	89.0 [83.0–93.0]	42.0 [30.0–49.0]	71.0 [50.0–88.0]	5.0 [5.0–6.0]
p-value		0.006 *	0.007 *	<0.001 *	0.004 *	0.030 *	0.012 *	<0.001 *
Strength of Recommendations								
No	12	78.0 [76.5–81.0]	43.0 [35.2–51.5]	33.0 [24.8–39.5]	78.0 [74.2–84.5]	26.0 [5.5–31.2]	42.0 [33.0–49.0]	4.0 [4.0–5.0]
Yes	13	86.0 [83.0–94.0]	61.0 [53.0–83.0]	60.0 [59.0–74.0]	89.0 [83.0–94.0]	42.0 [31.0–52.0]	79.0 [58.0–88.0]	5.0 [5.0–6.0]
p-value		0.003 *	0.002 *	<0.001 *	0.007 *	0.006 *	0.002 *	<0.001 *

GRADE: Grading of Recommendations, Assessment, Development, and Evaluation methodology. NR: not reported. Values are medians [interquartile ranges, Q1–Q3]. *, [†] $p < 0.05$. In the framework, six guidelines coded “NR” were retained.

4. Discussion

The management of oral cancer requires a multidisciplinary approach due to a diverse range of diagnostic and therapeutic options. Clinicians rely on CPGs to provide evidence-based recommendations. However, a significant challenge, particularly in regions such as Latin America or Africa, is that the management of oral cancer is often based on CPGs developed in North America or Europe, which may not align with local clinical contexts, infrastructure, or the resource availability of healthcare systems. This highlights a critical need for high-quality, methodologically rigorous CPGs that are both evidence-based and locally applicable [46]. Following a systematic methodological approach, our research found that the overall quality of CPGs on OCC was suboptimal; only seven of

the twenty-five CPGs were rated high quality. According to the AGREE II instrument, the clarity of presentation domain had the highest mean score (83.8%), while the applicability domain had the lowest (33.6%). The overall mean was 4.8 (SD 0.8). Only five CPGs were recommended without modifications by the reviewers.

Our research aligns with similar studies in dentistry, in which the two best-rated domains were scope and purpose and clarity of presentation [8,9,13,14,18,47,48]. Both domains are relevant and are closely related. Well-formulated study questions lead to useful recommendations that, when presented clearly and unambiguously, facilitate their effective implementation for optimal patient-centered care. Madera et al. [8] noted that CPGs in OCC exhibited strengths in presenting recommendations but faced weaknesses in methodological reliability and implementation. Specifically, concerns were raised regarding the rigor of their development and applicability. Similar findings have been reported for clinical practice guidelines on head and neck squamous cell carcinoma [49] and salivary gland cancer [50]. Consistent with these studies, our findings suggest that the methodological quality of OCC guidelines has shown little improvement in recent years. In particular, low scores in the applicability, rigor of development, and editorial independence domains mirror deficiencies reported across guidelines for a wide range of health conditions [8]. This pattern suggests that the shortcomings identified in OCC guidelines are not disease-specific but instead reflect broader challenges in the development and reporting of CPGs.

Regarding stakeholder involvement, as with other guidelines, the incorporation of patients' perspectives was limited [14,18,47,51]. In the context of cancer, this is particularly relevant, as evidence shows that patients' values and preferences about important outcomes differ from those of clinicians [52]. Therefore, including their perspectives helps ensure recommendations reflect what matters to those living with the disease. Otherwise, when guidelines align with patients' preferences, beliefs, and daily realities, they are more likely to follow the recommended treatments and care plans [53,54]. Finally, it promotes patient-centred care, since patients can highlight issues that clinical evidence alone may overlook, facilitating its applicability across different populations [55].

Although the rigor of development is the most critical domain in CPG development, as in other guidelines [13,14,47,56], most guidelines reported their methodologies poorly. The systematic and explicit development of recommendations can prevent errors, facilitate the critical appraisal of the evidence, and facilitate knowledge translation [57]. Despite the availability of multiple methodological manuals for developing trustworthy guidelines [7,58], few explicitly described the framework they followed. This lack of transparency may compromise the validity of recommendations by introducing process-related shortcomings, such as inappropriate panel member selection, poorly formulated questions, inadequate prioritization of outcomes, or insufficient identification and appraisal of supporting evidence [13,18]. In this context, the use of the modified NEATS incorporated a qualitative perspective by identifying deficiencies that AGREE II alone cannot always capture, especially in aspects such as the presentation of reports on search strategies and study selection processes, the articulation of recommendations, and external review and updating procedures. Another important, poorly addressed issue was the evaluation of the strengths and limitations of the identified evidence. This is relevant because the certainty of the evidence determines the strength of the recommendation and can influence the course of action. For instance, low or very low certainty of evidence leads to a conditional or weak recommendation, meaning that different alternatives may be appropriate for different patients. In this case, clinicians could use a shared decision-making approach to help patients make decisions consistent with their values and preferences [59].

It is important to highlight that CPGs developed using the GRADE methodology demonstrated higher methodological quality than guidelines that used other frameworks or

did not clearly state their framework. This difference is largely attributable to greater rigor in evidence appraisal, recommendation formulation, and reporting transparency, as well as stronger guarantees of editorial independence. Previous studies have likewise shown that clinical practice guidelines developed using the GRADE framework are methodologically superior. In a systematic review of 1453 guidelines, Hoffmann-Eßer et al. [60] found that all AGREE II domains were significantly associated with the overall quality assessment, with rigor of development exerting the greatest influence. Our findings are consistent with this evidence, as rigor of development demonstrated the strongest correlation with the overall guideline score ($\rho = 0.851$).

Specifically, the GRADE approach provides a structured, explicit framework for rating the certainty of evidence and the strength of recommendations, thereby reducing subjectivity and enhancing reproducibility. Furthermore, adherence to GRADE is often accompanied by stricter conflict-of-interest management and clearer documentation of funding sources, which help minimize potential biases [59]. Even after accounting for adherence to methodological standards, guidelines that fulfilled key NEATS reliability criteria—specifically, conducting a systematic literature search and grading the strength of recommendations—achieved significantly higher scores across all AGREE II domains. Although this association may partly reflect conceptual overlap between these NEATS items and the rigor of the development domain, the effect extended beyond methodological rigor alone, encompassing all AGREE II domains. This finding suggests that adherence to fundamental methodological practices is associated with higher overall guideline quality rather than improvements confined solely to the evidence synthesis process.

The barriers, organizational facilitators, and economic implications of guideline implementation were poorly documented in the evaluated CPGs, consistent with findings from other assessments [14,48,51,56]. Inadequate consideration of these factors may undermine adherence, as failure to account for required resources, time constraints, or training needs can hinder uptake by clinicians and decision-makers [61]. Moreover, variability across healthcare systems in terms of infrastructure, costs, and patient populations further complicates implementation. In our study, the applicability domain received consistently low scores across all geographic regions. These findings suggest that guideline applicability remains a universal challenge, irrespective of the region in which the guideline was developed. Consequently, the potential for implementation in resource-limited settings appears to depend less on geographic origin than on the extent to which guidelines address implementation barriers, resource implications, and monitoring or audit criteria. Without explicit reporting of these challenges, end users may be unable to appropriately adapt recommendations to their local context [46].

Consistent with other guidelines [13,51,56], issues related to editorial independence were also identified. While financial conflicts of interest are often disclosed, intellectual conflicts are rarely reported, potentially introducing bias into the recommendations [62]. Ensuring transparency requires explicitly linking recommendations to supporting evidence and minimizing the influence of conflicted panel members, including, where appropriate, excluding individuals with relevant conflicts [11]. In our study, editorial independence exhibited the weakest correlation with the overall guideline score ($\rho = 0.436$). Despite this modest association, guidelines that disclosed their funding sources and those developed using the GRADE methodology scored significantly higher in this domain. These findings suggest that transparency in funding disclosure and conflict-of-interest management are important components of high-quality guideline development.

The main strength of this study was that the CPGs were obtained through a systematic literature search, which included developer websites and CPG repositories. Furthermore, the combined use of the modified NEATS and AGREE II can provide a broader assessment

of CPG quality by integrating standardized scores with a more detailed evaluation of the reports' main methodological components.

Our study is not without limitations. Although an exhaustive search was conducted, including the grey literature, relevant guidelines may exist in languages other than those considered in our work. It is also important to note that the recommendations of the evaluated CPGs should be interpreted with caution, as we assess the methodological quality of CPG publications without judging the rationale behind the recommendations. The literature search was completed on 15 July 2025; therefore, guideline updates published subsequently, including those released in March 2026 [63] were not captured in the present review. These developments underscore the field's rapidly evolving nature, which occurred after the search was completed and during manuscript preparation. As such, our findings may not fully reflect the most current recommendations available. Future studies using a "living" systematic approach to guideline appraisal are warranted to ensure continuous and timely evaluation of emerging evidence and updated clinical practice guidelines.

5. Conclusions

The methodological quality of CPGs on oral cancer is generally suboptimal. The deficiency in methodological rigor and other relevant aspects hinders implementation by healthcare professionals and decision-makers. This limited methodological rigor can pose a significant obstacle to their adoption or adaptation in a specific local context. Consequently, it is necessary to strengthen the processes for developing and updating these guidelines by incorporating more rigorous methodological frameworks and strategies to improve their applicability.

Supplementary Materials: The following supporting information can be downloaded at <https://www.mdpi.com/article/10.3390/app16157583/s1>. S1: PRISMA checklist; S2: Search strategy; S3: Excluded CPGs; S4: Methodological characteristics of CPGs.

Author Contributions: Conceptualization, C.Z. and W.A.G.-A.; methodology, N.F.D., D.O., W.A.G.-A., and C.Z.; validation, C.Z. and W.A.G.-A.; formal analysis, K.M. and N.P.; investigation, K.M., D.O., N.P., and C.Z.; data curation, K.M., C.Z., and N.F.D.; writing—original draft preparation, K.M. and C.Z.; writing—review and editing, all authors.; supervision, C.Z.; project administration, C.Z. and W.A.G.-A.; funding acquisition, C.Z. and W.A.G.-A. All authors have read and agreed to the published version of the manuscript.

Funding: This project received financial support from the Universidad de La Frontera and Universidad de Los Andes under grant number PUA23-0006.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Conflicts of Interest: The authors declare no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

ACP	American College of Physicians
ASCO	American Society of Clinical Oncology
AGREE	Appraisal of Guidelines for Research and Evaluation II
CPG	Clinical Practice Guideline
DKG	Deutsche Krebsgesellschaft
IDSA-USPHS	Infectious Diseases Society of America-U.S. Public Health Service Grading System

ESMO	European Society for Medical Oncology
GRADE	Grading of Recommendations, Assessment, Development, and Evaluation
GURU	Guideline Resource Unit
HNC	Head and Neck Cancer
HNCF	Head and Neck Cancer Foundation
ICC	Intraclass correlation coefficient
NCCN	National Comprehensive Cancer Network
NEATS	NGC Extent of Adherence to Trustworthy Standards
NICE	National Institute for Health and Care Excellence
OCC	Oral Cavity Cancer
OCTF	Oral Cancer Task Force

References

1. World Health Organization (WHO). Global Oral Health Status Report: Towards Universal Health Coverage for Oral Health by 2030. Available online: <https://iris.who.int/server/api/core/bitstreams/0e207c03-376e-447e-8bf4-f8550ca1664e/content> (accessed on 14 February 2026).
2. Ferlay, J.; Ervik, M.; Lam, F.; Laversanne, M.; Colombet, M.; Mery, L.; Piñeros, M.; Znaor, A.; Soerjomataram, I.; Bray, F. *Global Cancer Observatory: Cancer Today*; International Agency for Research on Cancer: Lyon, France, 2026. Available online: <https://gco.iarc.who.int/today> (accessed on 14 February 2026).
3. Ribeiro-Rotta, R.F.; Rosa, E.A.; Milani, V.; Dias, N.R.; Masterson, D.; da Silva, E.N.; Zara, A. The cost of oral cancer: A systematic review. *PLoS ONE* **2022**, *17*, e0266346. [\[CrossRef\]](#) [\[PubMed\]](#)
4. Yuwanati, M.; Gondivkar, S.; Sarode, S.C.; Gadail, A.; Desai, A.; Mhaske, S.; Pathak, S.K.; Khatib, M.N. Oral health-related quality of life in oral cancer patients: Systematic review and meta-analysis. *Future Oncol.* **2021**, *17*, 979–990. [\[CrossRef\]](#) [\[PubMed\]](#)
5. Guneri, P.; Epstein, J.B. Late stage diagnosis of oral cancer: Components and possible solutions. *Oral Oncol.* **2014**, *50*, 1131–1136. [\[CrossRef\]](#) [\[PubMed\]](#)
6. Pan American Health Organization. *Handbook for Adapting and Implementing Evidence-Informed Guidelines*; Pan American Health Organization: Washington, DC, USA, 2023.
7. Schunemann, H.J.; Wiercioch, W.; Etzandia, I.; Falavigna, M.; Santesso, N.; Mustafa, R.; Ventresca, M.; Brignardello-Petersen, R.; Laisaar, K.T.; Kowalski, S.; et al. Guidelines 2.0: Systematic development of a comprehensive checklist for a successful guideline enterprise. *Can. Med. Assoc. J.* **2014**, *186*, E123–142. [\[CrossRef\]](#) [\[PubMed\]](#)
8. Madera Anaya, M.V.; Franco, J.V.; Merchan-Galvis, A.M.; Gallardo, C.R.; Bonfill Cosp, X. Quality assessment of clinical practice guidelines on treatments for oral cancer. *Cancer Treat. Rev.* **2018**, *65*, 47–53. [\[CrossRef\]](#) [\[PubMed\]](#)
9. Madera, M.; Franco, J.; Sola, I.; Bonfill, X.; Alonso-Coello, P. Screening and diagnosis of oral cancer: A critical quality appraisal of clinical guidelines. *Clin. Oral Investig.* **2019**, *23*, 2215–2226. [\[CrossRef\]](#) [\[PubMed\]](#)
10. Page, M.J.; Shamseer, L.; Altman, D.G.; Tetzlaff, J.; Sampson, M.; Tricco, A.C.; Catala-Lopez, F.; Li, L.; Reid, E.K.; Sarkis-Onofre, R.; et al. Epidemiology and Reporting Characteristics of Systematic Reviews of Biomedical Research: A Cross-Sectional Study. *PLoS Med.* **2016**, *13*, e1002028. [\[CrossRef\]](#) [\[PubMed\]](#)
11. Ghadimi, M.; Guyatt, G.; Zaror, C.; Lima, J.P.; Gupta, S.; Movahed, H.; Tangamornsuksan, W.; Bravo-Soto, G.; Masood, S.; Gomaa, H.; et al. Trustworthiness of treatment clinical practice guidelines has modestly improved since the introduction of Institute of Medicine standards: A systematic survey. *J. Clin. Epidemiol.* **2025**, *187*, 111962. [\[CrossRef\]](#) [\[PubMed\]](#)
12. Geleris, P.; Boudoulas, H. Problems related to the application of guidelines in clinical practice: A critical analysis. *Hell. J. Cardiol.* **2011**, *52*, 97–102.
13. Deana, N.F.; Zaror, C.; Seiffert, A.; Aravena-Rivas, Y.; Munoz-Millan, P.; Espinoza-Espinoza, G.; Pineda, P.; Alonso-Coello, P. Quality Appraisal of Clinical Practice Guidelines on Provision of Dental Services during the First Months of the Covid-19 Pandemic. *J. Evid.-Based Dent. Pract.* **2021**, *21*, 101633. [\[CrossRef\]](#) [\[PubMed\]](#)
14. Zaror, C.; Seiffert, A.; Deana, N.F.; Espinoza-Espinoza, G.; Atala-Acevedo, C.; Diaz, R.; Carrasco-Labra, A. Emergency and sequelae management of traumatic dental injuries: A systematic survey of clinical practice guidelines. *BMC Oral Health* **2023**, *23*, 704. [\[CrossRef\]](#) [\[PubMed\]](#)
15. Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ* **2021**, *372*, n71. [\[CrossRef\]](#) [\[PubMed\]](#)
16. Ghadimi, M.; Guyatt, G.; Brignardello-Petersen, R. Modifications to the NEATS instrument for more appropriate and reproducible assessment of guidelines trustworthiness. *Clin. Public Health Guidel.* **2024**, *1*, e12025. [\[CrossRef\]](#)

17. Brouwers, M.C.; Kho, M.E.; Browman, G.P.; Burgers, J.S.; Cluzeau, F.; Feder, G.; Fervers, B.; Graham, I.D.; Grimshaw, J.; Hanna, S.E.; et al. AGREE II: Advancing guideline development, reporting and evaluation in health care. *Can. Med. Assoc. J.* **2010**, *182*, E839–E842. [CrossRef] [PubMed]
18. Seiffert, A.; Zaror, C.; Atala-Acevedo, C.; Ormeno, A.; Martinez-Zapata, M.J.; Alonso-Coello, P. Dental caries prevention in children and adolescents: A systematic quality assessment of clinical practice guidelines. *Clin. Oral Investig.* **2018**, *22*, 3129–3141. [CrossRef] [PubMed]
19. Landis, J.R.; Koch, G.G. The measurement of observer agreement for categorical data. *Biometrics* **1977**, *33*, 159–174. [CrossRef] [PubMed]
20. Schober, P.; Boer, C.; Schwarte, L.A. Correlation Coefficients: Appropriate Use and Interpretation. *Anesth. Analg.* **2018**, *126*, 1763–1768. [CrossRef] [PubMed]
21. Joo, Y.H.; Cho, J.K.; Koo, B.S.; Kwon, M.; Kwon, S.K.; Kwon, S.Y.; Kim, M.S.; Kim, J.K.; Kim, H.; Nam, I.; et al. Guidelines for the Surgical Management of Oral Cancer: Korean Society of Thyroid-Head and Neck Surgery. *Clin. Exp. Otorhinolaryngol.* **2019**, *12*, 107–144. [CrossRef] [PubMed]
22. Geiger, J.L.; Ismaila, N.; Beadle, B.; Caudell, J.J.; Chau, N.; Deschler, D.; Glastonbury, C.; Kaufman, M.; Lamarre, E.; Lau, H.Y.; et al. Management of Salivary Gland Malignancy: ASCO Guideline. *J. Clin. Oncol.* **2021**, *39*, 1909–1941. [CrossRef] [PubMed]
23. Koyfman, S.A.; Ismaila, N.; Crook, D.; D’Cruz, A.; Rodriguez, C.P.; Sher, D.J.; Silbermins, D.; Sturgis, E.M.; Tsue, T.T.; Weiss, J.; et al. Management of the Neck in Squamous Cell Carcinoma of the Oral Cavity and Oropharynx: ASCO Clinical Practice Guideline. *J. Clin. Oncol.* **2019**, *37*, 1753–1774. [CrossRef] [PubMed]
24. Maghami, E.; Ismaila, N.; Alvarez, A.; Chernock, R.; Duvvuri, U.; Geiger, J.; Gross, N.; Haughey, B.; Paul, D.; Rodriguez, C.; et al. Diagnosis and Management of Squamous Cell Carcinoma of Unknown Primary in the Head and Neck: ASCO Guideline. *J. Clin. Oncol.* **2020**, *38*, 2570–2596. [CrossRef] [PubMed]
25. Association of the Scientific Medical Societies (AWMF). The German Cancer Society (DKG) and the German Cancer Aid (DKH). Evidence-Based Guideline Oral Cavity Cancer. Available online: https://register.awmf.org/assets/guidelines/007_D_Ges_f_Mund-_Kiefer-_und_Gesichtschirurgie/007-100OLeng_S3_Long_version_oral_cavity_cancer_2021-11-abgelaufen.pdf (accessed on 30 April 2026).
26. Chaturvedi, P.; Prabhash, K.; Babu, G.; Kuriakose, M.; Birur, P.; Anand, A.K.; Kaushal, A.; Mahajan, A.; Syiemlieh, J.; Singhal, M.; et al. Indian clinical practice consensus guidelines for the management of oral cavity cancer. *Indian J. Cancer* **2020**, *57*, S6–S8. [CrossRef] [PubMed]
27. Pham Dang, N.; Jegoux, F.; Barry, B.; Verillaud, B.; Baujat, B.; Fakhry, N.; Chabrillac, E.; Vergez, S. Surgery of sublingual and minor salivary gland cancer: REFCOR recommendations by the formal consensus method. *Eur. Ann. Otorhinolaryngol. Head Neck Dis.* **2024**, *141*, 335–338. [CrossRef] [PubMed]
28. Thariat, J.; Ferrand, F.R.; Fakhry, N.; Even, C.; Vergez, S.; Chabrillac, E.; Sarradin, V.; Digue, L.; Troussier, I.; Bensadoun, R.J. Radiotherapy for salivary gland cancer: REFCOR recommendations by the formal consensus method. *Eur. Ann. Otorhinolaryngol. Head Neck Dis.* **2024**, *141*, 221–226. [CrossRef] [PubMed]
29. Lapeyre, M.; Racadot, S.; Renard, S.; Biau, J.; Moreira, J.F.; Biston, M.C.; Pointreau, Y.; Thariat, J.; Graff-Cailleaud, P. Radiotherapy for oral cavity cancers. *Cancer Radiother.* **2022**, *26*, 189–198. [CrossRef] [PubMed]
30. Caudell, J.J.; Gillison, M.L.; Maghami, E.; Spencer, S.; Pfister, D.G.; Adkins, D.; Birkeland, A.C.; Brizel, D.M.; Busse, P.M.; Cmelak, A.J.; et al. NCCN Guidelines(R) Insights: Head and Neck Cancers, Version 1.2022. *J. Natl. Compr. Cancer Netw.* **2022**, *20*, 224–234. [CrossRef] [PubMed]
31. Cohen, E.E.W.; Bell, R.B.; Bifulco, C.B.; Burtneess, B.; Gillison, M.L.; Harrington, K.J.; Le, Q.T.; Lee, N.Y.; Leidner, R.; Lewis, R.L.; et al. The Society for Immunotherapy of Cancer consensus statement on immunotherapy for the treatment of squamous cell carcinoma of the head and neck (HNSCC). *J. Immunother. Cancer* **2019**, *7*, 184. [CrossRef] [PubMed]
32. Homer, J.J.; Winter, S.C.; Abbey, E.C.; Aga, H.; Agrawal, R.; Ap Dafydd, D.; Arunjit, T.; Axon, P.; Aynsley, E.; Bagwan, I.N.; et al. Head and Neck Cancer: United Kingdom National Multidisciplinary Guidelines, Sixth Edition. *J. Laryngol. Otol.* **2024**, *138*, S1–S224. [CrossRef] [PubMed]
33. Matos, L.L.; Kowalski, L.P.; Chaves, A.L.F.; de Oliveira, T.B.; Marta, G.N.; Curado, M.P.; de Castro Junior, G.; Farias, T.P.; Bardales, G.S.; Cabrera, M.A.; et al. Latin American Consensus on the Treatment of Head and Neck Cancer. *JCO Glob. Oncol.* **2024**, *10*, e2300343. [CrossRef] [PubMed]
34. Sarradin, V.; Digue, L.; Vergez, S.; Thariat, J.; Fakhry, N.; Chabrillac, E.; Bensadoun, R.J.; Ferrand, F.R.; Even, C. Systemic therapies for salivary gland carcinoma (excluding adenoid cystic carcinoma): REFCOR recommendations by the formal consensus method. *Eur. Ann. Otorhinolaryngol. Head Neck Dis.* **2024**, *141*, 280–285. [CrossRef] [PubMed]
35. van Herpen, C.; Vander Poorten, V.; Skalova, A.; Terhaard, C.; Maroldi, R.; van Engen, A.; Baujat, B.; Locati, L.D.; Jensen, A.D.; Smeele, L.; et al. Salivary gland cancer: ESMO-European Reference Network on Rare Adult Solid Cancers (EURACAN) Clinical Practice Guideline for diagnosis, treatment and follow-up. *ESMO Open* **2022**, *7*, 100602. [CrossRef] [PubMed]

36. Baus-Dominguez, M.; Rizo-Gorrita, M.; Herraiez-Galindo, C.; Bakkali, S.; Fernandez-Figares-Conde, I.; Serrera-Figallo, M.A.; Gutierrez-Corrales, A.; Vazquez-Pachon, C.; Alberdi-Navarro, J.; Uribarri-Etxebarria, A.; et al. Clinical practice guideline of the Spanish society of oral surgery for dental care in patients with oral cancer. *Med. Oral Patol. Oral Cir. Bucal* **2024**, *29*, e67–e77. [CrossRef] [PubMed]
37. Cervenka, B.; Pipkorn, P.; Fagan, J.; Zafereo, M.; Aswani, J.; Macharia, C.; Kundiona, I.; Mashamba, V.; Zender, C.; Moore, M. Oral cavity cancer management guidelines for low-resource regions. *Head Neck* **2019**, *41*, 799–812. [CrossRef] [PubMed]
38. Homma, A.; Ando, M.; Hanai, N.; Harada, H.; Honma, Y.; Kanda, T.; Kano, S.; Kawakita, D.; Kiyota, N.; Kizawa, Y.; et al. Summary of Japanese clinical practice guidelines for head and neck cancer - 2022 update edited by the Japan society for head and neck cancer. *Auris Nasus Larynx* **2024**, *51*, 174–188. [CrossRef] [PubMed]
39. Machiels, J.P.; Leemans, C.R.; Golusinski, W.; Grau, C.; Licitra, L.; Gregoire, V.; EHNS Executive Board; ESMO Guidelines Committee; ESTRO Executive Board. Squamous cell carcinoma of the oral cavity, larynx, oropharynx and hypopharynx: EHNS-ESMO-ESTRO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann. Oncol.* **2020**, *31*, 1462–1475. [CrossRef] [PubMed]
40. Schilling, C.; Stoeckli, S.J.; Vigili, M.G.; de Bree, R.; Lai, S.Y.; Alvarez, J.; Christensen, A.; Cognetti, D.M.; D’Cruz, A.K.; Frerich, B.; et al. Surgical consensus guidelines on sentinel node biopsy (SNB) in patients with oral cancer. *Head Neck* **2019**, *41*, 2655–2664. [CrossRef] [PubMed]
41. Alberta Health Services. Oral Cavity Cancer. Available online: <https://www.albertahealthservices.ca/assets/info/hp/cancer/if-hp-cancer-guide-hn002-oral-cavity.pdf> (accessed on 30 April 2026).
42. Surun, A.; Schneider, D.T.; Ferrari, A.; Stachowicz-Stencel, T.; Rascon, J.; Synakiewicz, A.; Agaimy, A.; Martinova, K.; Kachanov, D.; Roganovic, J.; et al. Salivary gland carcinoma in children and adolescents: The EXPERT/PARTNER diagnosis and treatment recommendations. *Pediatr. Blood Cancer* **2021**, *68*, e29058. [CrossRef] [PubMed]
43. Trigo, J.; Garcia-Cosio, M.; Garcia-Castano, A.; Goma, M.; Mesia-Nin, R.; Ruiz-Bravo, E.; Soria-Rivas, A.; Castillo, P.; Brana-Garcia, I.; Alberola-Ferranti, M. Recommendations for the use of biomarkers for head and neck cancer, including salivary gland tumours: A consensus of the Spanish Society of Medical Oncology and the Spanish Society of Pathology. *Clin. Transl. Oncol.* **2022**, *24*, 1890–1902. [CrossRef] [PubMed]
44. Mesia, R.; Iglesias, L.; Lambea, J.; Martinez-Trufero, J.; Soria, A.; Taberna, M.; Trigo, J.; Chaves, M.; Garcia-Castano, A.; Cruz, J. SEOM clinical guidelines for the treatment of head and neck cancer (2020). *Clin. Transl. Oncol.* **2021**, *23*, 913–921. [CrossRef] [PubMed]
45. Bhalavat, R.; Budrukkar, A.; Laskar, S.G.; Sharma, D.; Mukherji, A.; Chandra, M.; Mahantshetty, U.; Pareek, V.; Bauskar, P.; Saraf, S. Brachytherapy in head and neck malignancies: Indian Brachytherapy Society (IBS) recommendations and guidelines. *J. Contemp. Brachyther.* **2020**, *12*, 501–511. [CrossRef] [PubMed]
46. Zaror, C.; Klenner, M.; Song, Y.; Agoritsas, T.; Balaciano, G.; Sanguine, V.; Lev, D.; Tortosa, F.; Bengolea, A.; Izcovich, A.; et al. Adapting World Health Organization COVID-19 living guidelines balancing methodological rigor with efficiency and flexibility: A case study from Argentina. *J. Clin. Epidemiol.* **2025**, *184*, 111823. [CrossRef] [PubMed]
47. Gao, Y.; Wang, J.; Luo, X.; Song, X.; Liu, L.; Ke, L.; Liao, Z.; Wang, D.; Mu, Y.; Chen, Y.; et al. Quality appraisal of clinical practice guidelines for diabetes mellitus published in China between 2007 and 2017 using the AGREE II instrument. *BMJ Open* **2019**, *9*, e022392. [CrossRef] [PubMed]
48. Zhou, X.; Yang, Y.; Li, C.; Gu, S.; Hou, W.; Lai, X.; Zhai, L.; Zhu, Y. What information can we gain from the quality appraisal of guidelines with physical activity recommendations for cancer patients? A systematic review using the AGREE II and AGREE-REX tools. *Support. Care Cancer* **2023**, *31*, 97. [CrossRef] [PubMed]
49. Zhang, Y.; Liu, J.; Liu, S.; Zhang, Y.; Su, X.; Huang, S.; Duan, W. Clinical practice guidelines for the treatment of squamous cell carcinoma of the head and neck: An assessment based on the AGREE II, AGREE-REX tools and the RIGHT checklist. *Front. Oncol.* **2024**, *14*, 1442657. [CrossRef] [PubMed]
50. Chen, K.; Lee, Y.; Kuriakose, J.P.; Khan, N.S.; Moreira, A.; Rajasekaran, K. Appraisal of clinical practice guidelines for salivary gland cancer management utilizing AGREE II instrument. *Am. J. Otolaryngol.* **2024**, *45*, 104285. [CrossRef] [PubMed]
51. Renwick, N.; Pallin, J.; Bo Jansen, R.; Gooday, C.; Tardaguila-Garcia, A.; Sanz-Corbalan, I.; Tentolouris, A.; Jirkovska, A.; Koller, A.; Korzon-Burakowska, A.; et al. Review and Evaluation of European National Clinical Practice Guidelines for the Treatment and Management of Active Charcot Neuro-Osteoarthropathy in Diabetes Using the AGREE-II Tool Identifies an Absence of Evidence-Based Recommendations. *J. Diabetes Res.* **2024**, *2024*, 7533891. [CrossRef] [PubMed]
52. Zhang, M.; He, X.; Wu, J.; Xie, F. Differences between physician and patient preferences for cancer treatments: A systematic review. *BMC Cancer* **2023**, *23*, 1126. [CrossRef] [PubMed]
53. Eigenhuis, E.; van Buuren, V.E.M.; Boeschoten, R.E.; Muntingh, A.D.T.; Batelaan, N.M.; van Oppen, P. The Effects of Patient Preference on Clinical Outcome, Satisfaction and Adherence Within the Treatment of Anxiety and Depression: A Meta-Analysis. *Clin. Psychol. Psychother.* **2024**, *31*, e2985. [CrossRef] [PubMed]

54. Zhang, Y.; Coello, P.A.; Brozek, J.; Wiercioch, W.; Etzeandía-Ikobaltzeta, I.; Akl, E.A.; Meerpohl, J.J.; Alhazzani, W.; Carrasco-Labra, A.; Morgan, R.L.; et al. Using patient values and preferences to inform the importance of health outcomes in practice guideline development following the GRADE approach. *Health Qual. Life Outcomes* **2017**, *15*, 52. [CrossRef] [PubMed]
55. McCaul, M.; Ernstzen, D.; Temmingh, H.; Draper, B.; Galloway, M.; Kredo, T. Clinical practice guideline adaptation methods in resource-constrained settings: Four case studies from South Africa. *BMJ Evid.-Based Med.* **2020**, *25*, 193–198. [CrossRef] [PubMed]
56. Suresh, N.V.; Harris, J.; Chorath, K.; Rizvi, A.; Rizvi, F.; Acosta, P.; Moreira, A.; Rajasekaran, K. Clinical Practice Guidelines in the Management of Breakthrough Cancer Pain: A Systematic Review using the Appraisal of Guidelines for Research and Evaluation (AGREE II) Instrument. *Pain Manag. Nurs.* **2022**, *23*, 411–417. [CrossRef] [PubMed]
57. Eccles, M.P.; Grimshaw, J.M.; Shekelle, P.; Schunemann, H.J.; Woolf, S. Developing clinical practice guidelines: Target audiences, identifying topics for guidelines, guideline group composition and functioning and conflicts of interest. *Implement. Sci.* **2012**, *7*, 60. [CrossRef] [PubMed]
58. World Health Organization (WHO). Handbook for Guideline Development. Available online: <https://apps.who.int/iris/handle/10665/145714> (accessed on 5 April 2026).
59. Neumann, I.; Schünemann, H. The GRADE Book Version 1.0. Available online: <https://book.gradepro.org/> (accessed on 5 April 2026).
60. Hoffmann-Esser, W.; Siering, U.; Neugebauer, E.A.; Brockhaus, A.C.; Lampert, U.; Eikermann, M. Guideline appraisal with AGREE II: Systematic review of the current evidence on how users handle the 2 overall assessments. *PLoS ONE* **2017**, *12*, e0174831. [CrossRef] [PubMed]
61. Alonso-Coello, P.; Irfan, A.; Sola, I.; Gich, I.; Delgado-Noguera, M.; Rigau, D.; Tort, S.; Bonfill, X.; Burgers, J.; Schunemann, H. The quality of clinical practice guidelines over the last two decades: A systematic review of guideline appraisal studies. *BMJ Qual. Saf.* **2010**, *19*, e58. [CrossRef] [PubMed]
62. Norris, S.L.; Holmer, H.K.; Ogden, L.A.; Burda, B.U. Conflict of interest in clinical practice guideline development: A systematic review. *PLoS ONE* **2011**, *6*, e25153. [CrossRef] [PubMed]
63. Urquhart, O.; Bhosale, A.S.; Martins-Pfeifer, C.; Verdugo-Paiva, F.; Carrasco-Labra, A.; Pimentel, J.; Sadek, N.; Agrawal, N.; Chaturvedi, A.K.; Gurenlian, J.; et al. Living evidence-informed guideline on the early detection of oral squamous cell carcinoma and potentially malignant disorders: Cytology adjuncts to determine the need for biopsy, Version 2026 1.0. *J. Am. Dent. Assoc.* **2026**, *157*, 224–234. [CrossRef] [PubMed]

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.